



‘It’s still bending’: Verbal suggestion and alleged psychokinetic ability

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Some alleged psychics appear to be able to deform metallic objects, such as keys and cutlery, by thought alone. This paper describes two studies that examined whether one aspect of these demonstrations could be created by verbal suggestion. In the first study, participants were shown a videotape in which a fake psychic placed a bent key on a table. Participants in one condition heard the fake psychic suggest that the key was continuing to bend, whilst those in the other condition did not. Participants in the suggestion condition were significantly more likely to report that the key continued to bend. These findings were replicated in the second study. In addition, participants who reported that the key continued to bend displayed a significantly higher level of confidence in their testimony than others, and were significantly less likely to recall that the fake psychic had suggested the continued bending of the key. Neither experiment revealed any differences between participants who expressed a prior belief in the paranormal compared with those who did not. The paper discusses the implications of these results for the psychology of suggestion and the assessment of eyewitness testimony for anomalous events.

Psychics and mediums claim to possess a diverse range of paranormal powers, including, for example, the ability to predict the future, communicate with the dead, and read minds (Wiseman & Morris, 1995a). One of the most controversial claims is that of psychokinetic metal bending (PKMB)—the alleged ability to deform metallic objects, such as keys and cutlery, by thought alone. In a typical PKMB demonstration, a metal object appears to bend whilst being gently held by an alleged psychic. Psychologists, parapsychologists, and magicians have all explored ways in which such demonstrations can be duplicated by trickery. Each group has approached the issue from a slightly different perspective, with psychologists focusing on the potential of such work to inform the psychology of deception (Marks & Kammann, 1980), parapsychologists concentrating more on its importance for assessing allegedly genuine demonstrations of PKMB (Hansen, 1990; Morris, 1986; Randi, 1983a, 1983b; Truzzi, 1987), and magicians examining how such work can help enhance their performances (Fuller, 1975; Harris, 1985).

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The resulting literature has explored a wide variety of possible methods for faking PKMB, including, for example, the switching of straight objects for pre-bent duplicates, the concealed application of force, and ways of secretly inducing metallic fractures (see, e.g. Fuller, 1975; Harris, 1985; Marks & Kammann, 1980; Randi, 1975). However, these types of methods do not account for an intriguing aspect of alleged PKMB that has come to be referred to as the 'after effect'. In a typical PKMB demonstration, the alleged psychic apparently uses his or her paranormal abilities to deform an object. In some demonstrations the alleged psychic then produces an after effect, wherein the object is placed on a table but apparently still continues to bend by a small but noticeable amount (see, e.g. Hasted, 1981; Marks & Kammann, 1980). Although some researchers have expressed scepticism about the evidential status of this type of testimony (see, e.g. Hansen, 1990; Hodgson & Davey, 1887; West, 1982), others believe that such effects cannot be the result of trickery because the alleged psychic is no longer in contact with the object, and therefore view eyewitness reports of this phenomenon as strong evidence for the paranormal (see, e.g. Panati, 1976). In contrast, sceptics and magicians have argued that such effects could be created by verbal suggestion. For example, in a book devoted to methods for faking alleged PKMB, magician Ben Harris (1985) noted:

If you are doing a really convincing job, then you should be able to put a bent key on the table and comment, 'Look, it is still bending', and have your spectators really believe that it is. This may sound the height of boldness; however, the effect is astounding - and combined with suggestion, it does work (p. 46).

As a result of such speculations, some psychologists have argued that testimony describing apparent PKMB after effects is not evidential of genuine psychic ability (see, e.g. Marks, 2000).

The idea that PKMB after effects can be created by verbal suggestion has not been subjected to any form of systematic evaluation or investigation. This is unfortunate for two main reasons. First, from a psychological perspective, such research has the potential to help inform our understanding of suggestion. Most laboratory research into verbal suggestion involves participants being shown information about a relatively commonplace event (e.g. slides or a videotape of a minor car accident), receiving incorrect information about what they have just witnessed, and then being tested on their recollection of stimuli material (see, e.g. Loftus, 1997; Loftus, 1992; Roediger, Wheeler, & Rajaram, 1993). However, very little research has examined the effects of verbal suggestion on the perception of an ongoing event, or events that are as unusual as alleged PKMB. As such, the results of such work could play an important role in expanding our understanding of the potential relationship between verbal suggestion, observation and recall. Second, from a parapsychological perspective, such work could help evaluate the reliability of testimony for alleged PKMB after effects, and therefore the degree to which such testimony constitutes evidence for the paranormal. This paper addresses these issues by describing two studies that explored whether it is possible to create testimony for PKMB after effects via verbal suggestion alone.

In the first experiment, participants were shown a videotape of an apparent PKMB demonstration. During the videotape a performer stroked the stem of a key and revealed that this had apparently caused the stem to develop a very noticeable bend. He then placed the key on the table. Participants in the suggestion condition then heard the performer suggest that the key was continuing to bend. In contrast, participants in the no-suggestion condition saw exactly the same footage but did not hear this suggestion.

Participants were then asked whether the key had continued to bend whilst it lay on the table. It was predicted that those who heard the suggestion would be significantly more likely to report that the key had continued to bend.

The study also investigated the role that participants' belief in the paranormal may play in mediating such effects. Psychologists have carried out a considerable amount of work into the psychology of paranormal belief (see, e.g. reviews by French, 1992; Irwin, 1999, 1993), with some researchers reporting a positive relationship between such beliefs and several different measures of suggestibility (Haraldsson, 1985; Wiseman, Greening, & Smith, 2003). The experiments reported here extended this work by examining the possible relationship between paranormal belief and verbal suggestibility within the context of PKMB after effects. Prior to seeing the videotape, participants completed a questionnaire about their belief in the paranormal, and it was predicted that participants who tended to believe in the paranormal would be more susceptible to the effects of suggestion than disbelievers.

EXPERIMENT I

Participants

Forty-six psychology undergraduates from the University of Hertfordshire (19 male, 27 female; mean age = 21.34, $SD = 4.33$) participated in the study in return for course credit. Participants were recruited via a poster on a departmental notice board. The poster did not describe the nature of the study, but instead simply asked undergraduates interested in earning course credit to provide their email address. Everyone who signed up was then sent an email explaining that the study involved watching a videotape of an alleged paranormal event and completing a short questionnaire about the events on the videotape. Everyone who indicated an interest in the study on the poster agreed to participate. A small number of undergraduates are aware of the first author's sceptical attitude towards the paranormal. To minimize any potential bias that this may introduce, the first author's name did not appear on the poster and he was not involved in either emailing participants or running the experimental sessions.

Videotapes

The videotape shown in the suggestion condition lasted approximately 2 minutes. It began with a performer and an interviewer sitting at a table with several objects (cutlery, packs of cards, keys) in front of them. The interviewer briefly described the objects and asked the performer to select one of them. The camera shot then changed to a close-up of the performer's hands, and showed him picking up a key and apparently using his psychokinetic ability to place a 25° bend in its stem (in reality this bend was achieved by sleight of hand). The performer then placed the key back on the table, and the videotape ended with a 60-second close-up shot of the bent key. This shot was completely stationary and the key did not continue to bend. The soundtrack to this footage carried a single comment from the performer in which he suggested that the key was continuing to bend. The videotape used in the no-suggestion condition was identical to that used in the suggestion condition, except that the performer's comment was removed from the soundtrack. It was clearly important for the initial key bending to be impressive and not be readily identifiable as a magic trick. For this reason, the performer featured in the

video was chosen because he had worked as a professional close-up magician, and so was able to perform the necessary sleight of hand in a competent and convincing way.

Questionnaires

Belief in the Paranormal Questionnaire (BPQ)

The BPQ contains six questions concerning whether some people possess different forms of extrasensory perception and psychokinetic abilities (e.g. 'Do you think that some people can, just by mental effort, apply a noticeable force to an object?'). Participants indicate their responses to each question on a 7-point scale from 1 (*definitely no*) to 7 (*definitely yes*). Higher scores indicate a greater belief in the paranormal (see Wiseman & Morris, 1995b, for further details).

Fixed Response Questionnaire (Fixed-RQ)

The first three items on the Fixed-RQ consisted of statements about events on the videotapes. Two of the statements were filler items and referred to the interviewer touching the objects on the table, and the performer saying that the key was heating up as it apparently bent in his hands. The third item, which was used as the dependent variable in the study, stated 'After the key was placed on the table, it continued to bend.' The fourth item on the questionnaire asked participants whether they thought that the bending of the key was paranormal. For all four items, participants were asked to make their responses on a 7-point scale from 1 (*definitely no*) to 7 (*definitely yes*). The midpoint of the scale was labelled *uncertain*. Participants were also asked to rate their level of confidence in each of their answers on 7-point scales from 1 (*not at all confident*) to 7 (*very confident*).

Procedure

The experiment took place in the department's observation laboratory and the videotape was shown on a large-screen colour monitor placed a few feet away from participants. Participants were run in small groups of up to five individuals, and were assigned to each group on an opportunistic basis. Each group was randomly assigned to either the suggestion or no-suggestion condition prior to participants' arrival at the laboratory. Participants sat at individual desks to prevent any interaction between them during the experiment. The experimenter first made sure that all of the participants were able to see the monitor clearly. Participants then completed the BPQ. Participants in the suggestion condition were then shown the videotape in which the performer suggested that the key was continuing to bend after it had been placed on the table. Participants in the no-suggestion condition were shown the videotape in which this suggestion had been removed. Finally, all participants completed the Fixed-RQ.

Results

Participants' scores on the BPQ were summed over the six items (mean = 22.11, $SD = 6.72$). Participants were then assigned to one of two groups (believers or disbelievers) on the basis of a median split. The disbelievers ($N = 22$) had a mean BPQ score of 16.64 ($SD = 3.86$), whilst the believers ($N = 24$) had a mean BPQ score of 27.12 ($SD = 4.46$).

A 2×2 factorial ANOVA examined the relationship between suggestion (suggestion vs no-suggestion), belief (disbelievers vs. believers), and participants' scores on Item 3 of the Fixed-RQ. This revealed a highly significant effect of suggestion, $F(1, 42) = 16.90$, $p = .0002$; a non-significant effect of belief, $F(1, 42) = .02$, $p = .88$; and a non-significant interaction $F(1, 42) = 3.09$, $p = .09$. Participants' scores in the suggestion condition were significantly higher than participants' scores in the no-suggestion condition, indicating that they were more convinced that the key continued to bend whilst it lay on the table (see Table 1).

Table 1. Means and standard deviations (in parentheses) for responses to Item 3 on the Fixed-RQ by suggestion and belief

	Suggestion	No-suggestion	Total
Believers	3.42 (1.93) N = 12	2.25 (1.14) N = 12	2.83 (1.66) N = 24
Disbelievers	4.36 (2.33) N = 11	1.45 (0.93) N = 11	2.91 (2.29) N = 22
Total	3.87 (2.14) N = 23	1.87 (1.10) N = 23	

To discover the percentage of participants who believed that the key continued to bend, participants were split into two groups on the basis of their responses to Item 3 on the Fixed-RQ. Those that responded with either a 5, 6, or 7 were allocated to the *key continued to bend* group, whilst those that responded with either a 1, 2, 3, or 4 were allocated to the *key did not continue to bend* group. As shown in Table 2, almost 40% of participants in the suggestion condition reported that the key continued to bend, versus just 5% in the no-suggestion condition. A chi-squared analysis between group and suggestion was highly significant, $df = 1$, χ^2 (with continuity correction) = 6.26, p (2-tailed) = .01.

An unpaired t -test revealed no significant difference between the confidence ratings given to Item 3 on the Fixed-RQ by participants in the key continued to bend group versus those in the key did not continue to bend group, $df = 44$, t -value (unpaired) = .18, p -value (2-tailed) = .86 (see Table 2). Both groups expressed relatively high confidence in the accuracy of their answers (approximately 5.7 on a 7-point scale).

Table 2. Numbers, percentages and confidence data for participants in the key continued to bend and key did not continue to bend groups

	Suggestion	No-suggestion	Confidence ratings given to Item 3 on the Fixed-RQ means (and standard deviations)
Key continued to bend group	9 (39.13%)	1 (4.35%)	5.66 (1.07)
Key did not continue to bend group	14 (60.87%)	22 (95.65%)	5.69 (1.53)

Discussion

This study examined whether it was possible to create PKMB after effects via verbal suggestion. The results revealed that participants in the suggestion condition were significantly more likely than those in the no-suggestion condition to report that the key was continuing to bend. The size of the effect was far from trivial, with approximately 40% of participants in the suggestion condition reporting continued bending of the key compared with just 5% of participants in the no-suggestion condition. The results also showed that participants who reported that the key continued to bend were relatively confident that their testimony was reliable. In addition, the study explored the possible relationship between belief in the paranormal and suggestibility. Contrary to expectations, the findings demonstrated that participants who expressed a prior belief in the paranormal were no more or less likely than disbelievers to report that the key had continued to bend. Taken together, these findings support the notion that a relatively small amount of verbal suggestion can create the types of after effects often reported by people who have witnessed demonstrations of ostensible PKMB. However, the study did not support the hypothesis that participants who believed in the paranormal are more susceptible to observing and reporting such effects than those who disbelieved in the paranormal.

Experiment 2 built upon the first study in several ways. First, it aimed to replicate the findings obtained in Experiment 1 with a greater number of participants. Second, the study extended this work by examining whether participants who reported that the key was continuing to bend also tended to recall the performer suggesting that this was the case. The impetus for this aspect of the study came from a colleague who, after attending a presentation about Experiment 1, noted that although some witnesses of PKMB after effects did mention the alleged psychic stating that the object was continuing to bend, many did not. This could be explained in one of two ways. First, it is possible that the latter set of witnesses were accurate and that the alleged psychic did not suggest that the object was continuing to bend. If this were the case it seems far less likely that the PKMB after effects described by these witnesses were due to verbal suggestion. Alternatively, it is possible that the alleged psychics did suggest the continued bending of the object, but that the witnesses forgot about these comments or did not think that it was important to report them. This latter interpretation would fit with previous research into the observation and reporting of fake psychic demonstrations. For example, Wiseman and Morris (1995b) asked observers to watch a videotape of fake psychic demonstrations (e.g. spoon bending and the guessing of ESP cards) and then recall the events on the videotape. Many observers failed to recall events that were central to the way in which the tricks were achieved (e.g. the fake psychic placing the spoon briefly out of sight), thus making it very difficult to accurately reconstruct and explain the tricks on the basis of their testimony. For this reason, in Experiment 2 it was predicted that participants who reported that the key was continuing to bend would be less likely than others to report that the performer suggested this was the case. To test this hypothesis, it was decided not to ask participants a direct question about whether the performer had suggested that the key continued to bend, as this question could act as a cue that would help them accurately recall such comments, but rather to use a more naturalistic approach and ask them to simply provide a qualitative description of the events on the stimuli videotape. As such, Experiment 2 employed both the Fixed-RQ from Experiment 1 and a supplementary qualitative questionnaire.

EXPERIMENT 2

Participants

One hundred psychology and cognitive science undergraduates participated in this study (36 male, 64 female; mean age = 22.15, $SD = 5.44$) in return for course credit. The procedure used to recruit participants in Experiment 1 was also employed in this study.

Materials

The videotapes, BPQ, and Fixed-RQ were identical to those used in Experiment 1. However, this experiment also used an additional qualitative questionnaire. This Free Response Questionnaire (Free-RQ) consisted of two sections. The first section asked participants to provide a written description of what had happened on the videotape from the time that the performer picked up the key and placed it down onto the table (i.e. the first bend). The second question asked: 'Please describe everything that happened from the time the performer placed the key back down on the table until the end of the film.' Participants were asked to provide as much detail as possible when answering both questions.

Procedure

Participants were run in small groups of up to ten individuals using the same procedure as before. Each group was randomly assigned to either the suggestion or no-suggestion condition. All participants first completed the BPQ. After seeing the relevant videotape, participants completed both the Fixed-RQ and Free-RQ. The order in which the questionnaires were administered was counterbalanced between participants.

Results

As in Experiment 1, participants' scores on the BPQ were summed over the six items (mean = 21.77, $SD = 8.58$). Participants were then classified as either believers or disbelievers on the basis of a median split. The disbelievers ($N = 49$) had a mean BPQ score of 14.61 ($SD = 5.12$), whilst the believers ($N = 51$) had a mean BPQ score of 28.65 ($SD = 4.73$).

A 2×2 factorial ANOVA examined the relationship between suggestion (present and absent), belief (disbelievers and believers), and participants' scores on Item 3 of the Fixed-RQ (see Table 3). As in Experiment 1, this revealed a highly significant effect of suggestion $F(1, 96) = 26.19$, $p = .0001$; a non-significant effect of belief

Table 3. Means and standard deviations (in parentheses) for responses to Item 3 on the Fixed-RQ by condition and belief

	Suggestion	No-suggestion	Total
Believers	3.9 (2.26) $N = 30$	1.86 (1.06) $N = 21$	3.06 (2.11) $N = 51$
Disbelievers	3.91 (2.35) $N = 22$	2.15 (1.20) $N = 27$	2.94 (1.99) $N = 49$
Total	3.90 (2.28) $N = 52$	2.02 (1.40) $N = 48$	

$F(1, 96) = 0.16, p = .68$; and a non-significant interaction $F(1, 96) = 0.14, p = .70$. Participants' scores in the suggestion condition were higher than participants' scores in the no-suggestion condition, thus replicating the findings of Experiment 1.

As participants were run in groups, it was possible that these findings might, at least to some extent, be due to group effects (i.e. participants in a small number of groups somehow affecting the behaviour of other participants in their groups, thus undermining the independence of responses). Two analyses were used to examine this possibility. First, two factorial ANOVAs were used to compare the responses on Item 3 of the Fixed-RQ across groups in both the suggestion and no-suggestion conditions. Neither of these analyses were significant: suggestion, $F(6, 51) = 0.51, p = .80$; no-suggestion $F(6, 47) = 0.91, p = .50$. In addition, the Spearman's Rank Correlation Coefficient between group size and responses on Item 3 of the Fixed-RQ was also non-significant: $\rho(\text{corrected for ties}) = .12; z(\text{corrected for ties}) = 1.22; p(2\text{ tailed}) = .22$. These analyses strongly suggest that the obtained findings were not due to group effects.

Scores on Item 3 of the Fixed-RQ were again used to allocate participants into the key continued to bend group and the key did not continue to bend group. As shown in Table 4, around 36% in the suggestion condition believed that the key continued to bend versus no participants in the no-suggestion condition. A chi-squared analysis between group and suggestion was highly significant: $df = 1; \chi^2(\text{with continuity correction}) = 19.34; p(2\text{-tailed}) = .0001$.

An unpaired t -test revealed that participants in the key continued to bend group were significantly more confident in their answer to Item 3 on the Fixed-RQ than participants in the key did not continue to bend group: $df = 98; t\text{-value}(\text{unpaired}) = -2.01; p\text{-value}(2\text{-tailed}) = .05$ (see Table 4). The mean of both groups was again relatively high (approximately 5.6 on a 7-point scale).

Table 4. Numbers, percentages and confidence data for participants in the key continued to bend and key did not continue to bend groups

	Suggestion	No-suggestion	Confidence ratings given to Item 3 on the Fixed-RQ means (and standard deviations)
Key continued to bend	19 (36.54%)	0 (0%)	6.10 (1.24)
Key did not continue to bend	33 (63.46%)	48 (100%)	5.15 (1.97)

Free-RQ

Participants' responses to Question 2 on the Free-RQ were coded along two dichotomous dimensions. The first dimension concerned whether participants reported that the performer suggested that the key continued to bend (coded as either *yes* or *no*). The second dimension focused on whether the participant reported that the key continued to bend as it lay on the table (coded as either *yes* or *no*). Each of the participants' responses were coded by two raters (inter-rater reliability = .85), with any

disagreements settled by discussion. The resulting coding allowed participants' responses to be classified into one of four groups. These groups, along with typical answers from each group were as follows:

Reported performer's suggestion and that the key continued to bend

'When the key was put on the table the performer . . . claimed it was still bending. This was difficult to see but it did appear to bend a little.'

Reported performer's suggestion but not that the key continued to bend

'The performer commented that the key continued to bend; however, I failed to notice any difference - the key remained the same.'

Did not report performer's suggestion but reported that the key continued to bend

'The key, which had already bent, continued bending without being touched by the performer.'

Did not report performer's suggestion or that the key continued to bend

'The key was placed down on the table and the performer placed his hands on the table.'

In the no-suggestion condition, no participants reported the performer's suggestion (perhaps not surprisingly, given that this had been removed from the soundtrack of the videotape) and none of them reported that the key continued to bend once it had been placed on the table. As such, all responses were placed into the category: Did not report performer's suggestion or that the key continued to bend.

The number and percentage of participants falling into each of the four categories in the suggestion condition is shown in Table 5 below.

Table 5. Number and percentage of participants (suggestion only condition) in each of the four categories regarding whether they reported the performer's suggestions and the continued bending of the key

	Reported that the key continued to bend	Did not report that the key continued to bend	Total
Reported performer's suggestion	2 (12.5%)	27 (75%)	29 (55.77%)
Did not report performer's suggestion	14 (87.5%)	9 (25%)	23 (44.23%)

The majority (almost 90%) of those participants who reported that the key continued to bend did not report that the performer had suggested that this was the case. This pattern was reversed among those that did not report that the key continued to bend, with approximately 75% of these participants correctly reporting the performer's suggestion. A chi-squared analysis revealed that this relationship was highly significant: $df = 1$; χ^2 (with continuity correction) = 15.09; p (2-tailed) = .0001.

Post hoc chi-squared analyses revealed that believers were no more or less likely than disbelievers to report that the key continued to bend; $df = 1$, χ^2 (with continuity correction) = 0.51, p (2-tailed) = .47, or that the performer suggested this was the case; $df = 1$, χ^2 (with continuity correction) = 1.55, p (2-tailed) = .21).

GENERAL DISCUSSION

This paper describes two studies that explored whether ostensible PKMB after effects can be created via verbal suggestion alone. In both studies, participants in the suggestion condition watched a videotape in which a performer stated that a bent key was continuing to bend, whilst those in the no-suggestion condition watched an identical videotape but did not hear the performer's comments. Despite the videotape clearly showing that the key remained completely stationary, participants in the suggestion condition reported significantly more movement of the key than those in the no-suggestion condition. Both studies revealed that this effect was far from trivial, with approximately 40% of participants in the suggestion condition reporting that the key had continued to bend, versus just a few percent of those in the no-suggestion condition. In the second study, participants who believed that the key had continued to bend expressed significantly greater levels of confidence in the reliability of their testimony than those who correctly reported that the key remained stationary. As such, the studies provide strong support for the notion that even a relatively small amount of verbal suggestion can cause a large number of people to confidently report a PKMB after effect.

As noted in the Introduction, the majority of work examining the relationship between suggestion and observation has tended to examine the influence of post-event suggestion on the recall of relatively commonplace events. The two studies described here provide compelling evidence that verbal suggestion can also significantly influence the ongoing observation and subsequent reporting of an unusual, and apparently anomalous, event. It is hoped that these findings will encourage other researchers to employ this type of paradigm to further explore some of the many issues raised by this work. For example, although the effects obtained in the current studies appear both robust and large, it seems quite possible that even stronger effects could be obtained under more naturalistic conditions. In the experiments described here, observers watched a videotape within the context of a laboratory experiment. Future work could explore the effect of observing a live, rather than taped, performance, and also explore how other forms of context (e.g. the performer demonstrating a magic trick in a bar or an apparently genuine paranormal effect at a psychic fair) impacts upon people's observation and recall. In addition, the verbal suggestion in the present studies consisted of just a single sentence and was not endorsed by the interviewer on the videotape. Future work could explore the possible effects of presenting different amounts and forms of comments, and the impact of having authority figures and other observers endorse these suggestions. Finally, both of the present studies examined the effects of ongoing verbal suggestion on a rather unusual type of event (i.e. a PKMB demonstration). Future work could explore the extent to which the same type of suggestion may influence participants' observation and reporting of the types of stimuli more usually used in research on post-event suggestion (e.g. car accidents and crimes).

On a more pragmatic level, the findings reported here demonstrate that testimony for PKMB after effects can be created by verbal suggestion, and therefore the testimony from individuals who have observed allegedly genuine demonstrations of such effects

should not be seen as strong evidence in support of the paranormal. The work therefore emphasizes the need for those wishing to properly investigate such phenomena to carefully film or videotape such demonstrations, rather than rely on eyewitness reporting.

Both studies also examined the possible relationship between participants' prior belief in the paranormal and the degree to which they reported the key continuing to bend. On the basis of past research it was predicted that participants who believed in the paranormal would be more likely than disbelievers to report that the key continued to bend. This hypothesis was not supported in either study. This finding could be interpreted in several ways. First, it is possible that the previous work may be incorrect and that, in reality, the relationship between belief in the paranormal and suggestibility is nonexistent, or at least much weaker than originally thought. This might be the case if, for example, the small number of published studies examining this effect represent a biased subset of studies that had been undertaken, with the majority of unpublished studies not supporting the predicted relationship. Alternatively, it may be that the relationship between belief in the paranormal and suggestion is more complex than first thought. Suggestibility can be measured in many different ways. For example, Haraldsson (1985) employed a standard suggestibility scale frequently used in hypnosis research, whereas Wiseman *et al.* (2003) asked participants to assess the degree to which luminous objects were apparently moving within the context of a live seance. Both of these measures are clearly different from one another, and also differ from the measure used in the current two studies (i.e. estimating the degree to which a bent key was continuing to bend on a videotape). It seems quite possible that these very different measures reflect quite different forms of suggestion, and that individuals who believe in the paranormal may only perform differently to disbelievers on certain measures. These competing interpretations could be resolved by future research.

Experiment 2 also assessed the notion that participants who reported that the key had continued to bend would be significantly less likely than others to report that the performer had suggested this was the case. The results supported this hypothesis. This finding provides additional support for the notion that eyewitness reports of allegedly anomalous events may omit the information needed to properly assess some of the potential normal explanations that may account for such events (see Wiseman & Morris, 1995b). This effect could be interpreted in several ways. It is possible, for example, that participants who believed that the key continued to bend thought that they had witnessed a genuine effect (i.e. that the movement of the key was not illusory) and therefore the performer's comments at the time were not attended to, or later reported, because they seemed relatively unimportant. This interpretation would be consistent with previous work from schema theorists examining how the way in which people interpret an event dictates the perceived importance of certain information about that event, and therefore the likelihood of them attending to, and recalling, such information (see, e.g. Anderson & Pichert, 1978; Loftus & Fathi, 1985). Alternatively, the effect could be interpreted more within the framework of social constructivism, with participants being aware that reporting the performer's comments about the bending of the key may make others question the reliability of their testimony, and therefore they omit such comments to increase the perceived accuracy of their observations. This interpretation would be in line with previous work into the way in which some people describe apparently anomalous events that they have experienced, noting the various forms of rhetorical devices (e.g. claiming to be a sceptic prior to experiencing the phenomenon, ruling out all possible normal explanations, etc.) that are used to support the idea that

they are a reliable and accurate witness (see, e.g. Woofitt, 1992). Again, it is hoped that these competing interpretations will be assessed in future research.

In short, the two studies reported here demonstrate that it is possible to create ostensible PKMB after effects via verbal suggestion alone. In the second study, participants who reported such effects were more confident of the accuracy of their testimony than others, and tended not to report the performer's suggestions. Taken together these results show the significant impact that a relatively small amount of verbal suggestion can have on the perception and reporting of an ongoing event, and also cast doubt on the notion that eyewitness reports of PKMB after effects should be seen as evidence in support of the paranormal. It is hoped that other researchers will now use this paradigm to further explore the effects of ongoing verbal suggestion on the perception and reporting of both allegedly anomalous and more commonplace events.

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