

covered with halved Ping-Pong balls, upon which two red lights were projected, and they listened to “white noise” during the experimental session. In the non-Ganzfeld (NGZ) condition, neither the Ping-Pong balls nor the “white noise” were used and there was no relaxation induction. From July of 2001 to March of 2002, 108 trials (54 GZ and 54 NGZ) were carried out. There was no overall significance (hit rate 25,93%,  $Z=0.11$ ,  $p=0.51$ ). The NGZ and GZ hits (18,52%,  $Z=-0.94$ ,  $p=0.41$  and 33,33%,  $Z=1.26$ ,  $p=0.60$  respectively) did not reach significance. However the GZ hits were in the direction of the findings reported in the Ganzfeld meta-analysis by Bem and Honorton (1994). The difference between the GZ and NGZ hits was significant,  $p=.0228$  one-tailed. We also found that the targets that were hit were evaluated by receivers (in terms of personal preference and personal meaning) higher than the targets that were not hit. Analysis of the qualitative content of hits and misses suggested that in future studies the qualitative results should be considered along with the conventional methodology of hits vs. misses. These results seem to be similar to the qualitative findings found by Dr. Adrian Parker.

**Título/Title:** “Sonhos e Cérebro: para uma topografia do sonho em cegos e normovisuais” – *“Visual dream content, graphical representation and EEG Alpha activity in congenitally blind subjects”*

**Instituição/Institution:** Núcleo de Lisboa do ISTEEL e Laboratório EEG - Centro de Estudos Egas Moniz - Lisboa

**Duração/Duration:** 2001/02 - 2003/03

**Investigadores/Researchers:** Prof. Teresa Paiva, Dr. Helder Manuel Ferreira Utalício Bértolo, Dra. Lara Pessoa, Sr. Tiago Mestre, D. Raquel Marques, D. Rosa Santos

**Abstract:**

It is currently claimed that congenitally blind do not have visual imagery and are therefore unable to present visual contents in their dreams. The aim of our study was to quantitatively evaluate the existence of visual imagery in born-blind dreams and to correlate it with objective measures, such as sleep EEG frequency components, namely with alpha attenuation (regarded as an indicator of visual activity), and graphical analysis of dream pictorial representations.

The investigation was carried out via simultaneous recordings of dream reports and polysomnography, during nocturnal sleep at volunteers' homes; scheduled regular awakenings during the night provided the data for dream and EEG analysis. In the morning, subjects were asked to make a drawing of their dream images.

Congenitally blind ( $n=10$ ) were comparable to normal sighted subjects ( $n=9$ ): the two groups presented equivalent visual activity indices, and no differences in the analysis of graphical representation of dreaming imagery. However, blind subjects presented a lower rate of dream recall than sighted (27% versus 42%).

Both groups had significant negative correlation between Visual Activity Index (VAI) and alpha power in the central and occipital O2 derivations (blind: C4:  $r=-0.615$ ,  $P<0.005$ ; O2:  $r=-0.608$ ,  $P<0.006$ ; sighted: C4:  $r=-0.633$ ,  $P<0.01$ ; O2:  $r=-0.506$ ,  $P<0.05$ ). This correlation was weaker for the blind in O1 ( $r=-0.573$ ,  $P<0.05$ ) and non-existent for the sighted. Blind individuals have significantly lower alpha activity in the central derivation. In conclusion, the congenitally blind have visual content in their dreams and are able to draw it and, as expected, their VAI is negatively correlated with EEG alpha power.

**Título/Title:** "High Hit-Rate Random Number Generator Experiment with High Gradient of Shannon Entropy Feedback"

**Instituição/Institution:** Laboratories for Fundamental Research, Palo Alto - USA

**Duração/Duration:** 2001/01 - 2003/02

**Investigadores/Researchers:** Prof. Edwin May, Prof. Dean I. Radin

**Abstract:**

*The five senses of which we are most familiar share at least one common property: they are more sensitive to changes than they are to the steady state at their sensory "front ends." For example, we can see a blinking faint light more easily than the same intensity of a steady light. If Rhine were correct when he coined the term Extrasensory Perception, at least with the sensory part, then there must be some "thing" that correlates with anomalous cognition (a.k.a., remote viewing) more when it is changing than when it is not. Based upon a number of remote viewing trials against energetic targets during the US Government funded program, it was sug-*