Quantitative Analysis of Research Mediums' Conscious Experiences during a Discarnate Reading versus a Control Task: A Pilot Study

BY ADAM J. ROCK AND JULIE BEISCHEL

Abstract: Mediums claim to be 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. Despite recent proof-focused experimental research investigating this phenomenon (e.g., Beischel & Schwartz, 2007), no published studies have attempted to quantify the phenomenological effects of discarnate readings. The aim of the present study was, thus, to investigate experimentally the phenomenological differences that arose psychologically in accordance with the demands of a discarnate reading task versus a control task. Seven mediums were administered counter-balanced sequences of a discarnate reading and control condition. The discarnate reading condition consisted of a phone reading including questions about a discarnate where only a blinded medium and a blinded experimenter were on the phone. The control condition consisted of a phone conversation between the medium and the same experimenter in which the medium was asked similar questions regarding a living person s/he (i.e., the medium) knew. Mediums' phenomenology during each condition was retrospectively assessed using the Phenomenology of Consciousness Inventory (PCI). Phenomenology associated with the discarnate reading condition appeared to be significantly different from phenomenology associated with the control condition. Future research might use the PCI to address whether the phenomenology reported by mediums during discarnate readings is quantitatively different from their experiences during psychic telepathy readings for the living.

Keywords: research medium, mediumship, phenomenology, Phenomenology of Consciousness Inventory (PCI), discarnate reading.

INTRODUCTION

The public's increasing interest in the phenomenon of mediumship is visibly evident in the current rise of this topic in numerous aspects of popular culture. Various books, television shows, and movies featuring mediums—individuals who experience regular communication with the deceased—have moved beyond the obscure and taboo realm of the occult into the recognizable mainstream. The traditional scientific community has only recently 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 mediumship methods (Beischel, 2007/2008; Burdick & Kelly, 1977; Fontana, 2005; Schouten, 1994; Scott, 1972) and findings (Braude, 2003; Fontana, 2005; Gauld, 1983) are available. In addition, several recent positive single-blind (e.g., Robertson & Roy, 2001), double-blind (e.g., Roy & Robertson, 2004),[1] and triple-blind (Beischel & Schwartz, 2007)[2] studies have been published. In addition, one double-blind study that failed to obtain positive results (O'Keeffe & Wiseman, 2005) was published, but the protocol contained several methodological flaws that could be responsible for the negative findings (discussed in Beischel, 2007/2008). These studies, taken together, lead to one general conclusion: certain mediums can report specific and accurate information about the deceased loved ones (termed discarnates) of living people (termed sitters[3]) without any prior knowledge about the sitters or the discarnates, in the absence of any sensory feedback, without using deceptive means or "cold reading" (a set of techniques in which visual and auditory cues from the sitter are used to fabricate "accurate" readings), and without rater bias on the part of the sitters being responsible for the results (Braude, 2003; Fontana, 2005; Gauld, 1983).

---

[1] For more information on the Robertson-Roy protocol and potential binomial statistical errors present in some of their reported data, see the correspondence between Hansen (2007), Markwick (2007), and Robertson and Roy (2007).

[2] It should be noted that the triple-blind methods employed in this study addressed the methodological limitations in Schwartz's prior research that had been referenced in critiques by other researchers.

[3] Mediums performing readings with proxy sitters provide information for (and sometimes about) living people who are not present at the reading. Consequently, "sitter" would be more completely defined as a living person who requested a reading from a medium and who has a desire to receive information about one or more deceased people with whom s/he had an emotionally close relationship, irrespective of whether or not s/he is present for or hears the reading as it takes place. Conversely, a "proxy sitter" is a living person who is present for the reading, but is not the person for whom the information reported during a reading is intended. A proxy sitter may or may not have knowledge about the absent sitter or the deceased persons contacted during the reading.

However, the mediumship findings to date do not directly address which parapsychological mechanisms are involved in the anomalous information reception (AIR) by certain mediums. In and of themselves, the data cannot distinguish between hypotheses including: (a) the survival of consciousness (i.e., the continued existence, separate from the body, of an individual's consciousness or personality after physical death), (b) super-psi (i.e., the retrieval of information through clairvoyance, precognition, and/or telepathy with the living, also called super-ESP; reviewed in Braude, 2003, and Fontana, 2005), and (c) the psychic reservoir hypothesis (i.e., that all information since the beginning of time is stored somehow and somewhere in the universe and mediums are accessing that cosmic store rather than communicating with the deceased; reviewed in Fontana, 2005). Thus, further research is needed.

The continued evaluation of the mediumship process and research addressing the survival of consciousness hypothesis are important for many reasons, including those that are academically important as well as those that are socially relevant. First, an understanding of the mediumship process may aid in determining which mechanisms may be at work during the processing of non-local, non-sensory information. For instance, if a medium's experience of ostensible communication with a discarnate during a mediumship reading is phenomenologically different from his/her experience of information received during a psychic telepathy[4] reading for a living person (as has been anecdotally noted by the second author, JB), that may lend more support to the survival hypothesis than to the super-psi or psychic reservoir (collectively "psi") theories. Although the evidence for AIR alone cannot differentiate between survival and psi, by adding (1) mediums' reports that they are communicating directly with the deceased as well as (2) their alleged ability to differentiate between that communication and their use of psi, and including (3) experimental evidence that the two experiences are in fact different under controlled conditions, survival begins to surpass psi as the theory best supported by the data.

Survival and mediumship studies also provide unique evidence for an issue central to consciousness science: the relationship between the mind/consciousness and the brain. That is, is consciousness (a) a product of the brain as theorized by materialist cognitive and neuroscientists (e.g., Crick & Koch, 2003) or is consciousness (b) mediated, transmitted, transformed, guided, arbitrated, or canalized (Forman, 1998) by the brain as hypothesized by such scientists as Max Plank and William James? (This second theory is discussed, for example, by Clarke, 1995.)

---

[4] Telepathy can be defined as "a particular type of extrasensory experience that ostensibly entails direct mind-to-mind communication" (Irwin & Watt, 2007, p. 5).

On a socially applicable front, this research is important beyond just addressing the public's growing interest in mediumship and the survival of consciousness. First, mediums may be able to perform socially useful tasks such as locating missing persons or contributing to criminal investigations, but in order for society to sensibly utilize the information mediums provide, the process by which it is acquired as well as issues such as error rates need to be better understood. In addition, the information mediums provide may contain wisdom or knowledge that could benefit scientific, technological, and/or social progress. Furthermore, scientific evidence for life after death could revolutionize health care by alleviating the anxiety felt by hospice patients and their families and changing the way allopathic physicians view death. Finally, mediumship readings may be helpful in grief counselling and recovery. For these academic and socially relevant reasons, it is important to continue investigating the information mediums report as well as the mediumship process itself.

Previous mediumship research has been primarily *proof*-focused; that is, it has been concerned with demonstrating a specific and replicable effect (i.e., AIR) in a laboratory setting. However, by limiting research to proof-focused studies, important phenomenological processes associated with mediumship readings for discarnates may be neglected. As a qualitative methodology, phenomenology "addresses how human 'consciousness' forms what we understand of the world. It is *the study of* ('ology') *what appears to us* ('phenomena,' [as opposed to 'noumena'— things in themselves])" (Fischer, 1998, p. 114). The phenomenological researcher, thus, engages in *process*-focused studies investigating "the way things are experienced by the experiencer, and . . . how events are integrated into a dynamic, meaningful experience" (Hanson & Klimo, 1998, p. 286). Previous research has used phenomenological analysis to investigate, for example, the experience of meditation (Gifford-May & Thompson, 1994), being unconditionally loved (Matsu-Pissot, 1998), and shamanic journeying (Rock, 2006). This type of analysis has the advantage of allowing the researcher to ostensibly identify the essential aspects of the experience being investigated (Fischer, 1998).

However, to the best of our knowledge, there had been no published systematic research investigating modern-day mediums' phenomenology pertaining to discarnate readings.[5] To address this, we

---

[5] It is important to acknowledge that numerous—arguably unsystematic—qualitative studies were conducted during the first half of the twentieth century. Schouten (1994) states: "The first extensive studies of verbal statements of mediums appeared about 100 years ago in the publications of the British and American psychical research societies. These studies were purely descriptive. Hundreds of pages were devoted to transcripts of readings of mediums and discussions of interpretations and the validity of the mediums' statements. . . . The subjective

designed two studies: (a) a previously published *qualitative* analysis of mediums' experiences during discarnate readings (Rock, Beischel, & Schwartz, 2008) and (b) the *quantitative* analysis described here. In the qualitative study, we asked certified research mediums (described below in the *Participants* portion of the METHOD section): "Please describe, in as much detail as possible, how you personally experience receiving communication from a discarnate." The mediums' answers were then thematically analyzed using various principles of phenomenological methodology. In short, the aforementioned analysis revealed seven comprehensive constituent themes; the fundamental structural definition extrapolated from the seven themes was as follows: the essential aspects of ostensible communication with a discarnate were: (1) the functioning of multiple modalities concurrently or sequentially; (2) visual and (3) auditory mental images pertaining to the discarnate; (4) feeling the discarnate's ailments or cause of death; (5) smelling fragrances associated with the discarnate prior to his or her bodily death; (6) alterations of affect; and (7) empathy. This fundamental structural definition provided a *qualitative* description of mediums' experiences during discarnate readings.

The aim of the present pilot study, however, was to *quantify* the phenomenological differences that arose psychologically in accordance with the demands of a discarnate reading task versus a control task. That is, this pilot study was not concerned with whether phenomenological differences were due to differential information sources (i.e., a discarnate versus a living person), but rather whether phenomenological differences arose as a result of the mediums' psychological responses to different task demands.

Over the past few decades, various self-report measures have been constructed that may be useful with regards to quantitatively assessing mediums' phenomenology associated with discarnate readings. One noteworthy measure is the Phenomenology of Consciousness Inventory (PCI; Pekala, 1991); a questionnaire designed to quantify the phenomenological elements of a particular stimulus condition (e.g., meditation, hypnosis, shamanic-like techniques). Specifically, the PCI

---

estimation of the significance of data became less acceptable and was gradually replaced by the application of quantitative and statistical evaluations" (pp. 222-223). The resulting publications often included descriptions of individual mediums or readings (e.g., Newton, 1938; Saltmarsh, 1929; Thomas, 1928) and reports about groups of mediums (e.g., Assailly, 1963; Carington, 1939). It is also noteworthy that these early studies tended to neglect mental mediumship in favour of physical mediumship (e.g., Besterman, 1932) and mediums in trance states (e.g., Carington, 1939; Thomas, 1928). This is consistent with Fontana's (2003) assertion that mediumship has gone through various developmental phases: "Initially it was rappings, table turning and Ouija boards, then came more sophisticated physical phenomena, after which the focus shifted to trance work, then to automatic writing, and then to mental mediumship and channeling" (p. 16).

quantifies 12 phenomenological elements referred to as major dimensions and 14 minor dimensions (see METHOD section). PCI data may be pictorially represented using graphs referred to as "psygrams" (Pekala, 1991). A psygram depicts two types of information associated with exposure to a stimulus condition: (1) the average intensity values (ranging from 0-6) for each PCI major dimension; and (2) the strength of association between pairs of PCI major dimensions (Pekala & Kumar, 1986). The performative function of a psygram directly impinges on Tart's (1975) notion of a discrete (i.e., specific) state of consciousness (SoC), which may be defined as a "unique configuration or system of psychological structures or subsystems . . . that maintains its integrity or identity as a recognizable system in spite of variations in input from the environment and in spite of various (small) changes in the subsystems" (p. 62).

Pekala (1985) states that, in Tart's view, it is the pattern formed by these various psychological structures (i.e., phenomenological elements) that comprises a discrete SoC. Consequently, if the psygram associated with a baseline or control condition is significantly different from a psygram associated with, for example, a discarnate reading condition, then one may conclude that the reading condition was associated with a "major reorganization in pattern structure that is hypothesised by Tart (1975) to be associated with an altered state of consciousness" (Woodside, Kumar, & Pekala, 1997, p. 84). That is, the pattern structure of the SoC associated with the reading condition would be considered significantly altered relative to the pattern structure of the SoC associated with the control condition.

The aim of the present study was to investigate whether phenomenological differences arose psychologically in accordance with the demands of a discarnate reading task versus a control task. The present study, thus, consisted of a repeated measures design with two conditions: (1) a discarnate reading condition and (2) a control condition.

This study's design allowed for the investigation of two related questions:

1. Is there a difference between the discarnate reading and control condition with regards to the intensity of the PCI major and minor dimensions?

2. What are the patterns of relationships between pairs of PCI major dimensions for the discarnate reading and control conditions?

METHOD

Participants

The participants in this study ranged in age from 43 to 54 years (mean = 46.71, *SEM* = 1.77, median = 44, *SD* = 4.68) and included six females and one male. Prior to participation in this study, each medium was screened and trained over several months using an intensive certification procedure including questionnaires, tests, interviews, and test readings; the procedure is described in detail elsewhere (Beischel, 2007/2008; Rock et al., 2008) and briefly at http://www.windbridge.org/mediums.htm. At the time of data collection, these mediums had been participating in laboratory research from 0.75 to 4 years (mean = 1.64, *SEM* = 0.55, median = 0.75, *SD* = 1.45) and had participated in 6 to 10 controlled research readings (mean = 7.71, *SEM* = 0.61, median = 7, *SD* = 1.60). During the test reading portion of their certification procedure, the scores they received for blinded phone readings in which they received only the discarnate's first name but received no feedback during the reading and were blinded to all information about the sitter[6] ranged from 4 to 6 on a 0 to 6 scale (for scoring descriptions, see Beischel, 2007/2008) (mean = 4.79, *SEM* = 0.23, median = 5, *SD* = 0.78) and ranged from 60% to 95% in accuracy estimated by the sitter (mean = 81.58, *SEM* = 3.65, median = 87, *SD* = 12.65). In comparison,[7] the mediums who attempted the certification procedure but

---

[6] During this section of each test phone reading, the medium interacted with an experimenter who was also blinded to information about the sitters and the discarnates beyond their first names. The sitter associated with the discarnate could hear the reading but did not give any feedback to the medium. Although the telephone call included the medium, the experimenter, and the sitter, the medium could only hear the experimenter. At the time that the participants described here were screened, the test readings also involved email test readings that were completed prior to the phone readings. Those scores are not discussed here as the email readings are no longer used for screening.

[7] In contrast to the statistical analyses that are possible when using specifically constructed target sets in telepathy research (e.g., Honorton, 1975), it is not possible, regarding mediumship readings, to accurately determine the theoretical level of accuracy that could be expected by chance and then to statistically compare that level to those achieved by the mediums. This is due to the number, content, and complexity of items reported during a reading and the realistically unknowable nature of the probability of any given item (e.g., how many deceased people actually had blond hair; and of those people, how many also enjoyed water skiing; and of those, how many also died from lymphoma; etc.). (For a discussion of problems associated with estimating the probability of a given item, see Schouten, 1994.) During the proof-focused experiments performed in our laboratory as well as in historical mediumship research, blinded sitters score their own readings ("intended") as well as the readings of other unrelated sitters ("control") and the scores given to the intended readings and

did not achieve passing scores[8] during their test readings received average scores from 2 to 5 (mean = 3.4, *SEM* = 0.60, median = 4, *SD* = 1.34) and average accuracy estimates from 10% to 95% (mean = 45.83, *SEM* = 13.87, median = 40, *SD* = 33.97). It is important to note that the mediums who did not achieve passing scores were not certified and did not participate in the present study; their scores are only mentioned here to compare to the certified mediums' scores.

It is perhaps also noteworthy that the certified research mediums who participated in this study remain conscious and aware during readings. Thus, the sample of participants in this study is not representative of claimant mediums in general or of the extensively observed historical trance and physical mediums, but rather of modern-day, American, mental mediums[9] whose abilities have been documented.

Materials

The 53-item PCI (Pekala, 1991) was used to quantify the mediums' phenomenological elements under the two conditions: reading and control. The PCI items cover 26 phenomenological elements including the 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). Participants are required to respond to

---

the control readings are statistically compared. However, because the test readings described here involved phone readings in which the sitters could hear the readings and scored them as they took place, including control readings for statistical comparison was not possible. An extensive discussion of issues surrounding the statistical methods used in parapsychology can be found in Burdick and Kelly (1977).

[8] The scoring criteria used to determine whether an individual medium "passes" the test reading portion of his/her screening are numerous and based on the results of a study utilizing triple-blind phone readings completed by claimant mediums (Beischel & Schwartz, 2007) and the results to date of two studies utilizing certified research mediums (to be published upon completion). The complete screening procedure and the detailed criteria for passing are described elsewhere (Beischel, 2007/2008). In brief, with regard to the single-blind phone reading portion of the test readings described here, a medium must be given an average global score of 3.5 or higher and an average estimated percent accuracy of 60% or higher.

[9] Mental mediumship (also called "clairvoyant" mediumship) "occurs in a conscious and focused waking state" (Buhrman, 1997, p. 13). In contrast, during trance mediumship, which involves an "unconsciousness of surroundings," "the normal personality is . . . completely dispossessed by the intruding intelligence" and the medium "retains little or no recollection of what has been said or done in her 'absence'" (Gauld, 1983, p. 29). Mediumship can also include physical phenomena such as independent voices, paranormal lights, apports (objects that inexplicably appear), the levitation or movement of objects, ectoplasm, and raps on walls or tables (Fontana, 2005, p. 244).

each item on a seven-point Likert scale (Pekala & Wenger, 1983; Pekala, Wenger, & Levine, 1985). The PCI has been shown to possess adequate psychometric properties. For example, Pekala, Steinberg and Kumar (1986) reported coefficient alphas between .70 and .90 for all dimensions, suggesting that the PCI has good internal consistency. In support of the scale's criterion validity, Pekala et al. (1986) found that participants exposed to different stimulus conditions received significantly different PCI scores. This finding suggests that the PCI can successfully distinguish between what are typically referred to as qualitatively different SoCs.

Procedure

As part of a larger, ongoing proof-focused study examining AIR by certified research mediums (to be published upon completion), each medium participated in two scheduled phone calls with an experimenter: counter-balanced sequences of a control condition and a discarnate reading condition with a seven day 'wash-out' period separating them. Each call was digitally audio-recorded.

The discarnate reading condition consisted of a phone reading for a discarnate performed by a blinded medium and in which a blinded experimenter acted as a proxy sitter; only the medium and the experimenter were on the phone. During the reading, the experimenter provided the medium with the discarnate's first name and asked the medium the following questions:

1. What did the discarnate look like in his/her physical life? Give a physical description of the discarnate.

2. Describe the personality of the discarnate.

3. What were the discarnate's favourite hobbies or activities? How did s/he spend his/her time?

4. What was the discarnate's cause of death?

5. Does the discarnate have any comments, questions, or requests for the sitter?

The discarnate reading question set was designed to provide an analogue of a real-world mediumship reading for a sitter.

The control condition consisted of a phone conversation between the medium and the same experimenter in which the medium was asked the following questions regarding a living person s/he (i.e., the medium) knew

personally:

1. What is the gender of the person we'll be talking about today?
2. What is your relationship to him/her?

3. What is his/her age?

4. What does s/he look like? (What color is his/her hair? Describe his/her height and build.)

5. Describe his/her personality.

6. What are his/her hobbies? How does s/he spend his/her time?

7. Is there anything else about this person that you'd like to add?

The control question set was designed to provide an analogue of a real-world casual conversation in which the medium did not attempt to use AIR. Immediately after each call, the medium completed a paper copy of the PCI by hand regarding his/her experiences during the call and returned the resulting responses to the experimenter by e-mail.

RESULTS

In order to address Research Question 1, and due to the violation of the assumption of normality, a series of Wilcoxon Signed Rank tests was performed to assess possible differences between the reading and control conditions with regards to the PCI major and minor dimension intensity values.[10] Table 1 displays the mean PCI dimension intensity values for the discarnate reading and control conditions. The discarnate reading condition scored significantly *higher* than the control condition (all $p < .05$) with regards to: (i) negative affect ($z = -2.032$); (ii) altered experience ($z = -2.366$); (iii) body image ($z = -2.375$); (iv) time sense ($z = -2.201$); (v) perception ($z = -2.201$); (vi) meaning ($z = -2.366$); (vii) attention ($z = -2.201$); (viii) direction ($z = -1.997$); and (ix) altered state of awareness ($z = -2.371$). In contrast, the discarnate reading condition scored significantly

_____

[10] The present study's statistical power was hampered by a small sample size. Stevens (2002) recommends numerous methods that may be legitimately used to reduce Type II errors when one is confronted with a small sample size (e.g., setting a less stringent alpha level). In the present study, we elected to reduce the Type II error rate by not correcting for multiple comparisons.

lower than the control condition (all $p < .05$) with regards to: (i) self-awareness ($z = 2.366$); (ii) volitional control ($z = 2.366$), and (iii) memory ($z = 2.023$).

Table 1
PCI Dimension Intensity Values for the Reading and Control Conditions
(Major Dimensions in Bold)

PCI Dimension	1 Reading Condition M (SD)	2 Control Condition M (SD)	Z	p	r
Positive Affect	2.48 (1.24)	1.98 (.41)	-1.153	.249	0.31
Joy	2.93 (1.77)	1.79 (.99)	-1.442	.149	0.39
Sexual Excitement	.64 (1.18)	.21 (.57)	-1.414	.157	0.38
Love	3.86 (1.65)	3.93 (.73)	-.210	.833	0.06
Negative Affect	1.38 (1.03)	.43 (.73)	-2.032	.042	0.54
Anger	1.21 (1.38)	.21 (.57)	-1.826	.068	0.49
Sadness	2.50 (1.78)	.71 (1.15)	-1.826	.068	0.49
Fear	.43 (.73)	.36 (.63)	-.447	.655	0.12
Altered Experience	4.12 (1.26)	.86 (1.00)	-2.366	.018	0.63
Body Image	4.76 (.83)	1.38 (1.18)	-2.375	.018	0.63
Time Sense	3.95 (1.95)	.52 (.77)	-2.201	.028	0.59
Perception	3.52 (1.89)	.48 (.77)	-2.201	.028	0.59
Meaning	4.00 (1.59)	.75 (1.07)	-2.366	.018	0.63
Visual Imagery	5.18 (1.04)	3.39 (1.44)	-1.866	.062	0.50
Amount	5.36 (1.11)	3.29 (1.89)	-1.892	.058	0.51
Vividness	5.00 (1.04)	3.71 (1.55)	-1.272	.203	0.34
Attention	5.26 (.71)	4.19 (1.05)	-2.201	.028	0.59
Direction	5.38 (.80)	3.52 (2.02)	-1.997	.046	0.53
Absorption	5.14 (.99)	4.86 (1.41)	-.542	.588	0.14
Self-Awareness	2.00 (1.74)	5.28 (.76)	-2.366	.018	0.63
Altered State	4.14 (1.83)	.52 (.86)	-2.371	.018	0.63
Internal Dialogue	2.36 (2.39)	1.00 (1.50)	-1.051	.293	0.28
Rationality	3.95 (1.58)	5.24 (.92)	-1.577	.115	0.42
Volitional Control	1.62 (1.11)	5.33 (.88)	-2.366	.018	0.63
Memory	4.10 (1.07)	5.29 (.83)	-2.023	.043	0.54

Arousal	1.57 (2.09)	2.64 (1.91)	-.843	.399	0.23

In order to address Research Question 2, psygrams were constructed to evaluate the patterns of relationships between pairs of phenomenological elements (i.e., PCI major dimensions) for the discarnate reading and control conditions. Figure 1 depicts the psygram of mediums during the control condition. The participants' PCI intensity values reflected: *no* negative affect; *little* altered experience, internal dialogue, or altered state; *mild* positive affect; *average* arousal and vividness of imagery; *moderate* internal dialogue; and *high* rationality, self-awareness, volitional control, and memory. It may also be observed that altered experience is strongly coupled with negative affect, memory, internal dialogue, and volitional control. Memory is strongly coupled with self-awareness, volitional control, and negative affect; vivid imagery is strongly coupled with positive affect; and arousal is strongly coupled with inward absorbed attention. Additionally, numerous other strong couplings are evident.

Figure 2 depicts the psygram of mediums during the discarnate reading condition. In comparison to the control condition (Figure 1), there is an *increase* in altered state, altered experience, inward absorbed attention, negative affect, internal dialogue, and vivid imagery; a *decrease* in arousal, self-awareness, volitional control, rationality, and memory; and *no change* in positive affect. Additionally, the configurations evident in Figure 2 are noticeably different from those depicted in Figure 1. The strength of the relationships between memory and volitional control has decreased. Additionally, altered experience and altered state, vivid imagery and self-awareness, positive affect and memory, altered state and rationality, and volitional control and rationality are all now strongly coupled. It is noteworthy that numerous other strong couplings are evident. It may also be observed that many of the pattern relationships present in the control condition (Figure 1) are no longer present in the discarnate reading condition (Figure 2). For example, the relationship between arousal and inward absorbed attention is no longer present.

In order to assess whether there was a significant difference between the pattern structures depicted by the two psygrams, and to avoid violating the sample size assumption, two separate Box Tests[11] were performed.[12] The first Box Test examined positive affect, negative affect,

---

[11] When performing a Box Test the minimum number of cases required in each cell is equal to the number of dependent variables being examined (Pallant, 2005). Given that the present study examined 12 PCI major dimension dependent variables with a sample size of *n* = 7, two separate Box Tests were performed.

[12] 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.

altered experience, imagery, attention, and self awareness. It was revealed that there was not a significant difference between psygrams, F (21, 529.63) = 1.28, p = .178; Box M = 62.64.[13]
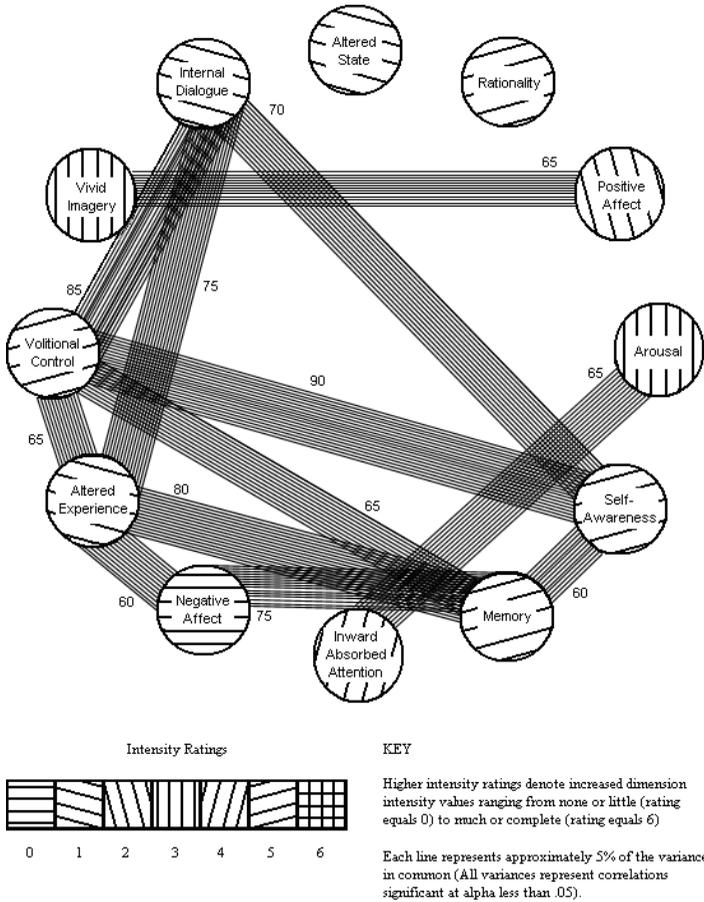
235) asserts that the Jenrich Test is a "large-sample multivariate procedure" requiring a minimum of 60 participants per condition (provided that all 12 major dimensions of the PCI are being examined). Given that the present study consisted of 7 participants per condition, the Jenrich Test was not appropriate. Consequently, a Box Test comparison was performed (Pekala, 1991).

[13] The Box M statistic "tests the homogeneity of variance-covariance matrices" (Tabachnick & Fidell, 2007, p. 252).

169

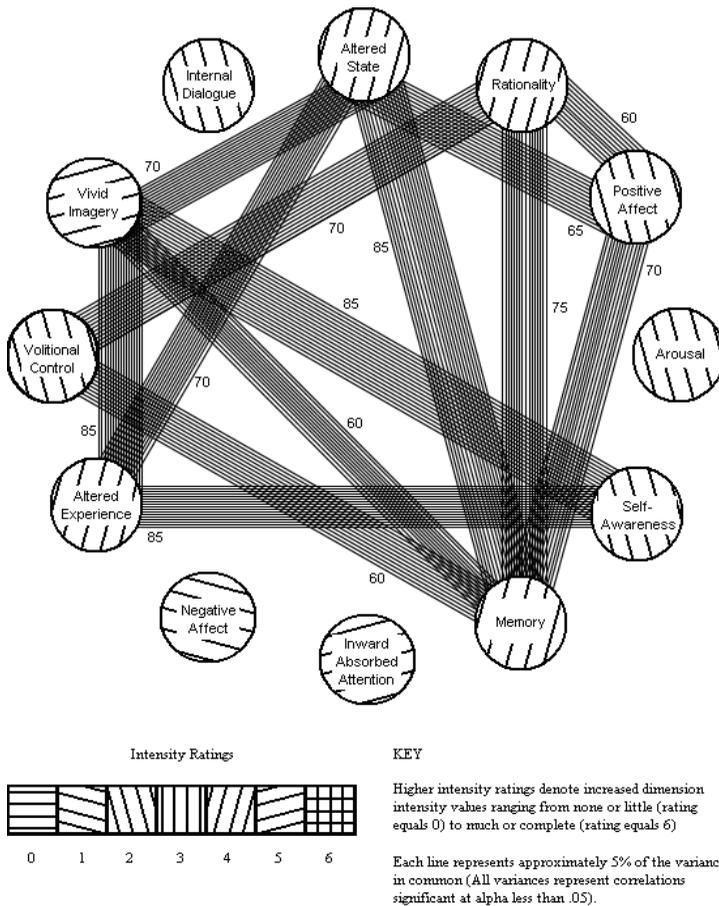Figure 1. Psygram for control condition.

Figure 2. Psygram for discarnate reading condition.

The second Box Test examined altered state of awareness, internal dialogue, rationality, volitional control, memory, and arousal. Once again, it was revealed that there was not a significant difference between psygrams.

However, the difference approached significance,[14] F (21, 529.63) = 1.64, p < .05; Box M = 79.75.

Interestingly, when the data set was amplified and the number of cases in each cell was merely increased from 7 to 14, both Box Test results were significant, F (21, 2486.33) = 4.83, p < .001; Box M = 135.72; F (21, 2486.33) = 6.15, p < .001; Box M = 172.78.

<center>DISCUSSION</center>

Research Question 1: PCI Major and Minor Dimension Differences

The present study was the first to quantify the intensity and pattern of phenomenological elements experienced by mediums during a discarnate reading condition relative to a control condition. Significant differences were found between the discarnate reading and control condition with regards to negative affect, altered experience, body image, time sense, perception, meaning, attention, direction, altered state of awareness, self-awareness, volitional control, and memory.

The discarnate reading condition was associated with significantly higher negative affect intensity values compared to the control condition. This finding is perhaps not surprising given that previous research (e.g., Rock et al., 2008) has found that, during readings, mediums purportedly experience bodily sensations pertaining to the discarnate's causes of death or ailments prior to passing. This result is also consistent with a theme elicited by Rock et al. (2008) in which mediums reported affective distortions during ostensible discarnate communication experiences. Furthermore, as has been anecdotally noted by the second author (JB), discarnate readings regularly include emotionally negative content (e.g., the medium experiencing and conveying feelings of sorrow, loss, longing, remorse, and even anger).

There was a significant difference between the discarnate reading and control condition with regards to the altered experience dimension and its various constituents: altered body image, altered time sense, altered perception, and altered meaning. The mean score for altered body image was significantly higher for the discarnate reading condition compared to the control condition. That is, participants in the discarnate reading condition tended to report that their bodily sensations and perceptions

---

[14] 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).

expanded beyond the parameters of their skin (Pekala, 1991). Consequently, these phenomenological reports are indicative of spatial expansion and, thus, transpersonal experience.

The mean score for altered time sense was significantly higher for the discarnate reading condition compared to the control condition. Consequently, it appears that during a discarnate reading task, the medium's subjective time perception may dilate or contract, or events may simply cease to manifest in a temporal sequence (i.e., timelessness). The mean score for altered perception was also significantly higher for the discarnate reading condition compared to the control condition. Thus, the discarnate reading condition was associated with more intense perceptual changes with regards to objects in the external world. Furthermore, the mean score for altered meaning was significantly higher for the discarnate reading condition compared to the control condition. This finding suggests that the discarnate reading condition was associated with experiences that participants labeled "as very religious, spiritual, or transcendental" (Pekala, 1991, p. 353). This is not an unexpected result given that mediums sometimes refer to a discarnate reading as a process including "spiritual vision" (Rock et al., 2008).

The mean scores for inward absorbed attention and its minor dimension, direction, were significantly higher for the discarnate reading condition compared to the control condition. This finding indicates that during the discarnate reading condition the mediums' attention tended to be directed towards internal stimuli (i.e., mental phenomena). This result supports previous research (Rock et al., 2008) which reported that, while ostensibly communicating with discarnates, mediums tend to focus on stimuli that manifest in their phenomenal space (i.e., "mind's eye") rather than objects in the external world.

The mean score for altered state of awareness was significantly higher for the discarnate reading condition compared to the control condition. This finding indicates that the discarnate reading condition was associated with a subjective sense of an altered state of consciousness compared to the control condition. That is, during the discarnate reading task, the mediums purportedly experienced an unusual state of consciousness relative to the ordinary waking state.

The discarnate reading condition scored significantly lower than the control condition with regards to self-awareness. Consequently, it appears that during a discarnate reading, the medium's self-awareness dissipates as his/her 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 (Rock et al., 2008) which indicate that mediums assume the self-sense of discarnates during readings

for sitters.

Similarly, the mean score for volitional control was significantly lower for the discarnate reading condition compared to the control condition. This finding is consistent with the notion that a medium is, quite literally, a conduit that enables a discarnate to communicate to a sitter or loved one. Indeed, previous research (Rock et al., 2008) suggests that, during readings, mediums relinquish volitional control and adopt the personality traits and behavioural tendencies of discarnates.

The discarnate reading condition scored significantly lower than the control condition with regards to the memory dimension. This finding suggests that some of the phenomenological elements of the reading condition may be "state-specific" (Tart, 1972, p. 1204; 1998, p. 102) or "state-bound" (Fischer, 1980, p. 306) and, thus, more accessible in a state similar to the one associated with the discarnate reading condition, or "in a more relaxed, focused, permissive state than is normally present in ordinary waking consciousness" (Rock & Baynes, 2007, p. 350).

Research Question 2: Psygrams

The Box Tests showed that there was not a significant difference between the psygrams for the two conditions. Thus, it appears that, compared to the control condition, the discarnate reading condition was not associated with a "major reorganization in pattern structure that is hypothesized by Tart (1975) to be associated with an altered state of consciousness" (Woodside et al., 1997, p. 84). However, it is noteworthy that the amplified data set gave rise to a significant result. Consequently, a larger sample size and, thus, greater statistical power may have led to the detection of a significant altered state of consciousness effect.

Possible Methodological Limitations and Suggestions for Future Research

As previously stated, the aim of the present study was not to investigate whether phenomenological differences between a discarnate reading and control condition were due to differential information sources (i.e., a discarnate versus a living person), but rather whether phenomenological differences arose as a result of different task demands (i.e., a reading task versus a control task). Future studies aiming to investigate the phenomenological effects of differential information sources 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. It would also be useful to standardize the question set across conditions, which would serve to eliminate phenomenological differences due to differential task demands (e.g., different question sets). However, if the blind is compromised and the medium determines that the discarnate has been fabricated, then the source of this determination could include telepathy with the living (e.g., the experimenter) or communication with a factual discarnate that is presumably knowledgeable regarding the sham reading condition. It is also possible that if the blind is *not* broken, this may be due to the medium communicating with a mischievous factual discarnate who is masquerading as the fabricated discarnate. Consequently, the "slippery" dynamics of mediumship renders problematic any attempt at blinding the medium to the reading condition. Nevertheless, including a sham condition in the design is advantageous because if the mediums' phenomenology associated with the *sham condition* is significantly different compared to, for example, the mediumship reading, then this may be due to differences between the informational sources (i.e., fictional versus deceased). That is, this design constitutes a preliminary step towards allowing one to address the survival of consciousness hypothesis.

In addition, researchers may wish to replicate and extend the current study using a larger sample size. This would allow one to investigate whether mediums are experiencing phenomena typically referred to as altered states of consciousness during AIR as well as whether any PCI variables correlate with mediums' reading accuracy scores.

Previous research concerning the PCI (e.g., Manmiller, Kumar, & Pekala, 2005; Pekala, Kumar, Maurer, Elliott-Carter, & Moon, 2006; Robin, Kumar, & Pekala, 2005) has been conducted in a Classical Test Theory sense. However, it would be advantageous to investigate whether the findings of the present study are replicated using Modern Test Theory (Rasch scaling), which controls for artifacts pertaining to response biases and generates interval scale data (Lange, Thalbourne, Houran, & Storm, 2000).

Additionally, future research might use the PCI to quantify the intensity and pattern of phenomenological elements reported by mediums during ostensible communication with discarnates compared to psychic telepathy readings for the living. This may address whether the underlying phenomenological processes associated with ostensible discarnate communication are quantitatively different from "simple" psi (i.e., psychic telepathy).

Conclusion

The present study identified numerous significant differences

between a discarnate reading and control condition with regards to mediums' phenomenology. This current quantitative analysis paired with our previously published qualitative analysis (Rock et al., 2008) allows for a more complete understanding of the phenomenological processes associated with mediumship readings for discarnates. An extension of the present study that includes an appropriate sham condition and a standardized question set across conditions may, in turn, assist researchers in determining the source of the information mediums receive. Specifically, the phenomenological elements associated with the information source accessed during discarnate readings might include the medium's sense of whether the discarnate is imaginal (i.e., a projection of the medium's mental set) or exosomatic (i.e., independent of the medium's mind-body complex).

ACKNOWLEDGMENTS

REFERENCES

Assailly, A. (1963). Psychophysiological correlates of mediumistic faculties. *International Journal of Parapsychology*, *5*, 358-373.

Beischel, J. (2007/2008). Contemporary methods used in laboratory-based mediumship research. *Journal of Parapsychology*, *71* ("Spring/Fall 2007"/published August 2008), 37-68.

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.

Besterman, T. (1932). The mediumship of Rudi Schneider. *Proceedings of the Society for Psychical Research*, *40*, 428-436.

Braude, S. E. (2003). *Immortal Remains: The evidence for life after death.* Lanham, MD: Rowman & Littlefield.

Buhrman, S. (1997). Trance types and amnesia revisited: Using detailed interviews to fill in the gaps. *Anthropology of Consciousness*, *8*, 10-21.

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: Van Nostrand Reinhold.

Carington, W. (1939). The quantitative study of trance personalities. New series, I: Revision and extension of the inter-medium experiment. *Proceedings of the Society for Psychical Research*, *45*, 223-251.

Clarke, C. J. S. (1995). The nonlocality of mind. *Journal of Consciousness Studies*, *2*, 231-240.

Crick, F., & Koch, C. (2003). A framework for consciousness. *Nature Neuroscience*, *6*, 119-126.

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: Plenum Press.

Fischer, R. (1980). State-bound knowledge: "I can't remember what I said last night, but it must have been good." In R. Woods (Ed.), *Understanding mysticism* (pp. 306-11). London: Athlone.

Fontana, D. (2003). Does mind survive physical death? *ParaDocs*. Available at: http://www.paranet.fi/paradocs/tutkimuksia.html.

Fontana, D. (2005). *Is there an afterlife? A comprehensive overview of the evidence.* Oakland, CA: O Books.

Forman, R. (1998). What does mysticism have to teach us about consciousness? *Journal of Consciousness Studies*, *5*, 185-201.

Gauld, A. (1983). *Mediumship and survival: A century of investigations.* London: Paladin Books.

Gifford-May, D., & Thompson, N. (1994). "Deep states" of meditation: Phenomenological reports of experience. *Journal of Transpersonal Psychology*, *26*, 117-138.

Hanson, D., & Klimo, J. (1998). Toward a phenomenology of synchronicity. In R. Valle (Ed.), *Phenomenological inquiry in psychology* (pp. 281-307). New York: Plenum Press.

Hansen, G. (2007). Letter to the Editor. *Journal of the Society for Psychical Research*, *71*, 254-255.

Honorton, C. (1975). Objective determination of information rate in psi tasks with pictorial stimuli. *Journal of the American Society for Psychical Research*, *69*, 353-9.

Irwin, H. J. & Watt, C. A. (2007). An introduction to parapsychology (5th ed.). Jefferson, NC: McFarland & Company, Inc.

Jenrich, J. (1970). Asymptotic chi-square test for the equality of two correlation matrices. *Journal of the American Statistical Association*, *65*, 904-912.

Lange, R., Thalbourne, M. A., Houran, J., & Storm, L. (2000). The Revised Transliminality Scale: Reliability and validity data from a Rasch top-down purification procedure. *Consciousness and Cognition*, *9*, 591-617.

Manmiller, J. L., Kumar, V. K., & Pekala, R. J. (2005). Hypnotizability, creative capacity, creativity styles, absorption, and phenomenological experience during hypnosis. *Creativity Research Journal*, *17*(1), 9-24.

Markwick, B. (2007). To the Editor. *Journal of the Society for Psychical Research*, *71*, 258-259.

Matsu-Pissot, C. (1998). On the experience of being unconditionally loved. In R. Valle (Ed.), *Phenomenological Inquiry in Psychology* (pp. 321-334). New York: Plenum Press.

Newton, I. (1938). A study of certain Leonard phenomena. *Proceedings of the Society for Psychical Research*, *45*, 103-126.

O'Keeffe, C., & Wiseman, R. (2005). Testing alleged mediumship: Methods and results. *British Journal of Psychology*, *96*, 165-179.

Pallant, J. (2005). *SPSS survival manual: A step by step guide to data analysis using SPSS* (2nd ed.). Crow's Nest: Allen & Unwin.

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: Plenum Press.

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., Kumar, V. K., Maurer, R., Elliott-Carter, N., & Moon, E. (2006). "How deeply hypnotized did I get?" Predicting self-reported hypnotic depth from a phenomenological assessment instrument. *International Journal of Clinical and Experimental Hypnosis*, *54*(3), 316-339.

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. J., Steinberg, J., & Kumar, C. K. (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. (2007). Tricia Robertson and Archie Roy Reply. *Journal of the Society for Psychical Research*, *71*, 258.

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.

Robin, B. R., Kumar, V.K., & Pekala, R. J. (2005). Direct and indirect scales of hypnotic susceptibility: Resistance to therapy and psychometric comparability *International Journal of Clinical and Experimental Hypnosis*, *53*(2), 135-147.

Rock, A. (2006). Phenomenological analysis of experimentally induced visual mental imagery associated with shamanic journeying to the lower world. *International Journal of Transpersonal Studies*, *25*, 45-55.

Rock, A. J., & Baynes, P. B. (2007). What are the origins of shamanic journeying imagery? The modification of a hypnoanalytic technique to address an enduring methodological problem. *The Humanistic Psychologist*, *35*(4), 349-361.

Rock, A. J., Beischel, J., & Schwartz, G. E. (2008). Thematic analysis of research mediums' experiences of discarnate communication. *Journal of Scientific Exploration*, *22*(2), 179-192.

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.

Saltmarsh, H. F. (1929). Report on the investigation of some sittings with Mrs. Warren Elliott. *Proceedings of the Society for Psychical Research*, *39*, 47-184.

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.

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.

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Mahwah, New Jersey: Lawrence Erlbaum.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson.

Tart, C. T. (1972). States of consciousness and state-specific sciences. *Science*, *176*, 1203-1210.

Tart, C. T. (1998). Investigating altered states of consciousness on their own terms: A proposal for the creation of state-specific sciences. *Journal of the Brazilian Association for the Advancement of Science*, *50*, 103-116.

Thomas, C. D. (1928). The *modus operandi* of trance communication according to descriptions received through Mrs. Osborne Leonard. *Proceedings of the Society for Psychical Research*, *38*, 49-100.

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

Adam Rock
School of Psychology
Faculty of Health, Medicine, Nursing and Behavioural Sciences
Deakin University
Burwood Highway
Burwood Victoria 3125
Australia

Email: rock@deakin.edu.au