

## Imagery Cultivation vs. Noise Reduction: Shamanic-Like Journeying as a Psi-Conductive Alternative to the Ganzfeld Protocol

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**Abstract:** Historically, psi effects have been linked to altered states of consciousness (ASCs; Bem & Honorton, 1994). In this context, arguably the most widely used technique is the Ganzfeld. However, in recent times, scholars (e.g., Alvarado, 1998; Braud, 2005; Scimeca, Boca, & Iannuzzo, 2001) have formulated cogent arguments that cast doubt on whether the Ganzfeld is, in fact, an ASC that is psi-conductive. Consequently, it may prove prudent to investigate other conditions that induce ostensible ASCs that are purportedly psi-conductive, and it would be wise to get feedback from test participants in these states. In this theoretical paper, we propose that psi effects may be enhanced (i.e., strengthened) using a shamanic-like treatment. On that basis, we argue that parapsychologists must go beyond the assumption that psi effects are optimised under conditions that are inherently passive procedures, and foster techniques that require cognitive action from test participants.

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**Keywords:** ESP, Ganzfeld, parapsychology, psi, shamanic-like journeying, shamanism.

### INTRODUCTION

Bem and Honorton (1994) assert 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). Specifically, the Ganzfeld consists of an undifferentiated visual field created by viewing a red light through halved translucent ping-pong balls taped over a percipient’s eyes. Additionally, an analogous auditory field is produced by listening to

stereophonic white or pink noise (i.e., a monotonous hissing sound; Bem, 1993). Therefore, as a procedure whereby a ‘sender’ (agent) is required to “psychically communicate” (Milton & Wiseman, 1999, p. 387) a picture target or movie-film target to an isolated ‘receiver’ (percipient) who is in the Ganzfeld condition of *homogeneous sensory stimulation*, the Ganzfeld is usually regarded as inducing an altered state of consciousness (ASC)<sup>1</sup> that is considered psi-conductive.

The question of whether the Ganzfeld protocol does in fact induce a psi-conductive ASC is usually answered indirectly in two ways. First, the reasonable and logical assumption is made by Ganzfeld researchers that homogeneous sensory stimulation and relaxation necessarily and favourably help to alter the signal-to-noise ratio (i.e., the psi signal is *enhanced*).<sup>2</sup> Second, and as a consequence of this claim, the subsequent assumption is made that, based on the Ganzfeld meta-analyses, the Ganzfeld design demonstrates consistent, significant, and relatively higher effect sizes compared to its closest parallel, the free-response design, which does not feature an ASC (e.g., see Storm & Thalbourne, 2000).

In regard to the first assumption, 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-conductive. However, it is arguable whether there can be objective evidence (e.g., EEG measures) or subjective evidence (e.g., percipients’ self-reports) that, if percipients are in a Ganzfeld Altered State of Consciousness (Gz-ASC),<sup>3</sup> it is *the* Gz-ASC that is psi-conductive, or some other partial- or sub-condition that is psi-conductive (e.g., relaxation acting alone, or the homogeneous field acting alone).

In regard to the second assumption, Milton (1997) only suggests, in her major meta-analysis of 78 free-response ESP studies, that the Ganzfeld design may deliver a higher effect size compared to the free-response design: “the nonASC [free-response] studies did not obtain a *significantly* lower mean effect than the early ganzfeld studies [see Honorton, 1985] but

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<sup>1</sup> It is perhaps noteworthy that Rock and Krippner (2007a,b) argue that “altered states of consciousness” may be more accurately described as “altered patterns of phenomenal properties.”

<sup>2</sup> Key pioneers of the Ganzfeld (e.g., Honorton, 1977) have used the term “enhanced” (p. 457) for many years, but William Braud prefers the words, “more readily detected” (W. Braud, personal communication, April 22, 2009).

<sup>3</sup> One of the controversial claims concerning the Ganzfeld is that it is an altered state (for example, see Alvarado, 1998), but we remain impartial on this matter. In the present paper, our argument will be to argue that the Ganzfeld is largely a passive technique that governs the limits of its own psi-conductiveness.

the lack of significance may have been due to the relatively smaller number of studies involved” (pp. 299-300, italics added). In fact, she adds that “the nonASC studies clearly *outperform* the near-zero mean effect of the new ganzfeld studies [see Milton & Wiseman, 1997]” (p. 300, italics added). Furthermore, although it may be too soon to make such claims, more recent evidence supports Milton’s finding that there may not necessarily be a significant effect size difference between Ganzfeld and free-response databases (Storm, Tressoldi, & di Risio, submitted).<sup>4</sup>

In addition to these criticisms, we argue that the Ganzfeld protocol does not include instruction to *actively* ‘target’ the target while in the putative Gz-ASC. We acknowledge that in many psi-retrieval studies “there is present an active *intention* or active *expectation* for incorporation of target-relevant information into one’s ongoing mentation” (W. Braud, personal communication, April 22, 2009). Braud adds that “such targeting intentions and expectations may be explicit or implicit and may be present in both participants and experimenters.” However, we would not use the word ‘active’ in the same sense to describe ‘intentions’ and ‘expectations’, which in and of themselves are not mental actions, but may only precipitate such action.

For these reasons, parapsychologists may have been labouring under the false apprehension that the Gz-ASC facilitates psi like no other paradigm, and if the generic Ganzfeld design ever needs procedural changes, it is only insofar as theoreticians might argue that targets should be more interesting (e.g., auditory targets instead of visual, or film instead of stills), or samples should be comprised of test participants who are trained rather than untrained, or selected on the basis of a given trait rather than unselected. These ‘modifications’ do not address the problems we wish to highlight. We propose that the focus on signal-to-noise ratio (i.e., noise reduction) has created a paradigmatic block that has blinkered parapsychologists to the degree that they have not entertained alternative, even antithetical, methodologies that encourage fantasy, imagination and other *active* cognitive processes.

It may be the case that a tacit assumption exists whereby Ganzfeld participants are thought to somehow tap into their imagination. This mistaken notion may have come from the belief that participant mentation is a consciously/semi-consciously/unconsciously-influenced fantasy product that has its source in some dimly represented target-as-signal just because

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<sup>4</sup> In their meta-analysis, Storm, Tressoldi, and di Risio (submitted) found that one of their Ganzfeld databases comprised of naïve participants only ( $n = 17$ ) was not significantly different from a free-response database also comprised of naïve participants ( $n = 18$ ), though that same Ganzfeld database did have a stronger effect size.

said participant, as percipient, is instructed to *visualize* the target image ‘sent’ by a sender/agent. But as it happens, there is anecdotal evidence that some participants are not only able to perceive trial-specific images, but also (possibly inadvertently) fall victim to expanded or broader domains and perceive incidental events in the laboratory environment and elsewhere (for examples, see Parker, 2005, pp. 78, 81). We hold that the evidence is clear that Ganzfeld experimenters endorse and deploy a primarily passive technique inherent in the various Ganzfeld designs, and it is arguable whether the Gz-ASC somehow encourages any kind of active process on the part of the percipient. Ganzfeld participants are only given instruction to report what they are experiencing (i.e., they give mentation), and there is little or no option after the session to express and discuss fully their subjective experiences during the trial. We stress that in many Ganzfeld studies mentation too was often given *after*, not during the trial,<sup>5</sup> at least until the inception of Parker’s (2005) Real-Time Digital Ganzfeld Technique (RTDGT).<sup>6</sup> But in all types of Ganzfeld design, including RTDGT, the fact remains that no rigorous imaginal instruction is given to percipients that seeks to activate a ‘journey’ into the unconscious to tap psi at its source.

We must be mindful of the fact that the “ESP Ganzfeld studies are probably the most controversial and frequently analysed group of parapsychological studies” (Henry, 2004, p. 43). Indeed, in recent years, many scholars (e.g., Alvarado, 1998; Braud, 2005; Scimeca, Boca, & Iannuzzo, 2001) have formulated cogent arguments that cast doubt on whether the ganzfeld induces psi-favorable conditions that facilitate psi.<sup>7</sup>

Alvarado (1998) has brought attention to issues such as “lack of control groups, a variety of design and individual differences problems . . . and an alternative (more general) explanation using expectancy effects of different types” (p. 45).

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<sup>5</sup> W. Braud (personal communication, April 22, 2009) points out that in many cases, “participants *may verbalize their imagery and impressions throughout the session*” but we stress that, in Braud’s own words, “such imagery is recorded and perhaps played back or read to participants *at the end of a session as a memory aid*” (italics added, W. Braud, personal communication, April 22, 2009).

<sup>6</sup> RTDGT “automatically enables the real-time recording of the mentation report so as to be synchronous with the film clip” (Parker, 2005, p. 78).

<sup>7</sup> We do not intend to deal with the typical criticisms made against the Ganzfeld design, such as fraud, inadequate randomization, sensory leakage, and other flaws, as these have long been argued as unlikely (see Utts, 1991). Since Hyman and Honorton (1986) produced the so-called *Joint Communiqué*, Ganzfeld practitioners have made sure that the appropriate controls are implemented.

The question has been asked, Do psi-favorable test conditions such as ganzfeld procedures really *facilitate* psi? In answer to that question, Braud (2005) has pointed out that:

. . . it is not yet clear to what extent any psi manifested in such conditions might be attributable to psi-enhancing properties of the conditions themselves or to various sampling, demand characteristics, or experimenter effects. In addressing this issue, much more trenchant analyses seem to be in order, rather than taking it for granted that these conditions actually facilitate psi . . . (p. 48)

Scimeca et al. (2001) have claimed that it is impossible to observe and positively define the alleged phenomenon (i.e., psi). They have pointed out the lack of a positive theory of extrasensory perception, and the failure to produce successful replications of the Ganzfeld experiment by independent and neutral scientists. They also summarized three Ganzfeld meta-analyses and argued that the application of meta-analysis “to synthesize and explain the results of this area of research has been flawed by a misinterpretation of its indices” (p. 13). And they recommend qualitative methods. Consequently, it may be prudent to investigate other test conditions that are ostensibly psi-conducive, though we are not arguing that researchers should deviate too far from the Ganzfeld design. In this context, it is noteworthy that psi effects (PK and ESP) that were induced during shamanic states have been reported extensively in the literature, and we will return to this theme later (e.g., Krippner, 1984; Nelson, Jahn, Dunne, Dobyms, & Bradish, 1998; Nelson & Radin, 2003; Saklani, 1988).

We propose that parapsychologists must meet the psi process head on, and not only accept that psi may be facilitated in a passive state (addressed by the noise-reduction model of the Ganzfeld design), but also regard psi as an effect that can be induced through cognitive action on the part of the participant. We go further by advocating a shift in the experimental paradigm that utilises shamanic-like journeying conditions primarily because the evidence suggests that cognitive action may facilitate psi. In the parapsychological tradition, such evidence comes from the remote-viewing studies. In the anthropological tradition, such evidence comes from the shamanism studies. These bodies of work will be discussed shortly, but it is necessary to first describe the history of the Ganzfeld so that an understanding of its nature can be fully appreciated in the sense that we critique it here.

## THE ORIGINS AND NATURE OF THE GANZFELD

The pioneer parapsychologist in the United States, J. B. Rhine (1934/1964), once observed that several of his participants “described their ESP experiences as involving a state of ‘detachment’, ‘abstraction’, ‘relaxation’, and the like” (p. 181). He went on to say that any number of his test subjects would go into a “light trance with eyes closed,” or “close their eyes when they do not have to keep them open,” or “look off with ‘a far away look’ much of the time” (p. 181). Other participants even “perceive[d] . . . by hallucination” (p. 181).

Most parapsychologists are familiar with these ‘techniques’, which are not necessarily instructional components of formal psi procedures, but it is certainly apparent to most parapsychologists that there is much anecdotal evidence that some psi participants attempt to induce in themselves an ostensible ASC that they consider facilitates psi. Certainly there seems to be some degree of focussed attention if it cannot be claimed that an ASC is actually induced. In the next four sub-sections, four states (i.e., hypnosis, dreaming, meditation, and relaxation) will be discussed in terms of either passive process, or psi-conduciveness, or both. While we acknowledge that active processes can undoubtedly define these states, our argument here is that Ganzfeld pioneers endorsed a noise-reduction model and therefore designed the Ganzfeld protocol under the assumption that passive, rather than active, processes in mind constituted the optimum means of increasing the signal-to-noise ratio.

### *Hypnosis*

One of the first to make mention of ‘passivity’ or a ‘passive state’ during the psi process was Brugmans (1922, 1924). He based his assumption of a “rapport” between ESP (i.e., telepathy) and the passive state on declines in galvanic skin response. More generally, as with Brugmans, the main focus of researchers came to be the psychic’s state of mind—it was thought that ESP was somehow related to *degrees of consciousness*, such as dissociation brought about by such factors as ‘somnambulism’, ‘absorbing preoccupation’, and ‘mental fatigue’. Progress proved slow, but it was inevitable that parapsychologists would more seriously investigate hypnosis since it was seen as a means of bringing about a passive, dissociative state thought to be conducive to psi (e.g., Honorton & Krippner, 1969; Kumar & Pekala, 2001; Pekala & Cardeña, 2000).

While it was found that “the ability to dissociate was . . . the strongest predictor of ‘anomalous and paranormal experiences’, . . .

hypnotizability was a more moderate predictor” (Parker, 2005, p. 71). Parker admits that this conclusion is not clear-cut because anomalous experiences are not necessarily psychic, and can include anything from UFO abduction to belief in fairies. Furthermore, Honorton and Krippner (1969), having reviewed the relevant studies that controlled for waking expectancies, found that nine of 22 studies had significant differences “but sometimes, as well as the psi-hitting effect . . . there could be a so-called *psi-missing effect*” (cited in Parker, 2005, p. 70) in the hypnosis group. Thus, according to Parker, little was achieved in the investigation of hypnosis as a possible psi-conductive variable. Indeed, in the review by Stanford and Stein (1994), results depended on the personality and style of the experimenter. They also noted that participant selection played a part.

These confounding variables only complicated the issue but, as will be seen, the passive aspect of dissociation (induced through techniques such as hypnosis) lived on to influence the design of the Ganzfeld protocol.

### *Dreaming*

Researchers also investigated what is now referred to as ‘dream-psi’. This domain had its greatest impact in the work done at the Maimonides Dream Laboratory (Ullman, Krippner, & Vaughan, 1974), and it originated in the idea that many people report telepathic and premonitory dreams, as indeed Rhine’s wife, Louisa Rhine, attested on the basis of her vast collection of unexplained anecdotal accounts (L. E. Rhine, 1962). Theoretically, the link to the usually passive condition of the dream state was clear—psi seems to work unconsciously, and imagery was the key. In some sense, the psi process could be encapsulated in the dream process, and the psi target seemed embedded in imaginal form as dream content.

Results from the Maimonides dream studies were mixed and complex, involving a small team of researchers with different methodologies, different statistical testing procedures, and different goals. Nevertheless, it produced a significant mean effect, and a new (post-Maimonides) dataset (Sherwood & Roe, 2003) that also produced a significant mean effect, was not statistically different from the Maimonides dream studies. Not only did that mean that all the dream studies from both sets belonged to a homogeneous set, but the mean effect was highly significant. As Storm (2006) conservatively stated: “These findings do indicate that the ‘average’ dream-psi study is not likely to elicit evidence of psi, but when the collection is looked at over a 40-year period, there is an extremely strong indication of a correspondence between dream motifs and target material under laboratory conditions” (p. 146).

While most parapsychologists would be cognisant of the phenomenon known as lucid dreaming characterised by *active* involvement of a volitional dream-ego (LaBerge & Gackenbach, 2001), the Ganzfeld design approach seems focussed on only the passive aspect of the dream-psi process.

### *Meditation*

A handful of studies have been conducted that directly investigated the alleged psi-conduciveness of meditation (e.g., Honorton, 1997; Palmer, Khamashta, & Israelson, 1979; Rao, Dukhan, & Rao, 2001; Rao & Puri, 1978; Rao & Rao, 1982; Roney-Dougal & Solfvin, 2006), but results have been variable.

Furthermore, as Steinkamp (2005) has indicated in her meta-analysis of forced-choice studies, the enhanced results after meditation might partly be the result of psychological factors. For example, participants may have greater confidence after meditating, and *their* belief might, in turn, couple with the *experimenter's* belief that meditation will help. In other words, the meditation effect on psi might be conflated with some degree of belief effect from participants and the experimenter (on belief as a psi-conductive variable, see Lawrence, 1993).

### *Relaxation*

Anecdotal and experimental reports of alleged psychic phenomena in meditative or relaxed states suggested an avenue of research for parapsychologists (e.g., Braud & Braud, 1973, 1974). Honorton (1977) cursorily reviewed the relaxation literature and, having found some indication that relaxation could “enhance psi receptivity” (p. 457), advocated relaxation as a psi-conductive condition.

For the period 1946 to 1992, Storm and Thalbourne (2001) collected 21 studies that featured relaxation as a treatment condition. They found that 52% of studies with a relaxation condition ( $n = 11$ ) produced significantly higher effect sizes compared to the non-relaxation studies ( $n = 10$ ), and this success rate is about ten times higher than would be expected by chance (where  $\alpha = 5\%$ ).

The relaxation condition is the epitome of the Ganzfeld state for its emphasis on placing participants in a reclining restful position, usually on an appropriately-designed upholstered chair. We can safely assume that a relaxation protocol includes *mental* relaxation, so that percipients in a relaxation condition are not applying some kind of active cognitive process that facilitates psi. We would deem mental relaxation to be a passive state.

### *The Noise-Reduction Model*

As we have seen, the psi-focussed hypnosis, dreaming, meditation, and relaxation literature has produced variable results. Although hypnosis was too complex a procedure and not sufficiently understood, dream research, though expensive and time-consuming, did furnish some encouraging results. Notwithstanding the perhaps dubious incorporation of the principles inherent in meditation and seemingly appropriate relaxation techniques, the experimental design that came to be called the Ganzfeld, was simple and inexpensive, and it was Charles Honorton's (1977) work that paved the way for the Ganzfeld as we know it today. Honorton (1977, 1993) had earlier referred to 'internal attention states' and ASCs in ESP research, and he conceptualized psi as a weak cognitive signal usually masked by internal cognitive and external 'noise'. On that basis, he proposed his *noise-reduction model* (Honorton, 1974, 1993).

Braud (2002) also endorsed a model of mental quietude, and he too described the Ganzfeld as an ASC similar to that obtained in meditation (i.e., stillness of mind or cognitive quietude). We note, in Alvarado's (1998) words, how Braud (1978) had "articulated" the possible sources of noise, including "sensory and perceptual noise, bodily and autonomic activity, *mental activities*, . . . [and] *excessive striving to obtain ESP information*" (p. 44, italics added). Though these might be considered sources of 'noise' under certain circumstances, we would suggest that mental activity and focus are keys to creativity, and may only be psi-inhibitive when they degenerate into states of anxiety and fervour.

Theoretically, by modifying the "signal-to-noise ratio" (i.e., reducing the noise), using any or all of the above-described treatments (i.e., hypnosis, dreaming, meditation, and relaxation), the presumed psi information could be better detected. Parker (2005) clarifies the Ganzfeld philosophy:

The common feature, as Honorton described it, is the elimination of "noise" or unwanted sources of stimulation. By "noise" was meant not just external stimulation and sources of distraction but also inner chatter. The objective is to still the mind in order for internal imagery to spontaneously manifest; or, expressed in another way, the brain requires a minimal level of stimulation and in the absence of an external source, it will turn internally for this. (p. 73)

The overall conclusion we must draw about the Ganzfeld is that, by creating a homogeneous field of visual and auditory stimulation, and inducing a meditative relaxed state, the Ganzfeld technique encourages a state in the percipient that is very much akin to the passive state of sleep-onset, even to the degree that there may be hypnagogic effects. In fact, falling asleep

requires a winding-down, not a cranking-up of mental activity, and in an EEG study by Wackermann et al. (2002) the restful Ganzfeld state was found to be different from the waking state on alpha-frequency activation only (Ganzfeld alpha was higher). We see here that the Ganzfeld process is very much aimed at putting the percipient in a docile, high-alpha, trance-like or hypnotic state, and these are all passive states. In other words, the Ganzfeld artificially induces a sleep-like state—a lowering of conscious arousal. It is even acknowledged that many Ganzfeld participants can actually fall asleep during their sessions.

We must note that many cases of spontaneous psi seem to involve allegedly passive processes. Braud points out that spontaneous case studies “in everyday life, [and] outside of the laboratory . . . seem to favor a noise-reduction view (and, perhaps more important, a need-related view), rather than active cognitive factors” (personal communication, April 22, 2009). We reconcile our argument against psi models and theories which propose that psi involves largely passive processes by pointing out that just as many theories and models describe spirit possession and/or channelling for the purposes of eliciting psi (i.e., clairvoyance, telepathy, and precognition), and these are not exclusively passive, and nor do they involve modest expenditures of energy on the part of the psi experient. At this juncture we can only state that there are alternatives to the argument for passive processes, but we also find that adequately addressing these issues is beyond the scope of this paper and would require exclusive and lengthier treatment in another paper.

Regardless of whether or not the Ganzfeld components truly do independently or collectively induce a psi-conducive ASC, we see from Parker’s words that the aim of the Ganzfeld is to reduce or eliminate the noise, thereby rendering the psi signal more easily detectable. And when we consider the issue further, we see that the fundamental philosophy of the Ganzfeld technique is the aim of filtering out psi from the noise by inducing a passive state in the percipient. Therefore, strictly-speaking from a procedural perspective, the percipient is never given the opportunity to engage in a process that we would describe as actively cultivating the fertile ground in which psi might be elicited. To do this, we hold that the percipient must be given special instructions (such as the shamanic-like journeying technique discussed later) that foster or encourage psi, by actively creating a suitable environment in which it might emerge.

We hold that noise-reduction itself cannot be the best means by which psi imagery can be cultivated, if at all. One cannot experimentally inculcate two opposing conditions in a participant—promoting noise-reduction necessarily excludes the cultivation of imagery because the former requires mental stillness, whereas the latter requires cognitive activity. Nevertheless, our approach does not necessarily dismiss the notion

that the psi process semi-consciously or unconsciously idles away in the background against a peripheral backdrop of noisy and irrelevant contents in consciousness. And we acknowledge that psi images may be made more accessible by some degree of focussed attention towards them (see George, 1981, 1982; George & Krippner, 1984; and White, 1964, for arguments and procedures to that effect). But we maintain that participants can go further and meet psi half-way by being less passive and more active in their search for the psi target. While Rhine's participants perhaps attempted to go into a dissociated, trance-like state—maybe even a state of focussed attention—there is no convincing evidence that they were using any kind of technique that might activate mental imagery. We argue that the way of parapsychology might have been very much different had efforts been made to ascertain what had really transpired in the minds of those early participants, as well as all Ganzfeld percipients since then. However, we acknowledge too that the field is diverse, and researchers have not solely depended on passive techniques but, very occasionally, have given attention to active processes as well. One such example comes in the form of the so-called *remote viewing* protocol which had its origins in the 1970s.

#### REMOTE VIEWING AS AN ACTIVE COGNITIVE PROCESS

The first major experimental researches into 'distant seeing' (a variant of clairvoyance)—otherwise known as remote viewing—was by Targ and Puthoff (1974), who actually coined the term remote viewing (RV). Thalbourne (2003) defines RV as "a neutral term for *general extrasensory perception* . . . especially in the context of an experimental design wherein a *percipient* attempts to describe the surroundings of a geographically distant *agent*" (p. 107). Targ and Puthoff were particularly successful with Pat Price, a retired police commissioner, who was able to see objects large and small, such as furniture, and buildings, and concealed text (see Targ, 1996). Neither distance, nor size of target, seemed to influence RV outcomes.

Another key figure in RV research is Joseph McMoneagle (McMoneagle, 1997). He spent twenty years refining his RV skills, and discussed the various methodologies and protocols that facilitate RV (McMoneagle, 2000). RV has been investigated by other researchers (e.g., Dunne, Dobyns, & Intner, 1989; Dunne, Jahn, & Nelson, 1983; Jahn & Dunne, 1987; Schlitz & Gruber, 1981; Schlitz & Haight, 1984). Schmeidler (1994) concluded that the overall evidence was indicative of a remote viewing procedure that is psi conducive.

It is perhaps noteworthy, as indeed Storm (2003) has pointed out, that a variant of RV—Extended Remote Viewing—consists of dynamic

methods aimed at cultivating a semi-trance state or dissociative state, both of which are meant to help establish a connection with the target. Indeed, the RV-state is conceptualised by McMoneagle as a form of ‘information retrieval’, and thus an active condition. Since the remote viewer reports whatever is being seen, felt, heard, or otherwise perceived, McMoneagle claims that successful RV therefore requires that the remote viewer must learn to respond through writing or relating the RV information directly. Thus, as McMoneagle also points out, RV can be learned, and the basic ability is innate in most people, but may need refining.

### THE UNCONSCIOUS ASPECT OF THE PSI PROCESS

Though RV seems largely dependent on a rational conscious process, it is also apparent that unconscious intuitive processes may play a large part in RV, which may be true of psi processes generally. Intuition is one of Jung’s four functions in Jungian typology (Jung, 1957/1977), the others being sensation, thinking and feeling. Jung noted that intuition functioned in an unconscious manner, whereby conclusions were arrived at through mental processes for the most part unexplained.

Weiner (1982) argued that psi may be a process assisted by intuition. She viewed ESP as a “two-stage process that involves reception of a message followed by the mediation of that message to awareness through the normal psychological vehicles that transmit unconscious material, such as dreams and intuition” (p. 9). Thalbourne (2004) too, when speaking of anomalous functioning, has referred to a special form of “infallible intuition” that keeps one in “*a condition or state of consciousness*” where “no information is inaccessible” (p. 117). These statements recall the RV condition where the percipient may shift their mental orientation in a way that favours the constellation of imagery from some other (possibly unconscious) source.

Research into other unconscious processes has suggested that intuition may be related to physiological functions. Don, McDonough, and Warren (1998) attempted to elicit ‘event-related potentials’ in participants that would be greater in “negative-going amplitude” when participants viewed future targets (graphic images), but not when they viewed future non-targets. Differential brain responses indicated that participants, although they did not consciously recognize the future target when first presented, were responding as if they unconsciously ‘knew’ that it would be presented later as a target. The results were “interpreted as evidence of unconscious or preconscious psi” (p. 127).

Support for unconscious psi processes has been found in the so-called presentiment effect (e.g., Radin & Lobach, 2007). Radin (1997,

2006), in his reviews of the literature, concluded that there appears to be a future-oriented capacity in human beings that elicits unconscious but measurable physiological reactions to stimuli micro-seconds *before* the stimuli are actually presented. The presentiment effect is most often pronounced when the target images have strong sexual or emotional content.

From all of the above, we maintain that (i) active mental processes access psi signals but not in the same way as the passive Ganzfeld process; and (ii) the unconscious domain of the human psyche is a well-spring of psi images, as indicated in the success of the dream-psi research. We propose that a shamanic-like-journeying state may elicit psi to an equal or greater extent than has been found for the Ganzfeld. However, before we present an experimental protocol designed to test these suppositions it would be prudent to provide some background into the field of shamanism.

#### SHAMANISM AND MENTAL IMAGERY CULTIVATION

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), traveling to other realms at will and interacting with other entities in order to serve their community” (Walsh, 1989, p. 5). While no single definition will appeal to all scholars (Walsh, 1995), this one emphasizes several integral features of shamanism. First, it describes shamanism as a set of techniques (e.g., listening to monotonous drumming) designed to facilitate purported ASCs (see Krippner, 2002), rather than a religious tradition (e.g., Eliade, 1964).

Second, the definition highlights the volitional control of the practitioner; that is, the shaman’s ability to enter and exit ASCs at will and limited mastery with regards to the phenomenological content of the ASCs.

Third, the definition’s reference to the practitioner’s spirit “traveling to other realms” (Walsh, 1989, p. 5) underscores the commonly accepted view (e.g., Heinze, 1991; Ripinsky-Naxon, 1993) that an ASC referred to as “ecstatic journeying” or simply “shamanic journeying” (i.e., out-of-body experiences or soul flight) constitutes a core aspect of shamanism (Krippner, 2002).

Finally, the practitioner’s commitment to serve the interests of the community highlights the social-role function of shamanism (see, for example, Noll, 1983; Wright, 1989).

### *Shamanism and Psi*

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 abovementioned link between shamanism and psi is particularly salient in light of our earlier contention that active mental processes can facilitate the access of psi signals. Indeed, Walsh (1995) states 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 suggests 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.

### *Shamanic Journeying, Other Worlds, and the Unconscious*

The mental imagery content reported during shamanic journeying is typically consistent with the shaman's cosmology (Krippner, 1990; Walsh, 1995), which consists of a multi-layered universe often exemplified by what is technically referred to as the "lower world" (the underworld or land of the dead), "upper world" (sky) and "middle world" (the terrestrial world or Earth).<sup>8</sup> The various worlds are considered to be connected by a "central axis" that may manifest as, for example, a "world tree," "cosmic mountain" or "world pillar" (Eliade, 1964). Walsh (1989) asserts that the "upper world" tends to be associated with spirit guides and teachers and is "perhaps populated with strange animals, plants, and people" (p. 27). Other scholars (e.g., Kalweit, 1988) suggest that while traversing the geography of the "upper world" the shaman may report light experiences and encounters with celestial beings.

In contrast, the "lower world's" geography is frequently conceptualized as funerary (e.g., Magar, Tamang, and North Asian shamans routinely report graveyards or cremation grounds; Desjarlais, 1989; Eliade, 1964; Peters, 1990). Furthermore, the "lower world" often features treacherous landscapes (e.g., rivers, rocky ravines, mountains) and predatory creatures (e.g., mythical beings, jaguars, bears; Dobkin de Rios & Winkelman, 1989; Peters, 1989; Winkelman, 1986), which constitute "tests and challenges" (Walsh, 1990, p. 147).

Numerous scholars (e.g., Damery, 1997; Halifax, 1979; Layard, 1930; Overton, 1998) have argued that traveling to the various worlds within the shaman's cosmos is interpretable as "symbolic journeys into the unconscious" (Downton, 1989, p. 75). Indeed, Downton (1989) asserts that the middle or terrestrial world is the barrier separating the unconscious (lower world) and conscious (upper world) elements:

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<sup>8</sup> However, it is noteworthy that Rock and Krippner (2008) assert that:

...it would be an oversimplification to assume that all shamanic traditions equate the "lower world" with the land of the dead, and the "upper world" with "sky." For example, Lepp (2004, p. 218, 217) stated that Mongolian shamans "travel to the Lower World to talk with the dead" (p. 218) but Na-hki and Moso shamans (in the Tibet area) believed that souls should "rise to heaven" (p. 26).

Once the boundary between these realms is broken, the result is a dramatic change as unconscious contents flood into consciousness, transforming it and creating the sense of dismemberment—of being torn to pieces—widely regarded as the first step in the shaman's rebirth. (p. 74)

Consequently, shamanic journeying is an active process that purportedly allows one to access the unconscious domain of the human psyche. If (1) active processes allow the percipient to access psi signals; (2) the unconscious is indeed a wellspring of psi images (as we maintained in the preceding section); and (3) as previously argued, shamanic journeying is an active process of mental imagery cultivation that allows one to access the unconscious; then (4) the conjunction of (1), (2), and (3) may account, at least in part, for the previously stated link between shamanism and psi.<sup>9</sup>

#### *Experimental Studies on Shamanic-Like Technique*

The vast majority of empirical research concerning shamans has been anthropological and, thus, utilized non-experimental methodologies (e.g., naturalistic observation). However, there has been a recent trend towards investigating experimentally the effect of “shamanic-like” stimulus conditions on non-shamans (e.g., university students; Rock, 2006; Rock, Baynes, & Casey, 2005; Rock, Casey, & Baynes, 2006; Rock, Abbott, Childargushi, & Kiehne, 2008; Rock, Wilson, Johnson, & Levesque, 2008; Woodside, Kumar, & Pekala, 1997). Rock, Abbott, Childargushi, and Kiehne (2008) suggest that, “Techniques may be conceptualised as “shamanic-like” insofar as they bear some relation to shamanic techniques and yet depart from what may properly be called shamanism” (p. 80). For example, drinking *ayahuasca* in order to descend to the “lower world” and retrieve a tribal member's “soul” may be considered a shamanic technique, while recreationally using *ayahuasca* to produce purported alterations in consciousness is merely “shamanic-like.”

Previous experimental research (e.g., Rock, Abbott, Childargushi, & Kiehne, 2008; Rock, Wilson, Johnson, & Levesque, 2008; Woodside et al., 1997) using non-shamans has found that participants exposed to a shamanic-like stimulus condition (i.e., journeying with the aid of monotonous drumming) report significantly higher amounts of visual imagery compared to controls. These findings support our contention that

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<sup>9</sup> Note that we acknowledge the psi-permissiveness of psychological variables such as positive expectations and goal-related intentions that may play a psi-facilitating role in shamanic practices. We simply do not focus on these in this paper.

shamanic techniques, like journeying, involve imagery cultivation processes. The findings also suggest that the imagery-cultivation component of shamanic techniques is perhaps also an integral feature of shamanic-like techniques. However, to the best of our knowledge, no published experimental research has investigated the effects of shamanic-like journeying stimulus conditions, and thus shamanic-like imagery cultivation, on psi.

Our aim in this paper is to argue for an innovative technique that involves a cross-cultural incorporation of ideas and findings that have their source in traditions both Western and Eastern, modern and indigenous. We now propose an experimental design that more fully acknowledges the active elements vital to these traditions.<sup>10</sup>

#### THE SHAMANIC-LIKE JOURNEYING EXPERIMENTAL PROTOCOL

Prior to testing a participant, Experimenter #1 randomly selects a four-picture target set (original target picture plus three decoys) from a pool of 45 target sets, and then randomly selects the target picture from that four-picture set. The picture is photocopied, wrapped in aluminium foil, and concealed in a light-proof target envelope. The four-picture set is also wrapped in aluminium-foil and concealed in a different light-proof envelope. Since only Experimenter #1 prepares the target-sets, Experimenter #2 remains 'blind' to the targets during the trials. That is, the contents of the target envelope and the four-picture set envelope are never made known to Experimenter #2 prior to, and during, the trial. Each picture-set is randomly assigned to each participant.

Participants are randomly assigned to one of two conditions: (1) the shamanic-like condition; and (2) a control condition.<sup>11</sup> (Experimenters have the option of including a third Ganzfeld group for comparative purposes.) Based loosely on Harner's (1990) protocol, participants in the shamanic-like condition will be instructed to lie on padded floor-mats, placing light-proof eye masks over their eyes. They will each be handed a target envelope, and

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<sup>10</sup> It may be argued that monotonous drumming used to facilitate shamanic journeying may perform a function similar to that of the monotonous auditory and visual stimulation in the Ganzfeld procedure. However, it should be noted that shamanic journeying facilitates ecstatic states characterized by physiological arousal (Walsh, 1995), whereas the Ganzfeld technique is associated with a relaxed or meditative state (Braud, 2002).

<sup>11</sup> A control condition consisting of sitting quietly with eyes open has been proposed here because this particular stimulus condition has repeatedly demonstrated phenomenological effects consistent with ordinary waking consciousness in previous experimental studies (see, for example, Pekala, 1991).

they will be instructed not to open it. Instead, they are to place it in front of them. Participants in this condition will be 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.

At the end of the stimulus condition, participants will be required to describe vocally the line drawing that is concealed in aluminium-foil inside the light-proof envelope. Experimenter #2 will take notes of participants' mentations, and read them back, in order to prompt participants' memory, thereby assisting them in the ranking process. Experimenter #2 will offer no personal interpretations as this may mislead participants.

Participants will rank the four pictures from 1 to 4. This ranking procedure follows the preferential ranking method (see Thalbourne, 1981, pp. 55-56), where participants express preferences by assigning rank #1 to the picture 'most likely' to be the target picture concealed in the target envelope, rank #2 to the picture 'second most likely', and so on, until all four pictures are ranked.

Finally, participants will be administered a questionnaire referred to as the *Phenomenology of Consciousness Inventory* (PCI; Pekala, 1991), which purportedly quantifies the phenomenological effects of exposure to a stimulus condition (Pekala, 1985; Pekala & Cardeña, 2000; Pekala, Forbes, & Contrisciani, 1989; Pekala & Kumar, 1984, 1986, 1989). The PCI allows one to determine: (1) if the shamanic-like stimulus condition induces a subjective sense of an ASC relative to the control condition; and (2) which phenomenological effects (e.g., visual mental imagery, inward absorbed attention, rationality) correlate with psi hitting.

Participants in the control condition will also be handed a light-proof target envelope. Participants in the control condition will be instructed to sit quietly with their eyes open. From this point onwards, the procedure follows that just described in the previous paragraph for picture ranking.

## CONCLUSION

In the present paper, we have noted that the Ganzfeld procedure is one of the most successful experimental paradigms in parapsychology. In some cases, however, we have questioned the utility of the various primary components of, or influences on, the design of the Ganzfeld protocol (i.e., hypnosis, dreaming, meditation, and relaxation). In critiquing these components and influences we also, to varying degrees, endorse the criticisms of other Ganzfeld commentators (e.g., Alvarado, 1998; Braud, 2005; Scimeca et al., 2001). More importantly, however, we do argue that there may be an opportunity to advance on the Ganzfeld methodology by

implementing a new protocol that encourages active cognitive processes rather than adherence to passive processes. Such an advancement would see the implementation of a shamanic-like journeying protocol, and we have described the experimental parameters of that design. In a subsequent paper, we will present the results of an experiment featuring that design.

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