SHAMANIC-LIKE JOURNEYING AND PSI-SIGNAL DETECTION: I. IN SEARCH OF THE PSI-CONDUCIVE COMPONENTS OF A NOVEL EXPERIMENTAL PROTOCOL

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ABSTRACT: It is pertinent to explore stimulus conditions that might produce psi effects at least as strong as those elicited in the ganzfeld condition, particularly if those stimulus conditions are less complex than the ganzfeld. Consequently, Storm and Rock developed an imagery cultivation (IC) model, which considers shamanic-like techniques to be psi-conducive, and provided some supportive evidence for their claim. The objective of the present study was to determine which component(s) of the shamanic-like journeying stimulus used by Storm and Rock is (are) psi-conducive. Since psi-modifying variables should also be investigated in psi research, paranormal belief/experience (measured on Thalbourne’s Australian Sheep-Goat Scale), Transliminality (the tendency for psychological material to cross into or out of consciousness), and Self-Expansiveness (measured on Friedman’s Self-Expansiveness Level Form) were tested in the present study as possible predictors of psi. Nonshamans (N = 200) were randomly assigned to one of four conditions: (a) instructions + drumming; (b) instructions only; (c) drumming only; and (d) control condition (i.e., no instructions, no drumming). After these conditions, participants gave mentations, and ranked a randomly selected concealed line-drawing as target. Hit rates were above chance (not significantly) in all three treatment conditions, and below chance in the control condition. Paranormal belief, transliminality, and self-expansiveness did not predict hit rates.

Keywords: imagery cultivation, sheep-goat trait, psi, self-expansiveness, shamanism, transliminality.

Bem and Honorton (1994) asserted that, “Historically, psi has often been associated with meditation, hypnosis, dreaming, and other naturally occurring or deliberately induced altered states of consciousness” (p. 5). Perhaps the most widely used technique in this context is the ganzfeld (“total field”) which may be defined, in broad terms, as a “homogeneous perceptual environment” (Bem, 1993, p. 102). The pioneers of the ganzfeld technique (Braud, Wood, & Braud, 1975; Honorton & Harper, 1974; Parker, 1975) investigated various states such as hypnosis, dreaming, meditation, and relaxation that might be considered psi-conducive.

Storm and Rock (2009a) contended that it is pertinent to explore stimulus conditions that might produce psi effects at least as strong as those elicited in the ganzfeld condition, particularly if those stimulus conditions are less complex than the ganzfeld. They based their argument on the likelihood that the ganzfeld does not facilitate relatively more psi than nonganzfeld noise-reduction techniques because it does not produce sufficient levels of visual imagery (which is related to the psi signal). Indeed,
due to some possibly inherent ceiling effect in the ganzfeld design, Storm, Tressoldi, and Di Risio (2010) have demonstrated that the ganzfeld psi effect, though significant in itself, is not significantly higher than the significant mean effect size of the nonganzfeld noise-reduction studies. Consequently, it may be pertinent to investigate other possibly psi-conducive methods such as shamanism because it is a reputed technique in indigenous communities for producing strong visual content and mentation that may, at least on occasion, be of a paranormal nature.

Shamanism may be defined as “a family of traditions whose practitioners focus on voluntarily entering altered states of consciousness in which they experience themselves, or their spirit(s), travelling to other realms at will and interacting with other entities in order to serve their community” (Walsh, 1989, p. 5). Ostensible altered states of consciousness (ASCs) induced by shamanic practices are typically referred to as “soul-flight,” “ecstatic journeying,” or simply “shamanic journeying” (Krippner, 2002). Arguably the most common technique used to induce shamanic states is sonic driving (i.e., monotonous drumming).

The aforementioned social-role aspect of shamanic journeying typically involves the shaman accessing “information that is not ordinarily attainable by members of the social group that gave them privileged status” (Krippner, 2002, p. 962). For example, the shaman may wish to access information regarding the geographical location of a plentiful food source that will provide nourishment for the members of his or her social group. Shamans ostensibly access this information during ASCs using psi (e.g., clairvoyance; Rogo, 1987). For example, Krippner (1984) reviewed psi research concerning tribal shamans and emphasized that shamans cultivate ASCs with the aim of attempting to “locate lost objects, foretell the future, communicate with someone at a distance, or heal an injured person” (p. 4).

Krippner (1984) concluded that, “the shamanistic tradition can yield information that will be helpful in solving some of the enigmas that currently exist in the understanding and control of psi” (p. 4). Indeed, numerous reviews (e.g., Rogo, 1983a, 1983b, 1987) of previous anthropological research suggest that shamanic techniques are associated with psi phenomena such as ESP (e.g., precognition). Furthermore, previous research has also investigated the effect of shamanic techniques on PK. For example, Saklani (1988) tested the PK ability of five adult Shamans in Garhwal Himalaya and reported that the participants were “able to influence plant germination and protect seeds from the deleterious effects of saline” (p. 60).

The above mentioned link between shamanism and psi suggests that active mental processes might facilitate the access of psi signals. Indeed, Walsh (1995) stated that shamanic ASCs constitute active states involving mental imagery cultivation whereby the percipient is able to “enter and leave the ASC at will and . . . partly determine the type of imagery and experiences” (pp. 35–36). Walsh further suggested that this “partial control
of experience” is similar to phenomenological reports of lucid dreaming states and various imagery techniques used in a psychotherapeutic context (e.g., Jungian active imagination, Wolberg’s “Theatre Visualisation Technique”). Indeed, the contention that active processes are an integral feature of shamanic techniques is also emphasized by Noll (1985): “Shamanism is an ecstatic healing tradition which at its core is concerned with the techniques for inducing, maintaining, and interpreting the experience of enhanced visual mental imagery” (p. 45).

Similarly, Peters (1989) highlighted the importance of the cultivation of mental imagery: “In shamanism, the key to the transpersonal is through visualization” (p. 129). Empirical support for these contentions was provided by Houran, Lange, and Crist-Houran (1997), who examined the phenomenology of 30 narratives pertaining to shamanic journeying experiences presented in Harner (1990) and reported that 93.3% involved some form of visual phenomena. Thus, it seems reasonable to conclude that shamanic techniques involve active processes or, more specifically, the cultivation, mastery, and control of mental imagery.

Similarly, research using nonshamans (see Rock, Abbott, Childargushi, & Kiehne, 2008; Rock, Wilson, Johnston, & Levesque, 2008; Woodside, Kumar, & Pekala, 1997) has shown that participants exposed to a shamanic-like stimulus condition (i.e., journeying with the aid of monotonous drumming) reported significantly more visual imagery compared to a control group. As a consequence, since psi effects (PK and ESP) induced during shamanic states have also been reported extensively in the literature (e.g., Krippner, 1984; Saklani, 1988), Storm and Rock (2009a) developed the so-called imagery cultivation (IC) model, which suggests that a shamanic-like technique might elicit psi effects in the laboratory at least as strong as the ganzfeld, and perhaps stronger, but with less procedural complexity and less intrusiveness (see next section for details).

The IC Model

Storm and Rock’s (2009a) IC model regards shamanic techniques and, similarly, shamanic-like techniques, as being psi-conducive, with the alleged psi signal being somehow embedded in the cultivated imagery. More specifically, the IC model suggests that shamanic journeying is an active cognitive process of mental imagery cultivation that allows one to access the unconscious domain of the human psyche, a wellspring of psi images. Consequently, the IC model considers mental imagery cultivation directed by shamanic-like journeying instructions to be the critical psi-conducive component of journeying.

The IC model may be tested using the standard picture-identification procedure (see Thalbourne, 1981), but includes additional IC steps: (a) the participant in the shamanic-like condition is instructed to lie on a padded floor-mat, placing a light-proof eye mask over his/her eyes; (b) the participant
is handed a light-proof target envelope containing a line-drawing randomly selected from a set of four pictures (he/she is instructed not to open it); (c) the participant in the shamanic-like condition is required to cultivate specific shamanic-like visual imagery sequences (e.g., journeying to the “lower world” by visualizing entry into an opening in the earth such as a “cave” or “animal burrow”) while listening to monotonous drumming; (d) the participant (after the “journeying” session) describes vocally the line drawing that is concealed inside the envelope (mentation is recorded and read back to the participant in order to prompt his/her memory, thereby facilitating the ranking process); and (e) the participant, following conventional picture-identification techniques, ranks from 1 to 4 the pictures from a randomly compiled set of four pictures (i.e., original target picture + three decoys), following the preferential ranking method (see Thalbourne, 1981), whereby participants assign rank #1 to the picture “most likely” to be the picture concealed in the target envelope, rank #2 to the picture “second most likely,” and so on, until all four pictures are ranked.

Note that participants in the control condition are also handed light-proof target envelopes, but they do not undergo the journeying treatment. For control participants, from this point onward, the procedure follows that just described in the previous paragraph for picture ranking (see Procedure).

The importance of our innovative experimental design is underpinned by some key differences compared to the standard ganzfeld design. These are:

1. The IC model challenges the noise-reduction philosophy, which underpins the ganzfeld. Ultimately it may facilitate a paradigm shift in parapsychology—a shift from the long-term focus on noise reduction to a possibly more rewarding emphasis on IC.

2. The shamanic-like journeying protocol is far less complex to set up, and thus more economically viable than the ganzfeld in terms of time and financial cost. In terms of the shamanic-like journeying procedure, there is no need for percipient/agent pairing, and testing can be done with more than one participant (i.e., two or three) in the same session provided they are randomly assigned to one and the same condition for that session. These protocols reduce the time taken up by briefing and debriefing, which can be done in small groups. We stress that we do not endorse group testing unless it specifically serves a purpose of a given researcher. For our IC model, we advocate independent (single-participant) testing wherever possible (see Utts, 1991), and researchers
Shamanic-Like Journeying and Psi-Signal Detection should limit themselves to testing only two or three participants at a time as we have done.

3. Following from this second point, we can see a shift from the working hypothesis that telepathy is the prime ESP modality tested in the ganzfeld design to the assumption that only clairvoyance may be operative in the IC design. In fact, to be accurate, most ganzfeld studies conflate telepathy and clairvoyance (referred to as “general” ESP, or GESP) with no way of differentiating the two, whereas the IC design encourages pure clairvoyance because the participant has direct contact with the target and does not depend on an agent. Telepathy cannot be ruled out of IC (e.g., the IC participant could telepathically read the mind of the target setter), but the IC design could be automated to eliminate this problem. As long as the ganzfeld experiment uses a recipient and an agent, even the autoganzfeld design cannot eliminate the GESP assumption whereas an auto-IC design would eliminate the GESP assumption.

A Recent Test of the IC Model

In a recent empirical test of the IC model, Storm and Rock (2009b) randomly assigned nonshaman participants \( N = 108 \) to one of two conditions: (1) a control condition \( n = 53 \) consisting of sitting quietly with eyes open; or (2) a treatment condition \( n = 55 \) that involved shamanic-like journeying instructions followed by 15 min of monotonous drumming (8 bps). Participants were required to describe verbally, and then rank, a randomly selected concealed line-drawing, which they held throughout the condition. The direct hit rate was significant at 34.5% (where \( P_{\text{MCE}} = 25\% \)) in the shamanic-like condition, but the hit rate for the control condition was at chance, 22.6%. The direct hit effect for the treatment group (i.e., 34.5%) was comparable to the mean effect sizes reported in the major ganzfeld meta-analyses (e.g., Bem & Honorton, 1994).

Storm and Rock’s (2009b) procedure requires that controls do not (a) lie down, (b) close their eyes, (c) wear eye masks, (d) follow the visualization instructions, or (e) listen to monotonous drumming, but these are all integral components of Harner’s (1990) journeying method. Consequently, Rock and Storm (2010) asserted that matching treatment with control on any of these components would be unwise because it would potentially contaminate the control. Indeed, there may be, for example, additive effects between the various components of Harner’s (1990) method, and it is currently unclear which, if any, component(s) is (are) psi-conducive. We proposed in the present study to test and clarify these issues.
Paranormal Belief and Psi

The so-called sheep-goat effect is claimed to be one of the most consistent effects in parapsychological literature (see Lawrence, 1993, for a meta-analysis). Originally, the terms sheep and goat were used to categorize participants as either those who believed in the ability to demonstrate ESP under a given experimental condition (“sheep”), or those who rejected this possibility (“goats”; see Schmeidler, 1943). Nowadays, the definitions have a somewhat broader meaning (generally, sheep are those who believe in psi, whereas goats do not), and these definitions have been used in the broader sense in numerous studies since the mid-1940s.

Lawrence (1993) found 73 studies dating back to 1947, and he calculated an accumulative sheep-goat effect that was moderate in size and highly significant—sheep consistently scored better than goats. In other words, sheep tend to “psi hit” and goats tend to “psi miss.” We decided to administer Thalbourne’s (1995) Australian Sheep-Goat Scale (ASGS) to participants in our sample, particularly in order to assess whether a sheep-goat effect might occur in our novel treatment (for details about the ASGS, see Materials).

Transliminality and Psi

Transliminality is defined as the “hypothesized tendency for psychological material to cross (trans) thresholds (limines) into or out of consciousness” (Thalbourne & Houran, 2000, p. 853). Thalbourne and Delin (1994) suggested that transliminality might correlate with paranormal effects on the basis that it was a process that drew mainly upon unconscious (endo-psyche) sources.

A number of studies have been conducted to see whether transliminality could predict psi outcomes (for reviews, see Del Prete & Tressoldi, 2005; Thalbourne & Storm, 2012). For example, in a study based on the ancient Chinese system of divination, the I Ching, Storm (2002a,b) found transliminality positively and significantly correlated with outcomes in a psi-task that required participants to preselect I Ching hexagrams before the outcomes were known, \( r(241) = 0.12, p = .034 \) (one-tailed).

In the present study, the Transliminality Scale (Form B) was administered to participants as a possible predictor of psi effects (for details about the Transliminality Scale, see Materials).

Self-Expansiveness and Psi

Level of self-expansiveness is defined as “the amount of the true self, or the universe of all possibilities, which is contained within the boundary demarcating self from non-self through the process of self-conception” (Friedman, 1983, p. 39). The cartography underpinning this construct rests
upon the assumption that an individual’s self-concept is defined by space and time. In this model it is assumed that the relationship between the self and the non-self is unlimited. The self is expansive to the point that it can be indistinguishable from all other matter. The self-concept, however, varies in its level of self-expansiveness. This cartography assumes that an individual’s identification with any and all aspects of existence contributes to their self-concept, measured both temporally and spatially (Pappas & Friedman, 2007). Individuals’ level of self-expansiveness is therefore purported to be a measure of their transpersonal actualization, or spiritual development (Friedman, 1983).

Friedman (1983) developed a scale designed to measure level of self-expansiveness called the Self-Expansiveness Level Form (SELF). The SELF was designed to measure levels of expansion of the self-concept, reflecting aspects of temporal and spatial identity (Pappas & Friedman, 2007). Three levels of expansiveness are measured: (a) the personal level of the self-concept measured by the SELF Personal Scale (PS), which refers to “the extent to which individuals might identify with . . . thoughts, feelings, behaviours, and physical body in the present” (p. 330); (b) the middle level of the self-concept measured by the Middle Scale (MS), which refers to individuals’ identification with “their relationships, both physical and social, as well as their sense of relatedness to the past or future” (p. 330); and (c) the transpersonal aspects of the self-concept measured by the Transpersonal Scale (TS), which refers to individuals’ willingness to “identify with the atoms in their body or future descendents who may not even have human form” (p. 330).

Given that, as previously stated, Storm and Rock’s (2009a) IC model encourages pure clairvoyance, an individual’s self-expansiveness, in a temporal-spatial sense, may correlate with psi-hitting.

Objectives and Hypotheses

The objective of the present study was to determine which components of the shamanic-like journeying stimulus used by Storm and Rock (2009b) are psi-conducive. More specifically, the objective was to determine whether it is (a) the shamanic-like journeying instructions and/or (b) listening to monotonous drumming that is/are psi-conducive. If Storm and Rock’s (2009a) IC model is valid, then (a) it is the shamanic-like journeying instructions coupled with monotonous drumming that are critical psi-conducive factors, and (b) journeying instructions on their own, and monotonous drumming on its own, are not as psi-conducive. A secondary objective was to determine if paranormal belief/experience, transliminality, and self-expansiveness would predict psi performance. The following hypotheses were proposed:
H1: The direct hit rate (as a percent correct, where \( P_{MCE} = 25\% \), and as an effect size \( \pi \) where \( P_{MCE} = .50 \)) is above chance in the instructions + drumming (i.e., “voice/drum”) condition. According to Honorton (1985), the direct hit measure provides a more “conservative” result (p. 54). The effect size measure \( \pi \) “depends simply on \( k \), the number of alternative choices available, and \( P \), the raw proportion of hits” (Rosenthal & Rubin, 1989, p. 333). Formula: \( \pi = P(k - 1)/[1 + P(k - 2)] \). Bem and Honorton (1994, p. 8) point out the advantage this measure has in providing a “straightforward intuitive interpretation” of the effect size, because \( \pi \) is the “proportion correct, transformed to a two-choice standard situation” so that \( P_{MCE} = P_{\text{test}} = .50 \) (Rosenthal & Rubin, 1989, p. 333).

H2: The direct hit rate (as a percent correct, where \( P_{MCE} = 25\% \), and as an effect size \( \pi \) where \( P_{MCE} = .50 \)) is above chance in the instructions + no drumming (i.e., voice condition).

H3: The direct hit rate (as a percent correct, where \( P_{MCE} = 25\% \), and as an effect size \( \pi \) where \( P_{MCE} = .50 \)) is above chance in the no instructions + drumming (i.e., drum condition).

H4: The direct hit rates in the three treatment conditions—(a) instructions + drumming (voice/drum); (b) instructions + no drumming (voice) and (c) no instructions + drumming (drum)—are all higher than the direct hit rate in the control condition.

H5: There is a positive relationship between paranormal belief (i.e., RASGS scores) and direct hits. These relationships will be stronger in the voice/drum condition.

H6: There is a positive relationship between transliminality and direct hits. These relationships will be stronger in the voice/drum condition.

H7: There is a positive relationship between self-expansiveness and direct hits. These relationships will be stronger in the voice/drum condition.

Method

Participants

The sample consisted mainly of 200 students from the Phoenix Institute of Australia, Melbourne. The first three authors of the present paper were affiliated with the Phoenix Institute of Australia at the time the study was conducted. The last author was, and remains, retired. This institution did not have an IRB or require IRB approval. Participants were recruited by the third author (KH). Participation was voluntary. The method of recruitment was snowball sampling (i.e., word-of-mouth) and convenience sampling using a ballot box placed in the Institute’s library.

The participants ranged in age from 17 to 67 years (\( M = 39 \) years, \( SD = 11 \) years, Median age = 39 years). The 25th percentile was aged 30 years, and the 75th percentile was aged 46 years. The minimum age requirement for the study was 18 years (consenting age). Fifty-two participants were randomly
assigned to the “voice/drum” condition, 51 to the “voice” condition, 54 to the “drum” condition, and 43 to the control condition. The experimenter (KH) supervised participants in all conditions (see Procedure for details). The mean age was 39 years for voice/drum group \((SD = 11 \text{ years})\), 39 years for the voice group \((SD = 10 \text{ years})\), 40 years for the drum group \((SD = 12 \text{ years})\), and 36 years for the control group \((SD = 11 \text{ years})\).

The sample was composed of 48 males \((24\%)\) and 152 females \((76\%)\). A chi-square test showed no significant difference in these sex proportions across conditions, \(\chi^2(3, N = 200) = 2.19, p = .534\) (two-tailed).

Utts (1986) examined and listed the power of a series of ganzfeld studies and placed the expected proportion of hits for a typical study between 33\% (Rosenthal, 1986) and 38\% (Hyman, 1985), where \(P_{\text{mce}} = 25\%\). For the present study, it is reasonably expected that the hit rate will fall in this range. Utts’s Table 1 (p. 396) gives a recommended \(N\) of 100, with critical limit of at least 33 participants, with corresponding \(\beta\) values of .45 and .82, for the two proportions 33\% and 38\%, respectively. It is anticipated that the four factorial combinations (voice/drum: \(n = 52\); voice: \(n = 51\); drum: \(n = 54\); control: \(n = 43\)) should be of sufficient size.

**The Experimenter**

Given that the experimenter was directly involved in testing participants, the experimenter was administered the ASGS (sheep = high ASGS score; goat = low ASGS score). The raw range for ASGS data is 0 to 36; raw mean = 18. The experimenter obtained a raw score of 36. The ASGS data are also Rasch-scaled (Lange & Thalbourne, 2002). The Rasch-scaled score for the experimenter was \(M_{\text{RASGS}} = 23.69\). This RASGS score is above the sample mean.

**Analysis**

In terms of preliminary analyses, reliability was assessed for the ASGS and Transliminality Scale. Pearson’s correlations were performed to determine if age or sex correlated with ASGS and transliminality. The uniformity of outcomes, including psi hitting, was assessed using a one-sample Kolmogorov-Smirnov test.

Hypotheses 1 to 3 were tested using the Exact Binomial test (one-tailed, as we were proposing a directional or psi-hitting effect), and \(Z\) test using Rosenthal and Rubin’s (1989) Formula 4. Hypothesis 4 was tested using a chi-square test for independence. Finally, Hypotheses 5 to 7 were tested using Pearson’s \(r\) and Fischer \(r\) to \(z\) transformations.

**Design**

The present study consists of a \(2 \times 2\) between-subjects factorial design. The first factor, instructions, has two levels (shamanic-like journeying instructions...
vs. no instructions) and the second factor, drumming, has two levels (drumming vs. no drumming). This design results in four factorial combinations:

1. Shamanic-like journeying instructions + drumming (i.e., voice/drum)
2. Shamanic-like journeying instructions + no drumming (i.e., voice)
3. No shamanic-like journeying instructions + drumming (i.e., drum)
4. No shamanic-like journeying instructions + no drumming (i.e., control).

In the drumming conditions, monotonous drumming was maintained at 8 beats per second (bps), total time: 19 min. Monotonous drumming at 8 bps for 15 min was used in the present study because Rock et al. (2005) found that it was associated with a statistically significantly higher number of ostensibly shamanic journeying images reported by nonshamans compared to a control condition, whereas, for example, 4 bps for 10 or 15 min and 8 bps for 10 min were not. We acknowledge that Harner (1990) recommends a drumming tempo of 205 to 220 beats per minute. However, we also note that Rock et al.’s findings suggest that a more rapid tempo may be required to elicit shamanic-like experiences in nonshamans. One research assistant was assigned to prepare the target sets and target. The other research assistant was the experimenter.

In advance of the session, the target-setter randomly selected a four-picture set from the pool of 45 picture sets using random number tables, and, using the same random number tables, a target picture was selected from the four (thus, a target set was composed of the target picture plus three decoys). As there are 45 picture sets and 200 participants, some sets were used more than once. The target-setter photocopied the target picture, which was then wrapped in aluminium foil and concealed in a target envelope (the four-picture set was also wrapped in foil and sealed in an envelope in aluminium foil). The prepared and numbered sets were then placed in a filing cabinet for subsequent retrieval by the experimenter. The experimenter was blinded to the targets during the trials. The experimenter tested participants in small groups of two or three at a time with a different set for each participant and administered the Plain Language Statement (PLS) and consent form to each participant.

Materials

The composite questionnaire used in the experiment consisted of the following: (a) PLS with consent form; (b) Transliminality Scale Revised (Form B) consisting of 29 true/false items, of which 17 are scored for the psychometrically improved Rasch-scaled version, after top-down purification using Rasch-scaling techniques to eliminate age and gender bias from the
scale. “Top-down purification” refers to a set of Rasch scaling procedures that identify and remedy differential item functioning in questionnaires, that is, response biases related to extraneous variables such as respondents’ ages, genders, or even cultures. Furthermore, Rasch scaling yields measures that have interval-level properties. These biases can elicit spurious factor structures of test items, as well as erroneous findings from statistical analyses. Therefore, the techniques overcome the limitations of classical test theory. Rasch-scaling alters the scoring range and mean; raw range is 0 to 29; raw mean = 14.5. The KR-20 reliability coefficient of the scale is 0.85 (Lange, Thalbourne, Houran, & Storm, 2000); (c) the Australian Sheep-Goat Scale (ASGS; Thalbourne, 1995), composed of 18 items, each scored 0, 1, or 2 (0 = false, 1 = uncertain, and 2 = true). Raw range is 0 to 36; raw mean = 18. The ASGS data are also Rasch-scaled (Lange & Thalbourne, 2002). This procedure alters the scoring range and mean. In a large sample (N = 131; Storm & Thalbourne, 2005), the ASGS had a high reliability coefficient, Cronbach’s alpha = 0.91; and (d) the Self-Expansiveness Level Form (SELF; Friedman, 1983). The SELF consists of 18 items rated on a Likert-type scale, designed to measure levels of expansion of the self-concept, reflecting aspects of temporal and spatial identity (Pappas & Friedman, 2007). The SELF consists of three subscales: (i) the SELF Personal Scale (PS); (ii) the SELF Middle Scale (MS); and (iii) the SELF Transpersonal Scale (TS). Friedman (1983) demonstrated that the PS and TS had acceptable reliabilities and were orthogonal to one another (replicated by MacDonald, Tsagarakis, & Holland, 1994). The TS showed acceptable validity by correlating with measures of related constructs (e.g., mysticism) and diverging from measures of unrelated constructs (e.g., intelligence, social desirability) and could differentiate between students and transpersonal groups. MacDonald et al. (1994) and Upton (1998) also found that the TS correlated with other related measures. The factor structure of the SELF has been replicated in a number of studies (Friedman, MacDonald, & Kumar, 2004; MacDonald, Gagnier, & Friedman, 2000; MacDonald, Tsagarakis, & Holland 1998).

In the present study, the experimenter also used the following: (a) a gallery of 180 hand-drawn pictures by Thalbourne (1981). Words were randomly selected from a dictionary and then hand-drawn and thus included a random array of many different types of images including simple shapes, everyday items, and animals large and small. We acknowledge that line drawings could be replaced with more realistic pictures (e.g., photos, paintings), but we note that random access to dictionary words, as a valid means of generating an objectively determined range of diverse subject matter, does become a labour-intensive and possibly restrictive process in itself in terms of finding pictorial material that matches the randomly selected words. Inevitably, however, future research will no doubt feature realistic stimuli (e.g., still photos and even movie film) as has been done in the ganzfeld. Each picture had a four-digit number written on the back. The set of 180 pictures was randomly divided into 45 sets of four drawings each;
(b) CD-player (c) CD-R disc, and (d) stop-watch; and for each participant: (e) a manila envelope containing a target set (one target picture + three decoys); (f) a manila envelope containing a concealed drawing (target) wrapped in aluminium foil; and (g) an eye-mask.

**Procedure**

Prior to testing, participants were randomly assigned to one of the four aforementioned factorial combinations:

1. **Shamanic-like instructions + drumming (voice/drum) condition:** After reading the instruction sheet, the participant signed the consent form. The experimenter then (a) instructed participants to sit on the floor; (b) handed over a concealed target picture to each participant (each participant had his/her own set); (c) instructed participants NOT to open the envelope (instead, participants placed the envelope in front of them); (d) directed participants to lie on the floor, placing a light-proof eye mask over their eyes; (e) played the CD-R recording which consists of instructions adapted from Harner (1990, p. 32; see Appendix for a transcription of the recorded instructions).

   After the CD-R recording was finished, the experimenter then: (a) instructed the participants to spend a few minutes writing down their impressions of the line drawing still concealed in aluminium-foil inside the envelope (the participants were permitted to re-read their mentation, in order to prompt their memory, thereby assisting them in the ranking process; the experimenter did not offer personal interpretations of mentations as this may have misled participants); and (b) instructed the participants to rank the four pictures from 1 to 4 (#1 being the “most likely” picture concealed in the envelope, #4 being the “least likely”) using the picture identification scoring sheet. Throughout testing, the experimenter monitored participants to ensure that they did not advertently or inadvertently open the envelope and look at the line drawing.

2. **Shamanic-like instructions + no drumming (voice) condition:** Procedures and instructions were the same for participants in this condition except there was no drumming.

3. **No shamanic-like instructions + drumming (drum) condition:** Procedures and instructions were the same for participants in this condition except there were no shamanic-like journeying instructions. Participants were instructed to do nothing other than lie on the floor with their eyes closed and remain silent.

4. **No shamanic-like instructions + no drumming (i.e., control) condition:** Procedures and instructions were the same for participants in this condition except there were no shamanic-like instructions and no drumming. Participants were instructed to do nothing other than lie on the floor with their eyes closed and remain silent.

   Figure 1 illustrates the sequence of steps for the conditions.
Figure 1. Schematic diagram of experimental protocol.
Results

Descriptive Data

Testing was conducted between June and December 2011. Participants were debriefed after testing. The average time taken to complete the experiment ranged between 40 and 90 min, but only because some participants were slower than others. No adverse events or side effects of the treatment were reported by any participant. Neither age nor sex correlated with direct hitting or rank scores.

Paranormal belief (ASGS). The mean score for the raw-score version of the ASGS was 23.82 (SD = 6.41). The mean score for the Rasch-scaled version (i.e., RASGS) was 31.57 (SD = 6.03). The theoretical range is 8.13 to 43.39, and the observed range was 8.13 to 43.39. The skew of the distribution of scores deviated slightly from normality (skew = -0.47, SE = .179), largely due to four extreme low-scoring participants, including two with the lowest possible score (i.e., 8.13) indicating extreme skepticism, and one with the next possible lowest score (i.e., 11.91)—all three did not get a direct hit. These four participants were not excluded from the sample. Reliability of the scale was high: Cronbach’s alpha = 0.92. Of the two demographic variables age and sex, only age correlated with RASGS, $r(181) = .17, p = .024$ (two-tailed). We note that ASGS data for 16 participants was missing, and the age for one participant was missing.

Transliminality. The mean score for the raw-score version of the Transliminality Scale was 12.82 (SD = 3.13). The mean score for the Rasch-scaled Transliminality Scale (i.e., RTS) was 30.20 (SD = 4.07). The skew of the distribution of scores was normal (skew = -0.26, SE = .172). The theoretical range is 13.70 to 37.30, and the observed range was 15.90 to 37.30. A reliability test of the RTS gave a Cronbach’s alpha of 0.77. Neither age nor sex correlated with RTS. The RTS correlated significantly with the RASGS, $r(182) = .53, p < .001$ (two-tailed). Note that the 17-item RTS contains no paranormal items (Thalbourne & Houran, 2003), which is not the case for the 29-item raw-score version of the Transliminality Scale, 14% items of which measure paranormal factors.

Psi hitting. Hit rates for the four groups are shown in Table 1. Distributions were expected to be flat (i.e., uniform) for rank data, under the assumption that the null hypothesis is true (i.e., there is no psi effect). We tested the uniformities for the four sets of data using a one-sample Kolmogorov-Smirnov test in each case, and found significant deviations for the three treatment conditions—vocal/drum: $z = 5.27, p < .001$ (two-tailed); vocal: $z = 5.04, p < .001$ (two-tailed); and drum: $z = 5.44, p < .001$ (two-tailed). Surprisingly, the deviation for the control condition was also significant, $z = 5.02, p = .001$ (two-tailed), though the $z$ value was the lowest of the four.
Table 1

Participants’ Rank Scores

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Voice Group Data (n = 51)

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Drum Group Data (n = 54)

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Control Group Data (n = 43)

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Planned Analyses

H1: The direct hit rate is above chance in the voice/drum condition. Participants in this condition (n = 52) produced a positive hit rate of 26.9% (where $P_{MCE} = 25%$; 14 hits; $\pi = 0.52$), but it was not significant, $p = .426$
The hit rate of 26.9%, with a corresponding $\pi$ value of 0.52, is not significant when entered into Rosenthal and Rubin’s (1989, p. 334) Formula 4:

$$Z = \frac{N^{1/2}(\pi-0.5)}{\pi(1-\pi)[P(1-P)]^{1/2}},$$

where $N=52$ participants. The formula yields $z = 0.26$ ($p = .397$, one-tailed). Directionally, the hypothesis is supported, but effects were not sufficiently strong to reach significance.

**H2: The direct hit rate is above chance in the voice condition.** The voice condition ($n=51$) produced a positive hit rate of 29.4% (15 hits), but the statistic was not significant ($p = .280; \pi = 0.56$). The corresponding $z$ score, using these $P$ and $\pi$ values in Rosenthal and Rubin’s (1989) Formula 4, was 0.79 ($p = .215$, one-tailed). Directionally, the hypothesis is supported, but effects were not sufficiently strong to reach significance.

**H3: The direct hit rate is above chance in the drum condition.** The drum condition ($n=54$) produced a positive hit rate of 25.9% (14 hits), but the statistic was not significant ($p = .489; \pi = 0.51$). The corresponding $z$ score, using Rosenthal and Rubin’s (1989) Formula 4, was 0.13 ($p = .448$, one-tailed). Directionally, the hypothesis is supported, but effects were not sufficiently strong to reach significance.

**H4: The direct hit rates in the three treatment conditions—(a) voice/drum, (b) voice, and (c) drum—are all higher than the direct hit rate in the control condition.** The hit rate for the control condition was 23.3% ($N=43$), which is below chance, and lower than the direct hit rates for all three experimental conditions (i.e., 26.9%, 29.4%, 25.9%), all three rates being above chance, where $P_{MCE} = 25\%$. However, no significant differences were found between the four groups, $\chi^2(3, N=200) = 0.47, p = .463$ (one-tailed). The hypothesis was not supported.

**H5: There is a positive relationship between paranormal belief and direct hits (the relationship will be stronger in the voice/drum condition).** For the whole sample, the correlation was not positive, $r(182) = -0.01, p = .447$ (one-tailed). For all four conditions separately, the correlations between RASGS scores and direct hits were positive in only two cases, but none were significant: voice/drum condition, $r(49) = 0.07, p = .320$ (one-tailed); voice condition, $r(44) = -0.17, p = .129$ (one-tailed); drum condition, $r(47) = 0.04, p = .386$ (one-tailed); and control condition, $r(36) = -0.03, p = .421$ (one-tailed). The hypothesis was not supported.

Differences in strength of correlations between the conditions were assessed for significance using Fischer $r$ to $z$ transformations. The correlations were not significantly different for the voice/drum condition compared to the voice condition, $z = 1.19, p = .117$ (one-tailed); voice/drum condition compared to the drum condition, $z = 0.15, p = .440$ (one-tailed); voice/drum condition compared to the control condition, $z = 0.47$,
Shamanic-Like Journeying and Psi-Signal Detection

$p = .319$ (one-tailed); the voice condition compared to the drum condition, $z = -1.05$, $p = .147$ (one-tailed); the voice condition compared to the control condition, $z = -0.66$, $p = .255$ (one-tailed); or the drum condition compared to the control condition, $z = 0.33$, $p = .371$ (one-tailed).

**H6: There is a positive relationship between transliminality and direct hits (the relationship will be stronger in the voice/drum condition).**
For the whole sample, the correlation was positive, but not significant, $r(198) = 0.01$, $p = .452$ (one-tailed). For all four conditions separately, the correlations between RTS scores and direct hits were positive in only two cases, but none were significant: voice/drum condition, $r(50) = 0.07$, $p = .301$ (one-tailed); voice condition, $r(49) = -0.20$, $p = .077$ (one-tailed); drum condition, $r(52) = -0.01$, $p = .466$ (one-tailed); and control condition, $r(41) = 0.17$, $p = .139$ (one-tailed). The hypothesis was not supported.

Differences in strength of correlations between the conditions were assessed for significance using Fischer $r$ to $z$ transformations. The correlations were not significantly different for the voice/drum condition compared to the voice condition, $z = 0.44$, $p = .330$ (one-tailed); voice/drum condition compared to the drum condition, $z = 0.40$, $p = .345$ (one-tailed); voice/drum condition compared to the control condition, $z = -0.48$, $p = .316$ (one-tailed); the voice condition compared to the drum condition, $z = -0.05$, $p = .480$ (one-tailed); the voice condition compared to the control condition, $z = -0.90$, $p = .184$ (one-tailed); or the drum condition compared to the control condition, $z = -0.86$, $p = .195$ (one-tailed).

**H7: There is a positive relationship between self-expansiveness and direct hits (the relationship will be stronger in the voice/drum condition).**
For the whole sample, the correlation was positive but not significant, $r(198) = 0.07$, $p = .168$ (one-tailed). For all four conditions separately, the correlations between SELF scores and direct hits were positive for three conditions, but none were significant: voice/drum condition, $r(50) = 0.13$, $p = .186$ (one-tailed); voice condition, $r(49) = -0.01$, $p = .480$ (one-tailed); drum condition, $r(52) = 0.03$, $p = .417$ (one-tailed); and control condition, $r(41) = 0.14$, $p = .181$ (one-tailed).

Differences in strength of correlations between the conditions were assessed for significance using Fischer $r$ to $z$ transformations. The correlations were not significantly different for the voice/drum condition compared to the voice condition, $z = 0.69$, $p = .245$ (one-tailed); voice/drum condition compared to the drum condition, $z = 0.50$, $p = .309$ (one-tailed); voice/drum condition compared to the control condition, $z = -0.05$, $p = .480$ (one-tailed); the voice condition compared to the drum condition, $z = -0.20$, $p = .421$ (one-tailed); the voice condition compared to the control condition, $z = -0.70$, $p = .242$ (one-tailed); or the drum condition compared to the control condition, $z = -0.53$, $p = .298$ (one-tailed).
Post Hoc Analyses

The three experimental conditions combined. In testing $H4$, it was noted that all three hit rates of the experimental groups were higher than the hit rate of the control group, although all three hit rates were not significantly higher. Given that all three experimental groups experienced some degree of shamanic-like treatment, and the three hit-rates were not significantly different from each other, we combined the groups to form a hybrid experimental group ($N=157$), which produced an overall direct-hit rate of 27.4% (43 hits, $\pi = 0.53$), which was not significant, $p = .271$ (one-tailed), but was the second largest hit rate (the hit rate for the voice group being the highest at 29.4%), and is higher than the hit rate of 23.3% for the control group. The corresponding $z$ score, using Rosenthal and Rubin’s (1989) Formula 4, was 0.67 ($p = .251$, one-tailed; $ES = .05$). When direct hit rates for the hybrid group and control condition were compared, we found no significant difference, $p = .370$ (one-tailed).

Declines and motivational effects. It is prudent that experimenters be mindful of possible decline effects in their studies as these are common in parapsychology (Bierman, 2001). We accept that testing 200 participants might take its toll on even the most ardent lab experimenter, and perhaps not surprisingly, it was claimed by the third author (KH), who was also the sole experimenter who tested our participants in the lab, that her motivation declined over the course of the experiment. Also, about halfway through the experiment, she admitted (post-testing) to taking a liking to the drum condition, although this preference abated toward the end of the study. Although largely anecdotal, we tested for general trends in our data to see if there were indications of declines, or any other unusual performance biases.

We split the data for each of the four conditions into four subgroups, thus forming 16 groups, and found that the direct-hit percentages were quite wide-ranging, but there were no significant trends. Only 1 out of 16 subgroups (the drum condition) produced a significant hit-rate of 57.1% ($p = .02$), which was in the third quartile—the four hit rates deviated significantly from chance, $\chi^2(3, N=54) = 10.67, p = .014$ (two-tailed). Applying the five-percent rule, we might expect 1 in 20 tests to be significant by chance so that this result may be a chance outcome of no special import.

If KH did have some experimenter influence on the drum group at a later point in time, she possibly acted on the psi capacity only (i.e., she did not affect participants’ responses when they completed the predictor variables, ASGS, RTS, and SELF) because we found no evidence from bivariate correlational analyses of these three predictor variables that there might have been, by chance alone, an assignment of a special cohort of extraordinary participants to the drum condition at the relevant juncture—we stress that assignment of participants to any of the four conditions was a random process. In addition, we note that the post hoc results must
be interpreted with caution due to the fact that multiple analyses were conducted. (We comment further on the issues of declines and motivation in the Discussion.)

**Discussion**

Storm and Rock (2009a) made reference to the long and successful history of the ganzfeld procedure, but that paper also noted the ganzfeld protocol’s controversial, time-consuming, costly, and burdensome nature. We believe we have made a positive move by venturing into new territory—a move toward establishing our imagery cultivation (IC) model, which utilizes a shamanic-like journeying protocol that is not only efficient but, more importantly, encourages active cognitive processes rather than adherence to passive processes typical of the ganzfeld. Storm and Rock (2009b) provided some statistical support for our argument that the shamanic-like journeying protocol may be at least on par with the ganzfeld. However, in the present study—our first replication study—results were not so encouraging. In terms of proportions, results in tests of $H_1$, $H_2$, and $H_3$, showed above-chance effects for all three treatments—all three were positive as hypothesized, but none were significant. The shamanic-like condition (voice/drum) produced a percentage hit rate of 26.9%; the voice condition alone (i.e., no drumming) produced an ironically higher percentage of 29.4%, and the drum condition alone (i.e., no voice) produced a hit rate of 25.9%.

In testing $H_4$, we found that direct hitting rates for the three treatment conditions, though superior to that of the control condition, were not significantly higher. Failure to find statistical support for our first four hypotheses may be due, at least in part, to the crude target images. The targets might be improved by replacing the line drawings with more realistic pictures (e.g., photos, paintings). In addition, we cannot rule out decline effects on participants’ performances due to shifting motivations coming from the experimenter. Given our nonsignificant findings, it would be wise in future studies not to use only one experimenter, but two or three or more, either working together or in alternating sessions, to keep motivation up. The benefit of this procedure would be that each experimenter could give full attention to a single participant. This procedure was followed in the first study (Storm & Rock, 2009b), but due to funding issues, it was not possible to employ the same protocol. Alternatively, the solo experimenter should keep a day book comprising a series of mood/motivation questionnaires completed every day prior to participant testing so that a mood/psi correlation can be calculated at the end of the study. Such a correlation might help identify the source of any psi declines (or inclines for that matter) insofar as these may be related to experimenter effect. We also advise that experimenters adhere at all times to the initial aims of the experiment as stipulated in accordance with the theoretical premises of the study.
In the search for correlates of psi (see results for \(H5\), \(H6\), and \(H7\)), there was no evidence that (i) paranormal belief (RASGS), (ii) transliminality (RTS), or (iii) self-expansiveness (SELF) correlated with psi. These results were atypical, especially in the case of the RASGS measure, since paranormal belief is a noted correlate of psi performance (see Lawrence, 1993). It must be stated that, given the nonindependence of the RASGS and the RTS, it might be expected that failure to find statistical support for \(H5\) would mean there was a strong likelihood of not finding statistical support for \(H6\), and vice versa (recall that the correlation between ASGS and RTS scores was significant—see the Results section). We are still perplexed by these contradictory findings, especially given the long history of the sheep-goat effect.

It is noted that the present study was conducted with volunteers, not with shamans. It would be expected that indigenous shamanic practitioners observed in a field setting might respond to shamanic techniques quite differently (e.g., phenomenologically, behaviorally) compared to volunteer students in a laboratory setting. In the case of shamanic participants, “depth of experience would need to be measured; the element of risk would need to be considered in the case of encountered malicious entities; and the purpose of the journey would need to be identified” (Rock & Krippner, 2011, p. 152). It is unlikely that prospective shamanic participants would consent to participate in parapsychological research unless it would serve some clearly stated and mutually agreed upon need. We also note that it was not our intention to train volunteers to be shamans, but to borrow psi-conducive ideas that have ostensibly worked in indigenous cultures and apply them in a laboratory context with nonshamans.

Researchers must make up their own minds as to whether the methodological gains of the IC model outweigh the performance risks. Only four experimenters have run our IC model, and their levels of psi-conduciveness were highly variable, which may mean, unfortunately, that our design, as optimistic as we are about it, is not free of an experimenter effect. Researchers are free to make their own judgements as to how easy they think the protocol for the IC model is to implement in their laboratories, but we point out a number of advantages over the ganzfeld: First and foremost, in terms of procedure, there is no need for percipient/agent pairing, and experimenters are not restricted to individual testing—we tested participants in a small-group setting (up to three at a time) though, of course, these are independent of each other (i.e., they do not work in teams), and the given session has to be for one and the same condition. Second, in terms of materials and apparatus, minimal costs are incurred: (i) target sets of pictures can be hand-drawn or downloaded from the Internet, and envelopes and aluminium foil are readily available; (ii) a photocopy machine is a fixture of most modern offices, (iii) an audio device (CD or cassette player) is easily accessed; and (iv) the prerecorded CD-R disc or cassette tape with instructions/drumming takes minimal time to produce.
Extra items such as eye-masks, blankets, pillows, scented candles, and so forth, might be considered optional, but we stress that participants’ comfort should always be a priority. We also see facility for automated procedures following the autoganzfeld protocols where relevant and viable.

The results of the present study suggest that, as with the ganzfeld procedure, a larger number of studies are needed to draw conclusions about the efficacy of the IC procedure. Moreover, perhaps an even larger database is required to justify a more refined conclusion that the IC procedure is superior to the ganzfeld. This is not surprising given the amount of “noise” in psi data, in general. For these reasons, and on the premise that parapsychologists can reach a greater understanding of paranormal functioning by investigating innovative theory-driven experimental designs that may reveal the nature of psi processes, we see good reason for further research using imagery cultivation techniques.

References


Shamanic-Like Journeying and Psi-Signal Detection


Shamanic-Like Journeying and Psi-Signal Detection

Abstracts in Other Languages

German

SCHAMANENÄHNLICHE REISEN UND DIE ENTDECKUNG DES PSI-SIGNALS: I. AUF DER SUCHEN NACH PSI-BEGÜNSTIGENDEHNEN KOMPONENTEN EINES NEUARTIGEN EXPERIMENTELLEN PROTOKOLLS

ZUSAMMENFASSUNG: Es ist der Sache angemessen, wenn man die Reizbedingungen untersucht, die Psi-Effekte produzieren, die zumindest so deutlich sind wie diejenigen, die sich unter der Ganzfeldbedingung einstellen, besonders wenn solche Reizbedingungen weniger komplex sind als im Ganzfeld. Storm und Rock haben daher ein Modell zur Kultivierung bildlicher Vorstellungen entwickelt, demzufolge schamanenähnliche Techniken als psi-begünstigend angenommen werden und für ihre Behauptung einiges an Beweismaterial angeführt. Die Absicht der vorliegenden Studie bestand darin, herauszufinden, welche Komponente/n des schamanenähnlichen Reisereizes im Sinne von Storm und Rock psi-begünstigend ist/sind. Da psi-modifizierende Variablen auch innerhalb der Psi-Forschung untersucht werden sollten, wurden in der vorliegenden Studie paranormale Einstellung/Erfahrung (erfasst mittels Thalbournes Australian Sheep-Goat Scale), Transliminalität (die Tendenz psychologischer Inhalte, die Bewusstseinsschwelle innerhalb oder außerhalb derselben zu passieren) und Selbstausdehnung (erfasst mittels Friedmans Self-Expansiveness Level Form) als mögliche Prädiktoren von Psi getestet. Nichtschamanen (N = 200) wurden zufällig einer der vier Bedingungen zugeordnet: (a) Unterweisungen + Trommeln; (b) nur Unterweisungen; (c) nur Trommeln; und (d) Kontrollbedingung (d. h. keine Unterweisungen, kein Trommeln). Nach diesen Bedingungen berichteten die Teilnehmer ihre Erlebnisse und ordneten sie einer zufällig ausgewählten abgeschirmten Strichzeichnung als Zielobjekt zu. Die Trefferraten lagen über dem Zufall (nicht signifikant) bei allen drei Experimentalbedingungen und unter dem Zufall bei der Kontrollbedingung. Paranormale Einstellung, Transliminalität und Selbstausdehnung sagten die Trefferraten nicht voraus.

Spanish

VIAJES CHAMÁNICOS Y DETECCIÓN DE SEÑAL PSI: I. EN BUSCA DE LOS COMPONENTES FAVORABLES A PSI EN UN NUEVO PROTOCOLO EXPERIMENTAL

RESUMEN: Es pertinente explorar qué estímulo pueden producir efectos psi por lo menos tan fuerte como los provocadas en la condición ganzfeld, sobre todo si tales estímulos son menos complejos que el ganzfeld. Por lo tanto, Storm y Rock desarrollaron un modelo de cultivo de imágenes (CI), que considera técnicas similares a las chamánicas como propicias para el psi, y aportaron alguna evidencia a este respecto. El objetivo de este estudio fue determinar qué componentes de
estímulos semejantes al viaje chamánico utilizado por Storm y Rock podrían ser favorables a psi. Puesto que las variables que modifican a psi también deben ser investigadas en la investigación psi, evaluamos creencia/experiencia paranormal (medida por la Australian Sheep-Goat Scale de Thalbourne), Transliminalidad (la tendencia del material psicológico a entrar o salir de la conciencia), y la Auto-Expansión (medida por la Self-Expansiveness Level Form de Friedman) como posibles predictores de psi. Personas no chamanes (N = 200) fueron asignadas aleatoriamente a una de cuatro condiciones: (a) Instrucciones + percusión, (b) instrucciones solamente, (c) sólo percusión, y (d) condición control (ni instrucciones ni percusión). Después de estas condiciones, los participantes informaron en voz alta sus pensamientos y dieron un rango a un dibujo lineal oculto como objetivo seleccionado al azar. Las tasas de éxito estuvieron por encima de la probabilidad (en forma no significativa) en las tres condiciones experimental, y por debajo de la probabilidad en la condición control. La creencia paranormal, transliminalidad, y la auto-expansión no predijeron la tasa de aciertos.

French

VOYAGE SIMILI-CHAMANIQUE ET DETECTION DU SIGNAL PSI:
I. A LA RECHERCHE DES COMPOSANTS PSI CONDUCTIFS
D’UN NOUVEAU PROTOCOLE EXPERIMENTAL

RESUME: Il est pertinent d’explorer les conditions de stimulation qui pourraient produire des effets psi au moins aussi forts que ceux obtenus dans la condition ganzfeld, en particulier si ces conditions de stimulation sont moins complexes que celles du ganzfeld. A cette fin, Storm et Rock ont développé le modèle de la cultivation de l’imagerie (IC), qui considère que les techniques apparentées au chamanisme pourraient faciliter le psi, et ont apporté quelques éléments appuyant cette revendication. L’objectif de la présente étude est de déterminer quels composants des stimulations s’apparentant à des techniques de voyage chamánique facilitent le psi. Puisque des variables modulant le psi doivent également être étudiées dans la recherche psi, nous avons également testé, en tant que possibles prédicteurs de psi, les croyances/expériences paranormales (mesurées par l’échelle australienne mouton-chèvre de Thalbourne), la transliminalité (la tendance du matériel psychologique à franchir le seuil de la conscience dans un sens ou dans l’autre), et l’auto-expansivité (mesurée par le questionnaire de niveau d’auto-expansivité de Friedman). Les non-chamans (N = 200) furent répartis aléatoirement à l’une des quatre conditions suivantes: (a) instructions + percussions; (b) uniquement les instructions; (c) uniquement les percussions; et (d) condition contrôle (c’est-à-dire sans instructions ni percussions). Après ces conditions, les participants donnaient des mentations, et classer des dessins linéaires sélectionnés aléatoirement comme cibles. Les taux de succès furent supérieurs au hasard (mais non significatifs) dans les trois conditions de traitement, et inférieurs au hasard dans la condition contrôle. La croyance au paranormal, la transliminalité et l’auto-expansivité ne permirent pas de prédire les taux de succès.
APPENDIX

Instructions to Participants

Visualise an opening into the earth that you remember from some time in your life. It can be an opening that you remember from your childhood, or one you saw last week, or even today. Any kind of entry into the ground will do—it may be a hole made by a burrowing animal, a cave, a hollow tree stump, a spring, or even a swamp. It can even be a man-made opening. The right opening is one that really feels comfortable to you, and one that you can visualise. Spend a couple of minutes seeing the hole without going in it. Note its details clearly.

[2 minute pause]

When the drumming begins, visualise your opening into the earth ... [5 second pause] ...enter it ... [5 second pause] ... and begin the journey. Are you ready, OK, here we go.

[Drumming begins.]

Go down through the opening and enter the Tunnel ... [5 second pause] ... At first the tunnel may be dark and dim ... [5 second pause] ... It usually goes underground at a slight angle, but occasionally it descends steeply ... [5 second pause] ... The Tunnel sometimes appears ribbed, and often it bends ... [5 second pause] ... Occasionally one passes through the Tunnel so fast it is not even seen ... [5 second pause] ... In following the Tunnel you may run up against a natural wall of stone or some other obstacle ... [5 second pause] ... When this happens, just go around it or through a crack in it ... [5 second pause] ... If this fails, simply come back and try again ... [5 second pause] ... Now continue this journey down the Tunnel until I give you further instructions.

[Approx. 9 minutes of drumming without accompanying instructions]

You are now reaching the end of the Tunnel ... [15 second pause] ... you will see a set of doors ... [15 second pause] ... now visualise the doors in front of you ... [15 second pause] ... Now push open the doors ... [15 seconds] ... Now visualise your envelope before you ... [30 second pause] ... Imagine opening the envelope and look at the picture ... [1 minute pause] ... Study the picture in all its detail ... [1 minute pause] ... Remember this information for later.

The journey is now almost over ... [15 second pause] ... The drum tempo will now become very rapid for the next half a minute to accompany you on your return journey ... [5 second pause] ... come back up through the Tunnel ... [5 second pause] ... The session will conclude with four sharp strikes of the drum to signal that the journey is over.