

Avowal of prior scepticism

An avowal of prior scepticism enhances the credibility of an account of a  
paranormal event.

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Dr Stone is a senior lecturer at the University of East London where she teaches an optional module in the Psychology of Paranormal Belief. She is the co-author of a book *Anomalistic Psychology: Exploring Paranormal Experience and Belief* (French, C.C. & Stone, A.). Her main research interest lies in understanding why people believe in scientifically unsubstantiated phenomena and in the social transmission of such belief.

**Abstract**

Wooffitt (1992) suggested that a narrator may enhance the plausibility of an account of an ostensibly paranormal event by making an avowal of prior scepticism but empirical support to date is lacking. In Experiment 1, participants read a first-person narrated scenario implicitly suggesting either telepathy or precognition as a causal explanation, then answered questions about the event and the narrator. The causal attribution to telepathy/precognition was stronger if the narrator took a position of prior scepticism compared to prior belief. This finding was reversed in Experiment 2 in which participants were pre-warned about the technique; the causal attribution to telepathy/precognition was stronger if the narrator declared prior belief. For a female narrator, but not male, a prior believer was perceived as more gullible than a prior sceptic. It appears that people may assume some truth in the avowal of prior scepticism unless encouraged to see it as a manipulative device.

*(150 words)*

**Keywords:**

prior scepticism; stake inoculation; paranormal belief; telepathy; clairvoyance; narratives; gender; attribution biases;

## **Introduction**

Paranormal phenomena are generally defined as those that violate physical laws and are therefore "scientifically unaccepted" (Irwin, 2009, p. 109) although they may be widely accepted in the general population. Some of the more common beliefs include telepathy, in which information is transmitted from one mind to another without the mediation of any known sensory mechanism, and precognitive dreams, in which a dream accurately predicts future events, often a death in the family. In the US, a telephone survey of over 1000 adults found that around 31% endorsed a belief in telepathy and 25% a belief in precognition (Moore, 2005) and in the UK, a survey by the ICM research group found that 47% believed in telepathy, 34% believed in precognition, and 19% claimed to have had precognitive dreams (The Daily Mail, 1998).

It is interesting that in the UK perhaps only a quarter of those who say they believe in a paranormal phenomenon claim to have had direct personal experience (The Daily Mail, 1998) which begs the question from whence these beliefs originate. The answer seems likely to involve social influence from the surrounding culture and social environment (e.g., Ridolfo, Baxter, & Lucas, 2010). For example, Auton, Pope, and Seeger (2003) noted that high paranormal believers in their sample were likely to have friends with similar belief, and Schriever (2000) and Messer and Griggs (1989) reported that friends and peers were often cited as an important source of paranormal beliefs. Directly relevant to the issue of social story-telling, Saunders and van Arsdale (1968) and Patry and Pelletier (2001) noted that people would be particularly likely to believe a UFO story reported by a friend. Further support comes from the study by

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Wiseman and Greening (2005) in which they observed an influence of verbal suggestion on the perception of paranormal causality. Finally, Kopfman, Smith, and Ah Yun (1998) noted that while statistical information on a topic had more influence on cognitive reactions, a personal narrative was more influential in eliciting emotional reactions. Given that believers in extra-sensory perception (which includes telepathy and precognition) tended to give affective reasons for their belief, for example, “my belief about ESP makes me feel good or is comforting” (Griffin & Olsson, 2001, pp. 395) it seems likely that a personal narrative would be influential.

These observations suggest that paranormal beliefs may often be acquired through social narratives of anomalous events by friends and peers. The present study will look at how a particular narrative device, known as the “avowal of prior scepticism”, might influence the impact of a particular narrative and the credibility of the narrator, and therefore, influence belief in paranormal events.

It is commonly understood by scholars in linguistics and communication that social speech is seldom entirely neutral but is often oriented towards a social goal. In this sense, an account of an event should be considered not as a direct reflection of memory but rather as an action in pursuit of a particular end, for example convincing others of the reality of the event (e.g., Edwards & Potter, 1993; Edwards, Potter, & Middleton, 1992). It is generally assumed that when an individual reports an event they have a vested interest in persuading others to adopt the same interpretation and attribution of the event (Edwards et al., 1992). In particular, the Discursive Action Model (Edwards & Potter, 1993) proposes that narrative reports typically address the causality of events. The narrator attempts to present a claim about the underlying

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causes of the events they are relating and to undermine alternative causal explanations that might occur to the audience. This is clearly relevant to the account of an ostensibly paranormal event where it is precisely the causality of the event that forms the most salient aspect of the narration. One technique to manage the audience's causal attribution is the "avowal of prior scepticism" that forms the basis for the present study.

The avowal of prior scepticism is a narrative device designed to enhance the credibility of the narrator and the likelihood of attribution of the event to a paranormal cause (Wooffitt, 1992). The technique works like this: a typical narrative account starts with the avowal of prior scepticism ("at first I was sceptical"), followed by a description of an anomalous occurrence ("but a psychic told me things she could not have known"), which in turn is followed by a conversion ("I realised that something out of the ordinary was occurring"). This technique highlights the strength of evidence that caused a change in the narrator's attitude from initial scepticism to belief (e.g., Childs & Murray, 2010; Lamont, 2007; Wooffitt, 1992). By highlighting the narrator's reliance on evidence the account also positions the narrator as a rational thinker.

In a similar argument, Potter (1996) proposes that an important strategy to establish the veracity of an account is for the narrator to establish him/herself as a reliable source of information. Teven and McCroskey (1997) propose that two factors of source credibility are competence (including intelligence) and trustworthiness (including character and sagacity). Confirmation that the narrator was of sound mind at the time of the event, and had no motivation to distort the account of the event, would support both competence and trustworthiness. It seems plausible that

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presenting the narrator as a prior sceptic would supply such confirmation whereas presenting the narrator as a prior believer might have an opposing effect. Supporting this line of argument, Ramsey, Venette, and Rabalais (2011) reported a relationship between perceived source credibility and the persuasiveness of a narrative in establishing the likelihood of a paranormal cause.

The declaration of initial scepticism suggests that the narrator behaves rationally in basing his or her beliefs on empirical evidence and so counters potential accusations of foolishness and gullibility or being swayed by too little evidence. This becomes clear if we consider the alternative opening: “I have always believed in .... and then one day I had an experience that confirmed my belief”. This type of account intuitively sounds less convincing, and the listener might wonder whether the narrator had seen only what they wanted to see. It is relevant to note that belief in paranormal phenomena has been previously associated with gullibility (e.g., Irwin, 2009; Lamont, 2006) and with the acceptance of a hypothesis on the basis of too little evidence (e.g., Brugger & Graves, 1997).

Potter (1996) noted that the narrator will generally expect their account of an ostensibly paranormal event to be received with a degree of cynicism. The audience might be sceptical of the veracity of the account; they might perhaps suspect that the narrator is guilty of some embellishment or exaggeration. It makes sense, therefore, for the narrator to design their account to resist being too easily undermined, and an avowal of prior scepticism can help to do that. This is an example of the technique sometimes known as “stake inoculation” (e.g., Potter, 1996) in which the narrator

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disarms in advance a predictable counter-argument, for example, the argument that the narrator was too gullible and saw only what they expected to see.

Indeed, if the narrated account was apparently successful in converting a previous sceptic, then it should be capable of converting another sceptic. The presentation of the evidence that converted the narrator within the account itself offers the audience an invitation to go on the same journey from scepticism to belief along with the narrator. Branham (1991) notes how several documentary film makers have used the technique of prior scepticism – or recantation – in their documentaries on the anti-war and anti-vivisectionist movements. Labov (1997) further explains that presenting a narrative in objective terms through simple statements of the sense experience of the narrator (and largely avoiding descriptions of personal and subjective emotional reactions) would facilitate the transfer of experience of the event to the audience. The audience would be able to experience the event as if had it happened to them and thus, to degree, travel the same road from scepticism to belief.

The need to establish the credibility of the narrator and of the narrated events assumes an ever greater importance when considering the notion of 'reportability' introduced by Labov (1997). In order to command the attention of an audience for sufficiently long to allow the story to be completed there must be a 'reportable' element. This is an uncommon or unlikely event, often one dealing with death. The problem is that the reportability of an event, which is inversely related to its frequency or likelihood, conflicts with credibility understood as the degree of confidence held by the audience that the events occurred as described. An interesting story with striking and unusual key elements may tend to lead the audience to suspect embellishment or

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exaggeration. Thus, the narrator must take special care to establish his or her credibility.

Bauman (2004) takes a slightly different line in his analysis of the telling of “tall tales”. He explains how the incorporation of elements drawn from the everyday life of the narrator helps to create a similarity between the tall tale and an ordinary first person narrative account, and thus blur the boundary between real and imaginary. The audience may start to doubt or disbelieve as the story becomes more implausible but the everyday details keep the story anchored in the real world.

The narrative technique of avowal of prior scepticism seems both interesting and plausible as a means of social influence on individual belief. However, the evidence cited to support this technique to date has been qualitative in nature and no quantitative research could be located to support the efficacy of this technique in enhancing either the believability of the account or the credibility of the narrator. The present study was designed to provide quantitative, experimental evidence as to the effectiveness of the avowal of prior scepticism in these respects. The utility of the experimental approach lies in the possibility of either supporting or contradicting the efficacy of the avowal of prior scepticism in a large and reasonably diverse group of participants. The previous, qualitative research has been exploratory and investigative in nature and while it has made a plausible case for the avowal of prior scepticism, it does not necessarily justify an assumption that the technique will be generally effective. Experimental work in which a group of participants who experience the technique are contrasted with a group of participants who do not has the ability to assess the actual impact of the avowal technique.



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Such experimental work does have certain drawbacks; principally it creates a different social environment from one in which a narrative might occur in a natural conversation between friends. The participant in an experiment does not have the same reaction to the experimental material that they would have to the narrative account of a personal friend. There is a trade-off between the experimental controls required to draw inferential conclusions and the naturalistic qualities of a situation with higher ecological validity. In this sense, the experiments reported here offer converging evidence to add to the previous, qualitative research on natural discourse rather than offering direct support for the previous work.

An important consideration in the design of this type of study is that it is frequently observed that women have higher levels of belief in telepathy and precognition than men (Haraldsson, 1985; Irwin, 1985; Messer & Griggs, 1989; Schulter & Papousek, 2008; Thalbourne, Dunbar, & Delin, 1995; Tobacyk & Tobacyk, 1992; Williams, Francis, & Robbins, 2007). If this is widely known by the general public then it seems a reasonable implication that the women may be regarded as more easily convinced than men by weak evidence, and in this case, the perceived gender of the narrator of an anomalous event might influence credibility ratings. It might also be the case that the avowal of prior scepticism could be differentially effective for female and male narrators. Hence, gender of narrator was included as an additional factor.

Experiment 1 examined how an avowal of prior scepticism can help to make an account of a supposedly paranormal event seem more convincing, and the narrator

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less gullible, to the audience. Experiment 2 examined the effect of pre-warning participants of the technique.

### **Experiment 1**

Participants were presented with a written narrative describing an anomalous experience. This followed a structure similar to that described by Johnstone (1993) for oral narratives; there was a disturbance in the normal flow of events during which information was received; there was potential danger to a close friend or family member; and there was a resolution that suggested a paranormal source of the information received. There were 12 versions created by the combination of three factors. The first factor was the prior position of the narrator: always a believer, never been interested (the control condition), or initially sceptical, and this was manipulated in the opening statement of the narrative. The second factor was the nature of the anomalous experience, either telepathy or a precognitive dream, these having been chosen as two of the most popular forms of paranormal belief in the general population. The third factor was the gender of the narrator, manipulated by a reference to “husband” or “wife” in the body of the text designed to imply that the narrator was a woman or a man, respectively. (Although same-sex marriage is now legal in the UK implicit assumptions can be expected to persist for some time, and so assumption of gender was likely still reliable at the time of the data collection in 2011 and 2012). The main dependent measures were participants’ rating of the likelihood that the narrated event was caused by telepathy rather than coincidence, and their ratings of the gullibility of the narrator.

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Hypothesis 1.1 proposed that the prior position of scepticism would produce a higher attribution to telepathy compared to the prior position of a believer, with the never-interested position in between. Hypothesis 1.2 was that the prior position of scepticism would produce lower ratings of narrator gullibility than the believer position, again with the never-interested position lying in between. Hypothesis 1.3 was that a female narrator would be regarded as more gullible than a male.

It was likely that participants pre-existing levels of belief in telepathy would influence their ratings of the credibility of the account and its narrator. Indeed, the experimental manipulation of the narrator's prior position was expected to exert a relatively subtle influence which could be outweighed by the participants' level of pre-existing belief. Therefore, after reading the scenario and giving their ratings, participants completed the Australian Sheep Goat Scale (Thalbourne & Delin, 1993) which measures belief in telepathy and precognition. The scale was first developed in Australia and uses the term "sheep" to refer to believers and "goats" to refer to sceptics. Scores on the scale were a potential covariate in the statistical analysis.

### *Method*

*Participants.* A total of 100 students volunteered to participate in the study (70 females, 23 males, 7 did not indicate their gender). The participants were recruited from first year undergraduate psychology courses at the University of East London and so represented diverse ethnic and social backgrounds. The age range was 18 to 54 (mean age = 23.5, S.D. = 7.6).

*Design.* An experimental design was employed, with two factors manipulated between participants: the prior position of the narrator (believer, not interested, sceptic) and the

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implied gender of the narrator. Scores on the Australian Sheep Goat scale (ASGS) were measured as a covariate. Gender of participant was potentially a third between-participant factor, but the imbalance in the number of male and female participants meant that some cells in the 3-factor design were too small for a reliable analysis. The main dependent variables were the perceived likelihood that the narrated events could be explained by telepathy rather than coincidence, and the perceived gullibility of the narrator.

*Materials* . Two scenarios were used, one describing an instance of possible telepathy and the other an instance of a possible precognitive dream. Each was presented in one of 6 versions formed by the combination of the narrator prior position (believer, not interested, sceptic) and narrator gender. The scenarios are reproduced in the Appendix .

The scenario was followed by a series of questions to probe the participants' view of the event and of the narrator. These were scored on a seven-point scale ranging from 1 = strongly disagree to 7 = strongly agree. Items were: "Do you think this was an example of some form of telepathic communication?" (think-telepathy), "Do you think this was just a coincidence?" (think-coincidence), and "Do you think the narrator is gullible and easily convinced?" (narrator-gullible).

The Australian Sheep Goat Scale (ASGS) was used to assess belief in telepathy, precognition and ghosts. The scale consists of 18 questions including, for example, "I believe in the existence of ESP", "I believe it is possible to gain information about the future before it happens, in ways that do not depend on rational prediction or normal sensory channels" and "I believe I have had at least one experience of

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telepathy between myself and another person “. The response to each question was 0 = false, 1 = uncertain, or 2 = true.

*Procedure.* Participants were briefed and invited to take part. If they accepted they signed a consent form which reminded them of their right to withdraw from the study or to withdraw their data at any time up to 2 weeks after the date of participation. Each questionnaire was numbered uniquely and participants were asked to record their number to enable them to withdraw their data. The consent forms were stored separately from the data so that all data was anonymous.

Each participant was given one scenario randomly chosen from the set of 12. They were asked to read their scenario, then answer the questions designed to probe their opinion of the event and of the narrator, and then to complete the ASGS scale. Participants were asked to give their first impressions without thinking too long about each question. Finally, participants were fully debriefed about the purpose of the study.

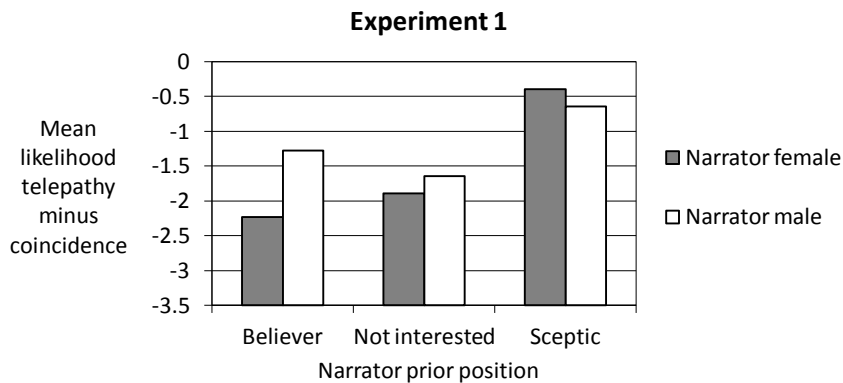
## *Results*

There were no missing data in the variables think-telepathy, think-coincidence, or narrator-gullible. Missing data in the Australian Sheep–Goat Scale amounted to less than 1% and were replaced by the participant mean. The perceived likelihood of telepathy and not coincidence was calculated as think-telepathy minus think-coincidence.

A 3 x 2 Analysis of Covariance (ANCOVA) was performed with two between-participants factors of narrator prior position (believer, not interested, or sceptic) and

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narrator gender. The dependent variable was the perceived likelihood of telepathy and not coincidence. As predicted, ASGS was correlated positively with the perceived likelihood that the event was due to telepathy [ $r(98) = 0.47, p < 0.001$ ] and negatively with the perceived likelihood that the event was due to coincidence [ $r(98) = -0.38, p < 0.001$ ]. Therefore the participants' score on the ASGS was entered as a covariate in the analysis. Adjusted means are presented in Figure 1 and unadjusted means in Table 1.



**Figure 1.** Influence of narrator prior position on the likelihood that the event was attributed to telepathy and not coincidence.

*Note.* The negative values suggest that participants, on average, considered coincidence a more likely explanation than telepathy. Data are adjusted for Australian Sheep-Goat Scale covariate.

The main effect of prior position was significant,  $F(2,92) = 3.65, p < .05, MSE = 4.51, \eta^2 = 0.074$ , but there was no main effect of narrator gender,  $F < 1$ , and no

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interaction of narrator gender with prior position,  $F < 1$ . Post-hoc tests revealed that the perceived likelihood of telepathy and not coincidence was significantly higher when the narrator's prior position was sceptic compared to believer or not interested; see Figure 1 and Table 1. [When the same ANCOVA was applied to the simple dependent variable of likelihood of telepathy the results were very similar: the main effect of prior position was again significant,  $F(2,92) = 4.43$ ,  $p < 0.05$ ,  $MSE = 1.98$ ,  $\eta^2 = 0.088$ , with significant differences between the sceptic prior position and the others. There was no main effect of narrator gender or interaction.] This supports hypothesis 1.1 by showing that the prior position of scepticism produced a higher attribution to telepathy rather than coincidence compared to the prior position of a believer.

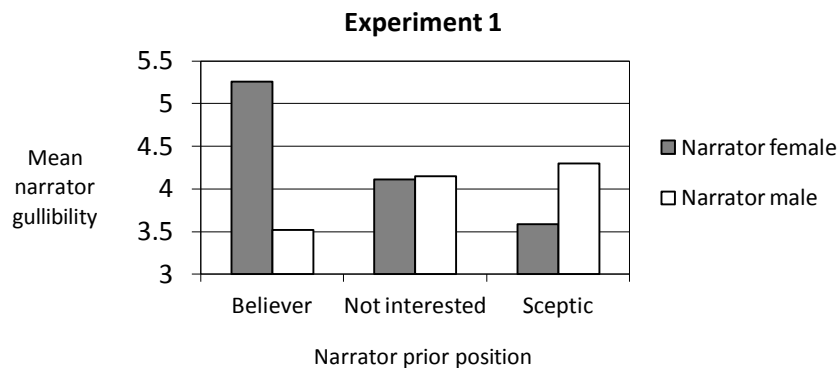
**Table 1.** Likelihood of telepathy not coincidence and perceived narrator gullibility in Experiment 1.

Prior position	Likelihood telepathy not coincidence: Mean (SD)			Narrator gullibility: Mean (SD)		
	Female	Male	Total	Female	Male	Total
Believer	-2.47 (2.3)	-0.87 (3.0)	-1.72 (2.8)	5.29 (1.2)	3.47 (1.5)	4.44 (1.6)
Not interested	-1.53 (2.9)	-1.72 (2.1)	-1.63 (2.5)	4.06 (1.5)	4.17 (1.6)	4.11 (1.5)
Sceptic	-0.82 (2.6)	-0.60 (2.6)	-0.72 (2.6)	3.65 (2.0)	4.29 (0.9)	3.94 (1.6)

*Note.* Mean scores are unadjusted for scores on the Australian Sheep-Goat Scale.

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A separate ANCOVA with the same factors was applied to the dependent variable of perceived narrator gullibility. The main effects of prior position and narrator gender were non-significant, both  $F < 1.2$ , but the interaction was significant,  $F(2,91) = 5.60$ ,  $p = 0.005$ ,  $MSE = 2.232$ ,  $\eta^2 = 0.109$ . To investigate the interaction, ANCOVA with a single factor of prior position was performed separately on the data for the female narrator and the male narrator. The female narrator was rated as more gullible in the believer position than in the not interested and sceptic positions,  $F(2,47) = 4.73$ ,  $p < 0.02$ ,  $MSE = 2.64$ , but there was no difference among the positions for the male narrator,  $F < 1.3$ . See Figure 2 and Table 1. This partially supports hypothesis 1.2: the sceptic prior position produced lower ratings of narrator gullibility than the believer position, but only for the female narrator.



**Figure 2.** Influence of prior position and sex on narrator perceived gullibility.

*Note:* data are adjusted for the Australian Sheep-Goat Scale covariate.



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The contrast between the male and female narrator was measured in each prior position using t-tests for independent-samples. In the believer position only, a female narrator was rated as more gullible than a male narrator,  $t(30) = 3.80, p < 0.01$ , but there was no significant gender difference in perceived gullibility in either the sceptic position or the not interested position, both  $t < 1.1$ , ns. This partially supports hypothesis 1.3; the narrator was regarded as more gullible if they were believed to be a woman, but only in the believer position.

## *Discussion*

The perceived likelihood that an anomalous event was attributable to telepathy and not coincidence was higher when the narrator of the story took the prior position of being a sceptic rather than a believer or not interested in telepathy, and was related to the participant's existing level of belief in telepathy. A female narrator was perceived as particularly gullible if she presented herself as a prior believer and less gullible when she was a prior sceptic. These results appear to be consistent with rational decision making on the part of participants in so far as the prior position of the narrator exerted the expected influence, that is, the avowal of prior scepticism presented the narrator as a rational person whose narrative account therefore carried more weight with the audience (Lamont, 2007; Wooffitt, 1992).

However, this assessment makes the key assumption that the avowal of prior scepticism can be taken at face value. If the avowal itself is perceived as suspect then it could exert a quite different influence. Lamont (2007) proposed that while declarations of prior scepticism may sometimes (or often) be accurate, the frequency with which such claims are used in descriptions of experiences that are likely to

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provoke criticism suggests that the main intention is to establish an account as factual. In other words, the declaration is not always strictly true but may be used in an attempt to manipulate the audience.

The avowal of prior scepticism is proposed to be most effective when the audience takes it at face value, which raises the question of how an audience might react when they are alerted to this narrative strategy and so given reason to treat it as suspect. Experiment 2 examined this question by pre-warning the audience of the strategy. It was predicted that this would provoke resistance and produce an effect in the opposite directed to Experiment 1.

### **Experiment 2**

Experiment 2 was similar to Experiment 1, using the same materials and a participant sample drawn from the same population of undergraduate students at the University of East London, though none of the participants had taken part in Experiment 1. The major difference was that the audience was given a short presentation to explain the avowal of prior scepticism before reading the narrative and answering the questions. The presentation described the avowal technique in simple terms (“I never use to believe in ...; Then something strange happened to me ...; Now I’ve changed my mind ...”) and explained how it could be used to enhance the credibility of an account and of the narrator. Participants were told that the data collected would be presented back to the class the following week, and compared to data collected in the previous year in which participants were not given advance information about the technique, in order to illustrate the effect of the avowal of prior scepticism. Thus, participants were warned of the technique and its potential to manipulate their perceptions, and were also alerted

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to the expectation that the pre-warning might influence their responses. Participants were not told anything about the effect of gender in Experiment 1. It was predicted that participants would react by reversing the previous picture and showing a lower level of attribution to a paranormal cause in the prior sceptic position compared to the prior belief position. Thus, hypothesis 2.1 proposed that the prior position of believer would produce a higher attribution to telepathy and not coincidence compared to the prior position of a sceptic, with the never-interested position in between. This is directly opposite to the hypothesis and results of Experiment 1.

It was less clear that an opposing prediction should be made for the dependent variable of perceived narrator gullibility. In Experiment 1, hypothesis 1.2 had been that a prior sceptic would be perceived as less gullible than a prior believer, again with the never-interested position lying in between. In Experiment 2, the pre-warned participants might regard the use of the avowal of prior scepticism as a clever trick and thus indicative of a non-gullible narrator. In other words, an actual sceptic and a narrator smart enough to pretend to be a sceptic would be equally unlikely to be perceived as gullible. Hence, hypothesis 2.2 was (tentatively) the same as 1.2; a prior sceptic would be rated as less gullible than a prior believer. Hypothesis 2.3 was (like 1.3) that a female narrator would be regarded as more gullible than a male narrator.

### *Method*

Only the differences from Experiment 1 will be noted here.

*Participants.* A total of 115 students volunteered to participate in the study (83 females, 24 males, 8 did not indicate their gender). The participants were recruited

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from first year undergraduate psychology courses at UEL and so represented diverse ethnic and social backgrounds. The age range was 18 to 55 (mean age = 24.7, S.D. = 8.3).

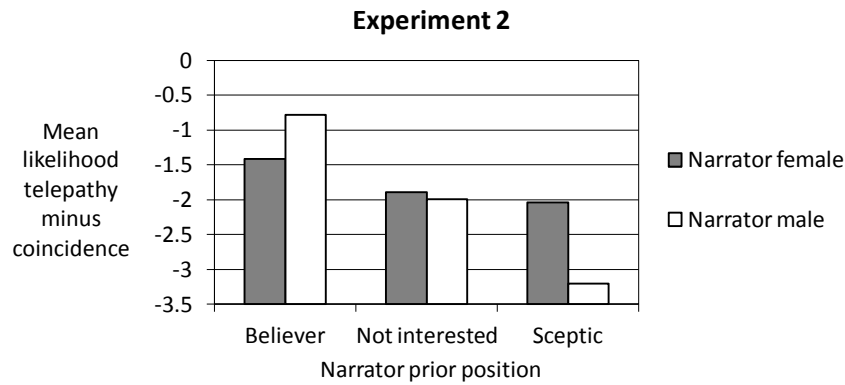
*Procedure.* The procedure was identical to Experiment 1 except for the presentation of the results of Experiment 1, which emphasised the influence of the avowal of prior scepticism, before the participants in Experiment 2 read the scenarios and answered the questions.

## *Results*

There were no missing data in the variables think-telepathy and think-coincidence, and only two missing data in narrator-gullible which were not replaced. Missing data in the Australian Sheep–Goat Scale amounted to less than 1% and were replaced by the participant mean. The perceived likelihood of telepathy and not coincidence was calculated as think-telepathy minus think-coincidence.

Following the same analysis strategy as Experiment 1, a 3 x 2 Analysis of Covariance (ANCOVA) was performed with two between-participants factors of narrator prior position (believer, not interested, or sceptic) and narrator gender. The dependent variable was the perceived likelihood of telepathy and not coincidence. As in Experiment 1, ASGS was correlated positively with the perceived likelihood that the event was due to telepathy [ $r(113) = 0.59, p < 0.001$ ] and negatively with the perceived likelihood that the event was due to coincidence [ $r(113) = -0.38, p < 0.001$ ]. Therefore the participants' score on the ASGS was entered as a covariate in the analysis. Adjusted means are presented in Figure 3 and unadjusted means in Table 2.

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**Figure 3.** Influence of narrator prior position on the likelihood that the event was attributed to telepathy and not coincidence.

*Note.* The negative values suggest that participants, on average, considered coincidence a more likely explanation than telepathy. Data are adjusted for Australian Sheep-Goat Scale covariate.

The main effect of prior position was significant,  $F(2, 108) = 3.16$ ,  $p < 0.05$ ,  $MSE = 6.91$ , but there was no main effect of narrator gender,  $F < 1$ , and no interaction of narrator gender with prior position,  $F < 1.1$ . Post-hoc tests (using Bonferroni correction) revealed that the perceived likelihood of telepathy and not coincidence was significantly higher when the narrator's prior position was believer compared to sceptic with the not interested position in between and not differing significantly from either. Please see Figure 3 and Table 2. This supports hypothesis 2.1 and shows the opposite influence of the narrator's prior position to that which had been observed in Experiment 1.

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ANCOVA to compare the data from Experiment 1 and 2, with the additional factor of experiment, showed a significant interaction of experiment with position,  $F(2, 190) = 6.72, p < 0.005$ , and no other significant effects, thus confirming that the effect of prior position differed between Experiment 1 and 2. A follow-up t-test for independent samples compared the perceived likelihood of telepathy and not coincidence in the sceptic position between Experiment 1 and 2. The difference was highly significant,  $t(69) = 3.21, p < 0.005$ , showing that the causal attribution to telepathy was weaker in Experiment 2. It appears that the pre-warning given to participants about the avowal of prior scepticism rendered the narrator who used this technique less convincing.

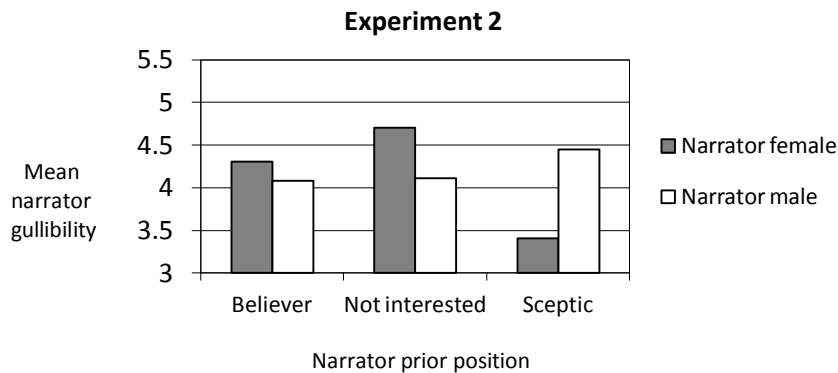
**Table2.** Likelihood of telepathy not coincidence and perceived narrator gullibility in Experiment 2.

Prior position	Likelihood telepathy not coincidence: Mean (SD)			Narrator gullibility: Mean (SD)		
	Female	Male	Total	Female	Male	Total
Believer	-1.42 (3.1)	-1.11 (3.2)	-1.27 (3.1)	4.37 (1.6)	4.18 (1.6)	4.28 (1.6)
Not interested	-1.76 (3.8)	-1.62 (3.2)	-1.73 (3.5)	4.67 (1.9)	4.00 (1.6)	4.36 (1.8)
Sceptic	-1.56 (3.2)	-3.75 (2.0)	-2.71 (2.8)	3.28 (1.1)	4.60 (1.4)	3.97 (1.4)

*Note.* Mean scores are unadjusted for scores on the Australian Sheep-Goat Scale.

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As in Experiment 1, a separate ANCOVA with the same factors was applied to the dependent variable of perceived narrator gullibility. The main effects of prior position and narrator gender were non-significant, both  $F < 1$ , but the interaction was significant,  $F(2, 106) = 3.10$ ,  $p < 0.05$ ,  $MSE = 2.24$ . To investigate the interaction, ANCOVA with a single factor of prior position was performed separately on the data for the female narrator and the male narrator. There were differences among the positions for the female narrator,  $F(2, 54) = 3.60$ ,  $p < 0.05$ ,  $MSE = 2.33$ , but not for the male narrator,  $F < 1$ . The female narrator was rated as less gullible in the sceptic position than in the not interested position, and marginally less gullible than in the believer position. Please see Figure 4 and Table 2. This partially supports hypothesis 2.2: the sceptic prior position produced lower ratings of narrator gullibility than the not interested position, and marginally lower ratings than the believer position, but only for the female narrator. Contrary to Experiment 1, and not supporting hypothesis 2.3, the female narrator was not regarded as more gullible than the male narrator,  $t < 1$ .



**Figure 4.** Influence of prior position and sex on narrator perceived gullibility.

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*Note:* data are adjusted for the Australian Sheep-Goat Scale covariate.

To summarise, the perceived likelihood that an anomalous event was causally attributable to telepathy rather than coincidence was significantly higher when the narrator of the story took the prior position of being a believer rather than a sceptic. This is in direct opposition to the results of Experiment 1 and supports the proposition that the avowal of prior scepticism is only (or most) effective with a naïve audience. A female narrator was perceived as less gullible in the sceptic position than in the other positions, while prior position has no influence on the perceived gullibility of a male narrator, similar to the results of Experiment 1.

## **General Discussion**

The results of Experiment 1 and 2 confirm the prediction that the avowal of prior scepticism would influence the causal attributions of an ostensibly paranormal event. The perceived likelihood that the event was attributable to telepathy rather than coincidence was significantly higher when the narrator of the story took the prior position of being a sceptic rather than a believer or not interested in telepathy (Experiment 1). However, this position was reversed when participants were pre-warned of the 'avowal of prior scepticism' technique (Experiment 2). This adds quantitative experimental evidence to support the reasoning of Wooffitt (1992), Potter (1996), and Childs and Murray (2010) that an avowal of prior scepticism serves to increase the believability of a paranormal explanation for an anomalous event as long as participants are not made suspicious of the motives behind the avowal.



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It is noteworthy that in Experiment 1 only the prior position of scepticism, and not the position of disinterest, led to an increased attribution to telepathy. This might suggest that the narrator must establish a prior position contrary to the one they are now assumed to hold in order to influence the audience. It seems plausible that the change in position to a diametrically opposing view enhances the audience view of the strength of the evidence. In contrast, the prior position of disinterest did not lead to an increase in the perceived likelihood of telepathy rather than coincidence; perhaps the strength of evidence required to move from a position of disinterest to belief is weaker than that necessary to move from a position of scepticism to belief, and so the audience were less strongly swayed. This is similar to Labov's (1997) concept of reportability as arising from the most uncommon event in the narrative. The reportability of an event that moved a sceptic to become a believer would be stronger than that which moved a disinterested person, and thus the prior position serves to enhance the reportability and the impact of the narrative.

The female narrator only, and not the male, was perceived to be more gullible and easily convinced when holding a prior position of belief compared to scepticism. This partially supports the reasoning of Wooffitt (1992), Potter (1996), and Childs and Murray (2010) that a prior avowal of belief establishes the narrator as a gullible person who is too easily swayed with little evidence, and is consistent with previous reports associating believers in paranormal phenomena with gullibility more generally (e.g., Irwin, 2009; Lamont, 2006) and with the acceptance of a hypothesis on the basis of too little evidence (e.g., Brugger & Graves, 1997). In Experiment 1, for the female narrator, the prior position of disinterest yielded similarly low perceptions of gullibility to

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the prior position of scepticism, suggesting that it is necessary for the narrator to espouse positive belief in order for them to be considered gullible and easily convinced. This seems plausible considering that it would be difficult to construe a prior position of disinterest as implying gullibility. This pattern was not, however, replicated in Experiment 2; rather a not-interested female narrator was rated as being as gullible as a believer. It is hard to be sure what lies behind this but it is possible that the not-interested narrator was in effect penalised for not being sufficiently informed or wise to use the avowal of prior scepticism.

The absence of any effect of prior position on the perceived gullibility of a male narrator could perhaps be understood with reference to the widespread tendency to perceive men as relatively rational and sceptical regarding matters of the paranormal in general and telepathy in particular. For example, Fisher (1984) noted that rationality in men and irrationality in women are assumed to be relatively stable character traits. Pacini and Epstein (1999) reported higher levels of rational-analytical thinking and lower levels of intuitive thinking in men compared to women while Aarnio and Lindeman (2005) and Hollinger and Smith (2002) specifically linked the weaker preference for intuitive thinking in men to lower levels of paranormal belief. Given these gender differences, it seems plausible that a male narrator will be credited with a rational approach to causal attribution and so the strength of evidence that led him to narrate his story is judged strong, even in the prior believer position; therefore, he has not demonstrated gullibility. The observation in Experiment 1 that a male prior believer was perceived as less gullible than a female prior believer supports this explanation. In other words, the automatic association of men with rational thinking

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could overcome the declaration of prior belief so that this position was not indicative of gullibility in a male narrator. It is interesting to note that the difference in perceived gullibility between male and female prior believers was not apparent in Experiment 2, due mainly to a decrease in perceived gullibility of the female narrator. Perhaps when the participants were induced to regard the avowal of prior scepticism as a manipulative narrative device, the avowal of prior belief also lost some of its impact.

The implication is that a woman may decrease her credibility by describing herself as a believer to a greater extent than a man. Other researchers have concurred that irrational beliefs are particularly associated with a female gender role (e.g., Blackmore, 1994; Coleman & Ganong, 1987) while there is a public perception that women, more than men, are believers and practitioners in telepathy and precognition (e.g., Blackmore, 1994; Irwin, 2009; Kennedy 2003; 2007). Perhaps these perceptions make it easier or more natural for the general public to perceive a woman as having been gullible in a particular instance or as a general trait.

The term “gullible” was chosen rather than the more complimentary term “intuitive” because the latter has broader connotations while the former is more specific to the usage in this study, though both have a similar connotation of being dependent on feeling rather than empirical analysis for the acceptance of a hypothesis. It seems highly likely that a female narrator would have been regarded as more intuitive than a male since this corresponds to the common association of femininity with intuitiveness. However, this association might have been so strong as to obscure any variation according to the experimental manipulation of prior position, and so the term “gullible and easily convinced” was preferred.

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The findings relating to gender were somewhat surprising and it is of some concern to note that women are still perceived as “gullible and easily convinced” more readily than men in the 21<sup>st</sup> century. This is especially the case in a Psychology degree programme in which 80% of the students are women and a majority of teaching staff are also women. This perhaps highlights that students of Psychology do not appreciate that they are studying a scientific subject and do not regard themselves as scientists. It may also illustrate the staying power of stereotypes.

Despite the common use of the avowal of prior scepticism in paranormal narratives (e.g., Childs & Murray, 2010; Lamont, 2007; Wooffitt, 1992) the participants in Experiment 1 did not appear to exercise any caution regarding the avowal. However many times they may have heard the avowal before, or even perhaps used it themselves, there was no apparent discounting of its influence. This makes it all the more striking that the likelihood of a causal attribution to telepathy was reduced in Experiment 2 when participants were pre-warned of the avowal technique. This overall pattern of results is consistent with two inferences: the effectiveness of the avowal to an unsuspecting audience and the ease with which a pre-warned audience can adjust for its influence. It seems possible that the use of the avowal could backfire with an educated audience.

Alternatively, perhaps the audience, rather than failing to exercise any caution concerning the potential influence of the avowal of prior scepticism, were inclined to hold a degree of trust in the narrator (a default social position) and so were inclined to believe that the avowal was at least somewhat true. Although Lamont (2007) points out that the avowal is used too often to be entirely credible on every occasion it seems

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likely that it may be true to a degree some of the time. The audience may believe the avowal to be somewhat exaggerated rather than entirely false. Belief in the paranormal is often provisional and tentative rather than black and white (e.g., Lamont, 2007) so a position of prior uncertainty may be presented as scepticism. An audience who suspect this has happened might still see the avowal as meaningful although perhaps with a reduced effect (and it should be noted that the effect of the avowal in Experiment 1 was rather small).

Another explanation relies on the presentation of the avowal of prior scepticism at the start of the narrative so that it performs the role of claiming the attention of the audience. Indeed, since the avowal would be unlikely to be used except to introduce a narrative in which paranormal causality is implied (e.g., Lamont, 2007) the avowal may serve to alert the audience that a paranormal tale is about to unfold. This could sensitise the audience to notice the apparent paranormality and thus heighten the impact of the story. A dramatic introduction as a means of gaining the attention of an audience would be understood as a normal part of social behaviour (e.g., Labov, 1997) and so the avowal of prior scepticism may not be seen as a manipulative narrative device unless the audience are specifically encouraged to see it in that way (as occurred in Experiment 2).

If this is the case then the effect of describing the avowal of prior scepticism in the introduction to Experiment 2 might have been to change the attitude of the audience from one of instinctive trust in the narrator to one of mistrust and consequently to view the avowal as a manipulative rather than a conversational device. The timing would have led participants to see the warning about the avowal as

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directly relevant. The resulting suspicion, and resistance to believe the narrator, could explain why the pre-warning gave rise to an effect opposite to that observed in Experiment 1 when participants were not pre-warned.

The achievement of stake inoculation in Experiment 1, that is, presenting the narrator as someone without vested interest in converting the audience, was changed to the opposite effect in Experiment 2. Here, the avowal of prior scepticism appears to have rebounded on the narrator and served to enhance the perception of a motivation to deceive and persuade the audience. It appears that the success of stake inoculation using the avowal of prior scepticism would depend on whether the audience are alerted to the technique. There is a risk that it could backfire on the narrator. Just as stake inoculation can be thought of as preparing to resist a predictable counter-argument, so pre-warning of this preparation has the effect of inoculating the audience against the effect of stake inoculation.

It should also be noted that the timing of delivery of the information about the avowal of prior scepticism was likely to have maximised its effect. It is an open question what would have happened if the information had been given some days or weeks earlier so that it was less obviously related to the study. In this situation the influence of the information would likely depend on whether students retained the information and on whether they discussed it among themselves or gave it any practical application in the intervening time. This might be an interesting topic for future research. Although the avowal of prior scepticism had only a small effect on the perceived plausibility of telepathy rather than coincidence as an explanation for an anomalous event, people can expect to encounter many such narratives over a

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lifetime. The cumulative effect on levels of paranormal belief could be quite substantial. The evidence that narratives are more persuasive than statistical or scientific messages, and are seen as being more credible and more causally relevant, confirms their likely influence (e.g., Feeley, Marshall, & Reinhart, 2006). Fisher (1978) also stresses the importance of narratives for constructing knowledge.

Consider, also, that in a social setting the audience are likely to be in a relaxed and receptive state with their critical faculties not highly engaged. They are unlikely to be on guard against the use of manipulative narrative strategies. Hence, the effect of the avowal of prior scepticism could be stronger in a natural setting with a narrator personally known to the audience than it was in this study. Further, in a social group, it could be impolite and potentially disruptive to express open disbelief. There may be social pressure to seem swayed by the narrative and the avowal of prior scepticism. The presence of other people, apparently convinced by the narrative presentation, would suppress the likelihood of any open expression of doubt. The resulting appearance of a consensus to believe is an additional potential influence on the individual.

Consider, further, that reciprocal influences may be operating: if an individual already believes in telepathy they may rate the likelihood of its occurrence higher in any particular anomalous event. As a consequence, they may also perceive the narrator as less gullible and therefore the story as more convincing, adding to their level of belief. The opposite effect may pertain for an individual who does not believe in telepathy: the likelihood of its occurrence in a particular event is low, and so the narrator is perceived as gullible, and the story is unconvincing, contributing to the

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maintenance of a low level of belief. Thus, levels of belief, once they are established, may be self-sustaining and enhancing.

It has been argued that university students' preference for analytical thinking leads to lower levels of paranormal belief (see Irwin, 2009, for a review). For example, internet based questionnaires completed by a large sample of university and vocational school students in Finland showed that vocational school students were more likely to hold paranormal beliefs than university students (Aarnio & Lindeman, 2005) and the length of university education showed a weak negative correlation with paranormal belief. Musch and Ehrenberg (2002) suggest that differences in general cognitive performance rather than general education level might account for differences in paranormal beliefs. According to either theory, the present study might find that its participants were generally resistant to paranormal beliefs since they were university students taking a module in critical thinking. Indeed, the total score on the ASGS was below the mid point of the scale, suggesting a general attitude of scepticism, and participants on average regarded coincidence as a more likely explanation than telepathy. This suggests that the present findings on the persuasive influence of an avowal of prior scepticism might apply more strongly in the general population, although confirmation of this possibility would await further investigation.

One aspect of the present study that was not entirely clear is whether the 'not interested' position was a suitable control condition. This position was sometimes closer to the believer position and at other times closer to the sceptic position, although it did always lie between the believer and sceptic positions. Perhaps other types of control condition could be explored in future studies.



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Other aspects of narrative convention could also be explored. For example, Wooffitt (1992) suggests that by not giving an explicit paranormal label (e.g., telepathy) to an anomalous event, the narrator encourages the listener to supply their own label and this may increase their commitment to the corresponding explanation. As another example, Wooffitt (1992) identified a structure frequently used in accounts of paranormal experiences along the lines of “I was just doing X, when Y”, where X refers to a normal, mundane everyday activity and Y refers to an unusual experience of an ostensibly paranormal phenomenon. This establishes the normality of the setting and of the state of the mind of the speaker, and so avoids any potential undermining of credibility that might occur if the narrator was believed to have been intoxicated or especially seeking out an unusual experience. Finally, the influence of perceived source credibility could be manipulated, for example by presenting the narrator as a person of higher or lower status to see how this affects the influence of their narrated account.

In conclusion, the present research supports the proposition that an avowal of prior scepticism serves to increase the plausibility of a paranormal causal explanation for an anomalous event as long as the audience are not pre-warned. An avowal of prior belief serves to increase the perceived gullibility of a female, but not a male, narrator, suggesting a bias towards more readily perceiving a woman than a man as gullible.

## **Appendix**

The precognition scenario: believer position

I have always believed in precognitive dreams. I've always thought that dreams are meaningful and that they can reveal things that are going to occur, and I've found some of the evidence quite convincing. Then one day something strange happened to me. I had just dozed off in a chair after dinner when I had a vivid dream about a car accident in which my daughter was seriously injured. It was quite disturbing so the next day when I saw her I reminded her to get her car serviced and my wife offered to help her pay for it. She did get the car serviced and the mechanic said that there was a serious fault with the brakes and they could have failed at any time. My daughter kept the parts that were removed and my neighbour who is good with cars had a look and he confirmed that the brakes could have failed at any time.

The precognition scenario: not interested position

I have never been interested in things like precognitive dreams. I've never really cared whether it is possible for a dream to foretell the future and I've never bothered to look at any of the evidence for precognitive dreams. Then one day ... etc

The precognition scenario: sceptic position

I have always been sceptical about the possibility of precognitive dreams. I've never really believed that a dream could reveal things that were going to happen in the future and I'd never seen any real evidence. Then one day ... etc

The telepathy scenario: believer position

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I have always tended to believe in things like telepathy and precognition. I've always thought there must be more to life than just the material world and I've found some of the evidence for telepathy quite convincing. Then one day something strange happened to me. I was just at home doing the washing up after dinner when I suddenly had a strong image flash into my mind of an old friend Sally I hadn't seen for a couple of years. I mentioned it to my husband but didn't think anything more about it until about half an hour later that the phone rang and it was another friend to say that Sally had been rushed into hospital with a suspected burst appendix. This seemed like a strong coincidence so I wondered if perhaps I had spoken to Sally recently and forgotten about it, so I checked my phone but there were no calls from Sally or anyone else who knows both of us.

### The telepathy scenario: not interested position

I have never been interested in things like telepathy and precognition. I've never really cared whether they are real or not and I've never bothered to look at any of the evidence for telepathy. Then one day ... etc

### The telepathy scenario: sceptic position

I have always been sceptical about things like telepathy and precognition. I've never really believed that anything like that was possible outside of the movies and I'd never seen any real evidence. Then one day ... etc

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