DISCARNATE READINGS BY CLAIMANT MEDIUMS: ASSESSING PHENOMENOLOGY AND ACCURACY UNDER BEYOND DOUBLE-BLIND CONDITIONS

By Adam J. Rock, Julie Beischel,* Mark Boccuzzi,* and Michael Biuso*

ABSTRACT: Certain mediums are able to report accurate and specific information about the deceased loved ones (termed discarnates) of living people (termed sitters) even without any prior knowledge about the sitters or the discarnates and in the complete absence of any sensory feedback. This study aimed to investigate the phenomenology associated with, and accuracy of, readings for discarnates by claimant mediums under beyond double-blind conditions. At baseline, directly after a counterbalanced control condition, and after each of two identically formatted, scheduled phone readings for paired discarnates, 19 claimant mediums completed the Phenomenology of Consciousness Inventory (PCI). The two readings were then given global accuracy scores by the blinded sitters associated with the two discarnates. A significant anomalous information reception effect was demonstrated. However, this study did not identify any phenomenological variables that were correlates of mediums' abilities. It would be prudent for future researchers to focus on the development of a quantitative measure specifically designed to investigate the phenomenology of mediumistic experience.

Keywords: mediums, phenomenology, Phenomenology of Consciousness Inventory

A growing public interest in the phenomenon of mediumship is clearly evident in the current rise of this topic in various aspects of popular culture. Numerous books, television shows, and movies featuring mediums—those who experience regular communication with the deceased—have moved from the obscure realm of the occult to the recognizable mainstream. The conventional scientific community has only just begun to recognize mediumship as a topic worth investigating when, in fact, the scientific study of mediums is over a century old.

Several comprehensive reviews of the history of mediumship methods (Beischel, 2007; Burdick & Kelly, 1977; Fontana, 2005; Schouten, 1994; Scott, 1972) and findings (Braude, 2003; Fontana, 2005; Gauld, 1983) are available. In addition, several recent single-blind (Robertson & Roy, 2001; Schwartz & Russek, 2001; Schwartz, Russek, Nelson, & Barentsen, 2001), double-blind (Kelly & Arcangel, 2011; Roy & Robertson, 2001, 2004; Schwartz, Russek, & Barentsen, 2002), and beyond double-blind (previously termed "triple-blind"; Beischel & Schwartz, 2007) studies producing positive results have been published. Also, one double-blind study that failed to obtain positive results (O'Keeffe & Wiseman, 2005) was performed, but the protocol contained numerous methodological flaws (discussed in Beischel, 2007). Finally, a beyond double-blind study also failing to produce a positive result was performed (Jensen & Cardeña, 2009) though the authors note that "this protocol did not provide an environment conducive to the medium's confidence in her ability" (p. 70). (See also Rock, Thorsteinsson, & Tressoldi, in press.)

The positive contemporary studies generally replicate and extend the observations of early mediumship research: certain mediums can report accurate and specific information about the deceased loved ones (termed discarnates) of living people (termed sitters) through the process of anomalous information reception (AIR), that is, without any prior knowledge about the sitters or the discarnates, in the complete absence of any sensory feedback, and without using fraud or deception (e.g., Beischel, Biuso, Boccuzzi, & Rock, 2011). Mediums performing readings with proxy sitters provide information for living people who are not present at the reading. Consequently, "sitters" would be more completely defined as living persons who request a reading from a medium and who have a desire to receive information about one or more deceased people with whom they had an emotionally close relationship, irrespective of whether or not the sitters are present for or hear the reading as it takes place. Conversely,

"proxy sitters" are living persons who are present for the reading but are not the person for whom the information reported during a reading is intended. Proxy sitters may or may not have knowledge about the absent sitter or the deceased persons contacted during the reading.

Moreover, the information reported by these mediums cannot be explained as a result of fraud or "cold reading" (a set of techniques in which visual and auditory cues from the sitter are used to fabricate "accurate" readings) on the part of the mediums or rater bias on the part of the sitters (Braude, 2003; Fontana, 2005; Gauld, 1983).

Most previous—especially recent—mediumship research (e.g., Beischel & Schwartz, 2007) has been primarily concerned with empirically demonstrating a particular and replicable effect (i.e., AIR by mediums) without examining the *phenomenological* processes (*subjective experiences*) underpinning AIR during ostensible communication with the deceased. However, several authors have noted the importance of these types of experiences. Cardeña, Lynn, and Krippner (2000) proposed that "some anomalous experiences may have much to offer science in terms of clarifying its current boundaries and identifying how psychology, the neurosciences, and the social sciences can join hands to explain [the variety] of life" (p. 10).

"Phenomenology' is a term that refers to a philosophy, a research approach, and, in a more general way, the study of experience" (Pekala & Cardeña, 2000, p. 59). The phenomenological investigator engages in process-focused research examining "the way things are experienced by the experiencer, and ... how events are integrated into a dynamic, meaningful experience" (Hanson & Klimo, 1998, p. 286). With this type of analysis, the researcher is able to identify the essential aspects of the experience under investigation (Fischer, 1998).

Mediumistic experiences may be quantified using a methodology that was developed by Pekala (1985) to "operationally define, map and diagram states and altered states of consciousness" (p. 207). The methodology consists, in part, of a novel retrospective phenomenological assessment instrument referred to as the Phenomenology of Consciousness Inventory (PCI; Pekala, 1991). The PCI is a 53-item questionnaire consisting of 12 major dimensions or phenomenological (i.e., subjective) elements (e.g., Positive Affect, Altered Experience, Visual Imagery, Rationality), and 14 minor dimensions (e.g., Fear, Joy, Altered Body Image, Absorption). The PCI allows one to operationally define phenomena typically referred to as states of consciousness and altered states of consciousness (ASCs), considered by Rock and Krippner (2012) to be more appropriately described as "altered states of phenomenology," by evaluating whether two necessary conditions for an ASC are satisfied: (a) the "pattern structure" (i.e., a covariance matrix of PCI major dimensions) for a treatment condition is significantly different from the pattern structure associated with a control or baseline condition, and (b) altered state of awareness scores are significantly higher for the treatment compared to control or baseline condition (Pekala & Kumar, 1986). The conjunction of (a) and (b) constitutes a sufficient condition for inferring an ASC (Pekala, 1991).

Rock and Beischel (2008) used the PCI to investigate mediums' phenomenology during mediumship readings for discarnates versus a nonreading control condition. Analysis of the mediums' PCI responses after each condition revealed that scores in the reading condition were statistically significantly *higher* than those in the control condition with regard to the PCI major dimensions Negative Affect and Altered State of Awareness. In contrast, scores in the reading condition were statistically significantly *lower* than in the control condition with regard to major dimensions Self-Awareness, Volitional Control, and Memory (Rock & Beischel, 2008). Thus, these phenomenological variables may correlate with ostensible AIR.

Indeed, one might argue, with some justification, that the next logical step in the field of mediumship research is to combine proof- and process-focused approaches to investigate the phenomenological correlates of the accuracy of discarnate readings by mediums. This would allow one to identify the subsystems of consciousness that are related to the accuracy of mediumship readings.

Objectives and Hypotheses

The present study aimed to investigate the phenomenological correlates of the accuracy of readings for discarnates by claimant mediums under beyond double-blind conditions. The following hypotheses were proposed:

H1: The sitters for whom blinded target readings were intended (i.e., intended sitters) will provide higher discarnate reading global accuracy ratings than sitters scoring decoy readings (i.e., control sitters).

H2: The intended sitters' correct reading-choice rate will be above chance for the discarnate reading conditions.

H3: The PCI major variables Negative Affect and Altered State of Awareness will positively correlate with the accuracy of readings for discarnates, after controlling for baseline.

H4: PCI major variables Self-awareness, Volitional Control, and Memory will negatively correlate with the accuracy of readings for discarnates, after controlling for baseline.

Method

Participants

Sitter participants. Thirty-eight sitter participants over the age of 18 (31 females and 7 males) were recruited via the Windbridge Institute website (www.windbridge.org) and e-mail lists. Each sitter participant completed an online prescreening questionnaire including items in which one discarnate related to the sitter is chosen and is described in terms of personality and physical traits, favorite activities, and cause of death. Discarnates were paired based on an established pairing system (Beischel, 2007). Briefly, the information about each discarnate provided by the associated sitter is used to identify pairs of discarnates of the same gender that are most distinct in age, physical description (e.g., hair color, build, height), personality description (e.g., extraverted or introverted, rational or emotional), favorite activities (e.g., indoor or outdoor, group or solitary), and cause of death (e.g., part of the body affected, sudden or prolonged, natural or unnatural). This pairing process maximizes sitter-rater blinding and optimizes each blinded rater's ability to distinguish between two readings during scoring. The pair of sitters associated with each pair of discarnates was also interviewed over the phone before being chosen to participate in the study.

Medium participants. At the Windbridge Institute, before participating in research prospective mediums are screened and trained using an eight-step certification procedure (Beischel, 2007). Briefly, the steps are as follows:

Step 1: Written Questionnaire
Step 2: Personality/Psychological Tests
Step 3: Phone Interview (with an existing certified medium)
Step 4: Phone Interview (with an investigator)
Step 5: Two Blinded Phone Readings
Step 6: Mediumship Research Training
Step 7: Human Research Participants Training

Step 8: Grief Training

Upon completion of the steps, the medium is termed a Windbridge Certified Research Medium (WCRM).

By collecting data from claimant mediums rather than certified mediums during this study, we created a wider range of mediumship ability in the sample, thus providing a greater chance of capturing any correlations that might exist between ability (i.e., accuracy) and phenomenology.

Nineteen claimant mediums (18 females and 1 male) participated in the study. Their mean age was 48.26 years (SD = 8.20).

Materials

The 53-item Phenomenology of Consciousness Inventory (PCI; Pekala, 1991) was used to quantify the mediums' phenomenology at baseline and subsequently under three counterbalanced conditions: two readings and one control (see Procedure section below). As described above, the PCI items cover 26 phenomenological dimensions including 12 major (e.g., Positive Affect, Altered Experience, Attention, Volitional Control, Arousal) and 14 minor (e.g., Joy, Altered Body Image, Vividness of Imagery, Absorption) dimensions (Pekala, 1985; Pekala & Kumar, 1984, 1986; Pekala & Levine, 1981, 1982). Minor dimensions are constituents of major dimensions. Participants are required to respond to each item on a 7-point Likert-type scale (Pekala & Wenger, 1983; Pekala, Wenger, & Levine, 1985). The PCI has been shown to possess adequate psychometric properties and good internal consistency (Pekala, Steinberg, & Kumar, 1986). In support of the scale's criterion validity, Pekala et al. (1986) found that participants exposed to different stimulus conditions received statistically significantly different PCI scores. This finding suggests that the PCI can successfully distinguish between what are typically referred to as qualitatively different states of consciousness.

Analysis

Hypothesis 1 was tested using an independent *t* test. Hypothesis 2 was tested using an exact binomial test (one-tailed, as we were proposing a directional or psi-hitting effect). Hypotheses 3 and 4 were tested using a series of partial correlations.

Procedure

Baseline. To obtain a baseline measure of claimant mediums' phenomenology, the PCI was administered to each claimant medium directly prior to the first of the three counterbalanced stimulus conditions to which they were exposed (see below for details of the DR_1 , DR_2 and control conditions).

 DR_1 and DR_2 conditions. Each of 19 claimant mediums performed Step 5 test readings, referred to as the DR_1 and DR_2 conditions, that consisted of two identically formatted, scheduled phone readings, each conducted during a separate phone call, for two paired discarnates and their respective absent sitters. The test reading protocol involved a blinded (Beischel, 2007) phone reading in which only the medium and an experimenter were on the phone and the experimenter served as a proxy for the absent sitter. These readings included five levels of blinding: (a) the medium is blinded to information about the sitter and the discarnate before and during the reading, (b) the sitter-raters are blinded to the origin of the readings during scoring, (c) the experimenter who consents and trains the sitter-raters (Experimenter 1) is blinded to which mediums read which sitters and which blinded readings were intended for which discarnates, (d) the experimenter 2) is blinded to any information about the sitters and the discarnates beyond the discarnates' first names; and (e) the experimenter who interacts with the sitters during scoring (i.e., e-mails and receives by e-mail the blinded readings; Experimenter 3) is blinded to all information about the discarnates, to which medium performed which readings, and to which readings were intended for which discarnates beyond.

In defense of providing mediums with the discarnate's first name, Beischel (2007) argued:

The obvious criticism of this method is that the names themselves provide information to the medium that can be used for a type of cold reading. This does not appear to be the case.... Because the mediums are asked to provide specific information about the physical lives of each discarnate ... it seems unlikely that they could obtain the necessary information solely from these names. In cases in which the names provide overt evidence about the discarnates' ethnicities and in turn their probable physical descriptions (e.g., Scandinavian: Lars or Signild, African: Naeem or Kianga, Irish: Seamus or Siobhan, Hispanic: José or Manuela, Japanese: Mamoru or Kiyoshi, and so on) or provide other identifying information (e.g., religion), either a pair is chosen to include two discarnates of the same ethnicity or religion or the discarnates are chosen only for studies in which blinding is not necessary. (pp. 41–42)

In the present study we adopted this methodological control.

During the test readings, the medium was given the first name of the discarnate and then asked the following questions about the discarnate's physical life:

- 1. What did the discarnate look like in his/her physical life?
- 2. Describe the personality of the discarnate. What were the discarnate's hobbies, activities, or interests?

- 3. What was the discarnate's cause of death?
- 4. Does the discarnate have any comments, questions, requests, or messages for the sitter?
- 5. Is there anything else you can tell me about the discarnate?

Each reading was then transcribed, formatted into a list of individual items, and blinded to remove any reference to the discarnate's name. Each of the two formatted readings were then scored for accuracy (or "fit") by each of the two associated blinded sitters; each sitter scored that sitter's own reading as well as the reading intended for the other sitter without knowing which was which. Thus, each sitter served as a control rater for the other sitter's reading. The sitters provided a numeric score for the overall reading using the Whole Reading/Global Scoring System (WRGSS), estimated the percentage of items they felt are accurate, and chose which of the two readings they believed was intended for them. Sitters were provided with the readings for scoring and returned their scores by e-mail. The options for the WRGSS are as follows:

6: Excellent reading, including strong aspects of communication, and with essentially no incorrect information.

- 5: Good reading with relatively little incorrect information.
- 4: Good reading with some incorrect information.

3: Mixture of correct and incorrect information, but enough correct information to indicate that communication with the deceased occurred.

- 2: Some correct information, but not enough to suggest beyond chance that communication occurred.
- 1: Little correct information or communication.

Directly after each of the two test readings for the paired discarnates, the prospective research mediums completed and returned the PCI.

Control condition. The medium and the experimenter also participated in a "control" phone call in which the medium was read a story containing facts about a gender-matched deceased person's life and reported the answers to the same questions contained in the reading conditions based solely on the information contained in the story. Subsequently, the medium completed the PCI.

The order that the mediums read each of the discarnates and the placement of the control condition in relation to those two readings was randomized. In addition, a 7-day "wash-out" period took place between each of the three phone calls.

During analysis, the accuracy scores given by the sitter for whom the reading was intended were compared to the scores given by the unrelated paired control sitter for the same reading. The comparison of the "intended" or target scores to the "control" or decoy scores reflects the specificity of an individual medium's statements and is one of the criteria we use in determining if the medium goes on to the remaining screening steps. The sitters' control *scores* should not be confused with the control *condition*. Each sitter must score two readings (one target and one decoy) without knowing which is which to control for rater bias. The control sitters' scores serve as a control for the mediums' accuracy, but not for the mediums' phenomenology.

As previously stated, the two DR conditions were identical. Thus, the global accuracy and phenomenology scores associated with the two conditions were pooled in the statistical analysis below. Hereafter, "DR scores" denotes the pooled DR_1 and DR_2 scores, whereas "DR condition" refers to the combined DR_1 and DR_2 conditions.

Results

Planned Analyses

H1: The intended sitters will provide higher DR global accuracy ratings than control sitters. The intended sitters gave a significantly higher DR global accuracy rating (M = 2.82, SD = 1.41) than the control sitters (M = 2.08, SD = 1.46), t (74) = 2.24, p = .03. The hypothesis was supported.

H2: The intended sitters' correct reading-choice rate will be above chance for the DR condition. Participants (N = 38) produced a correct reading-choice rate of 68.42% ($z \text{ score} = 2.12, 26 \text{ correct guesses with } P_{\text{MCE}} = 50\%$), which was statistically significant, p = .02 (one-tailed). The hypothesis was supported.

The corresponding moderate effect size ($ES = z/\sqrt{n}$) is .34. An effect size of zero is consistent with chance. Rosenthal and Rosnow (1991, p. 444) suggest that effects of .10, .30, and .50 are considered small, medium, and large, respectively. Utts (1995, p. 294) suggests effects of .20, .50, and .80 are considered small, medium, and large, respectively.

H3: PCI major variables Negative Affect and Altered State of Awareness will positively correlate with the accuracy of readings for discarnates, controlling for baseline. For the DR condition, after Bonferroni adjustments for multiple tests (adjusted alpha = .05/2 = .025), the partial correlation between Negative Affect and global accuracy was not significant, r(16) = .254, p = .16. Similarly, the partial correlation between Altered State of Awareness and global accuracy was not significant, r(16) = .09, p = .36. The hypothesis was not supported.

H4: PCI major variables Self-Awareness, Volitional Control and Memory will negatively correlate with the accuracy of readings for discarnates, controlling for baseline. For the DR condition, after Bonferroni adjustments for multiple tests (adjusted alpha = .05/3 = .017), the partial correlation between Self-Awareness and global accuracy was marginally significant and in the hypothesized direction, r(16) = ..43, p = .04. However, Volitional Control and Memory were not significantly related to global accuracy, r(16) = .26, p = .15; r(15) = .14, p = ..30. The hypothesis was not supported.

Post Hoc Analyses

Differences between the DR condition and the control condition with regard to the post-test PCI major dimensions scores, after controlling for baseline. In the interests of exploring the possibility that the DR condition might be associated with an ASC relative to the control condition, after partialing out baseline scores, we conducted a series of post hoc tests. Table 1 presents the PCI major dimension means and standard errors for each condition controlling for baseline scores.

	1	2
Variable	Control M (SD)	DR M (SD)
Positive Affect	1.27 (0.21)	2.07 (0.16)
Negative Affect	0.89 (0.34)	0.91 (0.19)
Altered Experience	1.61 (0.31)	2.75 (0.24)
Visual Imagery	3.42 (0.40)	4.12 (0.28)
Attention	4.08 (0.25)	4.45 (0.13)
Self-Awareness	4.04 (0.33)	3.01 (0.25)
Altered State	1.76 (0.40)	3.17 (0.25)
Internal Dialogue	1.78 (0.48)	1.78 (0.42)
Rationality	5.17 (0.19)	4.48 (0.17)
Volitional Control	3.85 (0.37)	2.91 (0.19)
Memory	4.59 (0.26)	4.30 (0.19)
Arousal	1.72 (0.32)	1.75 (0.17)

Table 1PCI Major Dimension Means and Standard Errors for Each Condition
Controlling for Baseline Scores

It is more parsimonious to perform multivariate than univariate analyses when one wishes to examine group differences on multiple, related dependent variables. Consequently, in the case of the PCI major dimensions, multivariate analyses of covariance (MANCOVAs) were performed. MANCOVAs yield multivariate results (i.e., results concerning the *combined* dependent variables). If a significant multivariate effect is found, examination of the various univariate effects (i.e., results concerning each *individual* dependent variable) is warranted. Thus, a "multivariate effect" refers to an effect on combined dependent variables (for MANCOVA, see Tabachnick & Fidell, 2007). We chose to average the PCI scores across the two DR conditions because these two stimulus conditions were identical.

Due to the large number of covariates (12 PCI dimensions) and the small sample size (N = 19), two MAN-COVAs were performed, each controlling for six covariates. After controlling for baseline PCI dimension scores (Positive Affect, Negative Affect, Altered Experience, Imagery, Attention, and Self-Awareness), there was not a significant multivariate effect between the DR condition and the control condition with regard to PCI post-test scores, F(6, 6) = 3.78, p = .07, partial $\eta^2 = 0.79$.

The second MANCOVA controlled for baseline scores on the remaining six PCI variables: Altered State of Awareness, Internal Dialogue, Rationality, Volitional Control, Memory, and Arousal. There was not a significant multivariate effect between the DR condition and the control condition with regard to PCI post-test scores, F(6, 6) = 2.26, p = .17, partial $\eta^2 = 0.69$.

The pattern structure associated with the DR conditions is different relative to the pattern structure associated with the control condition. Based on the decades-old assumption that various ostensibly psi-conducive procedures (e.g., the ganzfeld) induce ASCs (Alvarado, 1998), it seemed pertinent to evaluate whether the pattern structure (i.e., a covariance matrix consisting of PCI major dimensions) associated with the DR condition was significantly different relative to the control condition.

A Box M test of equality of covariance matrices (Jenrich, 1970) was performed to assess the pattern structure of the DR condition relative to the control condition. Note that the Box M statistic "tests the homogeneity of variance-covariance matrices" (Tabachnick & Fidell, 2007, p. 252). The Box M test revealed that the difference between the covariation matrices was not significant, Box M = 154.08, F(78, 3842.99) = 1.23, p = .08. In accordance with Rock, Storm, Harris, and Friedman (2013) we are mindful that

The Box test is typically held to be overly sensitive with regard to the detection of differences between independent correlation matrices. Consequently, convention dictates that the alpha level associated with the Box test should be set at p < .001 (Tabachnick & Fidell, 2007). We note that the Jenrich (1970) Test is the appropriate statistical procedure to assess pattern differences associated with the 12 major dimensions of the PCI (Pekala, 1991). However, Pekala (1991, p. 235) asserts that the Jenrich Test is a "large-sample multivariate procedure" requiring a minimum of 60 participants per condition (provided that all 12 major dimensions of the PCI are being examined). Given that the present study did not meet this sample size requirement, the Jenrich Test was not appropriate. Consequently, a Box M test comparison was performed (Pekala, 1991). (p. 110).

Discussion

The significant difference between intended and control sitters' global accuracy ratings (*H1*) suggests that the claimant mediums were able to demonstrate anomalous information reception under test conditions with five levels of blinding. This finding is consistent with previous (e.g., Beischel & Schwartz, 2007) and ongoing (Beischel et al., 2011) research. The present study's beyond double-blind design appears to eliminate telepathic scanning of the experimenter's mind by the medium as an explanation for AIR; however, it is possible that the mediums scanned the minds of, for example, blinded sitters or the discarnate's other family members. In addition, the design does not address the issue of clairvoyance whereby the medium remotely views physical objects (e.g., obituaries, family photographs) that contain pertinent information about discarnate to the medium at the end of the experiment), the medium's precognition of his or her own future mental state appears to be eliminated as a potential source of AIR.

The intended sitters produced a significant above-chance correct reading-choice rate. We note that the present study's correct-reading choice rate (i.e., 68.42%) and corresponding ES (.34) is marginally lower than Beischel and Schwartz's (2007) findings (correct reading-choice rating = 81%; ES = .50). This disparity may be due to the participation of claimant mediums in the present study rather than Windbridge Certified Research Mediums. Nonetheless, we note that the present study's ES exceeds the ES for the ganzfeld in the major independent meta-analyses by Honorton (1985), Storm and Ertel (2001), Bem, Palmer, and Broughton (2001), and Tressoldi, Storm, and Radin (2010).

In the search for phenomenological correlates of accuracy of readings for discarnates (see results for *H3* and *H4*), after controlling for pre-test Self-Awareness scores, the partial correlation between post-test Self-Awareness and global accuracy was marginally significant and in the hypothesized direction. The Self-Awareness dimension evaluates the degree to which the percipient is "aware of being aware of myself" (Pekala, 1991, p. 132). Consequently, it appears that during a discarnate reading, mediums' self-awareness dissipates as their attentional focus is directed towards the discarnate. Additionally, the dissipation of self-awareness is perhaps to be expected if one accepts the findings of previous research, which indicates that mediums assume the self-sense of discarnates during readings for sitters (Rock, Beischel, & Cott, 2009).

In terms of post hoc analyses, a nonsignificant multivariate effect was found for condition (DR versus control) with regard to the various PCI major dimensions in this participant sample. This finding suggests that there was not a significant overall effect for the condition factor on the posttest PCI dimensions, partialing out the influence of pretest PCI dimension scores. Similarly, the pattern differences between the DR condition and the control condition were not significant. These results suggest that, compared to the control condition, the DR condition did not induce a "major reorganization in pattern structure that is hypothesized by Tart (1975) to be associated with an altered state of consciousness" (Woodside, Kumar, & Pekala, 1997, p. 84). In other words, the pattern structure of phenomenological elements (e.g., Negative Affect, Volitional Control, Rationality) that constitute the "state of consciousness" associated with the treatment condition was not significantly altered relative to the pattern structure of the "state of consciousness" associated with the control condition. This finding is consistent with Rock and Beischel (2008) and suggests that claimant mediums' cognition associated with the DR condition was not fundamentally different from their cognition in the control condition.

It is noteworthy that various methodological issues including forgetting, reconstruction errors and confabulation, verbal description difficulties, lack of independent verification, demand characteristics, and inaccessibility due to "state-specific" memory, limit the usefulness of the PCI, and phenomenological inquiry in general, when used in the absence of other approaches (Pekala & Cardeña, 2000). Consequently, it is prudent to strengthen phenomenological methodology by using it in conjunction with, for instance, a neuroscientific approach (see Jamieson & Rock, 2014). This composite methodology is referred to as neurophenomenology (Laughlin & Rock, 2013). Thus, future research might use a PCI-based approach to mediumship in conjunction with, for instance, electroencephalography and functional magnetic resonance imaging.

We are mindful that "the PCI is a general measure of phenomenological responses to stimulus conditions and was, therefore, not specifically designed to quantify the phenomenology" of mediumistic states (Rock et al., 2013, p. 111). Thus, the PCI may not measure various phenomenological variables that are fundamental constituents of mediumistic states and, therefore, potentially significant correlates of AIR. Future research might use a complementary mixed method, whereby the phenomenology of a mediumship session is quantitatively assessed using the PCI and qualitatively assessed using semi-structured interviews designed to yield comprehensive constituent themes. The essential aspects of the experience of mediumship that the PCI dimensions fail to "tap" may be "captured" by the semi-structured interviews, and vice versa. By triangulating these methods, one may be able to extrapolate items for a self-report measure designed specifically to quantify the phenomenology of mediumship.

Future studies aiming to investigate the phenomenological effects of differential information sources (e.g., a discarnate versus a living agent) could modify the present study's design by including a placebo or "sham" reading condition, whereby mediums are blinded to the fact that they are instructed to communicate with a fabricated, rather than a factual, discarnate. However, if the blind is compromised and the medium determines that the discarnate has been fabricated, the source of this determination could include living agent telepathy (e.g., the experimenter) or communication with a real discarnate that is presumably knowledgeable regarding the sham reading condition.

It is also possible that a nonbreaking of the blind is due to the medium communicating with a mischievous real discarnate masquerading as the fabricated discarnate. Consequently, the "slippery" dynamics of mediumship render problematic any attempt at blinding the medium to the reading condition (Rock, 2014). In addition, the use of a sham condition involves important ethical concerns that we have discussed previously (Beischel & Rock, 2009).

The present study demonstrated a significant anomalous information reception effect with claimant mediums under blinded conditions. However, this study did not identify phenomenological variables or sub-systems of consciousness that are correlates of mediums' abilities and, thus, highlights the potential importance of developing a quantitative measure specifically designed to investigate the phenomenology of mediumistic states. Nonetheless, all significant findings should be considered tentative pending replication, unless they are replications themselves.

References

- Alvarado, C. S. (1998). ESP and altered states of consciousness: An overview of conceptual and research trends. *Journal of Parapsychology*, 62, 27–63.
- Beischel, J. (2007). Contemporary methods used in laboratory-based mediumship research. *Journal of Parapsychology*, *71*, 37–68.
- Beischel, J., Biuso, M., Boccuzzi, M., & Rock, A. (2011, June). Anomalous information reception by research mediums under quintuple-blind conditions: Can the mind exist without the body? 30th Annual Meeting of the Society for Scientific Exploration, Boulder, Colorado.
- Beischel, J., & Rock, A. J. (2009). Addressing the survival vs. psi debate through process-focused mediumship research. *Journal of Parapsychology*, 73, 71–90.
- Beischel, J., & Schwartz, G. E. (2007). Anomalous information reception by research mediums demonstrated using a novel triple-blind protocol. *EXPLORE: The Journal of Science & Healing*, *3*, 23–27.
- Bem, D. J., Palmer, J., & Broughton, R. S. (2001). Updating the ganzfeld database: A victim of its own success? *Journal of Parapsychology*, 65, 207–218.
- Braude, S. E. (2003). Immortal remains: The evidence for life after death. Lanham, MD: Rowman & Littlefield.
- Burdick, D. S., & Kelly, E. F. (1977). Statistical methods in parapsychological research. In B. B. Wolman (Ed.), *Handbook of parapsychology* (pp. 81–130). New York, NY: Van Nostrand Reinhold.
- Cardeña, E., Lynn, S. J., & Krippner, S. (2000). Introduction: Anomalous experiences in perspective. In E. Cardeña, S. J. Lynn,
 & S. Krippner (Eds.), *Varieties of anomalous experience: Examining the scientific evidence* (pp. 3–21). Washington, DC: American Psychological Association.
- Fischer, C. (1998). Being angry revealed as self-deceptive protest: An empirical phenomenological analysis. In R. Valle (Ed.), *Phenomenological inquiry in psychology* (pp. 111–122). New York, NY: Plenum Press.
- Fontana, D. (2005). Is there an afterlife? A comprehensive overview of the evidence. Blue Ridge Summit, PA: NBN.
- Gauld, A. (1983). Mediumship and survival: A century of investigations. London, England: Paladin Books.
- Hanson, D., & Klimo, J. (1998). Toward a phenomenology of synchronicity. In R. Valle (Ed.), *Phenomenological inquiry in psychology* (pp. 281–307). New York, NY: Plenum Press.
- Honorton, C. (1985). Meta-analysis of psi ganzfeld research: A response to Hyman. Journal of Parapsychology, 49, 51-91.
- Jamieson, G. A., & Rock, A. J. (2014). A systems level neuroscience approach to mediumship and the source-of-psi problem. In A. J. Rock (Ed.), *The survival hypothesis: Essays on mediumship* (pp. 235–253). Jefferson, NC: McFarland.
- Jenrich, J. (1970). Asymptotic chi-square test for the equality of two correlation matrices. *Journal of the American Statistical Association*, 65, 904–912.
- Jensen, C. G., & Cardeña, E. (2009). A controlled long-distance test of a professional medium. *European Journal of Parapsychology*, 24, 53–67.
- Kelly, E. W., & Arcangel, D. (2011). An investigation of mediums who claim to give information about deceased persons. *Journal of Nervous and Mental Disease*, 199, 11–17.
- Laughlin, C. D., & Rock, A. J. (2013). Neurophenomenology: Enhancing the experimental and cross-cultural study of brain and experience. In H. Friedman & G. Hartelius (Eds.), *The Wiley-Blackwell handbook of transpersonal psychology* (pp. 261–280). Oxford, England: Wiley-Blackwell.
- O'Keeffe, C., & Wiseman, R. (2005). Testing alleged mediumship: Methods and results. *British Journal of Psychology*, 96, 165–179.
- Pekala, R. J. (1985). A psychophenomenological approach to mapping and diagramming states of consciousness. *Journal of Religion and Psychical Research*, 8, 199–214.
- Pekala, R. J. (1991). Quantifying consciousness: An empirical approach. New York, NY: Plenum Press.

- Pekala, R. J., & Cardeña, E. (2000). Methodological issues in the study of altered states of consciousness and anomalous experiences. In E. Cardeña, S. J. Lynn, & S. Krippner (Eds.), *Varieties of anomalous experience: Examining the scientific evidence* (pp. 47–82). Washington, DC: American Psychological Association.
- Pekala, R. J., & Kumar, V. K. (1984). Predicting hypnotic susceptibility by a self-report phenomenological state instrument. *American Journal of Clinical Hypnosis*, 27, 114–121.
- Pekala, R. J., & Kumar, V. K. (1986). The differential organization of the structures of consciousness during hypnosis and a baseline condition. *Journal of Mind and Behavior*, 7, 515–540.
- Pekala, R. J., & Levine, R. L. (1981). Mapping consciousness: Development of an empirical-phenomenological approach. *Imagination, Cognition, and Personality. The Scientific Study of Consciousness, 1,* 29–47.
- Pekala, R. J., & Levine, R. L. (1982). Quantifying states of consciousness via an empirical-phenomenological approach. Imagination, Cognition, and Personality. The Scientific Study of Consciousness, 2, 51–71.
- Pekala, R., Steinberg, J., & Kumar, V. (1986). Measurement of phenomenological experience: Phenomenology of Consciousness Inventory. *Perceptual and Motor Skills*, 63, 983-989.
- Pekala, R. J., & Wenger, C. F. (1983). Retrospective phenomenological assessment: Mapping consciousness in reference to specific stimulus conditions. *Journal of Mind and Behavior*, 4, 247–274.
- Pekala, R. J., Wenger, C. F., & Levine, R. L. (1985). Individual differences in phenomenological experience: States of consciousness as a function of absorption. *Journal of Personality and Social Psychology*, 48, 125–132.
- Robertson, T. J., & Roy, A. E. (2001). A preliminary study of the acceptance by non-recipients of medium's statement to recipients. *Journal of the Society for Psychical Research*, 65, 91–106.
- Rock, A. J. (Ed.), (2014). The survival hypothesis: Essays on mediumship. Jefferson, NC: McFarland.
- Rock, A. J., & Beischel, J. (2008). Quantitative analysis of mediums' conscious experiences during a discarnate reading versus a control task: A pilot study. *Australian Journal of Parapsychology*, *8*, 157–179.
- Rock, A. J., Beischel, J., & Cott, C. C. (2009). Psi vs. survival: A qualitative investigation of mediums' phenomenology comparing psychic readings and ostensible communication with the deceased. *Transpersonal Psychology Review*, 13, 76–89.
- Rock, A. J., & Krippner, S. (2012). States of consciousness or states of phenomenology? In A. E. Cavanna & A. Nani (Eds.), *Consciousness: States, mechanisms and disorders* (pp. 55-65). Hauppauge, NY: Nova Science.
- Rock, A. J., Storm, L., Harris, K., & Friedman, H. L. (2013). Shamanic-like journeying and psi signal detection: II. Phenomenological dimensions. *Journal of Parapsychology*, 77, 95–116.
- Rock, A. J., Thorsteinsson, E. B., & Tressoldi, P. E. (in press). A meta-analysis of anomalous information reception by mediums: Assessing the forced-choice design in mediumship research, 2000–2014. In S. Krippner, A. J. Rock, H. L. Friedman, & N. Zingrone (Eds.), *Advances in parapsychological research 10*. Jefferson, NC: McFarland.
- Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis* (2nd ed.). New York, NY: McGraw-Hill.
- Roy, A. E., & Robertson, T. J. (2001). A double-blind procedure for assessing the relevance of a medium's statements to a recipient. *Journal of the Society for Psychical Research*, 65, 161–174.
- Roy, A. E., & Robertson, T. J. (2004). Results of the application of the Robertson-Roy protocol to a series of experiments with mediums and participants. *Journal of the Society for Psychical Research*, 68, 18–34.
- Schouten, S. A. (1994). An overview of quantitatively evaluated studies with mediums and psychics. *Journal of the American Society for Psychical Research*, 88, 221–254.
- Schwartz, G. E. R., & Russek, L. G. S. (2001). Evidence of anomalous information retrieval between two mediums: Telepathy, network memory resonance, and continuance of consciousness. *Journal of the Society for Psychical Research*, 65, 257–275.
- Schwartz, G. E. R., Russek, L. G. S., Nelson, L. A., & Barentsen, C. (2001). Accuracy and replicability of anomalous after-death communication across highly skilled mediums. *Journal of the Society for Psychical Research*, 65, 1–25.
- Schwartz, G. E. R., Russek, L. G. S., & Barentsen, C. (2002). Accuracy and replicability of anomalous information retrieval: Replication and extension. *Journal of the Society for Psychical Research*, *66*, 144–156.
- Scott, C. (1972). On the evaluation of verbal material in parapsychology: A discussion of Dr. Pratt's monograph. *Journal of the Society for Psychical Research*, *46*, 79–90.
- Storm, L., & Ertel, S. (2001). Does psi exist? Comments on Milton and Wiseman's (1999) meta-analysis of ganzfeld research. *Psychological Bulletin*, 127, 424–433.
- Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics (5th ed.). Boston, MA: Pearson.
- Tart, C. T. (1975). States of consciousness. New York, NY: Dutton.
- Tressoldi, P. E., Storm L., & Radin, D. (2010). Extrasensory perception and quantum models of cognition. *Neuroquantology: An Interdisciplinary Journal of Neuroscience and Quantum Physics*, 8(4), S81–87.
- Utts, J. (1995). An assessment of the evidence for psychic functioning. Journal of Parapsychology, 59, 289-320.

Woodside, L., Kumar, V. K., & Pekala, R. J. (1997). Monotonous percussion drumming and trance postures: A controlled evaluation of phenomenological effects. *Anthropology of Consciousness*, *8*, 69–87.

Acknowledgement

A research bursary from the Bial Foundation in Portugal funded this study.

School of Behavioural, Cognitive, and Social Sciences University of New England Armidale, NSW, 2350, Australia arock@une.edu.au

*Windbridge Institute 3938 E. Grant Rd. #407 Tucson, AZ 85712, USA

Abstracts in Other Languages

Spanish

LECTURAS DESENCARNADAS POR PRESUNTOS MÉDIUMS: EVALUACIÓN DE LA FENOMENOLOG'IA Y PRECISI'ON EN CONDICIONES DE DOBLE CIEGO

RESUMEN: Algunos médiums aseveran ser capaces de proporcionar información precisa y específica sobre seres queridos fallecidos (desencarnados) y sobre personas vivas (asistentes) incluso sin ningún conocimiento previo sobre los asistentes o los desencarnados y en ausencia total de cualquier retroalimentación sensorial. Este estudio tuvo como objetivo investigar la fenomenología asociada con, y la precisión de, las lecturas sobre desencarnados en condiciones superiores a las de doble ciego. Al inicio del estudio, directamente después de una condición de control contrabalanceada y después de dos lecturas de idéntico formato por teléfono programadas sobre desencarnados, 19 médiums completaron el Phenomenology of Consciousness Inventory (PCI). Dos evaluadores enmascarados (ciegos) con conocimiento de los desencarnados dieron su evaluación global sobre la precisión. Se demostró un efecto significativo de recepción anómala de información. Sin embargo, este estudio no identificó ninguna variable fenomenológicas correlacionada con las habilidades de los médiums. Sería prudente que futuros investigadores se centraran en el desarrollo de una medida cuantitativa específicamente diseñado para estudiar la fenomenología de la experiencia mediumnística.

French

CONTACTS AVEC LES DEFUNTS PAR DES MEDIUMS : ANALYSE DE LA PHENOMENOLOGIE ET DE LA PRECISION DANS DES CONDITIONS DE DOUBLE AVEUGLE

RESUME : Certains médiums sont capables de fournir des informations précises et spécifiques sur des proches décédés (dits « désincarnés ») de personnes vivantes (dits « sitters »), même sans avoir de connaissances préalables sur les sitters ou les désincarnés, en en l'absence complète de tout feedback sensoriel. Cette étude vise à investiguer la phénoménologie associée et la précision de ces contacts avec des défunts par des personnes se revendiquant médiums, dans des conditions de double-aveugle. L'Inventaire de la phénoménologie de la conscience (PCI) a été rempli par 19 médiums au début de l'étude, directement après une condition de contrôle contrebalancée, et après chacun des deux appels téléphoniques, de format identique, pour des contacts avec des désincarnés appariés. A la suite des contacts, les sitters donnaient en aveugle des scores globaux de précision avec chacun des deux désincarnés anomale d'information fut démontré. Toutefois, cette étude n'identifie aucune

des variables phénoménologiques qui avaient pu être corrélées avec les capacités des médiums. Il serait prudent, lors de futures recherches, de se focaliser sur le développement d'une mesure quantitative afin d'étudier spécifiquement la phénoménologie de l'expérience médiumnique.

German

AUSSAGEN ÜBER VERSTORBENE DURCH SELBSTERNANNTE MEDIEN: DIE BEURTEILUNG IHRER PHÄNOMENOLOGIE UND GENAUIGKEIT UNTER DOPPELBLINDBEDINGUNGEN

ZUSAMMENFASSUNG: Manche Medien sind in der Lage, genaue und spezifische Aussagen über die verstorbenen Angehörigen ("Verstorbene" genannt) lebender Personen ("Sitzungsteilnehmer" genannt) sogar ohne jegliche Kenntnis der Sitzungsteilnehmer oder der Verstorbenen und bei vollständigem Fehlen jeglichen sensorischen Feedbacks zu machen. Die Studie hatte die Absicht, zu untersuchen, wie die von selbsternannten Medien vorgenommenen Aussagen über Verstorbene, die unter Doppelblindbedingungen gemacht wurden, phänomenologisch zusammenhingen und wie zutreffend sie waren. Zu Beginn, direkt nach einer ausbalancierten Kontrollbedingung und nachdem je eines von zwei identisch formatierten, verabredeten telefonischen Schilderungen für ein Paar Verstorbener erfolgt war, füllten 19 selbsternannte Medien den Phenomenology of Consciousness Inventory (PCI) aus. Die beiden Schilderungen wurden dann von den beiden verblindeten Sitzungsteilnehmern, die mit den beiden Verstorbenen in Beziehung standen, mit einem globalen Zustimmungsmaß versehen. Ein signifikanter Effekt einer anomalen Informationsaufnahme konnte nachgewiesen werden. Es ließ sich jedoch keine phänomenologische Variable identifizieren, die mit den Fähigkeiten der Medien korrelierte. Zukünftige Forscher täten gut daran, sich auf die Entwicklung eines quantitativen Maßes zu konzentrieren, das spezifisch geeignet wäre, die Phänomenologie der mediumistischen Erfahrung zu untersuchen.