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## Individual Differences in Aura Vision: Relationships to Visual Imagery and Imaginative-Fantasy Experiences

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**Abstract:** Aura vision, or the claimed experience of perceiving lights, haloes, or energy fields around a person's body, was studied in relation to imaginal variables and claims of other experiences. Nineteen individuals reporting experiences of aura vision were compared to an equal number of control subjects who had not seen auras. Both groups were matched by sex and age. Participants completed the Questionnaire on Auras and Other Experiences (QAOE), the Vividness of Visual Imagery Questionnaire (VVIQ), and the Inventory of Childhood Memories and Imaginings: Children's Form (ICMIC). It was predicted that the aura group would claim more vividness of visual imagery and more imaginative and fantasy-related experiences than the control group. The predictions were confirmed both for the VVIQ (aura group, mean = 27; control group, mean = 38:  $t[36] = -2.72$ ,  $p[\text{one-tailed}] = .005$  [lower scores indicate higher vividness]) and for the ICMIC (aura group, mean = 21; control group, mean = 14,  $t[36] = 3.85$ ,  $p[\text{one-tailed}] = .0002$ ). ICMIC scores were significantly correlated with the level of ability to see the aura at will ( $r_s = .60$ ,  $p < .001$ , two-tailed) even though mean scores were based only on the subset of ICMIC items that do not concern psi-related experiences. In addition, the aura group had a significantly higher frequency of such claims as seeing apparitions ( $p = .00006$ ), experiencing ESP in dreams ( $p = .008$ ), having mystical experiences ( $p = .01$ ), out-of-body experiences ( $p = .00002$ ), and seeing with eyes closed ( $p = .004$ ) than did the control group. In addition, the aura group reported more frequent practice of meditation than the control group ( $p = .008$ ).

The results of the study support the idea that claims of aura vision are related to claims of vivid visual imagery and fantasy and other imaginative experiences as well as to a variety of other psi-related experiences and some non-psi-related experiences. It is argued that further studies of aura vision could profitably focus on imaginal, neuropsychological, and perceptual correlates of the experience, as well as on integrating occult, religious and folk beliefs about the experience with correlational and phenomenological research findings.

Thalbourne (1982) defines the aura as a 'field of subtle, multicoloured, luminous radiation said to surround living bodies as a halo or cocoon' (p. 4). This phenomenon has a long conceptual tradition in the religious, occult, and psychical research literatures (for reviews see Alvarado, 1987;

Montandon, 1927, Chapter 2; Perera Molina, 1981; Regush, 1977; and Spence, 1920, pp. 50-51). Observations of the aura have been recorded in a variety of contexts, from reports in the old hypnosis literature in which hypnotized subjects sometimes claimed to see a luminous 'fluid around the eyes, fingers, noses, [and] ears of the magnetizer and of the persons with whom they were in rapport' (de Rochas, 1904, p. 14), to reports of various luminous effects seen

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around mystics and saints (for a review see Alvarado, 1987), and to descriptions of the auras of seemingly gifted individuals or self-proclaimed psychics (e.g., Garrett, 1939; Karagulla, 1967).

The literature on auras offers a variety of explanations to account for the phenomenon. The occult and experiential traditions postulate the existence of subtle bodies and energies of a type not acknowledged by science but supposedly perceived by means of ESP (e.g., *The Aura*, 1955; Leadbeater, 1902; Schwartz, 1980). Other explanations for reports of aura vision include the possible perception of physical fields around the human body, normally invisible to the naked eye (e.g., ultraviolet light, thermic fields), as well as a variety of hallucinatory concepts (for reviews see Bigu, 1976; and Tart, 1972). In addition, perceptual illusions, afterimages, contrast effects, or entopic phenomena (the perception of spots or 'floaters' in the line of vision for which the experiencer has no physical explanation) have also been offered as explanations for aura reports (e.g., Dale, Anderson & Wyman, 1978; Fraser-Harris, 1932; Neher, 1980; Owen & Morgan, 1974; Rawcliffe, 1952).

Most modern parapsychologists have shied away from aura reports as a research topic because of their pervasive presence in a variety of occult, spiritual and folk belief systems. Evidence of our neglect is apparent in the low frequency of papers on the topic that appear in 'mainstream' parapsychology. For example, excluding this paper, only five papers in which the main focus was on aura vision have been presented at the annual convention of the Parapsychological Association from its first meeting in 1957 to the most recent meeting in 1994. None of these five papers discussed individuals' observations of the aura, a topic we emphasize in this paper<sup>1</sup>.

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<sup>1</sup> Of the five papers that were presented, three were about Kirlian photography (Burton & Joines, 1974; Burton, Joines, & Stevens, 1975; Kejariwal, Chattopadhyaya & Choudhury, 1983), one discussed possible electrical explanations of the phenomenon (Stevens, Burton, & Joines, 1975), and one described an attempt to detect an aura

In fact many consider reports of aura vision to be outside of the scope of scientific parapsychology altogether. Gardner Murphy, writing with Laura Dale (1961, p. 286), argued that no existing data on aura reports supported the idea that the topic was worth studying. More recently, Nash (1986, pp. 151-152) classified aura reports under the heading, 'questionable ESP phenomena'.

There is no doubt that little serious work has been done in this area. In addition, some of the work that has been conducted has been so problematic that serious scientists are loath to reference it. This is especially true of reports in which overly optimistic researchers describe supposedly consistent results concerning the characteristics and functions of aura viewing without presenting any clear description of the methodology used, or without treating alternative conventional explanations seriously (e.g., Slate, 1988; G.S. White, 1928). We argue, however, that reports of aura vision should be of interest to parapsychologists for a number of reasons. Many anecdotal observations suggest that 'aura reading' may be relevant to unconventional medical diagnosis, perhaps by serving as an imaginal vehicle for the expression of ESP-acquired information (e.g., Karagulla, 1967) or for information acquired through normal senses but not otherwise available to the conscious mind. Seeing auras also seems to be associated with reports of the development of psi sensitivity after near-death experiences (Greyson, 1983) as well as to be correlated with other such extraordinary claims as seeing apparitions and claiming to have had OBEs (Kohr, 1980; Palmer, 1979). Additionally, some gifted subjects who have shown evidence of psychic functioning in experimental contexts have also reported aura vision as part of their overall pattern of psychic experiences (e.g., Garrett, 1939, Chapters 3 and 5; Swann, 1975, pp. 21-22). There are also reports in the literature in which an

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around the human body through the use of instrumentation (Karolyi, Nandagopal & Wigg, 1983).

anomalous 'glow' surrounding a human body was claimed to have been perceived collectively (Alvarado, 1987). Aura vision reports have also been related to investigations of possible human radiations in the history of psychical research, such as the search for a 'mesmeric fluid' and the 'od force', among other such concepts of the hypothetical force put forth in the older literature as possible causal agents underlying both ESP and PK phenomena (for reviews of these concepts see Montandon, 1927, and Sudre, 1956/1962, Chapter 6).

We argue that aura vision reports are part of human experience and as such deserve and require study in and of themselves, with and without efforts to relate aura vision to possible paranormal components. Our perspective is consistent with Palmer's (1986) recent discussion of the importance of distinguishing conventional models of explanation from paranormal ones in parapsychology. It is also consistent with recent pleas to consider the experiential aspects of psi claims as part of parapsychological research without necessarily focusing on paranormal explanatory models (e.g., Blackmore, 1988; Schouten, 1986; R.A. White, 1990). To paraphrase Irwin (1989, p. 10): Human experience includes a wide range of 'different dimensions' and there are many more aspects of psi experiences to be studied other than ostensible paranormality. Our research was conducted along these lines.

Although aura reports have generally been neglected in parapsychology, a few serious studies have been published. For example, some recent surveys of psychic phenomena reported the incidence of aura reports in specific populations (see Table 1). In studies in which random sampling was used the incidence of aura vision reports ranged from 0% to 7% (i.e., Chadha, Alvarado & Sahni's, n.d., unpublished study; Haraldsson, Gudmundsdottir, Ragnarsson & Jonsson, 1977; Murray, 1983; and Palmer, 1979). The incidence of the phenomenon reported when groups were nonrandomly sampled was somewhat higher, ranging from 9% to 48% .

Some researchers have tried to detect a physical cause underlying reports of aura vision. They have tested gifted individuals who claimed to be able to detect auras (e.g., Ellison, 1962; Loftin, 1990; Neher, 1980, pp. 187-188; Owen, 1972; Owen & Morgan, 1974; Tart & Palmer, 1979). In other studies, researchers have used apparatus such as screens or goggles treated with special chemicals in an effort to render the aura visible (e.g., Bagnall, 1937; de Fontenay, 1912; Kilner, 1920). Cameras and photographic plates (e.g., Baraduc, 1896; Bond, 1933), electrophotography (e.g., see the papers in Krippner & Rubin, 1973) and other instruments (e.g., Dobrin, Kirsch, Kirsch, Pierrakos, Schwartz, Wolff, & Zeira, 1979; Karolyi, Nandagopal & Wigg, 1983) have also been used by some researchers. In addition there are at least two studies of EEG correlates to reports of aura vision (Green & Green, 1977, pp. 239-240; Whitton, 1974)<sup>2</sup>.

In this paper we are taking a first step toward understanding the psychological correlates of the experience. There are precedents in the literature for this type of research. Owen (1972), for example, administered an unpublished (and presumably unvalidated) questionnaire to measure the 'power of visual imagery'. Most of the aura viewers he tested (8 out of 11) obtained scores above the median value obtained by a separate sample of 70 subjects who did not claim aura vision. Pekala, Kumar & Cummings (1992) reported a positive but non-significant relationship between reports of aura vision and hypnotic susceptibility.

Some surveys have correlated aura claims with other ostensible psi experiences. For example, Palmer (1979) found positive correlations between aura reports and the practice of meditation for his sample of college students then at the University of Virginia in Charlottesville, Virginia in the US. He also found correlations between aura reports and vivid

<sup>2</sup> Also relevant here are the critiques of Kilner's work (Ellison, 1967) and discussions of artifacts in Kirlian photography (Burton, Joines, & Stevens, 1975; Montandon, 1977).

## INDIVIDUAL DIFFERENCES IN AURA VISION

 Table 1  
*Incidence of aura vision in survey studies*

Study	Participants	Country	Random sampling	Sample size	% Aura vision	% Multiple aura vision
Murray, 1983	Residents of urban area	Phillipines	Yes <sup>a</sup>	80	0	-
Chadha <i>et al.</i> , n.d.	College students	India	Yes <sup>a</sup>	270	4	40
Haraldsson <i>et al.</i> , 1977	Selected from National Registry	Iceland	Yes	902	5	-
Palmer, 1979	Townsppeople	USA	Yes	354	5	87
Palmer, 1979	College students	USA	Yes	268	6	67
Pekala <i>et al.</i> , 1992	College Students	USA	No	575	7	-
Zingrone & Alvarado, 1994	College library personnel	USA	No	55	7	-
Neppe, 1981	Members of cultural society	South Africa	No	57	9	-
Thalbourne, 1994	Members of the SPR	UK/USA & other	No	402	13	-
Alvarado, 1994	College students (parapsychology class)	USA	No	15	13	-
Murray, 1983	Members of Isneg tribe in remote rural community	Phillipines	Yes <sup>a</sup>	80	28	-
Richards, 1988	Participants of programs and projects of ARE <sup>b</sup>	USA	No	465	44	-
Kohr, 1980	Members of ARE <sup>b</sup>	USA	No	406	47	87
Tart, 1971	Marijuana users	USA	No	150	48	-

Note: Studies have been arranged from the lowest to the highest incidence of aura vision.

<sup>a</sup> Stratified sample. <sup>b</sup> Association for Research and Enlightenment.

dreams, lucid dreams, mystical experiences and practice of dream analysis for his sample of townspeople living in the same town. Kohr (1980) surveyed members of the Association for Research and Enlightenment, in Virginia Beach, Virginia, in the US and obtained positive and significant correlations between reports of aura vision and dream analysis, the practice of meditation, mystical experiences, and other experiences such as waking and dream ESP, OBEs, and apparitions.

We wish to emphasize that our paper, the analysis of a small case collection of aura reports and their psychological correlates, is an exploratory study that we hope will provide a first step towards a more meaningful and large-scale study of the phenomenology of the experience and of the psychology of the experiencers. First, we will present some brief descriptions of their experiences from among those provided by our small group of 'aura viewers'. Second, we will compare members of the aura group to a group of control participants on two psychological questionnaires, and on reported incidence of claims of psi phenomena, dream variables such as vividness and lucidity, and reports of such visual/physical experiences as headaches, afterimage persistence, and the presence of entopic spots in the line of vision as measured by a short questionnaire of our own construction. We believe that the study of individual differences in aura vision reporters is important if for no other reason than that it relates a phenomenon traditionally enshrouded in the mystery of occult traditions to more familiar forms of psychological functioning.

We hypothesized that a relationship exists between claims of vivid visual imagery and aura vision reports such that 'aura viewers' would also report significantly more vivid visual imagery than persons who did not report seeing auras. We based our assumptions partly on the writings of some theorists who have argued that an individual may create an hallucinatory image of an aura from information perceived through normal senses or

through ESP (Ellison, 1962; Tart, 1972) which led us to expect that persons who are more adept at internal imagery would also be more likely to experience such external hallucinatory images. That is, we thought it would be interesting to test whether when:

The observer looks at the target person... [he may] pick up various physical, and behavioral characteristics from seeing him. He may also receive an information input, to varying degrees, from his own *psychic* faculties... Then, somewhere on an unconscious level, these inputs are transformed into a mental image and delivered to consciousness so that he 'sees' an aura surrounding the target person (Tart, 1972, p. 15).

Presumably such information could be derived from normal sources of information as well as anomalous ones and expressed to the observer through an hallucinatory aura. It is also possible that aura viewers may be perceiving some measurable physical phenomenon (whether based on temperature variants or some other physiological attribute of body states). Additionally, reports of aura vision may be related to measurable cognitive variables. Neher (1980) speculated on the importance of (presumably visual) imagery in aura vision. He said: 'The expectation of seeing an aura is... sufficient to produce the perception of an aura in some individuals with *strong imagery*' (p. 187, our italics). Owen's (1972) informal imagery testing supported just such an idea.

We also hypothesized that 'aura viewers' would show evidence of being more fantasy-prone than persons who did not report seeing auras. Our hypothesis was based on the thinking of Wilson & Barber (1983), among others, who claimed that high-fantasy prone subjects report a variety of both imagery-related and psi experiences.

Because of the peculiarities of the scoring procedures of one of our questionnaires, our hypotheses resulted in the

expectation that a significant negative correlation would be found between our aura questionnaire and our vividness questionnaire for aura reporters (signifying that reports of aura viewing correlated with a greater frequency of claims of experiences of vivid visual imagery), and a significant positive correlation between our aura questionnaire and our fantasy proneness questionnaire for aura reporters (signifying that aura viewing correlated with more claims of fantasy and imaginal experiences in childhood, thus more fantasy-proneness).

## Method

### *Selection of Participants and Procedure*

Thirty-eight people participated in our study — 19 'aura viewers' and 19 persons who did not report seeing auras who served as a control group. The 'non-aura viewers' were matched to the aura viewers by sex and approximate age. The non-aura viewers were selected by convenience from among the acquaintances of the authors and from other volunteers who exhibited no particular knowledge of parapsychology and who had not previously reported either paranormal or other unusual experiences<sup>3</sup>. The cases reported by our aura viewers were collected by one of us (CSA) during the years 1984-1985. Some of these participants were referred by colleagues whereas other participants replied to an advertisement published in various newsletters related to psychic phenomena. The advertisement called for persons who had seen luminous phenomena around dying persons, because that was the initial interest of one of us (CSA) at the time. Later, the project was expanded to include reports of auras occurring in a variety of other, non-death related contexts. None of the aura viewers met either one of us personally. Rather, one of us (CSA) corresponded with them by mail. Aura viewers completed the Questionnaire of Auras and Other Experiences

(QAOE) designed by CSA to obtain detailed information and a written description of each respondent's most recent aura experience (if more than one was experienced). The QAOE contained other questions about the aura as well as questions about other ostensibly psychic or psi-related experiences, and questions about perceptual and visual experiences that may have some neuropathological significance (i.e., questions about the frequency of headaches, the persistence of afterimages, and the frequency of entopic phenomena). In addition, aura viewers completed Marks' Vividness of Visual Imagery Questionnaire (the VVIQ) and Susan Myers' Inventory of Childhood Memories and Imaginings: Children's Form (the ICMIC). After completed questionnaires were returned, one of us (CSA) corresponded further with the experiencers if it was necessary to clarify aspects of the written description or of the responses to forced-choice questionnaire items. Further contact was only necessary on those few occasions when the respondents answered the aura questionnaire on the basis of multiple experiences, rather than the most recent one, or when one of the other questionnaires was improperly completed. The control group also filled out the QAOE, the VVIQ and the ICMIC. In some cases, where clarifications were necessary, one of us (CSA) provided information to the control group through verbal contact.

### *Questionnaires*

The QAOE was developed by CSA to collect information on auras and other experiences (see Appendix for the text of the questionnaire). The key question was adapted from one used by Palmer (1979) in his survey of students and townspeople in Charlottesville, Virginia in the US. It asked: 'Have you ever seen a light or lights, or an energy field around any part of a person's body which, as far as you could tell, were not due to 'normal' or 'natural' causes? (i.e., a 'halo' or 'aura').' The respondent was asked to write a narrative description of the experience so that we would be able to

<sup>3</sup> We wish to thank Kathy Dalton for recruiting some of our control participants.

assess whether or not the initial question had been understood. As can be seen in the Appendix, the rest of the QAOE focused on such characteristics of the aura report as the circumstances in which the aura was seen (e.g., during normal activities, during a headache), and other features of the experience including: the part of the body around which the aura was seen; its dimensions, shape, and colour(s); and whether it was collectively perceived. Other questions asked about frequency of aura vision and about other variables such as the frequency of headaches, apparitional experiences, ESP in dreams, OBEs, and lucid dreams.

As we mentioned above, both groups completed the Visual Vividness of Imagery Questionnaire (VVIQ) (Marks, 1973), and the Inventory of Childhood Memories and Imaginings: Children's Form (ICMIC) (Myers, 1983). The VVIQ was originally administered by Marks (1973) twice, once with eyes closed and once with eyes open. Because it has been argued in the literature that the rationale for this practice is unclear and because no significant difference between scores obtained in both conditions has been reported (White, Sheehan & Ashton, 1977) insofar as we know, the scale was sent (or given) to the participants with no particular instructions other than those included in the text of the scale itself.<sup>4</sup>

Myer's ICMIC is a shortened version of Wilson and Barber's Creative Imagination Scale (1978), truncated so that it is easy to use for children. We chose the ICMIC because of its comprehensibility and brevity — attributes that lent to an ease of administration through the mail. Although we believe that none of the questions of the

ICMIC are inappropriate for an adult population, no adult norms for this scale have been published to our knowledge.

### *Data Analysis*

One of us (NLZ) tallied the scores from the VVIQ and the ICMIC for both groups, remaining blind as to whether the respondent belonged to the aura group or to the control group. NLZ also input the questionnaire results and respondent identification data into a spreadsheet in a statistical package (Number Cruncher Statistical System 5.01) and ran the analyses. The data was later exported into another statistical package (StatPac Gold IV) for double-checking and further analysis. All data-entry and analyses were double-checked by both of us working together, as was the assignation of probability values. Because this is an exploratory study we did not strictly correct for multiple analyses; however we did adopt an alpha level of .01. With the exception of two analyses testing the main hypotheses of the study, all statistical tests were two-tailed.

## Results

### *Characteristics of the Participants*

Most of the participants in each group were women (79%). The age range in the aura group was 30 to 77, whereas participants in the control group ranged in age from 30 to 78. The median age for both groups was 46.5.

### *Descriptions of Aurals*

Because of the small number of aura reports we collected for this study, we did not attempt a detailed analysis of the features of the aura vision experience. However, we have presented some short descriptions from selected cases below to illustrate the type of phenomena the aura group reported. Including experience descriptions is no longer a common practice in reports of questionnaire studies of similar experiences (e.g., Kohr, 1980;

<sup>4</sup> We are aware of the controversy over the validity and reliability of Mark's VVIQ as a test of vivid imagery (See Campos & Sueiro, 1993; Chara, 1989, 1992; Council, Chambers, Jundt & Good (1990-91); Chara, & Hamm, 1989; Marks, 1989; McKelvie, 1979, 1986, 1992a, 1992b; and McKelvie & Demers, 1979 for a sample of this debate). We are not using the VVIQ to indicate the real presence of vivid visual imagery in the imaginal repertoires of our participants; rather we are correlating the tendency to report vivid imagery experiences to the tendency to report aura vision experiences.

## INDIVIDUAL DIFFERENCES IN AURA VISION

Palmer, 1979). Some questionnaires do not even require respondents to describe their experiences, thus leaving the researcher to hope that the experience upon which questionnaire responses are based is the experience the researcher had in mind in designing the study. We believe, therefore, that it is necessary to solicit such experience reports in questionnaire studies. We also believe it is necessary to include a sampling of such descriptions in the reports of questionnaire studies so that the reader may assess the meaning of obtained statistical relationships within the context of the experience descriptions.

In the descriptions that follow, the listed ages refer to the age of the respondents at the time of questionnaire completion, that is, in 1984 or 1985.

1. A 46 year old woman wrote that while she was taking care of a terminally ill cancer patient when she was a student nurse, she had the following experience:

While the patient was dying, I saw a white veil-like halo around her head and perfect peace and serenity was the overwhelming feeling that I experienced, the patient had a soft smile on her face at this time.

2. A 39 year old woman wrote:

I saw a man sitting at a bar surrounded by whitish purple light — he appeared dead. Later same evening he shot himself — prior to [the] event — he had attempted — he thought successfully — a murder.

3. In a letter to one of us (CSA) a 75 year old lady described luminous phenomena she saw around the body of a supervisor of hers who had given her a lot of trouble and was not liked in her office. The supervisor was talking to the respondent about a TV programme when:

Suddenly, a bright blue flashing light appeared around her head, shoulders, hips and thighs — I couldn't see her knees and feet as her desk obscured them. It looked like arrows

flashing up and down similar to a neon sign, and was about 3 inches in width. Transfigured, my eyes followed its pattern and I noticed the circuit seemed to break and in its stead were large black streaks in the area around her hips and upper thighs.

4. The following example is from a 50 year old woman who experienced two near-death experiences before seeing the aura. She was in church to attend the funeral of her uncle and to deliver one of the eulogies. At one point during the service she looked at her aunt:

Simultaneously, both she [the aunt] and my uncle's casket were outlined in a light which is brilliant but does not blind; it is warmth and it conveys unconditional love and 'the peace... which passes all understanding.' It radiated outward from them both until their entire family was surrounded. It illuminated them making them, for that moment, a unified one.

5. A 53 year old lady had the following experience related to her father:

I got up one morning got dressed for school came down the stairs and saw my father in the front hall looking so beautiful. He was glowing with a rosy glow.

Her father had been suffering from angina and died of a heart attack later the same day.

6. The following experience refers to an observation the respondent seemed to be making as she wrote her description of the experience. She described the aura of her brother in law:

The aura is opaque, vari-colored. Near the skin but not touching it the colors sunshine yellow to gold; very small layer. The next layer is red; dark; much larger area. Next layer is red-brown to brown; about medium in size. Final layer is dark-blue pal-



ing to a lighter blue. Not all the way to sky blue; darker. Along the neck and spinal area the color is disrupted by an irregular patch of the muddy brown to nearly black. I did ask if his back hurt him. He answered in the affirmative.

#### *VVIQ and ICMIC Correlates of Aura Vision*

As shown in Table 2 there were significant differences in the expected direction between the VVIQ and ICMIC scores of the aura and control groups. The aura group obtained a mean score of 27 on the VVIQ whereas the control group obtained a mean score of 38 on the same questionnaire. The difference between the mean scores of these two groups was significant at the .005 level, one-tailed ( $t[37] = -2.72$ ), indicating that the aura group reported significantly more experiences of vivid visual imagery than did the control group. Similarly, on the ICMIC the aura group obtained a mean score of 21 and the control group a mean score of 15. The difference between the mean scores of these two groups was significant at the .0003 level, one-tailed ( $t[37] = 3.85$ ). Because we were interested in deal-

ing with psi-related experiences separately we felt it was important to obtain a corrected ICMIC mean score, which was calculated by removing the psi-related experiences from the scale. When the mean score obtained by the aura group (mean = 18) was compared to the mean score obtained by the control group (mean = 13) on this corrected version of the ICMIC, the difference was still significant though less so ( $t[37] = 2.65$ ,  $p = .006$ , one-tailed.) These findings indicate that the aura group reported significantly more fantasy-proneness than did the control group. Thus, both hypotheses were confirmed and the effect sizes (Cohen's  $d$ ) obtained from all three comparisons fell within the range Cohen (1977) describes as 'large' effect sizes. Figures 1 and 2 present graphically the scores obtained by the matched pairs on both the VVIQ and the corrected ICMIC. As can be seen, 11 of the 19 pairs scored in the expected direction on the VVIQ (that is, participants in the aura group claimed to have had more experiences of vivid visual imagery than did their counterparts in the control group). Similarly, 14 of the 19 pairs scored in the expected direction

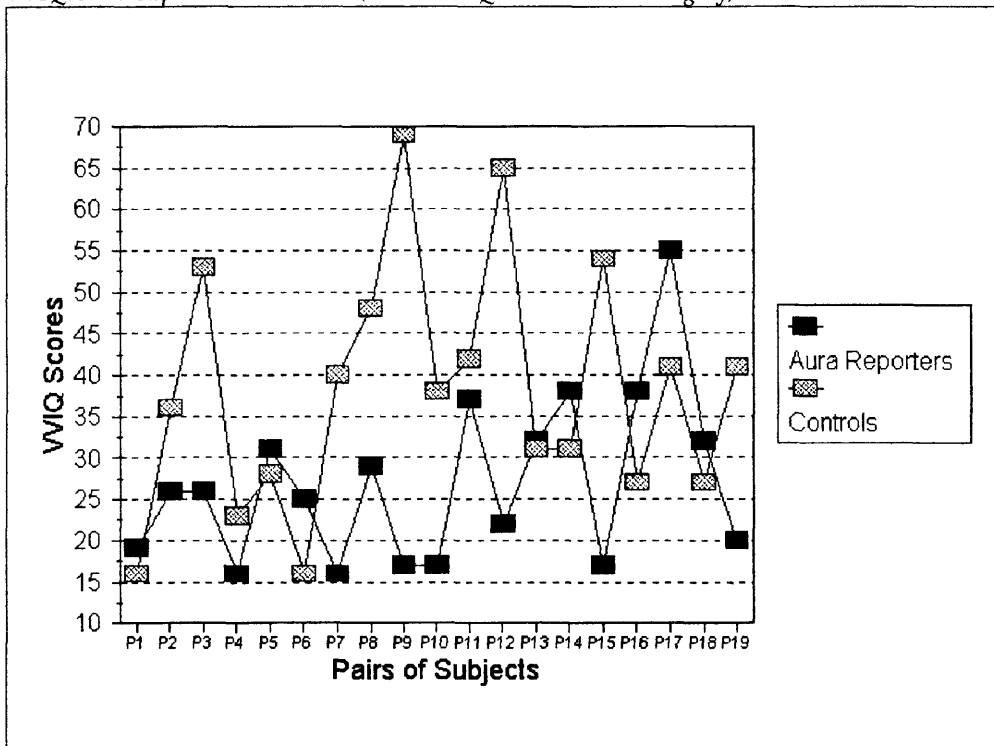
Table 2  
*Comparison of VVIQ and ICMIC mean scores in the aura and control groups*

Test	Aura	Control	#Ss	<i>t</i>	<i>p</i>	Effect	
						size — Cohen's <i>d</i>	Point biserial <i>r</i>
VVIQ	27	38	19	-2.72	.005	0.88	.41
ICMIC	21	15	19	3.85	.0003	1.29	.54
ICMIC-C	18	13	19	2.65	.006	0.86	.40

Note: All analyses are one-tailed. ICMIC-C scores are corrected ICMIC scores, that is, the mean scores obtained after questions that asked about psi-related experiences were dropped from the analysis. Thus, ICMIC-C scores reflect fantasy-proneness values obtained on non-psi-related items of the ICMIC. In all future tables ICMIC should be taken to mean ICMIC-C, that is, scores obtained from the corrected ICMIC.

Figure 1

VVIQ: Aura Reporters vs Controls (Lower VVIQ = More Vivid Imagery)



on the corrected ICMIC (that is, participants in the aura group claimed to have had more fantasy-prone experiences than did their counterparts in the control group).

Persons who claimed to have experienced aura vision were asked to indicate how many times they had seen auras by choosing an option on a scale from 1 to 4 in which 1 indicated one aura vision experience, 2 indicated 2 to 5 aura vision experiences, 3 indicated 6 to 20 aura vision experiences, and 4 indicated more than 20 aura vision experiences. Aura frequency scores from the answers to this question were correlated with both VVIQ mean scores and corrected ICMIC mean scores for the aura reporters. Neither analysis was significant (ICMIC  $r_s[19] = .40, p = .10$ , two-tailed; and VVIQ  $r_s[19] = .04, p = .84$ , two-tailed).

Persons who claimed to have experienced aura vision were also asked to rate

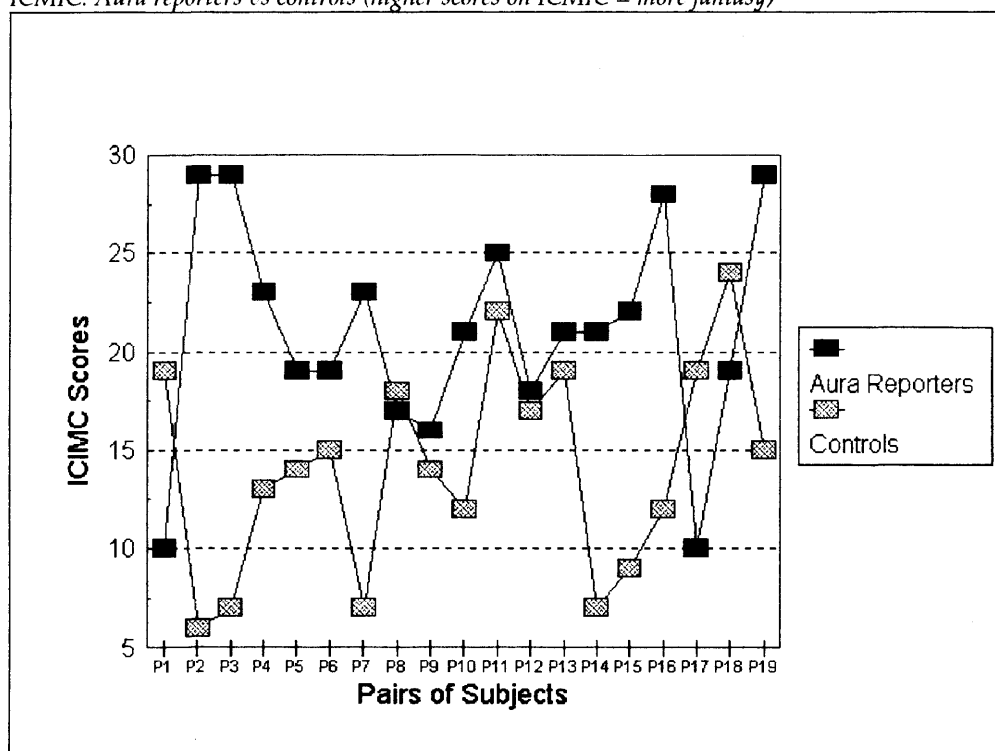
the frequency of their ability to see the aura at will by choosing an option on a scale from 1 to 3 in which 1 indicated that they were never able to see an aura at will, 2 indicated that they were sometimes able to see an aura at will, and 3 indicated that they were usually able to see an aura at will. Ratings on this question correlated positively and significantly with corrected ICMIC mean scores ( $r_s[19] = .64, p = .004$ ) but not with VVIQ mean scores ( $r_s[19] = -.02, p = .94$ ).

#### VVIQ and ICMIC Correlates of Psi-Related Experiences

An index value, the 'Psychic Experiences Index' (PEI), was calculated by counting the number of other psi-related experiences that the participant claimed. For this analysis, participants from both

Figure 2

ICMIC: Aura reporters vs controls (higher scores on ICMIC = more fantasy)



the aura group and the control group were counted. The other experiences listed on the QAOE deal with frequency of lucid dreams, 'seeing' with the eyes closed, mystical experiences, ESP in dreams, apparitions, and out-of-body experiences. If a participant claimed they had had the experience, whether or not they claimed to have had many such experiences, they were given a score of 1, with total scores accumulated across the seven experiences, yielding the PEI. Although the PEI was only suggestively and negatively correlated to VVIQ scores ( $r_s[38] = -.35, p = .03$ , two-tailed), it was significantly and positively correlated to the corrected ICMIC scores, that is, with the subset of the scale that does not contain psi-related experiences, ( $r_s[38] = .47, p = .003$ , two-tailed).

We were interested in whether or not the participants who reported having experienced one of the seven types of experiences listed above (the 'yes' group) differed significantly in either VVIQ or ICMIC mean scores from those who did not claim such experiences (the 'no' group). Table 3 lists the results of this comparison of 'yes' and 'no' participants on VVIQ mean scores. As can be seen, there was a significant difference between the VVIQ mean scores of participants who claimed to have 'seen' with their eyes closed ( $t[36] = 2.90, p = .006$ , two-tailed), and those who claimed to have experienced ESP in dreams ( $t[37] = 3.11, p = .004$ , two-tailed), such that participants in the 'yes' group obtained

INDIVIDUAL DIFFERENCES IN AURA VISION

Table 3

Comparison of VVIQ mean scores of participants who report experiences and those who do not report experiences

Item	'Yes'	VVIQ	'No'	VVIQ
	N	Mean Score	N	Mean Score
Afterimage (Long)	3	19	35	34
Apparitions	19	29	19	36
ESP in Dreams	17	26	21	38****
Headaches (Yes)	31	34	7	26
Headaches (Frequent)	6	44	32	31*
Lucid Dreams	29	35	8	28
Mystical Experiences	26	31	12	37
OBEs	13	26	25	36**
Practice of Meditation	19	29	19	36
Seeing with eyes closed	19	27	18	39***
Spots (Yes)	31	34	6	30
Spots (Frequent)	3	19	35	34

Note: Comparison was done with independent means *t* tests. Lower mean scores indicate more vivid visual imagery claimed.

\**t*(36) = 2.30, *p* = .03 (suggestive at set alpha).

\*\**t*(36) = 2.46, *p* = .02 (suggestive at set alpha).

\*\*\**t*(35) = 2.90, *p* = .006.

\*\*\*\**t*(36) = 3.11, *p* = .004.

significantly lower VVIQ mean scores than participants in the 'no' group for these three experiences, thus indicating significantly more claims of experiences of vivid visual imagery. In addition, respondents who experienced OBEs had suggestively higher vividness of imagery claims than those who did not claim OBEs (*t*[36] = 2.46, *p* = .02).

Table 4 lists the results of this comparison of 'yes' and 'no' participants on corrected ICMIC mean scores. As can be seen, there was a significant difference only between participants who claimed to have 'seen' with their eyes closed (*t*[36] = 4.63, *p* = .0004, two-tailed), such that participants in the 'yes' group for these two experiences obtained significantly higher ICMIC mean scores (indicating significantly more fan-

tasy-proneness) than those participants who did not claim to have 'seen' with their eyes closed.

Table 5 lists the correlations between the frequency of reported psi-related experiences and the VVIQ and ICMIC scores of the participants who reported the experiences combined across both the aura and the control group. The frequency scale used for these experiences mirrored that used for reports of aura vision experiences, that is, the scale ran from 1 to 4 in which 1 indicated one reported experience, 2 indicated 2 to 5 reported experiences, 3 indicated 6 to 20 reported experiences, and 4 indicated more than 20 reported experiences. VVIQ mean scores were negatively correlated with the frequency of ESP in dream experiences reported (*r*<sub>s</sub>[38] = -.38, *p* = .02, two-

Table 4

*Comparison of ICMIC mean scores of participants who report experiences and those who do not report experiences*

Item	'Yes'	ICMIC	'No'	ICMIC
	N	Mean Score	N	Mean Score
Afterimage (Long)	3	21	35	15
Apparitions	19	17	19	14
ESP in Dreams	19	17	19	14
Headaches (Yes)	31	15	7	15
Headaches (Frequent)	6	15	32	16
Lucid Dreams	29	16	8	12
Mystical Experiences	26	16	12	14
OBEs	13	18	25	14*
Practice of Meditation	19	17	19	14
Seeing with eyes closed	19	18	18	12**
Spots (Yes)	31	16	6	14
Spots (Frequent)	3	21	35	15

Note: Comparison was done with independent means *t* tests using ICMIC corrected mean scores, that is, with psi-related items on the ICMIC removed and overall mean scores recalculated. Higher mean scores indicate more fantasy-proneness claimed.

\*  $t(37) = 2.74, p = .01$ , two-tailed.

\*\*  $t(36) = 4.63, p = .0004$ , two-tailed.

Table 5

*Correlations between reported frequency of experiences and VVIQ and ICMIC scores*

Item	N	VVIQ		ICMIC	
		r	p	r	p
Apparitions	37	-.13	.46	.42	.01**
ESP in Dreams	38	-.38	.02*	.28	.09
Headaches	38	.29	.07	.25	.14
Lucid Dreams	37	-.04	.81	.28	.10
Mystical Experiences	38	-.09	.57	.21	.22
OBEs	38	-.16	.33	.43	.007**
Seeing with eyes closed	37	-.31	.06	.57	.0002**
Spots	37	-.01	.95	.004	.99

Note: ICMIC scores have been corrected by removing psi-related items from individual scores. Analyses were done using Spearman's rho correlation. The frequencies of all psi-related experiences were rated on a scale from 1 (none) to 6 (over 20). Frequency of experiences not related to psi were rated as follows: headaches, from 1 (never) to 5 (almost daily); spots in line of vision, from 1 (never) to 4 (frequently).

\* Suggestive (at set alpha).

\*\* Significant.

## INDIVIDUAL DIFFERENCES IN AURA VISION

tailed, a suggestive finding) such that participants who obtained lower VVIQ mean scores (indicating more reported experiences of vivid visual imagery) tended to report a higher frequency of ESP in dreams. For those participants who claimed to have experienced OBEs, their frequency ratings were positively and significantly correlated with their corrected ICMIC score ( $r_s[38] = .43, p = .007$ , two-tailed) indicating that those who reported more OBEs also reported more fantasy-prone experiences on their ICMIC responses. Similarly higher corrected ICMIC scores were also positively and significantly correlated with reported frequency of experiencing apparitions ( $r_s[38] = .42, p < .01$ , two-tailed) and with the reported frequency of the experience of 'seeing with eyes closed' ( $r_s[37] = .57, p = .0002$ , two-tailed).

Tables 3, 4 and 5 list analyses of items on the QAOE that cover experiences that have not as yet been theoretically related to psi-experiences (the duration of afterimages; the presence and frequency of headaches; and the presence and frequency of entopic phenomena, that is, spots or 'floaters' in the line of vision for which there are no physical causes known to the

experiencer. For the purposes of independent group *t*-tests, the experiencers' category of 'afterimage (long)' included only those persons who claimed to have experienced afterimages of more than a minute's duration when faced with a flash of light. The experiencer's category of 'headaches (frequent)' included only those persons who claimed the highest two levels of frequency of headaches (once a week or more). The experiencer's category of 'spots (frequent)' included only those persons who claimed the highest level of frequency of the experience of 'floaters' in their line of vision. As can be seen in Table 3, there was a suggestive difference between the mean VVIQ mean scores of frequent sufferers of headaches versus those who suffer no or few headaches such that less vividness of imagery was claimed by the frequent sufferers. No significant differences were found on any of these non-psi-related experiences on ICMIC corrected mean score comparisons, nor, as can be seen in Table 5, did the frequency of spots or headaches correlate with either VVIQ or corrected ICMIC mean scores.

Table 6  
*Percentage of experiences claimed by aura reporters and by control group*

Experience	Aura Group % (N = 19)	Control Group % (N = 19)	Fisher's Exact <i>p</i>
Afterimage (Long Duration)	16	0	.22
Apparitions	84	16	.000 06
ESP in Dreams	68	21	.008
Headaches (Yes/No)	80	84	.99
Headaches (Frequent)	16	16	.99
Lucid Dreaming	83	76	.74
Mystical Experiences	90	47	.01
OBEs	68	0	.000 02
Practice of meditation	74	26	.008
Seeing with eyes closed	74	26	.004
Spots (Yes/No)	80	84	.99
Spots (Frequent)	16	0	.22

Note: The difference between the statistical outcome of practice of meditation and seeing with eyes closed is due to the fact that one aura group member failed to answer the later question.

Table 6 lists the reported incidence of both psi-related and non-psi-related experiences for the aura respondents and for the control group. Although all but one of the psi-related experience claims were significant, the most striking differences occurred in comparisons of OBE reporters (Aura group 'yes' = 68%, Control group 'yes' = 0%,  $p = .00002$ , two-tailed), and of apparition reporters (aura group 'yes' = 84%, control group 'yes' = 16%,  $p = .00006$ , two-tailed). None of the comparisons of incidence of non-psi-related experiences were significant, although we did find it interesting that no member of the control group reported either afterimages of long duration or frequent entopic experiences.

Table 7 lists the median ratings of the number of psi-related and other experiences for those members of the aura and control groups who claimed to have had these experiences. The differences between these median scores were tested using a Mann-Whitney U for which the resultant U statistic was transformed into a z-score for purposes of assigning probability values to the differences. As can be seen, the median frequency of psi-related experiences were

significantly greater for the aura vision reporters than for the members of the control group, with the exception of differences between the two groups in experiencing lucid dreams (nonsignificant) and the suggestive finding for mystical experiences ( $z = 2.41$ ,  $p = .02$ ). Median ratings on non-psi-related experiences were not significantly different for the aura and control groups, however.

#### *Correlational analyses between VVIQ, ICMIC & QAOE*

Table 8 lists the correlational analyses that were done on the mean scores of the VVIQ and corrected ICMIC means and the items of the QAOE, as well as inter-item correlations. Although the  $N$  of the study was too low to conduct a meaningful regression analysis, a number of significant relationships were uncovered. For example, the frequency of reported apparitional experiences correlated significantly with the frequency of ESP in dreams, OBEs, aura vision frequency, and the ability to see auras at will. Interestingly, the frequency of

Table 7

*Median ratings of number of psi-related and other experiences in aura and control groups*

Experience	Aura group	Control group	z	p
Afterimage Duration	1.0	1.0	1.61	.22
Apparitions	3.5	1.0	3.92	.0002
ESP in Dreams	2.0	1.0	2.61	.02
Headache Frequency	2.0	2.0	0.36	.99
Lucid Dreaming	3.5	3.0	1.36	.34
Mystical Experiences	3.0	1.0	2.41	.04
OBEs	3.0	1.0	3.61	.0006
Seeing with eyes closed	4.0	1.0	2.92	.008
Spots Frequency	3.0	2.0	1.60	.22

Note: Median ratings derived from scale ranging from 1 (none) to 6 (over 20). Statistical comparisons were made using the Mann-Whitney U Test. The resulting U statistic was transformed into a z-score for the purposes of assigning probability values. All comparisons are two-tailed.

Table 8

*Correlational matrix, VVIQ, corrected ICMIC mean scores and QAOE items*

	VV	Age	AF	AW	LD	MY	SE	HF	AP	ES	OB	PEI	AF	SP
Age	-.34*													
AF	.04	-.34												
AW	-.02	-.17	.84****											
LD	-.04	-.31	.08	.09										
MY	-.09	-.13	.15	.09	.33*									
SE	-.31	.14	.55*	.63**	.27	.56***								
HF	.29	-.30	.37	.17	.32	.14	.07							
AP	-.13	-.08	.73**	.55*	.25	.46**	.61****	.31						
ES	-.38*	.07	.39	.15	.33*	.36*	.50**	.26	.47					
OB	-.16	-.10	.37	.39	.46	.46**	.47**	.23	.64****	.62****				
PEI	-.35													
AF	-.14	-.17	.33	.27	.25	.25	.37*	.29	.58***	.51**	.61****	.46**		
SP	-.01	.17	.08	-.07	.08	.18	.36*	.30	.56***	.23	.30	.36*	.33*	
IC	-.25	-.28	.40	.64**	.28	.21	.57***	.25	.42**	.28	.43**	.47**	.46**	.01

\*  $p < .05$ , suggestive at set alpha.\*\*  $p < .01$ , significant.\*\*\*  $p < .001$ .\*\*\*\*  $p < .0001$ .

Legend: VV (VVIQ mean scores), AF (aura frequency), AW (auras at will), LD (lucid dreaming frequency), MY (mystical experience frequency), SE (seeing with the eyes closed frequency), HE (headache frequency), AP (apparitions frequency), ES (ESP dream frequency), OB (OBE frequency), PEI (Psychic Experiences Index), AF (afterimage duration), SP (spots in line of vision frequency), IC (corrected mean scores for ICMIC).



reported apparitional experiences also correlated significantly with duration of after-images and the frequency of entopic experiences. The frequency of reports of seeing with the eyes closed also correlated significantly with apparition experience frequency, ESP in dreams, OBEs, afterimage duration, and entopic phenomena as well as with aura frequency, the ability to see auras at will, and mystical experience frequency. Lucid dreaming frequency, the incidence of which was not significantly different in the aura group from the control group, correlated with mystical experience frequency, apparitions, ESP in dreams, and OBE frequency but not with aura frequency or the ability to see auras at will.

Because evidence for a sex difference in vividness of visual imagery and fantasy-proneness has occasionally been reported in the literature, we decided, as a final post hoc analysis, to check for sex differences in our data. Because we surveyed only eight men for this study (four aura vision reporters and their matched controls), it was not possible to do an analysis of variance to test possible interactions between sex, VVIQ and ICMIC scores and aura vision reports. Again, because of the low number of males in our sample, we did not feel that *t* tests would be meaningful. As a way to explore the question, however, we split our data into males/females, aura group/controls and examined the number of participants who obtained scores at or above the mean with those who obtained scores below the mean using Fisher Exact probability tests. Analyses of VVIQ and ICMIC scores for males versus females were nonsignificant overall, and also nonsignificant when aura vision reporters and control group members were examined separately. In the latter analyses we noticed that females in the aura group tended to score below the mean on the VVIQ (indicating more vividness of imagery) and above the mean on the ICMIC (indicating more fantasy-proneness). Consequently we performed four additional analyses in which we tested males in the aura group against males in the control group on VVIQ mean scores and on ICMIC mean scores. Similar analy-

ses were done for the females. On the VVIQ scores the distribution of males with scores at or above the mean was identical with that of males who scored below the mean. On the ICMIC test, while all the males in the aura group scored above the mean score (indicating more fantasy-proneness) and 3 out of 4 of the males in the control group scored below the mean, this difference was not significant. Similarly on the ICMIC scores, although 10 out of 15 of the females in the aura group scored above the mean on the ICMIC (indicating more fantasy-proneness) and 11 out of 15 of the control group scored below the mean (indicating less fantasy-proneness), the difference was not significant (two-tailed  $p = .06$ ). The difference on VVIQ scores for females was suggestive at the .02 level, two-tailed with 12 out of the 15 aura group females scoring below the mean on the VVIQ (indicating more experiences of vivid visual imagery) and 10 of the 15 in the control group scoring above the mean. Therefore we concluded that no evidence for sex differences exists in our dataset; rather the results of these last analyses supported our previous findings in that the key variables seemed to be group membership, that is, whether or not the participant reported having had the experience of seeing an aura.

## Discussion

We wish to qualify the generalizability of our findings by stressing that the aura group was self-selected. Our aura viewers were comprised mainly of individuals who wrote to one of us (CSA) in response to an advertisement. It is likely that persons who have many and intense experiences of psychic phenomena, and/or who live an intense imaginal life, are more motivated to write in to recount their experiences. It is possible that the results might have been different if, say, the cases had been obtained from large scale surveys, particularly if a random sampling procedure had been employed. Having stated this qualification, however, we are aware that some of our results are consistent with those of

other researchers who have gathered their data through random sampling and other large-scale survey methodologies.

Our main analyses confirmed the two hypotheses: that aura vision is related to higher levels of reports of vividness of visual imagery and of imaginative-fantasy experiences. This is consistent with Neher's (1980) speculations, and with Owen's (1972) exploratory research. It is also in conceptual agreement with studies that have found that measures of fantasy-proneness seem to be successful predictors of psychic phenomena other than aura vision (Myers, Austrin, Grisso & Nickeson, 1983; Wilson & Barber, 1983). Such findings suggest that aura vision is related to cognitive processes involving visual imagery and fantasy. However, this may not be the whole picture. The small number of aura report cases prevents us from exploring the influence of factors other than those measured by the VVIQ and the ICMIC such as sex and the context in which the aura experience occurred (e.g., emotional circumstances related to death).

The aura group reported a significantly higher frequency of practice of meditation and experiences of seeing with eyes closed, ESP in dreams, mystical experiences, apparitions, and out-of-body experiences. The number of multiple experiences claimed for these phenomena was also significantly higher in the aura group than in the control group. These findings agree with those reported by Kohr (1980) and by Palmer (1979) that relate auras to other experiences. That is, it is rare to find a person who reports auras but makes no other claims of psychic experiences. Examples of the tendency to experience a wide range of phenomena can be found in the writings of the medium Eileen Garrett (1939). However, it must be stressed that we are dealing here with claims that depend solely on questionnaire responses. The meaning of these claims is unclear if we are not sure that participants' answers are actually related to what we were asking — an assurance we cannot expect to find without the benefit of follow-up interviews or, at

the very least, a written description of the experiences.

We hope others will replicate and extend our findings. In what follows, we would like to offer some suggestions for future aura research based on a psychological approach, one that might include what Healy (1984) described in her discussion of auras and other phenomena as an experiencer's sensitivity due to permeable ego boundaries. This sensitivity, we suggest, may be related to field dependence, absorption or to dissociation. In addition, some physiological differences in perceptual processing may also underly it.

Marks & McKellar (1982) have suggested that auras are a form of eidetic imagery. This hypothesis could be examined in the laboratory by using tests based on drawings and diagrams such as those employed by Matsuoka, Onizawa, Hatakeyama and Yamaguchi (1987). After-image persistence — tested by presenting flashes of light to subjects — has been studied in relation to hypnotic susceptibility and visuospatial skills (Atkinson & Crawford, 1992). Similarly, auras may be studied or related to after-images and other variables.

We may also learn much about aura viewers by assessing their performance on a variety of perceptual tests. For example, does the perception of an aura follow constancy effects, that is, is the 'seen' aura recognizable regardless of changes in brightness, colour, shape, size or location? Would aura viewers perform differently from controls in tests designed to study the perception of movement or depth, or organization of perception? Assuming that we are dealing with perception of weak sensory stimuli, would aura viewers differ from controls in the magnitude of the minimum stimuli necessary to perceive the presence of any stimuli (absolute threshold) or in the minimum amount of stimulation needed to distinguish two stimuli one from the other (difference thresholds)?

Kenneth (1933) has suggested that some auras may be explained by cross-modal perception or synaesthesia. More recently Cytowic (1989) has reported aura-like

experiences in some synaesthetes he has studied, suggesting a possible common mechanism in both perceptual experiences.

The neuropsychology of aura vision reports should also receive attention. One possibly fruitful line of research to follow is that of Persinger (e.g., 1984), who has explored the relationship between temporal lobe signs and claims of psychic phenomena. Abraham (1983) has reported a higher incidence of haloes seen around objects by

individuals who suffer from LSD flashbacks. Past drug use may also be an interesting variable. In any case, we feel that the valuation of aura vision reports has, in the past, rested largely on social rather than empirical grounds. We hope our study can begin to shift the examination and discussion of these reports to a more data-driven plane.

## Appendix

### *Questionnaire on Auras and Other Experiences<sup>5</sup>*

Name

Address

Directions: Please circle the number to the left of your answer (unless directed otherwise). For example: On the first question, if you are a female you would circle number '2' next to the word 'female'. Please give only one answer for each question unless directed otherwise.

1. My sex is:

1. Male
2. Female

2. My race is:

1. Caucasian (White)
2. Negro (Black)
3. Oriental
4. Other (please specify):

3. My age is (please write in)

4. Place of birth (please write in)

5. My educational training includes: (Circle one only):

1. Less than high school
2. High school
3. Business or trade school
4. College (four years)
5. Master's degree
6. Doctoral degree

6. My religious belief is:

1. Protestant
2. Catholic
3. Jewish
4. An Eastern faith (please specify)
5. Agnostic

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<sup>5</sup> The wording of some questions was adapted from Palmer's (1979) survey.

## INDIVIDUAL DIFFERENCES IN AURA VISION

6. Atheist
7. Other (please specify):

7. Have you ever seen a light or lights, or an energy field around any part of a person's body which, as far as you could tell, were not due to 'normal' or 'natural' causes? (i.e., a 'halo' or 'aura')

1. Yes
2. No

If your answer is 'no', please go up to question #24. If 'yes', and you have had more than one experience, please write a description of your observations below and answer questions #8-21 in relation to the experience about which you can recall the most detail. The following questions will refer to this phenomena as the aura.

Please describe in the space below your aura observation. You can use the next page or additional pages if necessary.

8. Under what circumstances did you see the aura?

1. During normal activities
2. Feeling very relaxed
3. Feeling very tense
4. Feeling drowsy
5. Under the influence of drugs
6. During trance or other non-drug-induced altered states of consciousness
7. During a headache
8. During illness (other than headaches)
9. During prayer or meditation
10. Other (please specify)

9. The aura was seen around the:

1. Head
2. Shoulders
3. Head and Shoulders
4. Arms
5. Legs
6. Hands
7. Eyes
8. All around the body
9. Other (please specify)

10. The aura was seen:

1. In contact with the body
2. With no connection to the body, but close to it
3. At some distance from the body

11. The aura extended from the body (you may give an approximation):

1. Less than one inch
2. 1-3 inches
3. 4-6 inches
4. 7-9 inches
5. 10-12 inches
6. More than 12 inches

12. The aura showed:

1. A uniform, smooth appearance
2. An irregular, jagged or broken appearance
3. Cannot tell (did not notice, does not apply, no recollection)

13. The aura was observed to be:

1. Opaque
2. Bright
3. Other (please specify)

14. The color of the aura can be described as:

1. White
2. Silver
3. Gray
4. Red
5. Blue
6. Yellow
7. Gold
8. Orange
9. Green
10. Violet
11. Colorless
12. Multicolor
13. Other (please specify)

15. The form of the aura can be described as:

1. Flash
2. Glow
3. Rays or beams
4. Globes
5. Aureole or halo
6. Flame
7. Mist, cloud, or smoke
8. Other (please specify)

16. The aura was:

1. Pulsating, swirling, vibrating or moving around
2. Static, with no movement at all

17. The aura had layers or different sections:

1. Yes
2. No

18. The aura had patches, spots, or dark or discolored areas:

1. Yes
2. No

19. The aura reflected emotional or mental aspects (e.g., moods, preoccupations) of the person showing it:

1. Yes
2. No

20. The aura reflected physical aspects of the person showing it (e.g., disease, pain).

1. Yes
2. No

21. Did another person see the aura at the same time you did?

1. Yes
2. No

## INDIVIDUAL DIFFERENCES IN AURA VISION

If 'yes':

Did the other person see exactly the same thing you saw?

1. Yes
2. No

Would you write in the name and address of the person or persons sharing your experience so that we may contact them?

22. How many times have you seen an aura around a person?

1. Once
2. 2-5 times
3. 6-20 times
4. More than 20 times

23. Can you see the aura when you want to?

1. Never
2. Sometimes
3. Usually

24. Have you ever seen an aura around an object?

1. Yes
2. No

25. Have you ever seen an aura around an animal?

1. Yes
2. No

26. Have you ever had a dream in which you knew *during the dream* that you were dreaming and felt that you possessed all your waking faculties?

1. No
2. Once
3. 2-5 times
4. 6-10 times
5. 11-20 times
6. More than 20 times

27. Have you ever had a profound and deeply moving 'spiritual', 'mystical' or transcendental experience?

1. No
2. Once
3. 2-5 times
4. 6-10 times
5. 11-20 times
6. More than 20 times

28. Have you ever had the experience of seeming to see when your eyes were closed?

1. No
2. Once
3. 2-5 times
4. 6-10 times
5. 11-20 times
6. More than 20 times

29. Have you ever practiced meditation? (For example, Transcendental or Zen meditation or another *formal* technique of stilling the mind.)

1. Yes
2. No

30. Do you suffer from headaches?

1. Never
2. Rarely
3. Once or twice a month
4. Once a week or more
5. Almost daily

31. Have you ever had, *while awake*, a vivid impression of seeing, hearing, or being touched by another being, which impression, as far as you could discover, was not due to any external physical or 'natural' cause? (Please do not include here experiences of the Christ or other religious figures.)

1. No
2. Once
3. 2-5 times
4. 6-10 times
5. 11-20 times
6. More than 20 times

32. Have you ever had a dream which matched in detail an event which occurred before, during, or after your dream, and which you did not know about or did not expect at the time of the dream?

1. No
2. Once
3. 2-5 times
4. 6-10 times
5. 11-20 times
6. More than 20 times

33. Have you ever had an experience in which you felt that 'you' were located 'outside of' or 'away from' your physical body; that is, the feeling that your consciousness, mind, or center of awareness was at a different place than your physical body? (If in doubt please answer 'no'.)

1. No
2. Once
3. 2-5 times
4. 6-10 times
5. 11-20 times
6. More than 20 times

34. When you have been exposed to a sudden flash of light (e.g., a camera flash), or when you stare at a light source (e.g., a light bulb), do you continue to see the light or its outline when you are no longer looking at it:

1. For a short time (1-20 seconds)
2. For a moderate time (21-60 seconds)
3. For a long time (more than a minute)

35. Do you ever see in your line of vision spots or specks that do not seem to be physically there?

1. Never
2. Rarely
3. Sometimes
4. Frequently

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## INDIVIDUAL DIFFERENCES IN AURA VISION

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**Individuelle Unterschiede bei der Aura-Wahrnehmung:  
Beziehungen zu visueller Vorstellungskraft und Einbildungserlebnissen**

**Zusammenfassung:** Die Aura-Wahrnehmung oder die Behauptung, man nehme Lichter, Heiligenscheine oder Energiefelder um einen menschlichen Körper herum wahr, wurde in ihrer Beziehung zu Vorstellungsvariablen und der Behauptung anderer Erfahrungen untersucht. Neunzehn Personen, die von Erfahrungen mit Aura-Wahrnehmungen berichteten, wurden mit einer gleichen Anzahl von Kontrollpersonen verglichen, die keine Auras gesehen haben. Beide Gruppen waren hinsichtlich Geschlecht und Alter ausgeglichen besetzt. Die Teilnehmer absolvierten den Fragebogen über Auras und andere Erfahrungen (Questionnaire on Auras and Other Experiences - QAOE), einen Fragebogen über die Lebhaftigkeit visueller Vorstellungen (Vividness of Visual Imagery Questionnaire - VVIQ) und den Inventar zu Kindheitserinnerungen und -vorstellungen (Inventory of Childhood Memories and Imaginings: Children's Form - ICMIC). Vorausgesetzt wurde, daß die Aura-Gruppe über größere Lebhaftigkeit visueller Vorstellungen und vorstellungs- und phantasiebezogener Erfahrungen als die Kontrollgruppe berichten würde. Diese Voraussage wurde sowohl für den VVIQ (Aura-Gruppe: Mittelwert = 27, Kontrollgruppe: Mittelwert = 38,  $t[36] = -2.72$ ,  $p[\text{einseitig}] = .005$  [niedrigere Werte indizieren größere Lebhaftigkeit]) als auch für den ICMIC (Aura-Gruppe: Mittelwert = 21, Kontrollgruppe: Mittelwert = 14,  $t[36] = 3.85$ ,  $p[\text{einseitig}] = .0002$ ) bestätigt. Der ICMIC korrelierte signifikant mit dem Grad der Fähigkeit, Auras willentlich sehen zu können ( $r_s = .60$ ,  $p < .001$ , zweiseitig), wengleich die Mittelwerte sich lediglich auf diejenigen ICMIC-Items stützen, die keine psi-bezogenen Erfahrungen erheben. Zudem behauptete die Aura-Gruppe im Vergleich zur Kontrollgruppe signifikant häufiger Erfahrungen wie das Sehen von Erscheinungen ( $p = .00006$ ), ASW in Träumen ( $p = .008$ ), mystische Erfahrungen ( $p = .01$ ), außerkörperliche Erfahrungen ( $p = .00002$ ) und Sehen mit geschlossenen Augen ( $p = .004$ ). Außerdem berichtete die Aura-Gruppe von häufigeren Meditationsübungen als die Kontrollgruppe ( $p = .008$ ).

Die Ergebnisse dieser Untersuchung stützen den Gedanken, daß Behauptungen von Aura-Wahrnehmungen mit Behauptungen lebhafter visueller Vorstellungen und anderer imaginativer Erfahrungen sowie auch mit einer Vielfalt anderer psi-bezogener und auch einiger nicht psi-bezogener Erfahrungen verbunden sind. Künftige Untersuchungen der Aura-Wahrnehmung könnten sich mit Gewinn auf imaginative, neurophysiologische und Wahrnehmungskorrelate der Erfahrungen verlegen. Ebenso auch auf die Einbeziehung okkult, religiöser und traditionell gebundener Glaubenseinstellungen hinsichtlich dieser Erfahrungen.

**Individuele verschillen in aurawaarneming:  
verband met visualisering, inbeeldingen en fantasie**

**Samenvatting:** Aurawaarneming, de bewering dat men licht, ringen of energievelden rondom iemands lichaam ziet, werd onderzocht in samenhang met variabelen over verbeeldingskracht en beweringen over andere ervaringen. 19 proefpersonen die beweerden aura's te zien werden vergeleken met hetzelfde aantal dat nooit aura's had gezien. Beide groepen waren qua geslacht en

leeftijd vergelijkbaar. De deelnemers vulden de volgende tests in: Questionnaire on Auras and Other Experiences (QAOE, ervaring met aura's en andere verschijnselen), Vividness of Visual Imagery Questionnaire (VVIQ, hoe levendig kun je visualiseren) en Inventory of Childhood Memories and Imaginings: Children's Form (ICMIC, jeugdherinneringen). De voorspelling was dat de auragroep het hoogste zou scoren op zaken als een levendige visualisering, inbeeldingsvermogen en fantasie-ervaringen. Dat bleek inderdaad uit de VVIQ (gemiddelde van auragroep 27, van controlegroep 38 [lagere score is levendiger];  $t[36] = -2,72$ ;  $p$ -eenz. = 0,005) en ook uit de ICMIC (gemiddelde van auragroep 21, van controlegroep 14;  $t[36] = 3,85$ ;  $p$ -eenz. = 0,0002). De score op de ICMIC toonde een significante correlatie met het vermogen aura's te zien wanneer men wilde ( $r_s = 0,60$ ,  $p$ -tweez.  $<0,001$ ). Dat is opvallend omdat de gemiddelde scores alleen gebaseerd waren op de ICMIC-vragen die niet over psi-ervaringen gingen. Bovendien rapporteerde de auragroep meer ervaringen met materialisaties ( $p = 0,00006$ ), ESP in dromen ( $p = 0,008$ ), mystieke ervaringen ( $p = 0,01$ ), uittredingen ( $p = 0,00002$ ) en waarneming met gesloten ogen ( $p=0,004$ ) dan de controlegroep. Ook bleek de auragroep vaker te mediteren ( $p = 0,008$ ).

Deze resultaten ondersteunen het idee dat beweringen over aurawaarneming samenhangen met beweringen over een levendige fantasie en visualisering en andere verbeelde ervaringen, maar ook met diverse andere al dan niet paranormale ervaringen. Verder onderzoek zou zich moeten richten op de rol van factoren als verbeelding, neurofysiologie en perceptie. Ook het verband tussen opvattingen uit occultisme, religie en volksgeloof en de resultaten uit correlatieel en fenomenologisch onderzoek verdient meer aandacht.

#### Differenze individuali nella visione dell'aura, in rapporto all'*imagery* visiva e alle esperienze immaginativo-fantastiche

**Sommario:** La visione dell'aura, ovvero l'affermazione di percepire luci, aloni o campi di energia attorno al corpo degli esseri umani, è stata studiata in riferimento alle variabili dell'esperienza visiva e alla dichiarazione di avere anche altre esperienze particolari. Diciannove individui che affermano di vedere l'aura sono stati confrontati a uno stesso numero di soggetti di controllo che non hanno mai visto aure. I due gruppi erano simili per le variabili sesso ed età. I partecipanti hanno riempito il Questionario sulle Aure e le Altre Esperienze (QAOE), il Questionario sulla Vividezza dell'Immagine Mentale (VVIQ) e la Scala Pediatrica di Memorie e Immagini: Formato Infantile (ICMIC). Si è presupposto che il gruppo di chi vedeva l'aura avrebbe sostenuto di avere sia un'*imagery* visiva che esperienze di immaginazione visiva e di tipo fantastico più vivide rispetto al gruppo di controllo. La predizione è stata confermata sia per il VVIQ (gruppo dell'aura: media 27; gruppo di controllo: media 38;  $t[36] = -2,72$ ;  $p$  [a una coda] = 0,005 [i punteggi inferiori indicano una vividezza maggiore]) che per l'ICMIC (gruppo dell'aura: media 21; gruppo di controllo: media 14;  $t[36] = 3,85$ ;  $p$  [a una coda] = 0,0002). L'ICMIC era correlato significativamente al livello di capacità di vedere l'aura a volontà ( $r_s = 0,60$ ;  $p < 0,001$ , a due code), anche se i punteggi medi erano fondati solo sul sottogruppo delle domande dell'ICMIC che non riguardavano le esperienze correlate alla psi. Il gruppo dell'aura, inoltre, dichiarava con una frequenza significativamente superiore rispetto al gruppo di controllo di avere esperienze quali apparizioni ( $p=0,00006$ ), ESP nei sogni ( $p=0,008$ ), esperienze mistiche ( $p=0,01$ ), esperienze fuori del corpo ( $p=0,00002$ ), la visione ad occhi chiusi ( $p=0,004$ ). Il gruppo dell'aura, infine, ha riferito pratiche di meditazione più frequentemente del gruppo di controllo ( $p=0,008$ ).

I risultati di questo studio sostengono la tesi che l'affermazione di vedere l'aura è correlata tanto alle affermazioni di avere vivide *imagery* visiva ed esperienze fantastiche e immaginative d'altro tipo, quanto a una serie di altre esperienze, legate e non legate alla psi. Si avanza il suggerimento che ulteriori studi sulla visione dell'aura potrebbero utilmente venir incentrati sui correlati immaginativi, neuropsicologici e percettivi dell'esperienza, nonché sull'integrazione delle credenze occulte, religiose e folcloristiche relative a questa esperienza nei dati correlazionali e fenomenologici della ricerca.

### Diferencias Individuales en la Visión del Aura: Relaciones con Imágenes Mentales y con Experiencias de Imaginación y Fantasía

**Resumen:** Reportes de ver el aura, o el percibir luces, halos, o campos de energía alrededor del cuerpo de una persona, fueron estudiados en relación a variables de imaginación mental y de reportes de otras experiencias. Diecinueve personas que reportaron ver auras fueron comparadas a un mismo número de controles que no habían tenido experiencias de ver el aura. Ambos grupos fueron pareados en términos de sexo y edad. Los participantes contestaron el Cuestionario sobre Auras y Otras Experiencias (CAOE), el Vividness of Visual Imagery Questionnaire (VVIQ) (Cuestionario de Vividez de Imágenes Visuales, y el Inventory of Childhood Memories and Imaginings: Children's Forms (ICMIC) (Inventario de Memorias e Imaginaciones de la Niñez: Forma de Niños). Se predijo que el grupo de auras obtendría niveles mayores de vividez de imágenes visuales y de experiencias imaginativas y de fantasía que el grupo control. Las predicciones fueron confirmadas tanto para el VVIQ (Grupo Aura:  $X = 27$ , Grupo control:  $X = 38$ ,  $t[36] = -2.72$ ,  $p [1 \text{ cola}] = .005$  [puntuaciones bajas indican mayor vividez] y para el ICMIC (Grupo Aura:  $X = 21$ , Grupo control:  $X = 14$ ,  $t[36] = 3.85$ ,  $p[1 \text{ cola}] = .0002$ ). El ICMIC obtuvo correlaciones significativas con la habilidad de ver el aura a voluntad ( $r_s = .60$ ,  $p < .001$ , 2 colas) aun cuando las puntuaciones se basaron solo en parte de los ítems del ICMIC que no preguntaban sobre experiencias relacionadas con psi. En adición, el grupo con reportes de auras obtuvo una frecuencia mayor significativa de reportes de apariciones ( $p = .00006$ ), percepción extrasensorial en sueños ( $p = .008$ ), experiencias místicas ( $p = .01$ ), experiencias fuera del cuerpo ( $p = .00002$ ), y la experiencia de ver con los ojos cerrados ( $p = .004$ ) que el grupo control. El grupo con auras reportó una frecuencia mayor de práctica de meditación que el grupo control ( $p = .008$ ).

Los resultados de este estudio apoyan la idea de que reportes de ver el aura están relacionados con la vividez de imágenes visuales, con experiencias de fantasía e imaginación, y con una variedad de experiencias psi y otras experiencias. Se propone que futuros estudios de la visión del aura podrían enfatizar correlaciones imaginativas, neuropsicológicas, y perceptuales de las experiencias, al igual que en tratar de integrar las creencias ocultas, religiosas y folklóricas sobre esta experiencia con estas correlaciones y con hallazgos sobre la fenomenología de la experiencia.

### Diferenças Individuais na Visão da Aura: Relacionamentos entre Vividez de Imagens Mentais e Experiências Imaginativo-Fantásticas

**Resumo:** A visão da aura ou a alegação de percepção de luzes, halos ou campos de energia ao redor do corpo de uma pessoa foi estudada em relação a variáveis de imagem e alegações de outras experiências. Dezenove indivíduos que relatam experiências de visão de aura foram comparados a um igual número de sujeitos controle que não tinham visto auras. Ambos os grupos foram combinados por sexo e idade. Os participantes preencheram o Questionário sobre Auras e Outras Experiências (sigla, em inglês, QAOE), o Questionário de Vividez das Imagens Visuais (sigla, em inglês, VVIQ), e o Inventário das Memórias Infantis e Imaginações: Formulário Infantil (sigla, em inglês, ICMIC). Foi previsto que o grupo da aura alegaria maior vividez das imagens visuais e imaginativas e das experiências relacionadas à fantasia do que o grupo controle. As previsões foram confirmadas tanto pelo VVIQ (Grupo da aura: Média = 27, grupo controle: Média = 38,  $t[36] = -2,72$ ,  $p[\text{unicaudal}] = 0,005$  [resultados mais baixos indicam maior vividez]) e para o ICMIC (Grupo da aura: Média = 21, grupo controle: Média = 14,  $t[36] = 3,85$ ,  $p[\text{unicaudal}] = 0,0002$ ). O ICMIC foi significativamente correlacionado ao nível de habilidade para se ver a aura à vontade ( $r_s = 0,60$ ,  $p < 0,001$ , bicaudal) mesmo que os resultados médios estejam baseados somente no subconjunto dos itens do ICMIC que não questiona a respeito de experiências relacionadas a psi. Além disso, o grupo da aura teve uma frequência significativamente mais alta de alegações como aparições ( $p = 0,00006$ ), ESP em sonhos ( $p = 0,008$ ), experiências místicas ( $p = 0,01$ ), experiências fora do corpo ( $p = 0,00002$ ) e ver com os olhos fechados ( $p = 0,004$ ) do que o grupo controle. Além disso, o grupo da aura relatou a prática mais frequente de meditação do que o grupo controle ( $p = 0,008$ ).

Os resultados do estudo sustentam a idéia de que as alegações de visão de aura estão relacionadas às alegações de imaginação visual vívida e fantasia além de outras experiências imaginativas, como também a uma variedade de outras experiências relacionadas a psi e algumas experiências não relacionadas a psi. Argumenta-se que mais estudos da visão da aura poderiam vantajosamente focalizar correlatos imaginativos, neurofisiológicos e perceptivos da experiência assim como integrar crenças ocultas, religiosas e populares sobre a experiência com resultados de pesquisa fenomenológicas e correlacionais.

### **Différences individuelles dans la vision de l'aura: Leurs relations avec l'imagerie visuelle et les expériences de fantaisie imaginative**

**Résumé:** La vision de l'aura, ou prétention à percevoir des lumières, halos, ou champs d'énergie autour du corps d'une personne, a été étudiée en relation avec des variables d'imagination et des revendications d'autres expériences. Dix-neuf individus ayant rapporté des expériences de vision d'aura ont été comparé à un nombre égal de sujets contrôles qui n'ont pas vu d'aura. Les deux groupes sont équivalents par le sexe et l'âge. Les participants ont rempli le Questionnaire sur les Auras et Autres Expériences (QAOE), le Questionnaire de Vivacité de l'Imagerie Visuelle (VVIQ), et l'Inventaire des Souvenirs et Imaginaire de l'Enfance: Version pour Enfants (ICMIC). On a prédit que le groupe Aura revendiquerait plus de vivacité dans l'imagerie visuelle et d'expériences imaginatives et de fantaisie que le groupe contrôle. Les prédictions ont été confirmées à la fois pour le VVIQ (groupe Aura: Moyenne = 27, groupe contrôle: Moyenne = 38,  $t(36) = -2.72$ ,  $p[\text{unilatéral}] = .005$  [les scores plus bas indiquent une vivacité plus élevée]) et pour le ICMIC (groupe Aura: Moyenne = 21, groupe contrôle: Moyenne = 14,  $t(36) = 3.85$ ,  $p[\text{unilatéral}] = .0002$ ). Le ICMIC a été significativement corrélé avec le niveau d'aptitude à voir l'aura à volonté ( $r_s = .60$ ,  $p < .001$ , bilatéral) bien que les scores moyens aient été basés uniquement sur le sous-ensemble des items ICMIC qui ne posait pas de question sur des expériences liées au psi. En outre, le groupe Aura a eu une fréquence significativement plus élevée de revendications telles que les apparitions ( $p = .00006$ ), l'ESP dans les rêves ( $p = .008$ ), les expériences mystiques ( $p = .01$ ), les expériences hors-du-corps ( $p = .00002$ ), et voir avec les yeux fermés ( $p = .004$ ) que n'a eue le groupe contrôle. De plus, le groupe Aura a rapporté une pratique plus fréquente de la méditation que le groupe contrôle ( $p = .008$ ).

Les résultats de cette étude soutiennent l'idée que les revendications de vision de l'aura sont liées à celles de l'imagerie visuelle vivace et des expériences de fantaisie et autres imaginations aussi bien qu'à une variété d'autres expériences liées au psi et à certaines expériences non liées au psi. On argumente que davantage d'études sur la vision de l'aura pourraient se focaliser de façon profitable sur les corrélats imaginatifs, neuropsychologiques et perceptifs de cette expérience, et pourraient aussi bien intégrer les croyances occultes, religieuses et populaires sur cette expérience à des découvertes de la recherche corrélacionnelle et phénoménologique.