

Exogenous dream continuity: Exploring the matrix of entangled dreams

Commentary on “The continuity and discontinuity between waking and dreaming: A Dialogue between Michael Schredl and Allan Hobson concerning the adequacy and completeness of these notions”

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The topic under discussion in this issue of IJoDR involves the adequacy and completeness of the notions concerning the continuity theory. I'll initially offer a brief remark concerning what the primary authors (Schredl and Hobson) have offered concerning this topic, and then comment about the much more extensive critical evaluations proffered by Kelly Bulkeley and William Domhoff. I will subsequently make available material from a previously unpublished chapter by Calvin Hall describing some of his laboratory studies that I think raise profound questions about how far ranging the parameters of dream continuity may extend. To amplify those questions, I describe some related research by myself and others that support Hall's empirical findings.

I found the overall collection of papers in this dialogue interesting, although I was disappointed in the shallowness of the way that Schredl and Hobson presented their arguments regarding the continuity hypothesis. I completely agree with Kelly Bulkeley's statement: “To neglect Domhoff's work in a discussion of the scientific merits of the continuity hypothesis calls into question the adequacy of any conclusions drawn from that discussion” (p.48). Similarly, I strongly concur with the opening paragraph by Domhoff: “The Schredl/Hobson discussion of continuity and discontinuity between dreaming and waking goes astray from the outset because Schredl provides an inadequate characterization of Calvin S. Hall's “continuity hypothesis” in his opening statement and in Box 1. More generally, their discussion minimizes and trivializes Hall's main ideas and findings to the borderline of caricature. His continuity hypothesis and its anticipation of later developments in cognitive psychology deserves better” (pg. 50). Domhoff then goes on to present a masterful and wide ranging summary of just how extensive the contributions were that Hall had made to the topic of dream continuity.

Not covered in Domhoff's review was the information that Calvin Hall was writing a book entitled *The Scientific Study of Dreams* that he did not complete before his death. He had a chapter (7) entitled: “The Effects of Subliminal Stimuli on Dreams.” In his opening paragraph, Hall indicated (p. 139): “The procedure in the investigations to be reported consisted of presenting material to a person while he was

asleep in such a manner that all the ordinary channels of communication appeared to have been excluded. Studies of this character are usually referred to as extrasensory perception or ESP experiments. ... I prefer to use the term “subliminal stimulation” because it makes no assumptions about the manner in which the stimulus is transmitted or received. It is a purely descriptive and theoretical term which describes the nature of the stimulating conditions.” In a subsequent paragraph, Hall notes (p. 140): “The literature abounds with accounts of prophetic and telepathic dreams, many of which have been reported by well-known people. A majority of persons with whom I have spoken on the subject can recall at least one dream that came true, and many of them have unshakable convictions that dreams can foretell the future. A psychologist with whom I am acquainted kept a record of his dreams for many years. In the beginning, he repudiated the idea of prophetic dreams as a primitive superstition. Gradually, his attitude began to change when he observed that some of his dreams presaged future events. Today, after 30 years of keeping a dream diary, he is convinced that at least 10% of them are precognitive. By contrast, my personal dream diary contains only one dream that might be considered prophetic.” At the International Conference of the Parapsychological Association held in Utrecht in 2008, I delivered a paper entitled, “Dreams and ESP” (Van de Castle, *Dreams and ESP*, 2009), which reviewed the literature involving large scale surveys of spontaneous ESP dreams. The largest collection of psychic experiences was compiled by Louisa Rhine who filed over 15,000 reports (Rhine, 1978, pg. 21). She indicated that over 60% of these reports consisted of dreams, and approximately 2/3 of these dreams could be classified as realistic. In my chapter, I listed five books about psychic experiences that each contain over 100 dream reports.

On p. 141, Hall wrote: “With the advent of sleep monitoring techniques and objective methods of content analysis, it has become possible to do fairly rigorous controlled experiments on the incorporation in dreams of material subliminally presented during sleep. In the language of parapsychology, these are investigations of mental telepathy during sleep. “The first set of experiments was conducted in the laboratory of the Institute of Dream Research under my personal supervision (Hall, 1967a).* [*An informal discussion with Montague Ullman about his extrasensory perception experiments stimulated me to undertake these investigations.] In this same paragraph (p. 142), Hall notes: “It is not irrelevant to mention that when the experiments were begun I was skeptical of obtaining positive results. ...These personal observations are pertinent because investigators

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of psychic phenomena have been accused of finding what they want to find, and of not being sufficiently critical of their experiments. Nothing that I had read concerning telepathic dreams had persuaded me of their reality. As a result of our studies, I am fairly well convinced that dreams can be influenced by subliminal stimuli presented during sleep (p. 142). Hall then provided a detailed description of the experimental procedures he utilized in his studies, and several pages later described some of his work with me.

"The first two presentations with Van de Castle as the subject did not have any discernible effect on the dreams he reported. The third topic consisted of watching a prize fight. The experimenter visualized a prize fight mentally, looked at pictures of prize fighters in a magazine, wrote out the message: "You are watching a prizefight", and stood up and engaged in shadowboxing. These activities were continued for about fifteen minutes. When the subject was awakened, he reported a long dream into the tape recorder. The first third of the dream was sexual in character, then the following episode was recorded: "The setting shifted to a large auditorium and there was a boxing match going on. There were two young lightweight boxers who were fighting and one of them was doing much better than the other. It seems his opponent became vanquished and then another lightweight contender got into the ring with him. This new contender now started to give a pretty savage beating to the other boxer who was at one point kind of started to use a double punch where both hands would be brought from the outside and would simultaneously hit the other boxer's head at the same time. My sentiments began to be for the underdog, and I remember standing up and throwing a few imaginary punches myself because I was so involved with the action in the ring." The description of the fight continued for 9 more lines, and then shifted back to the theme of the first part of the dream" (p. 145).

Although I experienced this dream back in 1967, I can still recall the vividness and intensity of that dream 45 years later. It served as my personal introduction to the reality of psychic phenomena, even though I had an extensive reading background on the subject matter for 15 years prior to that time. For the person experiencing this kind of impactful dream, no amount of skepticism by omniscient scientists can ever dissuade an experimenter of this kind of powerful psychic event that they were deluded. If you get hit by a truck, you know that you were hit by a truck, and no amount of critical comments 'by these arbiters of reality' will ever convince you that the truck that hit you was an imaginary truck.

Given Hall's propensity to quantify dream content, the reader should not be surprised to find that Hall attempted to evaluate the likelihood of the prize fighting dream by resorting to some effort to quantify what the odds might be for such a dream to be experienced by a particular dreamer. "In our investigation, we were able to determine the probability that a dreamer would have a dream in which the stimulus material was represented. The determination was made in the following manner. First, we collected a number of dreams from the subject which were dreamed during nights other than when the particular topic had been transmitted. We then examined each of these dreams to see whether there was any mention of the stimulus material in it. For example, we obtained 97 dreams from the subject who had dreamed of a prize fight when that topic was sent. There was no mention of a boxing match in any of the 97 dreams,

so that the chances of his having such a dream was absolutely nil for this sample of dreams. This is actually not a fair test because if he had dreamed of any kind of fighting and not just boxing, it would have been counted as a congruence. So we went through the 97 dreams again and noted every dream in which any kind of fighting appeared. There were four such dreams. The chances are four out of 97, or about one out of 25, that on any specific night, the subject would dream of a fight. This does not rule out coincidence... probabilities never do... but it lends support to the existence of a causal relationship between the subliminal stimulation and the dream" (p. 153).

In commenting about the boxing dream, Hall stated: "Several things will be noted about the incorporation into the dream of the topic. First, it was a very direct reproduction of what the experimenter was thinking about and pantomiming. Second, the boxing episode was inserted into the dream and appeared to have no connection with what went before it and what followed it. This inserted quality is also what one finds when a sleeping person is stimulated by a sound, a light, or drops of water. It appears that the subject received the message in the middle of a dream which was interrupted in order to incorporate the subliminal stimulus and then returned to the main dream again. Third, the subject's personal involvement in the action by standing up and throwing a few imaginary punches may have reflected the experimenter's rather spirited but silent pantomiming in the next room."

These experiments were then conducted with 5 other subjects on whom a total of 121 presentations of stimulus material were made. In 56 of these presentations, some correspondence was noted between the material that was sent and the contents of the dream that were subsequently reported. These correspondences were not usually as close as those observed in the prizefight dream (p. 145-146). Some examples of the correspondences found with these 5 dreamers is reported in my book, *Our Dreaming Mind* (p. 418) and also in a German publication, "Experiments on Telepathically Influenced Dreams (Hall, 1967b).

In addition to the main findings of the experiments, a number of other interesting observations were made. On one subject we varied the procedure by placing a sealed envelope containing a typed description of a topic under the mattress of the bed in which the subject slept. The envelope was selected at random from a bunch of envelopes so that neither the experimenter nor anyone else knew what the topic was. Nor did the subject know the envelope was there. A new envelope containing a different topic was used every night for 17 nights. In four of the 17 dreams that were reported (the subject was awakened only once a night), the experimenter found evidence that the stimulus material was represented in the dream. Independent judges correctly matched three of the dreams with the topics. The probability of the topic appearing in a dream by chance was computed by examining the other dreams reported by the subject. The probabilities were 16 in a 100, 2 in a 100, and less than 1 in 100. These results suggest that another form of subliminal stimulation (in parapsychology it would be called clairvoyance) may have been responsible for the incorporations. With only one subject, the findings cannot be more than suggestive, however (p. 157).

Hall also extended his explorations in another direction that produced interesting results. "Sometimes, the sleep of two subjects was monitored on the same night. The sub-

jects slept in separate rooms which were located on either side of the room in which the EEG was kept. Occasionally, the two subjects would have REM periods close together in time, and in two instances a striking congruence between the dreams reported by the subjects from these REM periods was noted. ... Subject A dreamed of receiving a special delivery letter and Subject B dreamed that his sister was writing a letter which was to be sent at a special rate. On another occasion, Subject B dreamed of going into a store to buy something... Subject C reported a dream in which he went into a store to buy something (p. 157-158). [This finding of dream to dream correspondence was also investigated in a sleep laboratory by A. Rechtschaffen and will be described later in this paper. Extensive non-laboratory studies on Mutual Dreaming have been studied by Linda Magallon (1997) and on Group Dreaming by Jean Campbell (2006)].

As a consequence of my results as a "successful" telepathic dreamer with Calvin, I was invited to participate as a subject at Maimonides Hospital in Brooklyn where M. Ullman and S. Krippner were conducting their systematic program of investigating telepathic dreaming in a laboratory setting. I was studied for 8 nights during a 44 week period and worked with 3 different senders. On each experimental morning, I had to choose and rank order which of 8 potential target pictures I thought had been sent by the agent. If I gave a ranking of 1-4 to the correct target picture, it was considered to be a "hit". If I gave a ranking of 5-8 to the correct target picture, it was considered a "miss". I scored a total of 8 "hits" for the 8 nights of my participation.

I also participated as a telepathic dreamer at David Foulkes' laboratory at the University of Wyoming to investigate whether my previously successful results in Brooklyn could be replicated there. Although in his article for this symposium, Domhoff claims that Foulkes is the best laboratory dream researcher of the 20th century (p. 55), I would take exception to that laudatory evaluation. For starters, rather than a 44 week period as had been involved at Maimonides, Foulkes' study was completed within a 2 week period during a chilly mid-winter semester break. The social climate that I experienced there was equally chilly in comparison to the 'red carpet' reception I received on every occasion at Maimonides. There were several other experimental design factors that I felt played a significant inhibitory role in my not achieving statistically significant positive results at Wyoming. My detailed critique of Foulkes' study is presented in my chapter entitled "ESP in Dreams: Comments on a Replication 'Failure' by the Failing Subject", which appeared in the 2nd edition of *Dream Telepathy: Explorations in Nocturnal ESP* by Ullman, Krippner and Vaughn (1989).

In the original version of this book entitled, *Dream Telepathy: Scientific Experiments in the Supernatural*, by these same authors (1973), there was a chapter entitled, "Sleep, Psyche, and Science" in which Foulkes commented upon his study involving me: "In retrospect, we may have shared too much on the side of 'scientism' to the exclusion of creating conditions in which telepathy might reasonably (if it exists at all) be expected to flourish. It proved hard to escape the role of protector of scientific purity or guardian of the scientific morals. Were we sympathetic and encouraging observers, or scientific detectives out to prevent the crime from being committed before our very eyes?... Particularly revealing personally was a brief moment in intrapsychic panic when it seemed as though some telepathic influence

might be "coming through"—how could it be? Where had I failed to prevent a sensory leakage? Our subject (Van de Castle) clearly felt himself "on trial" before a not entirely sympathetic jury, and we also could not totally avoid the feeling that we too were on trial, with a favorable verdict for the subject raising doubts as to the scrupulosity effort judgment process... There is no place for sloppy dream research whether on telepathy or anything else. But being rigorous is a different matter from insecurely flaunting one's rigor as we may have done in our first study" (p. 236).

A few sentences later Foulkes reported: "I have experienced a personally impressive instance of apparent telepathy in another laboratory study ostensibly unrelated to ESP. While working one night on our continuing study of children's dreams, I was watching for the appearance of a REM period in the sleep of a preadolescent girl ... I picked up and began editing a review of an article on the effects of thirst on the sleep cycle...The reviewer's second point was that : "The cheese and crackers bedtime snack added a new and seemingly unnecessary aspect to the deprivation condition"... The subject was now in a REM period and I initiated an awakening (p. 237): "She reported a dream in which a man came to her house and had a snack and someone asked the dreamer's father if he wanted a beer. Her father decided he wanted one, even though he was a strict teetotaler. Then there were "these three boxes of crackers... one box of crackers had two white pieces, white crackers, and then a little piece of cheese between, a whole pack like that, and then the other box of crackers was white and the other packages were brown, and each of the three kids got one, and we kept trading around with them" (p. 237). Foulkes noted that this girl had no dreams of thirst-cheese-crackers in any of the other 25 nights they had observed her dreams, nor had "this particular combination of elements ever occurred in hundreds of dreams we have collected from other children in the same study in which the subject was serving" (p. 237). Foulkes admitted: "an experience such as this keeps alive one's spark of interest in telepathic dreams, whatever the outcome of his own more formal experiments... The atmosphere was quite in contrast to the highly self-conscious "we're-all-on-trial" environment in our first formal replication study" (p. 238).

The Maimonides program was a very labor-intensive project and it took 7 years to complete 379 psi sessions. In order to 'streamline' the process, a new technique was devised by British psychologists Simon Sherwood and Chris Roe from the University of Northampton, England. In this experiment, a computer is programmed to automatically select a picture from a random pool of pictures and display the target image repeatedly through the night on a computer monitor in an empty room. Each participant kept track of their dreams at home, and the next morning all participants went to the lab and viewed four pictures, only one of which was the selected target. They then ranked their preference as to which most closely matched their dream images. Their rankings were combined to create a single consensus vote on the most agreed-upon match. This new arrangement allowed the dreamers to pick up on the target stimulus, but did so in a way that didn't require a special laboratory, all-night technicians, or even separate senders or judges. In 2003, Sherwood and Roe reviewed all of the dream studies from the original Maimonides series and these latest 'at home' dream experiments. They evaluated forty-seven experiments involving a total of 1,270 trials and concluded

that the successful 'hit rate' was so much greater than what would be found if only a random event were involved, that the odds against chance were 22,000,000,000 to 1 (Radin, 2006, p.109).

Dr. Allan Rechtschaffen, Professor Emeritus in the Department of Psychiatry and Psychology at the University of Chicago, is a noted pioneer in the field of sleep research. He was invited to present an experimental design for a 1968 conference in France sponsored by the Parapsychology Foundation on Methodology in Psi Research. In his opening remarks, (Rechtschaffen, 1970) stated: "I was assigned the job of presenting a design of an experiment in ESP, based on current sleep and dream research...I thought that I ought to do an ESP experiment before I presented a design. So during the past month I ran a little pilot study together with a student of mine, Mr. James Kahn... The basic idea of the experiment was that if a psi signal is best received during an altered state of consciousness, perhaps it is also best generated during the same or similar state. Therefore, we wanted both the signal and reception to occur in an altered state of consciousness, namely, in a dream. ... We noted a good deal of correspondence, quite anecdotally, between dreams occurring about the same time in the night by two sleepers (p. 87-88). The best example of this was the following, recorded with two subjects who knew each other quite well:

"In the first dream, one subject dreamt about students singing in Russian and the other subject dreamt about students doing some kind of interpretive singing. In the second dream, the first subject was taking a violin lesson and the other subject was learning a guitar melody. In the third dream, the first subject was watching a James Cagney gangster movie, and the other subject reported a dream about a recent gangster movie, Bonnie and Clyde (p. 89). ...As the subjects knew each other, the possibility of collusion, which we really doubt, could not be ruled out. So we had to go on and introduce experimentally an external stimulus into the dream. We did this by post-hypnotic suggestion. Before the subject went to sleep for the night, he was hypnotized, and while he was in a trance we told him that during the night, he would have a certain dream.

"The very first night that we tried it, we told the subject that he would dream of the death of Martin Luther King and of a fear of riots, and he dreamt that Martin Luther King had been shot, that somebody threw a rock and they were afraid a riot would start. The other subject, who had not received any suggestion, dreamt of a Negro policeman who was beating another man and he was afraid that somebody would throw a brick and start a riot.

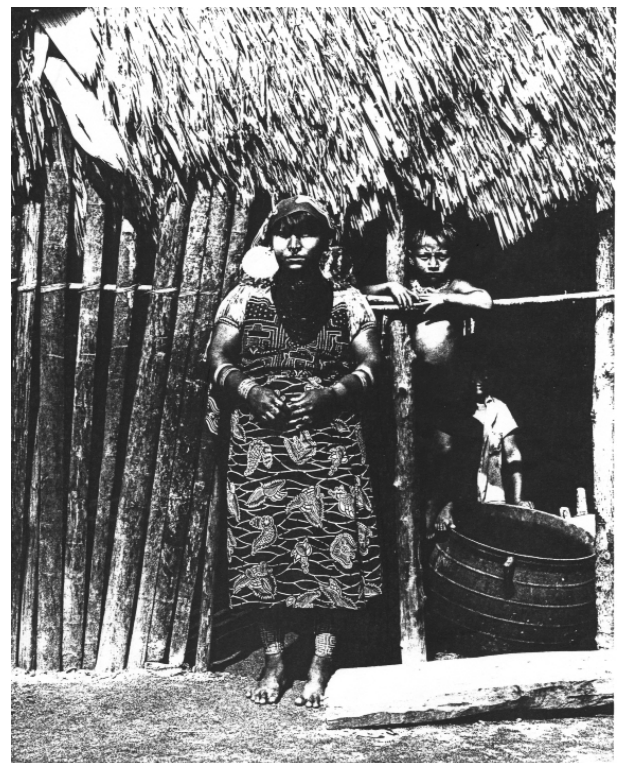
"On another night we told the subject to dream that he was in an amusement park, having a very good time. He dreamt that, and specifically he dreamt about riding on a merry-go-round. The other subject had a dream of people laughing and running in circles and there were 'grinning, funny looking horses' in his dream."

Rechtschaffen then decided to use hypnosis to investigate the possibility of inducing simultaneous dreams. He reported some very striking correspondences between these hypnotically induced dreams. In his discussion of his overall results at this conference and in responding to the many questions posed to him, Rechtschaffen made several comments about features he would consider in any future research that I would like to emphasize. On page 94, he stated: "We would allow at least a week between sessions."

I focus on that comment because of my earlier criticism of Foulkes when I had to cram my entire testing protocol into a 2 week period rather than the 44 week protocol that I was allowed at Maimonides. He also observed that "when you simply have judges match a dream against a suggested topic, a hit does not reveal the degree of the hit. A simple matching procedure does not take into account the very unlikely probability of such a specific occurrence (p. 92). And finally I found myself intrigued with his questioning comment "We thought that maybe the question is not so much what do dreams mean, but whose dream are you having?" (p. 89).

My first impressive personal introduction to the realm of "entangled dreams", and the question of whose dream are you having, occurred when I conducted an informal experiment on November 17, 1985. The setting was my home in Charlottesville, Virginia. I had previously announced to readers of the *Dream Network Bulletin* that I would concentrate on a target picture that night, and I invited them to send me accounts of the dreams they experienced that night. A total of twenty-seven percipients responded to my request. The target picture involved a black and white photograph of a Kuna Indian woman from Panama standing in front of a house with slanted, wooden walls and thatched palm roof (fig. 1). A detailed description of the results is reported in my book *Our Dreaming Mind* (Van de Castle, 1994, pp. 433-436). There were numerous correspondences to the target picture such as mentioning a short sleeve blouse, unusual ankle jewelry, foreign locations, and children. One woman, Claudia B. from Brooklyn, who was a complete stranger to me, mentioned her young daughter, hands on a structure of beams and poles, wooden sliding doors and a building with an unusual -looking roof. In my written associations to the target picture, I mentioned that a thatched roof provides good protection from the rain. Claudia mentioned dream-

Figure 1: Target Image for the night of November 17, 1985



ing she heard rain falling and realized she didn't have an umbrella. I recalled four dreams that night and there were striking correspondences between my dreams and Claudia's dreams.

My first dream involved a fishing scene: "I was sometimes on a boat and sometimes on shore. The man I was with caught two large flounder and a woman insisted that I put them on top of the boat and gut them. I attempted to cut the fish open with a razor blade. Some blood came out; the fish's face turned into a man's face and he was bleeding. I told him to rinse his face with water and said I would need his advice as to how to cut around his ears and nose."

Claudia managed to pick up on the imagery of my dream to a remarkable degree. Here is an excerpt from her first dream: "I am outdoors, perhaps on the deck of the ship... mounting the fresh, whole wet skin of a small whale or whale's head (fish-size) on a board. After removing one eye, (it's a side view) with the knife I'm using, I hear a conversation... (this could be influenced by a recent waking experience of washing flounder for cooking, but not removing their heads.) I feel a kinship, or sympathy, with the whale, which at some point transforms into a person. The wet, stretched, mounted skin is now of a man's face, reddish-brown."

The odds against two complete strangers on the same night, geographically separated by 500 miles, dreaming of being on a boat cutting open a fish and having the face of the fish turn into a bloody man's face are astronomical, and that both dreamers specifically mentioned flounder seems to argue against any notion that the correspondences are a chance occurrence. Although not as striking in matching details, another female dreamer saw an "animal face and an animal with an open wound that I wanted to sew up or heal before too much blood was lost."

My next dream involved providing drinks that cost \$0.41 each for a group of students working on a project. In Claudia's next dream, she had stolen some money with several other people and offered to count another person's share. She wrote down figures which were an "odd amount of dollars and cents." My second dream also involved something about a mother dividing a cake or other dessert into two portions. In her second dream, Claudia's daughter was with her and asked the others to count out a share with "equal denominations." In my second dream, the scenario involved a group of students and a project, while in Claudia's third dream, she described a group of people watching a film depicting college students and the instructor was working on an art project.

Other dreamers besides Claudia also seemed to tune into various features mentioned in my first dream involving a water setting, a boat and fishing. They mentioned an ocean, an ocean trip, a sea, a river, a boat, a yacht, oars for a rowboat, fishhooks and a hook. There is no material in the target image that bears any relationship to any of this shared dream material.

In my third dream, there was a crowd of people in a slanted auditorium, and some board members and I were sitting down to eat at a table on the main floor. A total of eleven dreamers made references to activities taking place at different elevations – in a grandstand, on stage, in the balcony, in the theater, etc. Tables were mentioned by four dreamers.

In my fourth dream, I was using a hose to water down a pile of leaves. Two of the nine male dreamers reported urinating in their dreams, and one woman dreamed that some-

thing like tea was being splashed or dripped on the rippled pages of a magazine.

Unlike Rechtschaffen's study where subject B was instructed to dream about subject A's dream, who the A and B subjects are in my study is impossible to decide. Since 1985, the International Association for the Study of Dreams (IASD) has carried out an informal testing protocol that allows interested conferees to participate in a "telepathic dreaming contest" at their annual conferences. The most typical protocol involved a "sender" that focused on a target image (chosen at random from a pool of four images) several times during the night, as the participants ("receivers") slept. In the morning, the pool of four possible images was shown to the participants who then placed their dream report into the box which displayed the image they believed was the target (based on their dreams). The protocols for the first 25 years were not designed to meet scientific standards, but to provide conferees an opportunity to participate in a light-hearted fashion to explore whether they could dream about the contents of a target stimulus that they had not previously seen. Year after year, participants dreamed and chose the target image to an impressive degree, and to the surprise of everyone (initially) also dreamed of the three non-target images in the pool, as well. But the most impressive finding was the dream correspondences displayed between the dreamers on objects and themes that were not shown in any of the target stimuli.

Starting in 2010, the contest design was changed to meet more stringent scientific standards. The hits on the target picture, non-target content and dream-to-dream shared correspondences in imagery continued. Below is a summary of the dream to dream results from the contests held in 2009, 2010 and 2011.

The methodology used in the 2009 contest was the same as previous conference contests and was based loosely on the Maimonides protocol. Bobbie Ann Pimm chose four images, as dissimilar as possible from one another, and placed each into a sealed opaque envelope prior to the conference. On the night of the contest, conferees gathered and the contest instructions were given. The 'sender', Angel Morgan, was introduced and she selected one of the four pre-prepared sealed envelopes. Bobbie Ann kept the remaining three envelopes sealed in her room for the night. Angel opened the envelope in her room. She then spent some time on focusing on the image, meditated and went to sleep. As a prolific lucid dreamer, she had a lucid dream, woke up and recorded the dream. She then meditated, fell asleep and repeated the process several times. In all, she recorded 8 lucid dreams during the night.

In the morning, Bobbie Ann took the pool of four images, and taped one image on each of four cardboard boxes, which were then placed prominently on display. Conferees subsequently placed their dream reports of the night into the box they believed was the target image that Angel focused on during the night. Several impressive hits were made on the target image and also on the three non-target images. A report of the findings of the hits on the target and non-target images was published in the July/August issue of *Explore: The Journal of Science and Healing* (Dwyer, Van de Castle, & Pimm, 2010) and in the Fall 2009 issue of *DreamTime* (Dwyer & Van de Castle, 2009).

In 2010, prior to the conference, Bobbie Ann again selected and prepared four unrelated images and placed each in sealed, opaque envelopes. The night of the contest, the

Table 1: 2009 Results

Correspondence	Sender's dreams	Dreamers' dreams
Red lights	"...we see that people from various locations ... show up like red lights..."	D.G. – provided a drawing displaying some buttons with red lights
Martial arts	"...(An) IASD member and I dance and improvise martial arts moves..."	K.S. -- "...pictured Angel's face, but then had "a visual of her fighting and lunging. She seemed to display some kind of swordplay like a Samuri..."
Curling up together	"...people are completely wild, naked, and uninhibited - then peaceful and cozy, -- we all curl up in bunches to watch dream themed movies..."	R.V. -- "...I had the sensation I was with Angel and she had a nightgown on. I could vaguely see through it and rolled over once on the bed without making any movements to be directly sexual..."
Gardening	"...[an IASD member] is leading a gardening project on an IASD plot of land..."	G.S. – "...Angel is throwing or strewing something - seeds or stars from her right hand..."
Bar/restaurant	"...We're all hanging out now at a 1950's style diner..."	I.W. – "...We are talking about something silly and drinking wine in a bar/restaurant type atmosphere..." C.D. – "...I come back to the restaurant ...It is crowded..."

sender, Angel Morgan, selected one of the four envelopes and returned to her room to open it. She focused on the image, meditated, went to sleep, had a lucid dream, woke up and recorded it. She repeated this 12 times during the night. The other 3 images remained sealed, in Bobbie's possession for the night.

The most serious criticism of the methodology employed in previous contests, including 2009, was that there were no controls in place to prevent a contestant from viewing the images the following morning and then fabricating a dream report to closely correspond with one of them.

In 2010, all dream reports were collected and scanned in Bobbie's room before any images were displayed. The original dream reports were returned to the dreamers, who

then deposited them into the box that displayed the image they believed was the target focused on by the sender. This procedure also negated the criticism that there may have been a large number of dreamers that withheld submitting dreams because they saw no apparent relation to any of the images.

A report of the findings of the hits on the target and non-target images was published in the Fall 2010 issue of *Dream-Time* (Van De Castle, R., Pimm, B., Morgan, A. K., & Dwyer, R. (2010). Table 2 shows a number of the correspondences between the dreams of the sender and the dreams of the dreamers that were totally unrelated to any of the images in the target pool.

Table 2: 2010 Results

Correspondence	Sender's dreams	Dreamers' dreams
Forest, trees	"We are all gathered in a clearing by a forest..."	In all nine dreamers mentioned either a forest or trees
Moving lights, fire, torches	"...Some fireflies buzz overhead to give extra light..." "...There are torches lit now..."	S.M. – "...flies ... moving about, lighting all around the flowers..." S.N. – "...I see the trees begin to light up, tiny points ... movement of lights..." B.G. – "...tree on fire..."
Transitioning, changing, morphing	"...[IASD member]'s head is on the body of a giant bee ..." "...Some of us turn into insects, then back into human form. I focus in on the band, and see the musicians are (human sized) insects!..."	G.S. – "...A young man who made deliveries ... became a giant then got small again..." N.D. – "... transition from spider to spider web to shadow to shadow of foliage to tree canopy to tree..." R.W. – "...The metal stairs shrink to a yellow metal bar..."
Spider web/tarantula on body	"...the women paint their totem insect on their body ... looking at a woman w/tarantula painted on her body..."	N.D. – "...I think of but do not see a spider...I see a spider web form over top of me...the web makes a large shadow...over most of my body..."
Energy	"...Major bursts of uncomfortable energy..." "... Many individual, separate bursts of communication..."	S.N. – "...discussion and energy exchange..."
Gulf oil spill	"... someone brings up the spill in the gulf..."	B.D. "...water..." and a "circle ... white containment boom."

Table 3: 2011 Results

Correspondence	Sender's dreams	Dreamers' dreams
Train Station	"... bringing him and his daughter to the train station..."	S.S. -- "...I am at a train station..." J.W. -- "...a sense that there is a train or elevated track behind us..."
Bar/Cocktail Party	"... in a ... bar or reception kind of area ... about 8 – 10 people in the room ..." "... I dreamt twice about a bar ... and some sort of cocktail called Harri Pina..."	J.O. -- "... people conversing, as they would in a bar..." S.S. -- "... there are a lot of people in there, some drinking ... some talking. Like a cocktail party..." M.C. -- "... ended up in a bar/restaurant ... and ... was having a cocktail..."
Burning	"...totally burned up or still burning..."	J.G's. main image was a "flamethrower".
Bridge	"... and start walking ... towards a bridge."	R.R.'s dream is titled, "The boat is also a bridge." C.M. -- "... I walk across the bridge..." L.C. mentions the World Dreams Peace Bridge B.H. -- "...I cross the Danube Canal..."
Embroidery Cushions	"...made of patchwork and embroidery ... something like small pink cushions..."	H.R. -- "...embroidered pillows..."

In 2011, the methodology changed slightly. As before, Bobbie Ann selected and prepared the target pool of images the same way. On the night of the contest, Saturday, the target was selected the same way, by our sender, Suzanne Wiltink. On Sunday the dreamers deposited their dream reports into one collection box, which Bobbie picked up that night. Since this was done before the participants observed the target pool of images this eliminated the criticism that participants might fabricate a dream to correspond with an image in the pool. On Monday morning all four images were displayed as usual and participants then deposited a "Psi Dream Entry Form" with their name, into the box they believed displayed the target image that Suzanne focused on during Saturday night. On Monday night, Bobbie Ann collected the entries, which she brought back to her room and matched up with the dream reports by the dreamer's name. The two were stapled together and Bobbie Ann made a notation on it signifying which image the dreamer chose.

A report of the findings of the hits on the target and non-target images was published in the Fall 2011 issue of Dream-Time (Van de Castle, Pimm, Dwyer, & Wiltink, 2011). Table 3 shows a number of the correspondences between the dreams of the sender and the dreams of the contestants that were unrelated to any of the images in the target pool. Commentary : Since this dialogue was intended to focus upon issues related to how far or extensive the effects of continuity in dreams might range, or what factors might influence its parameters, I have taken the position that a much wider framework must be considered than those appearing in our current discussions, to adequately conceptualize continuity. I have suggested the term exogenous, which is a term meaning something developing from without or originating externally, to express the type of continuity that I believe has been shown by the dream studies reviewed in this paper. In addition to the existence of intra-continuity of material within dream content, might there also be inter-continuity between two or more dreams?

Einstein's protégé, American physicist David Bohm, felt that quantum theory suggested the existence of a deeper reality than the one ascribed to our senses. Dean Radin provides a very impressive review of the research and theo-

retical speculations emanating from Bohm's concepts of an implicate/explicate order and their relationship to theories involving personality. His book entitled, *Entangled Minds: Extrasensory Experiences in a Quantum Reality* reviews hundreds of studies which question our current thinking as to how the human mind works. In his first chapter, Radin proposes: "Quantum theory is a mathematically precise and exquisitely well-tested description of the observable world. Psychic phenomena are slippery, subjective events with a checkered past. But as it turns out, the fabric of reality suggested by quantum theory and the observations associated with psychic phenomena bear striking resemblances. They are eerily weird in precisely the right way to suggest a meaningful relationship. That's the connection we'll explore here: the psi connection" (p. 6).

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