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Phenomenological Analysis of Experimentally Induced Visual Mental Imagery Associated with Shamanic Journeying to the Lower World

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This study explored ostensibly shamanic journeying imagery by (a) assessing visual images across induction techniques (i.e., sonic driving, Ganzfeld, relaxation, and sitting with eyes open); (b) determining combination(s) of induction technique and instructions most associated with religious imagery; and (c) investigating the origins of visual imagery. Six participants were randomly assigned to factorial combinations of a 3 x 4 mixed design (levels of instruction x levels of induction) and were administered the Modified Affect Bridge to explore the origins of mental imagery reported during the experimental conditions. Phenomenological analysis yielded comprehensive constituent themes. Harner's (1990) shamanic journeying, coupled with religious, instructions were associated with the highest religious imagery, while visual images associated with shamanic journeying were derived primarily from autobiographical memories.

Mainstream science has tended to dismiss shamanism and its corresponding patterns of phenomenal properties as, for example, psychopathological, charlatanism or trickery (Hubbard, 2003). Indeed, visual mental imagery encountered during "shamanic journeying" remains a phenomenon that is rather neglected by scientific inquiry despite the fact that contemporary western variants of shamanism have recently become surprisingly popular (Walsh, 1989).

It is perhaps noteworthy, however, that recent experimental research (e.g., Rock, Baynes & Casey, 2005; Rock, Casey & Baynes, 2006) has provided a methodological framework for investigating ostensibly¹ shamanic journeying imagery. Rock and Baynes (2005) contend that attempts to determine the extent to which the *content* of the journeying imagery is a construction of the shaman's (or naïve experimental participant) cultural cosmology, belief systems, autobiographical memories,² and so on, are hampered by a fundamental methodological obstacle, namely, how to detect contextual influences on imagery that the shaman cannot report on because they are outside his/her present consciousness and memory. With a view to overcoming this problem, the authors adapted an "uncovering" technique used in hypnotherapy to explore the origins of ostensibly shamanic journeying imagery. Specifically, the authors propose a modification of Watkins' (1971) Affect Bridge that allows one to investigate whether ostensibly shamanic journeying images are derived from, for example, autobiographical memories.

Furthermore, Rock, Casey and Baynes (2006) suggest that future shamanistic research needs to assess the extent to

which the phenomenological effects (notably the visual mental imagery) associated with monotonous percussion drumming and Harner's (1990) shamanic journeying to the Lower World instructions may be reproduced by different stimulus conditions. It is salient that, historically, the shaman has employed a variety of techniques for the purpose of precipitating a shamanic journeying experience (e.g., the ingestion of plant hallucinogens, sensory deprivation, sweat lodges, pain, and ritualistic dancing) (Achterberg, 1987; Doore, 1989; Schultes & Hoffman, 1992). The authors propose that a secondary aim might be to determine whether the perception of religious mental imagery is significantly more likely to occur during shamanic journeying to the Lower World provided that one's religious belief system had been linguistically activated temporally prior to the treatment.

The Present Study

The major aims of the present study were to: (a) assess which visual mental images constitute comprehensive constituent themes; that is, occur *across* levels of within-subject factor for *each* participant; (b) determine which factorial combination(s) of state of consciousness (SoC) induction technique and instructions are most associated with religious mental imagery; and (c) investigate the origins of visual mental images associated with shamanic journeying through Modified Affect Bridge analysis.

The present study consisted of a 3 x 4 mixed design (levels of instruction x levels of SoC induction technique). The between-subjects factor of instruction consisted of three levels: (a) Harner's (1990) shamanic journeying to the

Lower World instructions (SJI); (b) Harner's (1990) shamanic journeying to the Lower World instructions coupled with religious instructions (SJI + RI); and (c) no instructions (NI). The within-subjects factor of SoC induction technique consisted of four levels: (a) sonic driving, operationally defined as monotonous percussion drumming at 8 beats-per-second for a period of fifteen minutes (M); (b) Ganzfeld, operationally defined as a pattern-less red field combined with stereophonic white noise for a period of fifteen minutes (G); (c) relaxation, operationally defined as a rotation of awareness around the body for a period of fifteen minutes (R)³; and (d) control condition, operationally defined as sitting quietly with one's eyes open for a period of fifteen minutes (SQEO).

This study's design allowed investigation of three related questions⁴:

1. What visual mental images occur *across* different levels of SoC induction technique for *each* participant?
2. Which factorial combination(s) of SoC induction technique and instructions are most associated with religious mental imagery?
3. What are the origins of visual mental images associated with shamanic journeying to the Lower World?

Method

Participants

Six⁵ undergraduate students (3 females and 3 males), enrolled at Charles Sturt University – Riverina, were purposively sampled on the basis of previous participation in an experimental study conducted by Rock, Casey and Baynes (2006). Participants ranged in age between 18 and 30 years ($M = 22.00$, $SD = 5.83$). Of the sample, two participants claimed to be Christian: one was Catholic and one was Jesus Christ Church of Latter-Day Saints. Of the remaining four participants, one claimed to be a "Humanist," while three claimed to be devoid of religious membership.

Participation in the present study was voluntary. Participants were treated in accordance with the *Ethical Principles of Psychologists and Code of Conduct* (American Psychological Association, 1992).

Materials

Demographic items pertaining to age, sex, religious affiliation, religious devotion and religious exposure were administered to all participants prior to treatment and control procedures.

At the conclusion of the treatment and control procedures all participants were administered a mental imagery checklist⁶ extrapolated partly from Eliade (1989), Harner (1990), and Kalweit (1988). The checklist included mental imagery associated with the following: (a) light experiences (e.g., a ball of fire, lightning); (b) water (e.g., rivers, lakes);

(c) predatory creatures (e.g., snakes, jaguars); and (d) obstacles (e.g., rocky ravines, bridges). Items relating to religious mental imagery (e.g., the Blessed Virgin Mary) and UFO phenomena (e.g., spinning silver discs) were also included. While UFO phenomena have been tangentially linked to shamanism (see Ring, 1988), such phenomena are not held to be motifs associated with the "geography" of the shaman's Lower World. Consequently, this item was included for the purpose of functioning as a distracter. Two open-ended items addressing the visual mental imagery and sounds associated with one's descension to the Lower World and one's observations beyond the "doors" were also included.

A mylar-covered single-headed round frame drum 16" in diameter and two "Sonar 8" tympani mallets were used for the purpose of facilitating shamanic journeying to the Lower World. A "Qwik Time" quartz metronome was used for the purpose of standardising the number of beats-per-second. An "Audiosonic" portable radio cassette recorder was used for the purpose of playing the pre-recorded verbal instructions. A stopwatch was used for the purpose of timing the treatment and control procedures.

Additionally, 7 lamps fitted with 25-watt red light bulbs and plastic covers for the purpose of making the light diffuse were placed above, in front of, and to the sides of each participant (e.g., Glicksohn, 1992; Hochberg, Triebel, & Seaman, 1951). A pair of goggles was constructed from halved table tennis balls. Finally, stereophonic white noise derived from an mp3 recording of "Flightwaves Audio Hallucination" by Bob Doyle and headphones were also used.

Initial Procedure

After participants were randomly assigned to factorial combinations of SoC induction technique and instructions⁷, the general nature of the study was explained and consent forms were completed. Subsequently, all participants were administered a series of demographic items.

The experimental setting for all conditions was the Examination Centre, Boorooma Campus, Charles Sturt University – Riverina. It was a 15 by 40 metre room with muted lighting, sparsely furnished (a few desks and chairs), and devoid of external influences (e.g., noise).

The conditions in detail were:

1. *SJI-M condition*. Following Harner (1990), participants in this condition were instructed to remove their shoes and lie on the floor, placing their right forearm over their eyes. Participants were then instructed to:

Visualize 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 visualize. Spend a couple of minutes seeing the hole without going in it. Note its details clearly (Harner, 1990, p. 32).

Participants were subsequently allocated 2 minutes to visualize their chosen “opening into the earth” (Harner, 1990, p. 32). At the conclusion of the 2 minute period participants were instructed as follows:

Visualize your opening into the earth, enter it, and begin the journey. Go down through the opening and enter the Tunnel. At first the tunnel may be dark and dim. It usually goes underground at a slight angle, but occasionally it descends steeply. The Tunnel sometimes appears ribbed, and often it bends. Occasionally one passes through the Tunnel so fast it is not even seen. In following the Tunnel you may run up against a natural wall of stone or some other obstacle. When this happens, just go around it or through a crack in it. If this fails, simply come back and try again. At the end of the Tunnel you will emerge out of doors. Examine the landscape in detail, travel through it and remember its features. Explore until you are signalled to come back, and then return up through the Tunnel. *Do not bring anything back with you.* This is only an exploratory journey (Harner, 1990, p. 32).

The experimenter’s assistant then proceeded to beat the drum at a tempo of 8 beats-per-second for a period of 15 minutes.

At the conclusion of the 15-minute period, the experimenter’s assistant struck “the drum sharply four times to signal” to all participants that it was time to return. The experimenter’s assistant then “immediately beat the drum very rapidly for about half a minute to accompany...” participants “...on their return journey” (Harner, 1990, p. 32).

2. *SJI-G condition.* Participants were instructed the same as the SJI-M condition. However, participants were equipped with a pair of goggles and exposed to a Ganzfeld for a period of 15 minutes.

3. *SJI-R condition.* Participants were instructed the same as the SJI-M condition. Subsequently, participants were instructed to engage in a rotation of awareness around the body for a period of 15 minutes.

4. *SJI-SQEO condition.* Participants were instructed the same as the SJI-M condition. Subsequently, participants were instructed to sit quietly with one’s eyes open for a period of 15 minutes.

5. *SJI+RI-M condition.* Participants were administered the same treatment as the SJI-M condition, with one

notable exception: prior to administering Harner’s (1990) shamanic journeying instructions, participants were informed that “this technique is traditionally considered to induce a religious or spiritual experience.”

6. *SJI+RI-G condition.* Participants were instructed the same as the SJI+RI-M condition. However, participants were equipped with a pair of goggles and exposed to a Ganzfeld for a period of 15 minutes.

7. *SJI+RI-R condition.* Participants were instructed the same as the SJI+RI-M condition. Subsequently, participants were instructed to engage in a rotation of awareness around the body for a period of 15 minutes.

8. *SJI+RI-SQEO condition.* Participants were instructed the same as the SJI+RI-M condition. Subsequently, participants were instructed to sit quietly with one’s eyes open for a period of 15 minutes.

9. *NI-M condition.* Participants were not administered Harner’s (1990) shamanic journeying instructions or religious instructions. Participants were administered monotonous percussion drumming at 8 beats-per-second for a period of 15 minutes.

10. *NI-G condition.* Participants were instructed the same as the NI-M condition. Subsequently, participants were equipped with a pair of goggles and exposed to a homogeneous red ganzfeld coupled with stereophonic white noise for a period of 15 minutes.

11. *NI-R condition.* Participants were instructed the same as the NI-M condition. Subsequently, participants were instructed to engage in a rotation of awareness around the body for a period of 15 minutes.

12. *NI-SQEO condition.* Participants were instructed the same as the NI-M condition. Subsequently, participants were instructed to sit quietly with one’s eyes open for a period of 15 minutes.

After the completion of the treatment and control procedures, all participants were administered the mental imagery checklist.

Phenomenological Analysis of Original Protocols

The original protocols (derived from the initial and follow-up procedures) of the six participants coupled with additional information derived from walk-through interviews constituted the data that were analysed using an existential-phenomenological research methodology originally developed by Giorgi (1975) and subsequently expanded on by Colaizzi (1978) and Elite (1998) (cited in West, 1998, p. 364). A multitude of researchers hold that this research method is appropriate for a phenomenological investigation of transpersonal experience (e.g., Hanson & Klimo, 1998; Matsu-Pissot, 1998; Qualls, 1998; Valle, 1998; West, 1998).

All participants were instructed to write a description of their experiences in the following way: (1) to describe the

Table 1: Participants, Levels of Between-Subject Factor, Number of Conditions Associated with Theme, Comprehensive Constituent Themes and Verbatim Comments

Participant	Level of Between-Subjects Factor	Number of Conditions Associated with Theme	Comprehensive Constituent Theme	Verbatim Comments
K	SJI	3 of 4 (SJI-M, SJI-G, SJI-SQEO)	Battles with predatory creatures	<i>... its true face was skeletal. Its teeth were rotting and jagged, and it actually swallowed me. This figure [horned entity] and the bone man came with me to the skeletal entity. It then cut open the skeletal entity from the crouch [sic] upwards until he reached the head, which fell backwards, and was handed to me.</i>
		3 of 4 (SJI-M, SJI-R, SJI-SQEO)	Obstacles	<i>My self floating on my back in water, underneath an ice sheet – ice river or stream – kind of like Ophelia painting. The images I can remember are the ones which flashed up – without any conscious provocation – they were – the words sounding in my head repetadly [sic] – “There is no KEYLESS ENTRY”...</i>
C	SJI	2 of 3 (SJI-G, SJI-SQEO)	Obstacles	<i>Then I had to go up four stairs (big stairs) to two really big heavy wooden doors with handles and a knocker that looked like a lions face. There was a maze made from stone or rock and it was very windy and low.</i>
H	SJI + RI	4 of 4 (SJI+RI-M, SJI+RI-G, SJ+RI-R, SJI+RI-SQEO)	Light experience	<i>Great sunlight and an amazing sense of peace. I tried to follow this bright light, which appeared and then disappeared, leaving me in darkness...</i>
		3 of 4 (SJI+RI-M, SJI+RI-G, SJI+RI-SQEO)	Encounters with Christ	<i>Actually walked on the water holding Jesus’s hand – incredibly peaceful and strong sexual feelings. A vision of light and then Christ appeared. He healed my wounds and then he swam back out of the tunnel. I followed him in the tunnel but he seemed to ignore my desire to be with him.</i>
		3 of 4 (SJI+RI-R, SJI+RI-G, SJI+RI-SQEO)	Whirlpool	<i>Then there was a whirlpool effect in the water, descending down and spiralling movement back through the tunnel was pleasant and baptismal or something – felt journey of peace. A whirlpool developed and I was sucked down into the maelstrom into a ragged tunnel and the rocks tore at my flesh and bruised, stripped me etc until I returned to the surface mangled and bloodied but not in pain or terribly upset.</i>
E	SJI + RI	4 of 4	Encounters with human entities	<i>I was left in awe of this city and must have mentioned something about it, because a young peasant lady who stood beside me said not to be afraid – that it was okay. I then produced a mirror from somewhere and looked into it – I saw myself as someone else – she had long straight dark brown hair and some sort of very old tunic on, a beige colour, and dark brown sandals.</i>
J	NO INSTRUCT	3 of 4 (NI-M, NI-G, NI-R)	Environmental features	<i>I heard birds; I was walking through a rainforest on a gravel road. The trees and the dense canopy gave way to a large paddock of golden wheat, with the wind blowing through the crop.</i>
R	NO INSTRUCT	3 of 4 (NI-M, NI-G, NI-R)	Imagery associated with contextual variables	<i>...I thought of rain. The drums reminded me of the sound of rain on a tin roof. Spontaneous bursts similar to pictures of the sun. Like solar flares on the sun from a close proximity.</i>

Note. SJI = Shamanic Journeying Instructions; RI = Religious Instructions; NI = No Instructions; M = Sonic Driving; G = Ganzfeld; R = Relaxation; SQ-EO = Sitting Quietly with One’s Eyes Open

visual mental imagery and sounds that they experienced as they travelled down the tunnel towards the doors; and (2) to describe the visual mental imagery and sounds that they experienced beyond the doors.

The following procedural steps were used:

(1) Each original protocol was read and reread in order to develop an understanding of the visual mental imagery dimension of the shamanic journeying to the Lower World experience.

(2) A face-to-face “walk through” interview was conducted in order to examine, in greater depth, the descriptions written by the participants. The principal investigator paused after each statement in order to provide the participants with an opportunity to contemplate their experience and provide further elaboration if they desired. Consequently, one might argue that the descriptions were not contaminated by the kinds of contextual variables (e.g., demand characteristics, embedded cues) that might be associated with open-ended questions. The interviews were taped and then transcribed (Elite, 1998).

(3) In each original protocol, the statements, phrases, or sentences that referred to visual mental imagery were extracted to develop an inventory of meaning units from that original protocol (West, 1998).

(4) The meaning units were organised into *theme clusters* within each original protocol (West, 1998).

(5) Theme clusters were combined in order to construct *constituent themes* within each protocol (Elite, 1998).

(6) Those constituent themes judged to have the same meaning were pooled into *comprehensive constituent themes* within each protocol (Elite, 1998).⁸

Modified Affect Bridge Inductions

Subsequent to the original experiment, participants took part in individual image-tracking exercises with a view to identifying the origins of visual mental images⁹ reported during the various treatment and control conditions. At the beginning of the exercise, each participant received a card naming the image chosen from his or her own previous experimental report. Their task was to visualize this image again as vividly as possible, and then to track it to its earliest remembered sources in their experience. To enhance their recall, the experimenter led them through a time regression imagery exercise, supported by related deepening and protective procedures.

The time regression exercise chosen for this task was a modified version of Watkins’ (1971) Affect Bridge technique, a powerful uncovering technique used in clinical hypnosis and hypnoanalysis (see Rock & Baynes, 2005). The modified version utilised here was appropriate for the present experimental requirements, which called for safe and effective administration *without hypnosis*.¹⁰ Safety

Table 2: Religious Tradition and Percentage of Exposure During Childhood, Adolescence, and Adulthood

	Childhood Religious Tradition % Exposure	Adolescence Religious Tradition % Exposure	Adulthood Religious Tradition % Exposure
K	Presbyterian 10%	Wicca/ Pagan 60%	Mormon 90%
C	Roman Catholic 40%	Buddhism 20%	Buddhism 20%
H	Anglican 30%	Anglican 40%	Anglican 30%
E	Presbyterian 10%	Christianity 20%	Christianity 20%
J	Catholic 10%	Catholic 20%	None 0%
R	Christianity 70%	Christianity 70%	Life 70%

Note. SJI=Shamanic Journeying Instructions; RI=Religious Instructions; NI=No Instructions; M=Sonic Driving; G=Ganzfeld; R=Relaxation; SQ-EO = Sitting Quietly with One’s Eyes Open

issues (e.g., protection against abreaction) were addressed through the use of an imaginary TV screen and other affect attenuation techniques to help participants control and distance themselves from any unpleasant memories or emotions encountered in the course of their time regression.

Following this exercise, all participants provided a written response to the following question: “Where do you think the image you were asked to try and visualize on your imaginary TV screen originally came from?”

Results

A list of participants, between-subject factors, comprehensive constituent themes and verbatim comments are displayed in Table 1. It may be observed from Table 1 that specific visual mental images occurred across stimulus conditions for each participant. Comprehensive constituent themes associated with the SJI level of the between-subject factor were consistent with shamanic cosmology. In contrast, the SJI + RI level of the between-subject factor was associated with comprehensive constituent themes pertaining to Christian motifs and human entities; whilst the NI level of the between-subject factor was coupled with comprehensive constituent themes relating to environmental features and imagery associated with contextual variables (e.g., embedded cues).

Religious Mental Imagery

The participant's degree of exposure to various religious traditions during childhood, adolescence, and adulthood are presented in Table 2.

The percentage of conditions associated with religious mental imagery is presented in Table 3. The coupling of Harner's (1990) shamanic journeying to the Lower World instructions with religious instructions was associated with the highest percentage of observations involving religious mental imagery.

Modified Affect Bridge Analysis

Participants, condition, visual mental image, tentative origin and verbatim comments are displayed in Table 4. Imagery origin has been tentatively divided into four categories: autobiographical, symbolic, transpersonal, and indeterminate. Six visual mental images were tentatively conceptualised as autobiographical, 3 as indeterminate, 2 as symbolic, and 1 as transpersonal.

Discussion

Phenomenological Analysis of Visual Mental Imagery associated with Shamanic Journeying

Predatory Creatures. During her journeys to the Lower World, "K" routinely encountered what might be conceptualised as a "skeletal entity." Throughout her initial shamanic journey (SJI-G), K purportedly witnessed mental imagery commensurate with a "long, hairless, lanky figure with a shiny, light-brown skin" that subsequently transmogrified into a skeletal entity. This variant of the shamanic journeying experience is interpretable as "skeletonization" (Peters, 1989). It is noteworthy that K was not the subject of the "skeletonization" sequence, but rather the passive observer. This is inconsistent with the Siberian shamanic experience whereby the "shaman-ancestors or other mythical beings" may reduce the neophyte to "the state of a skeleton" (Eliade, 1989, p. 63). Nonetheless, the "skeletal entity" would appear to resonate with the "skeleton spirits" postulated by the Northwest Australian Ungarinin (Drury, 1987). It is salient, however, that K's "skeletal entity" did not engage in the negative performative function associated with Ungarinyin "skeleton spirits" (i.e., the removal and subsequent replacement of the aspirant's brain).

K reported mental imagery analogous to being swallowed by a predatory skeletal entity during the SJI-G treatment procedure. The "swallowing" sequence is interpretable as a variant of symbolic death and rebirth, which is held to be a prevalent shamanic theme (Dobkin de Rios & Winkelman, 1989; Peters, 1989; Winkelman, 1986). This interpretation is consistent with Campbell's (1993, p. 91) assertion that, "This popular motif gives emphasis to the lesson that the passage of the threshold is a form of self-annihilation." K's experience may be contrasted with the South

Table 3: Percentage of Conditions Associated with Religious Imagery

	Level of Between-Subject Factor	% Conditions associated with Religious Imagery
K	SJI	0%
C	SJI	25%
H	SJI+RI	75%
E	SJI+RI	50%
J	NI	0%
R	NI	0%

Note. SJI = Shamanic Journeying Instructions; RI = Religious Instructions; NI = No Instructions.

Australian Aboriginal and the Labrador Eskimo shamanic traditions whereby a mythical snake or an enormous white bear swallows the aspirant (Drury, 1987; Eliade, 1989).

Whirlpools. During the SJI + RI - G and SJI + RI - SQEO conditions, "H" reported being "sucked down" into a maelstrom and "barnacled" on sharp rocks, rendering H's flesh "stripped," "bloodied," "mangled," and "bruised." Eliade (1959, p.135) emphasised the destructive force of water, asserting that "water is pre-eminently the slayer; it dissolves, abolishes all form." Eliade (1959, p. 135) stated that the "Waters of Death" are held to be a classic motif amongst Asiatic, Oceanic, and palaeo-oriental mythologies. Subsequently, H described the whirlpool as "baptismal." This is consistent with Kalweit's (1988, p. 195) assertion that water functions as "an agent of purification, healing, and rebirth...." H's description also resonates with Eliade's (1959, p. 137) contention that, "For the Christian, baptism...repeats the initiatory ritual of...symbolic death and resurrection."

Encounters with Christ. H reported that a "vision of light" heralded the appearance of Christ, who subsequently healed H's wounds (SJI + RI - G). Notably, the mental image of Christ was coupled with intense positive affect (i.e., peace, tranquillity, and sexual arousal). Jung (1964, p. 72) contends that the notion of "Christ the Redeemer" is derived from the universal pre-Christ theme of "the hero and the rescuer who, although he was been devoured by a monster, appears again in a miraculous way, having overcome whatever monster it was that swallowed him." Jung (1983) further suggested that Christ corresponds to one half of the archetype of the self, the other half appearing as the Antichrist (i.e., the self's "dark aspect"). During a Modified Affect Bridge induction, H linked the mental image of Christ with a childhood memory of an Easter holiday spent at a beach, recollections of painting whilst at Sunday school, Cecil B. De Mille, and viewing a graven image of the Blessed Virgin Mary at a Catholic Church with peers.

Obstacles. Walsh (1990, p. 147) conceptualised the shaman's Lower World as a "place of tests and challenges." During the SJI-G treatment procedure, "K" reported that a

Table 4: Participants, Condition, Visual Mental Image, Tentative Origin and Verbatim Comments

Participant	Condition	Visual mental image	Tentative origin	Verbatim Comments
K	SJI-G	Skeletal entity	Transpersonal	<i>I then asked it to take me to where it came from... the image I saw was actually a person who was buried alive...</i>
	SJI-M	Lava river	Indeterminate	<i>The image of the lava was quite hard to maintain, but it led to a volcano, which I think I have mentioned in other experiments. The lava stream led me past the skeletal man, which I tried not to focus on to [sic] long. It also led me to the underground place of pillars – Hell-like place.</i>
		Ice river	Autobiographical	<i>Beechworth waterfalls (memories from a trip). Ofelia [sic] painting that I like.</i>
C	SJI-G	Maze	Autobiographical	<i>When I was younger (infants school age). My parents took my sister and I to Cockington Green in Canberra. There was a miniature stone maze there (that I also saw in Yr 5 at a school excursion) and that is what I saw in the tunnel.</i>
	SJI-SQEO	Pond	Autobiographical	<i>I remember a camp that I went on when I was younger. We went to the Wellington or Sanola caves (or some tourist caves place), We had to walk over a long and high bridge whilst in the cave and underneath it was a huge pond... it is the exact same pond.</i>
H	SJI+RI-G	Christ	Autobiographical	<i>The original image of Christ was classic Cecil B. De Mille. I think I first saw this 'King of Kings' on a holiday (Easter) at Killmore Beach.</i>
	SJI+RI-R	Light	Autobiographical	<i>Stained glass windows in a church that I've been in sometime in childhood.</i>
E	SJI+RI-R	Bald men	Symbolic	<i>...they are not actual objects from my past but symbols of a person or an object/ situation in my past, something I perhaps am not ready to deal with.</i>
		Peasant women and shadows in pond	Indeterminate	<i>Could not visualise the peasant woman, nor the shadows in the pond – it was as if they had never existed in the first place. However, each time I attempted to visualise an object, it was stopped by something and walls were put up in front of me. There was laughter and a pair of green/ blue eyes watching my attempts and constantly trying to distract me.</i>
	SJI+RI-SQEO	Dark-haired girl	Symbolic	<i>The girl is a picture or example of the female line of my mother's family.</i>
J	NI-R	Rainforest	Autobiographical	<i>I think it came from a holiday that I took with my parents when I was 12, to the top end of Queensland.</i>
R	NI-M	Rocky ravine	Indeterminate	<i>My memory. In recalling what I had previously imaged in past sessions. I don't really know.</i>

Note. SJI = Shamanic Journeying Instructions; RI = Religious Instructions; NI = No Instructions; M = Sonic Driving; G = Ganzfeld; R = Relaxation; SQ-EO = Sitting Quietly with One's Eyes Open

sea of lava at the end of the tunnel blockaded the entrance to the Lower World. This description is consistent with the assertion that while descending to the Lower World the neophyte routinely encounters “obstacles” (Desjarlais, 1989; Harner, 1990; Kalweit, 1988; Peters, 1989, 1990). Moreover, it provides support for Eliade’s (1989, p. 312) contention that the “infernal river” is a classic motif of the “descent to the underworld”, which is “present in nearly all the variants.” Subsequently, K reported being encapsulated within the confines of an ice river (SJI – SQEO), while “E” reported underwater confinement in a pond coupled with intense negative affect (i.e., panic). Such phenomenological reports support Eliade’s (1989) assertion that aquatic symbolism often fulfils the negative performative function of an “obstacle.”

Interestingly, rather than “obstacles” manifesting as bridges, rivers, mountains or predatory creatures (Eliade, 1989), “C” reported mental imagery commensurate with a maze. C reported that the maze was constructed “from stone or rock and it was very windy and low.” Subsequent to a Modified Affect Bridge induction, C determined that the maze imagery was the derivative of childhood memories pertaining to a school excursion and a family trip to the city of Canberra, where a “miniature stone maze” was observed.

During the SJI-R treatment, K reported the auditory mental image “There is no keyless entry.” This suggests that K is perhaps devoid of a specific attribute necessary for accessing the state of consciousness associated with the shaman’s Lower World. Alternatively, the auditory mental image is interpretable as an unconsciousness unwillingness to re-encounter visual mental imagery (e.g., the skeletal entity) previously conjoined with intense negative affect, or it may suggest that the mental imagery is symbolic of an earlier sensory impression associated with psychological trauma. It is noteworthy that auditory mental imagery (i.e., metallic sounds) constitutes the second “obstacle” accompanying the Altaic shaman’s descent to the Lower World (Eliade, 1989).

Human Entities Functioning as “Helping Spirits.” E reported visual mental imagery commensurate with a “helping spirit.” The helping spirit assumed the outward appearance of a “young peasant lady,” purportedly fulfilling the positive performative function of dispelling negative affect (i.e., fear). From a psychodynamic perspective, the “peasant woman” may be interpreted as an externalisation of E’s psychological need for comfort and reassurance (Kalweit, 1988). Comparatively, from a transpersonal anthropological perspective these “helping spirits” are indicative of the mobilisation of “psychic forces”, and thus phenomena commensurate with an altered state of consciousness characterised by the dissipation of one’s ego (Kalweit, 1988).

Religious Mental Imagery

It was found that religious mental imagery was reported in 62.5% of observations involving the coupling of Harner’s (1990) shamanic journeying to the Lower World instructions with religious instructions. In contrast, religious mental imagery was reported in only 12.5% of observations involving only Harner’s (1990) shamanic journeying to the Lower World instructions, and 0.0% of observations involving no instructions. This result is consistent with previously published reports implicitly suggesting that the cognitive schema associated with a percipient’s religious tradition performs a “shaping” function with regards to the phenomenological content of states of consciousness associated with Hindu yoga, Theravada and Mahayana Buddhist meditation (Brown, 1986), psilocybin (Pahnke, 1966), Marian apparitions (Carroll, 1983), yage (Naranjo, 1973), angelic encounters (Lange & Houran, 1996), poltergeist-related experiences (Lange & Houran, 1997), and shamanic journeying experiences (Houran, Lange & Crist-Houran, 1997).

It is noteworthy that K reported religious mental imagery in 0% of observations despite reporting 90% devotion and exposure to the Church of Jesus Christ of Latter-day Saints during adulthood. This finding fails to support Hubbard’s (2003, p. 69) suggestion that the outward appearance of entities encountered during a shamanic journeying experience may be principally determined by one’s religio-cultural milieu such that “a Christian may encounter saints and martyrs of the Church.”

In contrast, “H” was administered Harner’s (1990) shamanic journeying to the Lower World instructions coupled with religious instructions, subsequently reporting religious mental images in 75% of observations. It is salient that H received mild to moderate exposure to denominational Christianity (i.e., Anglican) throughout childhood, adolescence, and adulthood. This result provides preliminary support for the contention that religious imagery consonant with one’s religious tradition will be reported during shamanic journeying, provided one’s religious belief system has been activated temporally prior.

Modified Affect Bridge

The majority of visual mental images subjected to Modified Affect Bridge analysis may be tentatively conceptualised as autobiographical; that is, the derivative of a memory from the participant’s personal history that has been recalled and superimposed. This finding is consistent with that of Rock, Casey and Baynes (2006).

Other visual mental images (e.g., E’s “dark-haired girl”) appeared to perform a symbolic function (e.g., represent one’s family tree) yet did not appear to be the mental representation of a previous sensory experience derived from

the participant's personal history. However, if one were to conceptualise the "dark-haired girl" as a composite image exemplifying various constituents (e.g., a particular nose, x , a particular jaw-line, y , a particular article of clothing, z); it might then be argued that although E may have had individual sensory experiences pertaining to each single constituent (i.e., sensory experience x' corresponding to x , sensory experience y' corresponding to y), E may have never had a sensory experience involving the combination of constituents x, y, z (i.e., the "dark-haired girl").

It is noteworthy that during K's initial Modified Affect Bridge induction a visual mental image pertaining to the skeletal entity purportedly revealed that it was previously a human being who had been buried alive. In a subsequent Modified Affect Bridge session, the skeletal entity "informed" K that it was a demon. The skeletal entity may be tentatively categorised as transpersonal; that is, the skeletal entity may be conceptualised as existing independently of the percipient's perceptual apparatus, and thus attributed an exosomatic (i.e., realist) ontological status.

Finally, in numerous instances, participants were unable to trace the origins of visual mental images. This finding is consistent with Rock, Casey and Baynes (2006) who suggest that such indeterminism may be precipitated by, for example, an inability to place one's attentional focus on the Modified Affect Bridge instructions or traumatic associations for the participant that render the ultimate source of the visual mental image inaccessible to normal waking consciousness.

Some Possible Methodological Limitations

The Ganzfeld may have functioned as a contextual variable, (i.e., embedded cue), conditioning participants to report visual mental imagery commensurate with the colour red. For example, during the Ganzfeld treatment K reported visual mental imagery associated with a river of lava, C reported a "never-ending desert" coupled with a "very bright" sun, while "R" reported "spontaneous bursts" akin to "solar flares on the sun from a close proximity." Evidently, some participants are more susceptible to contextual variables than others.

Given that the conditions involved some form of restricted environmental stimulation, it is arguable that previously neutral variables may have adopted the function of contextual variables (e.g., embedded cues), thus providing direction to the participant's visualisations. For example, R stated that during the NI-M condition, the Mylar-covered drum tone appeared reminiscent of "war drums" and subsequently "the sound of rain on a tin roof," thereby precipitating imaginings consistent with these linkages.

Suggestions for Future Research

Future research needs to assess the extent to which the

Ganzfeld may have functioned as a contextual variable, (i.e., embedded cue), conditioning participants to report visual mental imagery commensurate with the colour red (e.g., lava, demons, barren deserts). Additionally, future research may benefit from comparatively analysing the visual mental imagery associated with a shamanic journey to the Lower World with visual mental imagery encountered during a shamanic journey to the Upper World. Finally, future research might also evaluate the "diversity of shamanic ASCs" (Krippner, 2002, p. 967). This would allow one to determine whether a "single shamanic state of consciousness" exists or whether it is "more appropriate to speak of shamanic modification of attentional states" (Krippner, 2002, p. 967).

Conclusions

Phenomenological analysis identified a variety of visual mental images occurring across induction techniques for each participant that were interpretable as comprehensive constituent themes. This finding is consistent with the fact that, historically, the shaman has employed a variety of techniques for the purpose of precipitating a shamanic journeying experience (Achterberg, 1987; Doore, 1989; Schultes & Hoffman, 1992).

The coupling of Harner's (1990) shamanic journeying to the Lower World instructions with religious instructions was associated with the highest percentage of observations (62.5%) involving religious mental imagery. Consequently, the perception of religious mental imagery seems more likely to occur during shamanic journeying to the Lower World provided that one's religious belief system had been linguistically activated temporally prior to the treatment.

Finally, the Modified Affect Bridge results suggested that visual mental images associated with shamanic journeying to the Lower World were derived primarily from autobiographical memories. It is noteworthy, however, that other visual mental images were amenable to tentative categorisation as symbolic, transpersonal and indeterminate.

End Notes

¹ Following Rock, Baynes and Casey (2005), the qualifier "ostensibly" was used because it was unclear what the sufficient conditions were for a mental image to be deemed genuinely shamanic. Nevertheless, one might argue that there exist at least two necessary conditions: N_1 : The mental image, x , must occur during a shamanic journeying experience, and N_2 : The outward appearance of x must be consistent with shamanic cosmology. Clearly, the presence of both N_1 and N_2 do not constitute a sufficient condition (i.e., ensure that x is genuinely shamanic). For example, during a shamanic journeying experience (N_1) one may encounter an x consistent with the "geography" of the

shaman's Lower World (N_2) (e.g., a predatory creature such as a tiger). However, it is logically possible that the "tiger" may merely be a distracting thought associated with, for instance, a circus performance that the participant viewed the evening prior to the shamanic journeying induction.

²For the purpose of this paper, autobiographical memory will be defined as "memory for events that have occurred in one's life" (Reber & Reber, 2001, p. 423).

³The "Brief Relaxation Induction" and "Return to Alert State" sections are derived, in part, from a transcription of an unpublished and untitled audio cassette recording of a relaxation procedure developed and used by former colleague, Sue Bauchman.

⁴Hypotheses were not formulated due to the exploratory nature of the present study.

⁵It is not uncommon for experimental studies in humanistic-transpersonal psychology to utilise a sample size of $N < 10$ (e.g., Lang, 1971; Tart, 1968; Tart and Smith, 1968). In the present study, two participants were randomly assigned to each level of the between-subject factor.

⁶It is important to acknowledge that the mental imagery checklist was not designed to be exhaustive, but rather to be used in conjunction with the two open-ended questions constructed to elicit narrative comments.

⁷Participant C was not administered the relaxation level of the within-subject factor due to the deferment of her university enrolment and subsequent relocation interstate.

⁸Standard phenomenological inquiry in psychology dictates that the final constituent themes are derived from the original protocols of all participants (Valle, 1998). However, in the context of the present study, comprehensive constituent themes were derived from original protocols across the four levels of the within-subject factor (i.e., SoC induction technique) for each participant.

The scope of the current phenomenological inquiry was limited to visual mental imagery. A visual mental image may be operationally defined as "a mental representation of an earlier sensory experience..." (Reber & Reber, 2001, p. 341). Consequently, the present study disregarded retinal images. For the purpose of the present study, a retinal image was operationally defined as "the (approximate) point-by-point picture of an object cast on the retina when light is refracted by the eye's optic system" (Reber & Reber, 2001, p. 341). Additionally, auditory, olfactory, gustatory, and tactile mental images were considered, provided a coupling with visual mental imagery was evident.

⁹Visual mental images were selected for Modified Affect Bridge analysis on the basis of three criteria: (1) the participant deemed the origin of a particular visual mental image, x , to be ambiguous. (2) The participant judged x to be an integral constituent of the state of consciousness from which it was derived. (3) The participant expressed a will-

ingness to subject x to analysis via the Modified Affect Bridge.

¹⁰The procedures and rationales involved in this Modified Affect Bridge have been detailed elsewhere (Rock & Baynes, 2005) and are available on request directly from the authors.

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