An Investigation of Mediums Who Claim to Give Information **About Deceased Persons**

Emily Williams Kelly, PhD,* and Dianne Arcangel, MA

Abstract: Growing public interest in the phenomenon of mediumship, particularly among bereaved persons, suggests the need for renewed controlled studies of mediums, both to provide potential clients with criteria for judging mediums and to help researchers learn whether they can produce specific and accurate information to which they have had no normal access and, if so, under what conditions. Two research studies were conducted in which mediums provided readings about particular deceased persons to a proxy sitter. The real sitters then blindly rated the reading that was intended for them along with several control readings. In the first study, the results were not significant. In the second, much larger study the results were highly significant (z = -3.89, p < 0.0001, 2-tailed). The authors discuss 2 possible weaknesses of the successful study and indicate some directions for further

Key Words: Mediumship, dissociation, bereavement, mind and brain.

(J Nerv Ment Dis 2011;199: 11-17)

n recent years, the popular media have both reflected and encouraged growing public interest in mediums, that is, individuals who claim to communicate information about deceased persons that the medium had no normal way of knowing. ("Mediums" are usually distinguished from "psychics" in that the former are ostensibly communicating with a deceased person, whereas the latter give their clients or "sitters," primary information about the sitters themselves or other living persons. The distinction is in no way meant to prejudge the actual source of the information being given—this being the primary question to be addressed by research. Additionally, many mediums and psychics engage in both activities.) Numerous people have begun to work as professional mediums, and many of them, despite charging large fees, have lengthy waiting lists. Clearly, many bereaved people turn to mediums for help with their grief that they may not have found elsewhere.

Interest in mediumship and in the evidence that it might provide for survival of human personality after death is not a new phenomenon. Beginning in the late 19th century and continuing for the next 50 years, mediums received intense and prolonged investigation (for reviews, see Braude, 2003; Gauld, 1982; Stevenson, 1977). The study of mediumship was part of a larger program of research, called psychical research, that was motivated by one primary question: Is the assumption that consciousness is produced by the brain adequate to account for all of human experience? Many phenomena studied by psychical researchers, including nonpathological hallucinations, hypnosis and mesmerism, unusual psychophysiological phenomena, and psi (the collective term for telepathy,

clairvoyance, precognition, and psychokinesis), suggest strongly that mental phenomena are not always or entirely confined to normal sensorimotor limits (Kelly et al., 2007). With regard to mediumship in particular, methods were developed to ensure that the mediums had no normal access to the information that they gave, and people who studied the research carefully, such as psychologists William James (Burkhardt, 1986) and Murphy and Dale (1961), had no doubt that, among the best mediums, at least some of the information given did not come from normal sensory sources. The question remained, however: What was the source? Whereas some people argued that the source seemed to be deceased persons, others thought that telepathy, clairvoyance, or some other "supernormal" process among living persons could account for all of the phenomena reported.

Psychical researchers became increasingly frustrated with their inability to resolve this question, and eventually turned their attention to seemingly more tractable problems. Since the mid-20th century, research with mediums has thus been sporadic at best. With the renewed interest among the general public, however, it seems important to again conduct well-controlled research with mediums, for 2 primary reasons. First, it is important to provide people, and particularly persons suffering bereavement, with criteria for judging those who claim mediumistic abilities. Unfortunately, because of the commercial and uncontrolled nature of readings typically given by mediums, it is often difficult to evaluate adequately the quality of the material produced, and there are several types of potential "normal" explanations that clients of mediums should be aware of. Second, it seems important to try to repeat the high-quality earlier research that seriously called into question the adequacy of modern scientific assumptions about the relationship of mind and brain. Because most of the best mediums of the past gave readings while they were in a trance state, the interest in mediumship among early psychical researchers was part of a larger interest in dissociative phenomena. Many "supernormal" or psi events seem to occur while the person is in some kind of altered state of consciousness, suggesting that such states might alter the normal relationship of mind and brain and thus allow psi events to emerge. Few mediums today seem to work in a trance state, but if we can identify contemporary mediums whose readings are not attributable to normal explanations, research with them might help us understand better the psychological conditions conducive to their success. The present investigation was conducted with these aims in mind.

RECENT STUDIES

In the past several years, there have been a few experimental studies of mediums. In the first of these (Schwartz and Russek, 2001; Schwartz et al., 2001, 2002), the sitters judged readings that they knew were intended for them. Moreover, in many instances, they were able to provide feedback during the reading to the mediums. These studies have been rightly criticized (Bem, 2005; Hyman, 2003; Stokes, 2002; Wiseman and O'Keeffe, 2001) as providing inadequate controls in the conduct of the readings as well as the judging. In a later study by the same research group, involving 1 medium and 6 sitters (Schwartz et al., 2003), under the doubleblind conditions, the sitters each judged 2 transcripts without know-

Copyright © 2011 by Lippincott Williams & Wilkins ISSN: 0022-3018/11/19901-0011

DOI: 10.1097/NMD.0b013e31820439da

^{*}Division of Perceptual Studies, Department of Psychiatry and Neurobehavioral Sciences, University of Virginia Health System, Charlottesville, VA.

Send reprint requests to Emily Williams Kelly, PhD, Division of Perceptual Studies, Department of Psychiatry and Neurobehavioral Sciences, University of Virginia Health System, 210 10th St, NE, Suite 100, Charlottesville, VA 22902. E-mail: ewc2r@virginia.edu.

ing which was intended for them. The overall results, however, were not statistically significant. The authors singled out one sitter's results as being particularly impressive, but the examples of statements cited in the paper were in our opinion anything but impressive, most of them being vague and applicable to many people.

Another study (Robertson and Roy, 2004) also involved a double-blind method (Roy and Robertson, 2001) in which the target sitters were chosen randomly from a group and the medium gave the reading from another room, isolated from the group. There were 10 mediums and 300 participants. Unfortunately, instead of conducting a single study or series of studies using the same procedure, the investigators conducted 13 different experimental sessions in which several different experimental designs were implemented. Moreover, the results were evaluated by a complicated statistical analysis of probability values given to individual statements. Although the authors reported highly significant results, the statistical methods have been strongly criticized (Markwick, 2007). Perhaps more disturbingly, however, because the investigators did not report separately the results of different experiments or experimental conditions, it is impossible to determine the actual results and compare those trials with more stringent conditions and those with less stringent or otherwise different conditions.

O'Keeffe and Wiseman (2005) reported a study in which 5 mediums did readings for each of 5 sitters, for a total of 25 readings. The mediums and sitters were visually and acoustically isolated from each other. The sitters were sent lists of statements from all the readings, evaluating them blindly. The results were not significant. Moreover, the study indicated that readings in which the most, and the most general, statements were made got higher ratings than readings in which a few more highly specific statements were made, which the authors conclude supports the hypothesis that much of the apparent success of ordinary, nonblind mediumistic readings can be attributed to the vagueness and generality of the statements given.

Another study (Beischel and Schwartz, 2007) involved what the researchers describe as "triple-blind" conditions: The mediums were blind to the identity of the sitters, the sitters judged readings without knowing which were intended for them, and the experimenters interacting with the mediums and sitters were blind as to the identity of the sitters and the identity of the correct targets (readings). For each of 8 sitters, grouped into 4 pairs, there were 2 readings, for a total of 16 readings. Each sitter evaluated 2 pairs of readings; in each pair one reading was intended for him/her, the other was the reading for the sitter with whom he/she was paired. Of the 16 readings, 13 were chosen correctly, which (assuming independence) is a marginally significant result (2-tailed binomial probability of 0.021).

Finally, Jensen and Cardeña (2009) reported a study in which 1 medium gave readings for 7 absent sitters who had suffered significant losses of at least 2 people. Both the medium and the experimenter interacting with the medium were blind to the identity of the sitters. Sitters blindly evaluated all 7 readings and statement lists associated with each reading, without knowing which was actually theirs. No sitter picked the correct reading, and the results overall were not significant.

OBJECTIVES OF THE PRESENT STUDY

The purpose of the present study was to try to identify contemporary mediums who can, like the best mediums of the past, produce evidential material under controlled conditions.

When evaluating information given by a medium, the first and most important objective is to determine whether or not the statements of the medium could have derived from some normal source. One common normal explanation for mediumship is that the medium fishes for information ("cold reading"), whether deliberately or inadvertently, by first making vague or general statements and then taking any feedback or clues from the sitter's responses or appearance to further refine and focus those vague statements. Even when the medium does not allow the sitter to say anything but "yes" or "no" in response to a statement, he or she can nonetheless obtain a great deal of information and direction from such replies. The most important way to prevent such feedback is to eliminate any direct, sensory contact between the medium and the sitter. There are 2 ways in which this has been done. In some studies, the sitters were present at the reading but visually and acoustically isolated from the mediums (Haraldsson and Stevenson, 1974; O'Keeffe and Wiseman, 2005). In other studies, a proxy sitter—that is, someone with little or no knowledge about the deceased person—sat with the medium instead of the real sitter (Kelly, 2010).

A second normal explanation is that the medium's statements are so general or vague that they can apply to many people or be interpreted in a variety of ways by different sitters. On this hypothesis, apparently successful mediumistic sittings are simply the result of chance, arbitrary selection of statements, and overinterpretation on the part of a sitter biased by grief or wishful thinking. There have been attempts to develop methods for addressing this problem by quantitatively evaluating the statements of mediums to determine how specific or general they are (Burdick and Kelly, 1977; Kelly, 2010; Schouten, 1994). In these studies, both the intended sitters and control persons evaluated how well individual statements applied to themselves and their deceased loved ones, and then, on the basis of the responses of the controls, the investigators attempted to calculate the probability for a particular statement to be accurate. In some studies (Hyslop, 1919; Saltmarsh, 1929; Stevenson, 1968; Thomas, 1937) the controls knew that the statements were not intended for them. In other studies (Pratt, 1936, 1969; Pratt and Birge, 1948), the target and control persons were blind as to whether the readings were meant for them. Clearly, the latter method is preferable for an objective quantitative evaluation.

In the present study, all sittings were done with a proxy sitter who knew little or nothing about the deceased person, and without the real sitter(s) being present or hearing the reading. Proxy sittings greatly reduce the likelihood of the aforementioned explanations being applicable. First, "fishing" by the medium can elicit little or no relevant feedback. Second, the real sitters can evaluate readings blindly and reduce any effects of biased interpretation of vague or general statements.

There were 2 parts to the study. Although the basic procedure was the same in both, sufficient changes were made in the second study; therefore, we will describe the methods and results of the 2 studies separately.

STUDY 1

Methods

In study 1, 4 mediums did 3 readings each, for a total of 12 readings, 1 for each of 12 different sitters. E.W.K. recruited the mediums and served as the proxy sitter. D.A., a grief counselor and former hospice chaplain, recruited the sitters, none of whom were known to E.W.K. E.W.K. scheduled the times for the readings with the mediums, and D.A. did not know which medium would be doing any particular reading. The sitters were not given the names of the mediums participating in the study. D.A. chose the sitter for each reading, and neither the medium nor E.W.K. knew who the sitter would be until the time of the reading. The medium and E.W.K. were given only the first name and birthday (but not year) of the sitter (The mediums themselves had suggested that this information would be sufficient to help them focus on the sitter). D.A. told the sitters the day and time at which their reading would be held and instructed them simply to sit quietly during the next hour and think about the deceased person(s) they wished to contact. At no time in the study was there any contact between the sitters and the mediums, or between D.A. and the mediums. Any contact between E.W.K. and the sitters occurred only after the sitters had made their evaluations and their scores had been calculated.

At the time of each scheduled reading, E.W.K. called the medium, gave the medium the first name and birthday of the intended sitter, and recorded the reading over the telephone. Transcripts were made of all 12 readings. In addition, E.W.K. made detailed lists of individual items or statements in each reading. All references to the sitter's name, gender, or birthday were replaced in the transcripts and the statement lists with an X.

Each of the 12 sitters was sent transcripts of his or her own sitting and of 3 sittings intended for someone else, chosen randomly, as well as the lists of individual statements extracted from these 4 sittings. They rated both the accuracy and significance of each statement on a 5-point scale and then tried to pick out their own reading from the group of 4. E.W.K. calculated a score for each of the 48 statement lists, based on the number of statements and the ratings given for accuracy and significance.

Results

The results of study 1 were not significant: only 2 of the 12 sitters were able to identify their own reading correctly, where 3 are expected by chance. A third sitter, who refused to pick a reading on grounds that none seemed accurate enough to her, nevertheless had a higher score on her own reading than on the other 3. Interestingly, the 2 sitters who correctly picked their own reading both had readings by the same medium.

STUDY 2

Methods

Because the results of study 1 were not significant, we decided to make 3 major changes in the next study:

- 1. In study 1, providing the medium only with the first name and birthday of the sitter seemed insufficient to focus the medium on the deceased person, even though all the mediums had thought this would suffice. Therefore, in study 2 we sent photographs of the deceased persons to the mediums, but provided no other information, either about the sitters or about the deceased persons. To help minimize the possibility of the medium inferring information about the person from the photograph, sitters were asked to send "neutral" photographs that showed the person alone and not engaged in specific activities (such as playing tennis or reading) that might provide significant information about the deceased.
- 2. To look at the question of whether the proxy sitter might play some role in the success or failure of a reading, E.W.K. and D.A. shared the role of proxy, each doing half the sessions for each
- 3. We also decided to simplify the method for sitters to evaluate the readings. There are 2 basic ways to evaluate free-response material, including mediumistic readings. One can score the material item by item and calculate the accuracy of all the statements put together, as was done in study 1 and as has been done in most recent studies of mediums. The second way is to evaluate the reading globally, that is, by considering the reading overall and not statement by statement. This method is widely used in parapsychology in Ganzfeld research (Bem and Honorton, 1994; Bem et al., 2001), but, although it was introduced into mediumship research in 1949 (West, 1949), it has not been used much in that context. The global method is a much simpler and more

straightforward way of evaluating readings. Itemizing statements is not a straightforward process, particularly because many statements are interrelated and not independent of each other. Moreover, and perhaps more importantly, a global evaluation allows for the likelihood that much of what a medium says in a sitting is in fact what we might call "filler" material—that is, general, vague, or interfering imagery and impressions coming from the medium's own mind and having nothing to do with the intended target, the deceased person. Nonetheless, if enough accurate information comes through this "filler" material so that sitters can identify the correct reading from a control group, then the inaccurate or irrelevant material can be disregarded. We decided to adopt this global method of evaluation in study 2.

In study 2, 9 mediums and 40 sitters participated. For each sitter, 1 reading was conducted; 2 mediums did 6 readings each and 7 mediums did 4 each. E.W.K. again recruited the mediums, none of whom had participated in study 1. E.W.K. recruited 30 sitters among people who had suffered significant losses and who expressed interest in participating. Ten other sitters were recruited by D.A. Each sitter sent us a photograph of the deceased person with whom they wished to make contact.

E.W.K. divided the deceased people into 4 groups: males over the age of 30, females over the age of 30, males under the age of 30, and females under the age of 30 (because E.W.K. knew the actual ages of few of these people, they were assigned to the categories based on their appearance in the photograph). There were 11 older males, 10 older females, 10 younger males, and 9 younger females. E.W.K. made copies of all photographs, wrote a number on the back of each, and mailed these photograph copies to the mediums. Two mediums received 6 photographs, and 7 mediums received 4 photographs. None of the 40 photographs was sent to more than 1 medium. For each medium, E.W.K. tried to send photographs of people of different ages and genders, but this was not done systematically because both sitters and mediums were recruited throughout

E.W.K. and D.A. independently scheduled their own 20 readings with the mediums. At the beginning of each reading the mediums picked whichever photograph they wished to work with, or felt particularly drawn to, at that particular time. Thus, neither E.W.K. nor D.A. knew which reading would be done on any given day, and sitters had no information about when any readings would be held. Sitters were also not given the names of any of the mediums participating in the study.

Because E.W.K. numbered the photographs, during the 20 readings in which she was the proxy, she knew the identity of the deceased person. On the other hand, D.A. did not know which numbers corresponded to which photographs, and so she was more fully blind., However, E.W.K.'s knowledge about the deceased people and the sitters was usually extremely limited and therefore, she was still not in a position to provide useful feedback to the medium. (We will comment further in the Discussion about the extent of her knowledge about the sitters and the deceased persons and its possible impact on the results.)

The 40 audio-taped readings were transcribed, and E.W.K. edited all of the transcripts to remove any references to the appearance of the person in the photograph or other such clues. She also removed any conversation unrelated to the reading, as well as unnecessary or often-repeated words (such as "um," "you know," and the like), to make the transcript less choppy (as spoken conversation often is) and thus easier to read. Otherwise, none of the medium's own wording was changed; the transcript was a verbatim copy of what the medium said. (We welcome comments from other persons about the editing of the transcripts, and will provide copies

TABLE 1. Summary of Ranks: How Sitters Blindly Ranked the Correct Reading as Compared With 5 Control Readings

Ranked 1 (i.e. chosen correctly)	14
Ranked 2	7
Ranked 2.5 (tied for 2)	1
Ranked 3	5
Ranked 3.5	3
Ranked 4	4
Ranked 4.5	2
Ranked 5	1
Ranked 5.5	1
Ranked 6	0

of unedited and edited transcripts to persons who wish to examine and evaluate them.)

Each sitter was sent 6 transcripts—the real one, as well as 5 intended for other persons, all 6 selected from the same age and gender group. Readings were also distributed in such a way that each one served as a "control" an equal number of times. Sitters were instructed to read carefully through all 6 and then rate each on a scale of 0 to 10. They were also asked to comment on the readings and to explain why they chose the one that they rated the highest.

Results

Thirty-eight sets of ratings were returned. For 1 medium all 6 sets were returned; for 1 medium 5 of 6 sets were returned; for 6 mediums all 4 sets were returned; and for 1 medium 3 of 4 sets were returned.

The ratings were converted to ranks. Table 1 summarizes the ranking that sitters blindly gave to the reading meant for them, as compared with the 5 control readings.

In summary, the distribution of obtained ranks is far from random: 14 of the 38 readings were correctly chosen, and 7 others were ranked second. Altogether, 30 of the 38 were ranked in the top half. Analysis of these results with the sum-of-ranks method (Solfvin et al., 1978) gives a z score of -3.89 (p < 0.0001).

As we mentioned earlier, one of the main purposes of the study was to identify mediums who can do well under controlled experimental conditions. One medium clearly stood out: all of this person's 6 readings were ranked as number 1. Some others also did well, although with fewer trials. The results for individual mediums are shown in Table 2.

TABLE 2. Results for Individual Mediums: How Their Readings Were Ranked

Medium	Ranks	Average Ranking
1	6 readings ranked 1 (all 6 readings correctly chosen)	1
2	2 readings ranked 1; 2, ranked 3	2
3	2 readings ranked 1; 2, ranked 2; 1, ranked 4.5	2.1
4	1 reading ranked 1; 2, ranked 2; 1, ranked 4	2.25
5	2 readings ranked 2; 1, ranked 2.5; 1, ranked 3	2.38
6	1 reading ranked 1; 1, ranked 3; 1, ranked 3.5; 1, ranked 4	2.88
7	1 reading ranked 2; 1, ranked 3; 2, ranked 3.5	3
8	1 reading ranked 1; 2, ranked 4; 1, ranked 5	3.5
9	1 reading ranked 1; 1, ranked 4.5; 1, ranked 5.5	3.67

Even when the top-scoring medium's results are removed, analysis of the remaining readings, again using the sum-of-ranks method, gives a z score of -2.69, which is still highly significant (p < 0.0074).

We also looked at whether the person serving as the proxy sitter had any effect on the results. In the 20 sittings for which E.W.K. was the proxy, the sum of ranks was 51 (z = -2.42, p <0.016, 2-tailed); in the 18 sittings for which D.A. was the proxy, the sum of ranks was 40.5 (z = -3.04, p < 0.002, 2-tailed). Although both are independently significant, the results for D.A.'s sittings were somewhat better. The difference, however, is not significant, suggesting that the person serving as proxy had no effect on the

QUANTITATIVE VERSUS QUALITATIVE RESULTS

In the present study, we focused on a research design that would allow us to evaluate the results statistically and thus try to minimize the possibility that the results were due to chance or overinterpretation of vague statements. However, qualitative aspects of the readings are equally important, not only because of the emotional impact they often have on the bereaved person, but also because they may give us more insight into, say, the kind of information more likely to come through.

Although we had asked sitters to comment on the readings and explain why they chose the one they did, few actually did so in any detail. Most of the 14 people who correctly chose their own reading made comments such as "I don't see how it could be anything other than (X reading)," "I feel certain this is the correct choice and would bet my life on it," "one reading stood out from the rest I just know (it) was correct because it sounded like my mom," or "it had the most instances that could apply to my son."

In addition to such general statements, however, some did go on to comment on specific details that impressed them. For example, the person who "would bet my life" on his choice cited the medium's statement that "there's something funny about black licorice Like there's a big joke about it, like, ooh, you like that?" According to the sitter, his deceased son and his wife had joked about licorice frequently. Also, the medium had said "I also have sharp pain in the rear back of the left side of my head in the back, in the occipital. So perhaps there was an injury back there, or [he] hit something or something hit him." The deceased person had died of such an injury incurred in a car crash.

In another reading, the medium said "I feel like the hair I see here [in the photo] is gone, so I have to go with cancer or something that would take the hair away," and later "her hair—at some point she's kind of teasing [it], she tried many colors. I think she experimented with color a lot before her passing." The girl's mother confirmed that she had died of cancer, had dyed her hair "hot pink" before her surgery, and had later shaved her head when her hair began falling out (her hair was normal-looking in the photo.). The medium also said "I feel I'm up in Northampton, Massachusetts Northampton does have that kind of college town beatnik kind of feel to it." Although the girl lived and died in Texas, according to her mother "this is where she told a friend she wanted to go to college."

In another reading, the medium said "she dealt with either numbers or getting the invoices ready or helping with the bills, because she's showing me numbers around her. So I don't know if she helped her husband with the bills, or there's something about working on his invoices. But she's showing me that she had to become very mathematical. Or deal with the money." In fact, she and her husband had started a business that became very successful, and she had done all the book-keeping in the early years.

In another example, among many other details the sitter commented especially on the statement "he said I don't know why they keep that clock if they are not going to make it work. So somebody connected directly to him has a clock that either is not wound up, or they let it run down, or it's standing there just quiet. And he said what's the point in having a clock that isn't running? So, somebody should know about that and [it] should give them quite laughter." The sitter did laugh (and cry) over this, because a grandfather clock that her husband had kept wound had not been wound since his death. The medium had also commented that "he can be on a soap box, hammering it"; his children when young had frequently complained about "Dad being on his soap box."

Among the remaining 26 sitters who had not chosen the correct reading, the qualitative picture was more mixed. Twelve of these sitters were not impressed with any of the readings, making comments such as "I am stretching to find something and am just not sure about any of them," "none of these readings 'jumped' right out at me," "none were my son . . . I've never seen so much in error," or "on balance, mostly noise, little signal." On the other hand, 12 other sitters made comments quite similar to those made by the sitters who chose correctly. For example, 1 sitter said "by the third paragraph, I 'knew' this was the correct reading," or "[the reading] stood out and contained many accurate descriptions of my daughter's talents, traits, and personality." Not many of these sitters pointed to specific details, but a few did. One sitter, who said the reading "had the 'feel' of my daughter," also explained that she had asked her daughter to send her a message about the Wizard of Oz, and at the end of the reading the medium had said "I'm hearing a reference from the Wizard of Oz. And Toto too. And Glinda the good witch."

The remaining 2 sitters picked 2 sittings as their top choice one of which was in fact the correct one—but ultimately favored the incorrect one. One person gave the nod to the incorrect one because of the medium's remark in it that "she sees her [her daughter], and she's there with her. Especially when she's doing laundry." The sitter commented: "What really hit me was the comment [in the incorrect reading] about the laundry. My mom would come to spend 2 weeks with me and my daughters, and her joy would be to do my laundry In the week before my mom's crossing, knowing it was never to be again, I held her hand and told her I wished she would come out to visit so that she could do my laundry. And we laughed, and then with a sigh she told me oh, how she wished she could do that again too."

Another sitter also picked 2 readings of which one was correct, saying that the other 4 "do not show any resemblance to my husband." In the one that was the correct one, the medium had started out by saying "maybe he was a professor or something I keep feeling like it would have to be around [pause] mathematics. It feels like I'm seeing derivatives and functions. Yes. So he must be in the world of engineering and applied, like, metallurgy, stuff like that. I do feel it deals with metals. Metals? But not manufacturing maybe civil engineering." The deceased man was a professor of materials science and engineering, and "my husband's most important research was stressing metal samples in the electron microscope." Nevertheless, the sitter ultimately did not choose this (correct) reading, because, as she explained, the rest of that reading did not at all sound like her husband and "indeed a different person seems to have taken over communicating."

DISCUSSION

The results of the second, larger study were highly significant, but there are at least 2 potential weaknesses that should be addressed in future studies.

First, it could be argued that, no matter how "neutral" a photograph may seem, mediums might be able to "read" from it useful information about a person's character. It should be noted first that the most obvious things that can be read from a photograph and that might influence what a medium says about the person—namely, age and gender-were eliminated as factors in the present study, by sending sitter's 6 readings to judge, which were taken from the same age and gender group. Many people, however, believe that other facial features reveal much about a person's character or personality; and there may be a "kernel of truth" to the belief (Berry and Finch Wero, 1993). Thus far, however, the "kernel" appears to be rather small and of perhaps limited relevance in the present context. Many of the experimental studies of the relationship between facial features and personality have involved not simply still photographs, but short video clips or brief in-person interactions between the subjects being evaluated and the strangers doing the evaluations. And in studies involving still photographs the results have been generally inconsistent. For example, although extraversion seems to be the personality dimension most frequently "read" from photographs (Fink et al., 2005; Penton-Voak et al., 2006), some studies have failed to support this finding (Shevlin et al., 2003). More generally, "while many studies have found somewhat accurate judgments of targets' extraversion, there are considerable inconsistencies across studies in the accuracy of judgments of other traits" (Penton-Voak et al., 2006, p. 617).

In the present study, support for the hypothesis that mediums can read personality from photographs might come from the fact that some successful sitters did comment that they chose the reading that they did because, as 1 sitter put it, "the personality description was such a good hit." On the other hand, some sitters made similar comments about readings which turned out not to be the correct

More importantly, many of those who successfully chose their reading commented on details that certainly could not be "read" from a photograph, such as several of the statements that are described in the previous section. For example, the sitter quoted in the previous paragraph also noted the medium's comment that "I think she collected some small things . . . either little china or glass things. Like little knicknacks. But I keep seeing an elephant with the trunk up, so this might be a special object or something that people would understand." The sitter subsequently sent E.W.K. a photograph of a small ceramic elephant with its trunk up, part of his deceased wife's larger collection and an item sitting on a table in their front hall. Another sitter noted, among other things, 2 especially meaningful items: The medium referred to "Mike, Mikey, Michael." The sitter's brother (son of the deceased person) was known as "Mikey" when young, "Michael" as he grew older, and finally "Mike." Also, the medium referred to "a lady that is very much, was influential in his [the deceased person's] formative years. So, whether that is mother or whether that is grandmother She can strangle a chicken." The sitter commented that her grandmother (the deceased person's mother) "killed chickens. It freaked me out the first time I saw her do this. I cried so hard that my parents had to take me home. So the chicken strangling is a big deal In fact I often referred to my sweet grandmother as the chicken killer." None of these statements can be considered entirely unique, although no other sitter who received these readings as controls commented on them. More importantly, of course, the overall design of the study was intended to minimize the effect of any such coincidences. But the important point here is that these kinds of specific details are unlikely to have been "read" from the photographs, especially when they applied to someone other than the person in the photograph.

The second potential weakness of this study was that, as we mentioned above, E.W.K. numbered the photographs and was thus not uniformly and totally blind to the identity of the sitters or the deceased persons. Moreover, as we also mentioned, she had some prior acquaintance with some of the sitters. As it turned out, because the mediums picked which photographs they wished to work with on any particular day, 16 of E.W.K.'s 20 sitters had been recruited by her, and only 4 recruited by D.A. Among E.W.K.'s 20 sitters, 8 were complete strangers, 6 were slight acquaintances, and 6 were colleagues or friends. E.W.K.'s knowledge about the associated deceased persons, however, was much more limited. She knew the relationship of the deceased person and the sitter in 15 of 20 instances; she knew the mode of death of the deceased person in 10 of 20 instances; and she knew the occupation of the deceased person in 4 of 20 instances. In none of these readings, however, was the specific relationship, mode of death, or occupation stated by the medium. In 4 other instances, E.W.K.'s knowledge of the deceased person was somewhat more extensive, but again there seemed to be no relationship between her knowledge and the sitters' rankings. Two sitters had participated in study 1, and as a result E.W.K. had later learned something about the deceased person's life and death. In these 2 cases, 1 sitter ranked her reading as number 1, the other ranked hers as number 4.5 (that is, tied for 4th with another reading). In 2 other instances, E.W.K. had met the deceased person. One of them she knew quite well, the other she met on one occasion. The latter case received a ranking of number 1, but the former received a ranking of only number 4.5.

It should also be mentioned that E.W.K. said practically nothing during the readings except "OK" and the like—primarily to let the medium hear her voice occasionally and to assure the medium that she was still listening. Of course, readers can only take our word for this, but we would be glad to provide interested readers with unedited transcripts or audiotapes so that they can evaluate this for themselves.

Most importantly, however, the extent of E.W.K.'s prior knowledge about either the sitters or the deceased person seems irrelevant because, as we remind readers, there was no significant difference in the results of sittings in which E.W.K. was the proxy and D.A.—who was completely blind to sitters' identities—was the proxy; and in fact D.A.'s results were actually somewhat better and independently significant.

In addition to these 2 potential weaknesses of this study in particular, it is also important for future studies to keep in mind a potential weakness of proxy research in general. Conducting mediumistic readings under proxy conditions is a highly unusual and artificial procedure; the usual procedure involves a personal interaction between the medium and the bereaved sitter. None of the mediums we worked with had ever tried a proxy reading before, and it is a testament to their sincere interest in research and learning more about their own abilities that they were all willing to try. Nevertheless, such artificial conditions, so necessary for an adequate evaluation of mediumship, might inhibit and prevent important psychological conditions conducive to successful readings, whether one postulates that the source of the accurate information is a deceased person or some other nonordinary process of communication. As Stevenson (1968) cautioned, "remov[ing] the sitter from the medium's presence . . . may diminish the motives of both the medium and communicator for communicating" (p. 336). An alternative procedure that might combine the methodological advantages of proxy research with the psychological advantages of personal contact is to have sitters present during readings, but visually and acoustically isolated from the medium, a procedure that Haraldsson and Stevenson (1974) used successfully in one study.

In addition, having the proxy sitter be completely blind to knowledge about the sitter or the deceased person might also not be optimal. Some minimal knowledge might help "prime the pump." James (1890), for example, noted that "it often happens, if you give this trance personage a name or some small fact for the lack of which he is brought to a standstill, that he will then start off with a copious flow of additional talk, containing in itself an abundance of 'tests'" (p. 652).

None of the qualitative statements we described above can be considered unique to one and only one person, a fact that underscores the need for blind, quantitative evaluations that can minimize the possibility of purely chance coincidences. In addition, it would be useful to evaluate quantitatively, in a large sample of readings, the frequency with which certain specific qualitative statements or topics, including names, occur. Do mediums, overall or individually, frequently refer to "chicken-strangling" grandmothers, or licorice, or being "on a soap box?" In this study, such highly specific remarks were made in only 1 of the 40 readings, but a large-scale analysis of the frequency of particular kinds of statements that mediums make is essential.

CONCLUSIONS

It is far too early to comment on broader implications of this study, which was only a preliminary attempt to objectively evaluate readings of some contemporary mediums. The study did seem to meet one of our goals in undertaking the research, in that we identified at least one medium who did especially well under these controlled conditions. We hope to follow-up with this person in additional studies. We also hope that we, or other investigators, can identify more such persons. Truly gifted mediums may, like other gifted persons, be rare, and those who can perform under the kinds of conditions necessary for an adequate scientific evaluation rarer still. Nevertheless, if we can identify such persons, and learn more about them and the conditions conducive to their success, such studies may contribute importantly to our understanding of the nature of consciousness, particularly those subliminal aspects of it that we rarely encounter in our normal states of consciousness. In the meantime, we hope that this study might suggest to readers that mediums are neither the infallible oracles that many people in the general public seem to believe they are, nor the frauds or imposters that many scientists assume they invariably are. The history of research on mediumship shows that the phenomenon should be taken seriously, and we hope that the results of our study might encourage other scientists to do so.

ACKNOWLEDGMENTS

The authors thank the Bial Foundation for its support to this research. The authors thank the mediums who participated in this study, all of whom were willing to try a procedure that none of them had used before; and the sitters for the time and effort they put into carefully reading and evaluating transcripts. The authors also thank Edward F. Kelly and Kristen Bowsher for help during the study and in the preparation of this article.

REFERENCES

Beischel J, Schwartz GE (2007) Anomalous information reception by research mediums demonstrated using a novel triple-blind protocol. Explore. 3:23-27.

Bem DJ (2005) Review of the afterlife experiments. J Parapsychol. 69:173-183.

Bem DJ, Honorton C (1994) Does psi exist? Replicable evidence for an anomalous process of communication. Psychol Bull. 115:4-18.

Bem DJ, Palmer J, Broughton RS (2001) Updating the Ganzfeld database: A victim of its own success? *J Parapsychol.* 65:207–218.

Berry DS, Finch Wero JL (1993) Accuracy in face perception: A view from ecological psychology. J Pers. 61:497-520.

- Braude SE (2003) Immortal Remains: The Evidence for Life After Death. Lanham (MD): Rowman & Littlefield.
- Burdick DS, Kelly EF (1977) Statistical methods in parapsychological research. In BB Wolman (Ed), Handbook of Parapsychology (pp 81–130). New York (NY): Van Nostrand Reinhold.
- Burkhardt F (Ed) (1986) The Works of William James: Essays in Psychical Research. Cambridge (MA): Harvard University Press.
- Fink B, Neave N, Manning JT, Grammar K (2005) Facial symmetry and the "big-five" personality factors. Pers Individ Dif. 39:523-529.
- Gauld A (1982) Mediumship and Survival: A Century of Investigations. London (United Kingdom): Heinemann.
- Haraldsson E, Stevenson I (1974) An experiment with the Icelandic medium Hafsteinn Björnsson. J Am Soc Psych Res. 68:192-202.
- Hyman R (2003) How not to test mediums: Critiquing the afterlife experiments. Skeptic Inq. 27:20-30.
- Hyslop JH (1919) Chance coincidence and guessing. Proc Am Soc Psych Res. 13:5-88.
- James W (1890) A record of observations of certain phenomena of trance (Part III). Proc Soc Psych Res. 6:651-659.
- Jensen CG, Cardeña E (2009) A controlled long-distance test of a professional medium. Eur J Parapsychol. 24:53-67.
- Kelly EF, Kelly EW, Crabtree A, Gauld A, Grosso M, Greyson B (2007) Irreducible Mind: Toward a Psychology for the 21st Century. Lanham (MD): Rowman & Littlefield.
- Kelly EW (2010) Some directions for mediumship research. J Sci Explor. 24:247-282.
- Markwick B (2007) Letter to the editor. J Soc Psych Res. 71:258-259.
- Murphy G, Dale LA (1961) The Challenge of Psychical Research. New York (NY): Harper.
- O'Keeffe C, Wiseman R (2005) Testing alleged mediumship: Methods and results. Br J Psychol. 96:165-179.
- Penton-Voak IS, Pound N, Little AC, Perrett DI (2006) Personality judgments from natural and composite facial images: More evidence for a "kernel of truth" in social perception. Soc Cogn. 24:607-640.
- Pratt JG (1936) Towards a Method of Evaluating Mediumistic Material (Bulletin 23). Boston (MA): Boston Society for Psychic Research.
- Pratt JG (1969) On the Evaluation of Verbal Material in Parapsychology (Parapsychology Monograph Number 10). New York (NY): Parapsychology Foundation.
- Pratt JG, Birge WR (1948) Appraising verbal test material in parapsychology. J Parapsychol. 12:236–256.

- Robertson TJ, Roy AE (2004) Results of the application of the Robertson-Roy protocol to a series of experiments with mediums and participants. J Soc Psych Res. 68:18-34.
- Roy AE, Robertson TJ (2001) A double-blind procedure for assessing the relevance of a medium's statements to a recipient. J Soc Psych Res. 65:161-
- Saltmarsh HF (1929) Report on the investigation of some sittings with Mrs. Warren Elliott. Proc Soc Psych Res. 39:47-184.
- Schouten SA (1994) An overview of quantitatively evaluated studies with mediums and psychics. J Am Soc Psych Res. 88:221-254.
- Schwartz GE, Geoffrion S, Jain S, Lewis S, Russek LG (2003) Evidence of anomalous information retrieval between two mediums: Replication in a double-blind design. J Soc Psych Res. 67:115-130.
- Schwartz GE, Russek LG (2001) Evidence of anomalous information retrieval between 2 mediums: Telepathy, network memory resonance and continuance of consciousness. J Soc Psych Res. 65:257-275.
- Schwartz GE, Russek LG, Barentsen C (2002) Accuracy and replicability of anomalous information retrieval: Replication and extension. J Soc Psych Res.
- Schwartz GE, Russek LG, Nelson LA, Barentsen C (2001) Accuracy and replicability of anomalous after-death communication across highly skilled mediums. J Soc Psych Res. 65:1–25.
- Shevlin M, Walker S, Davies MN, Banyard P, Lewis CA (2003) Can you judge a book by its cover? Evidence of self-stranger agreement on personality at zero acquaintance. Pers Individ Dif. 35:1373-1383.
- Solfvin GF, Kelly EF, Burdick DS (1978) Some new methods for preferentialranking data. J Am Soc Psych Res. 72:93-109.
- Stevenson I (1968) The analysis of a mediumistic session by a new method. J Am Soc Psych Res. 62:334-355.
- Stevenson I (1977) Research into the evidence of man's survival after death. J Nerv Ment Dis. 165:152-170.
- Stokes DM (2002) Review of the afterlife experiments. J Am Soc Psych Res. 96:81-89.
- Thomas JF (1937) Beyond Normal Cognition: An Evaluative and Methodological Study of the Mental Content of Certain Trance Phenomena. Boston (MA): Boston Society for Psychic Research.
- West DJ (1949) Some proxy sittings: A preliminary attempt at objective assessment. J Soc Psych Res. 35:96-101.
- Wiseman R, O'Keeffe C (2001) A critique of Schwartz et al.'s after-death communication studies. Skeptic Inq. 25:26–30.