

Exploring the In-Between:

QEEG/LORETA Findings of
"Other Dimensional Awareness"

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Talking With Dead People:
Mapping the Mind of the Medium
(Alternate Title)

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The logo features a stylized blue heart shape on the left, with a thin blue line extending from its top and bottom points. The word "fearless" is written in a golden, cursive font, and "HEART" is in a bold, red, serif font. A registered trademark symbol (®) is located to the right of "fearless". The text is set against a glowing, golden-brown circular background with a starry, dark space-like pattern.

fearless[®]
HEART

Subject

- Male, right handed
- Age near 50 years
- Unremarkable educational & medical histories
- Single grand mal seizure - November, 2005
- Possible absence seizures
- Topamax (25 mg, 1/2 in AM & 1/2 in PM)

Complaints

- Intrusiveness of
“other dimensional communication”
- Tension, worry, anxiety
- Depression
- Headaches

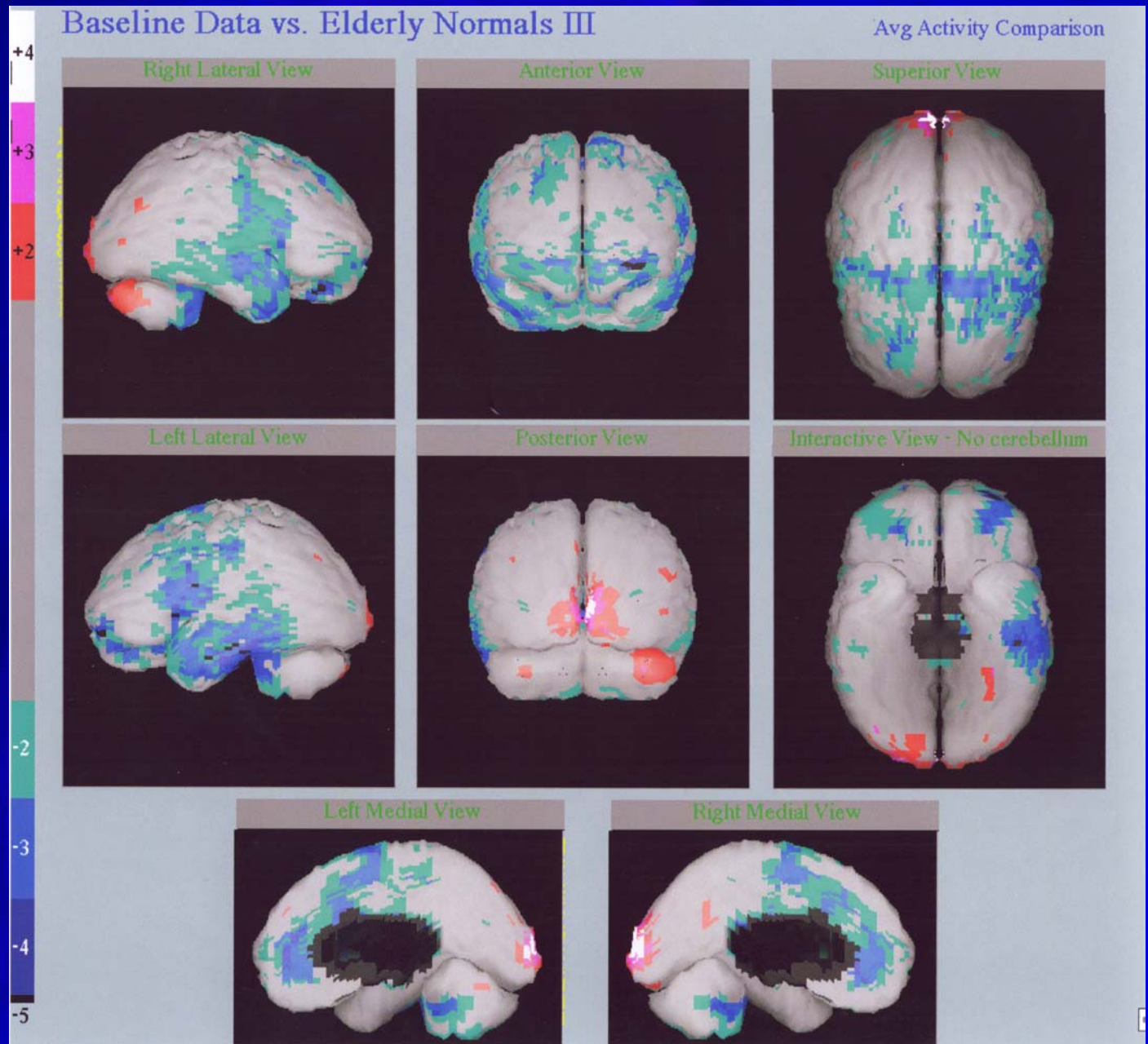
History of Anomalous Experiences

- Age 6
 - smells and tastes come out of nowhere
 - communication with angel (continues)
 - “heat wave” type of energy
- Age 12
 - “ball of fire” dream for 3-4 months
 - learned to overcome fear & adrenaline rush by controlling breathing & heart rate
- Other
 - lucid dreaming, 85% of time
 - moves energy - like Tibetan tong-len
 - out of body travel & remote viewing
 - on 1-10 scale of being “plugged in”
 - typically around - 6
 - highest level ever - 8
 - during QEEG recording - 7/7.5

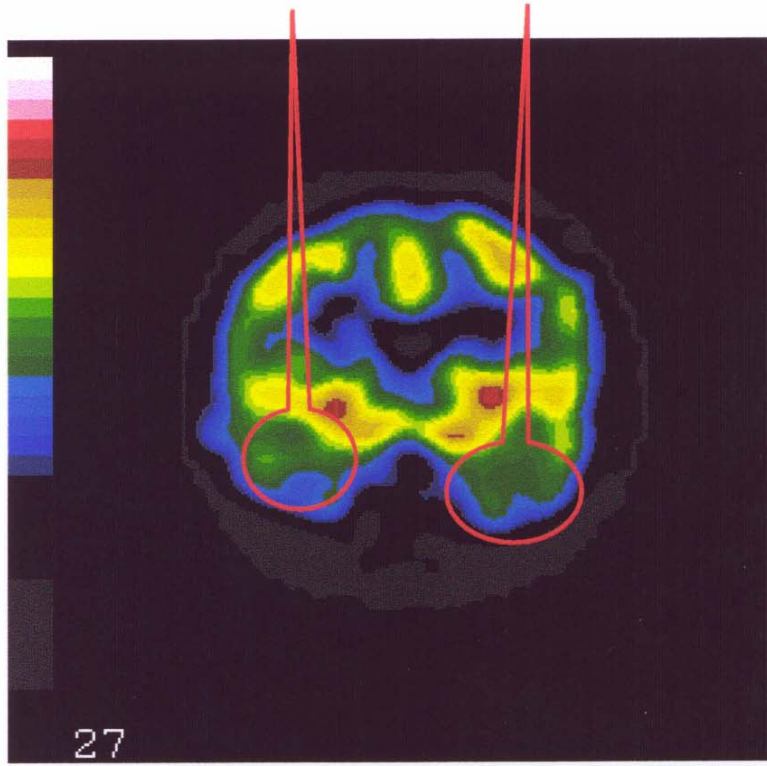
Previous Findings

- MRI - decreased frontal lobe volume
- SPECT - hypometabolism
 - bilateral anterior temporal
 - bilateral inferomedial temporal
 - bilateral superior anterior frontal
 - bilateral superior posterior frontal
 - bilateral inferior frontal

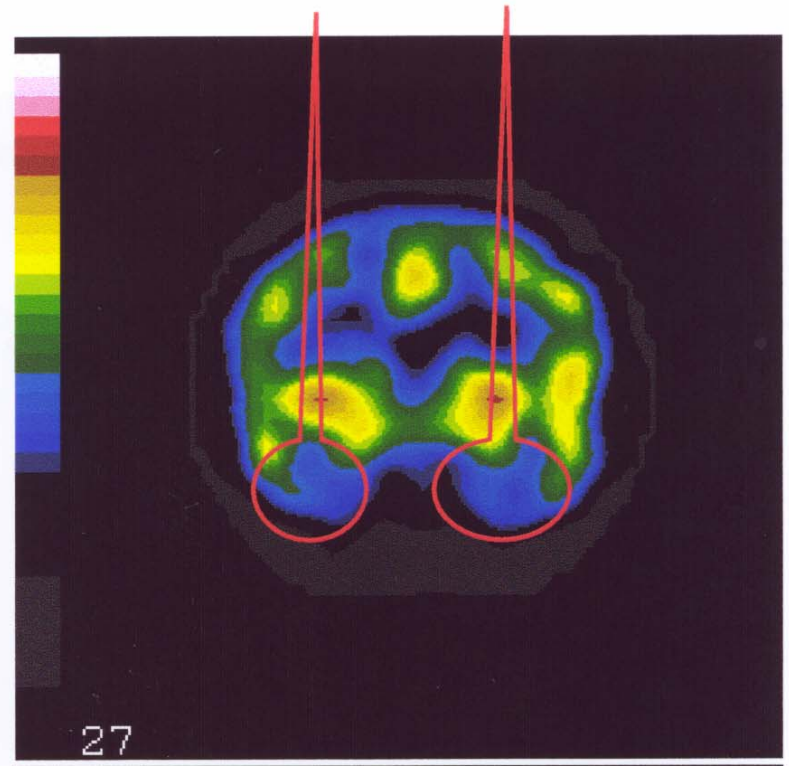
SPECT Images



SPECT Images



Frontal View: Patient at Baseline



Frontal View: Patient during Test

Method: Analysis

- Recorded with Lexicor Neurosearch 24
- Cortical analysis using NeuroGuide
 - By condition
 - Condition subtraction
- Analysis of DC source potential using LORETA
 - Condition subtraction

Method: Conditions

- Baseline eyes closed
- Baseline eyes open
- “Connected” - eyes closed

MCMIII Profile

CATEGORY		SCORE		PROFILE OF BR SCORES					DIAGNOSTIC SCALES
		RAW	BR	0	60	75	85	115	
MODIFYING INDICES	X	110	68						DISCLOSURE
	Y	18	84						DESIRABILITY
	Z	14	69						DEBASEMENT
CLINICAL PERSONALITY PATTERNS	1	10	75						SCHIZOID
	2A	4	47						AVOIDANT
	2B	8	77						DEPRESSIVE
	3	5	50						DEPENDENT
	4	20	60						HISTRIONIC
	5	12	51						NARCISSISTIC
	6A	3	22						ANTISOCIAL
	6B	9	62						SADISTIC
	7	21	60						COMPULSIVE
	8A	16	84						NEGATIVISTIC
8B	6	75						MASOCHISTIC	
SEVERE PERSONALITY PATHOLOGY	S	9	69						SCHIZOTYPAL
	C	11	71						BORDERLINE
	P	7	63						PARANOID
CLINICAL SYNDROMES	A	7	82						ANXIETY
	H	7	68						SOMATOFORM
	N	8	66						BIPOLAR: MANIC
	D	6	71						DYSTHYMIA
	B	2	30						ALCOHOL DEPENDENCE
	T	0	0						DRUG DEPENDENCE
	R	9	68						POST-TRAUMATIC STRESS
SEVERE CLINICAL SYNDROMES	SS	13	72						THOUGHT DISORDER
	CC	14	75						MAJOR DEPRESSION
	PP	2	60						DELUSIONAL DISORDER

MCMIII Grossman Facet Scales

HIGHEST PERSONALITY SCALE BR 65 OR HIGHER: SCALE 8A Negativistic (Passive-Aggressive)

SCALE	SCORE		PROFILE OF BR SCORES						FACET SCALES
	RAW	BR	0	60	70	80	90	100	
8A.1	5	67							Temperamentally Irritable
8A.2	5	82							Expressively Resentful
8A.3	2	48							Discontented Self-Image

SECOND HIGHEST PERSONALITY SCALE BR 65 OR HIGHER: SCALE 2B Depressive

SCALE	SCORE		PROFILE OF BR SCORES						FACET SCALES
	RAW	BR	0	60	70	80	90	100	
2B.1	3	58							Temperamentally Woeful
2B.2	1	28							Worthless Self-Image
2B.3	5	77							Cognitively Fatalistic

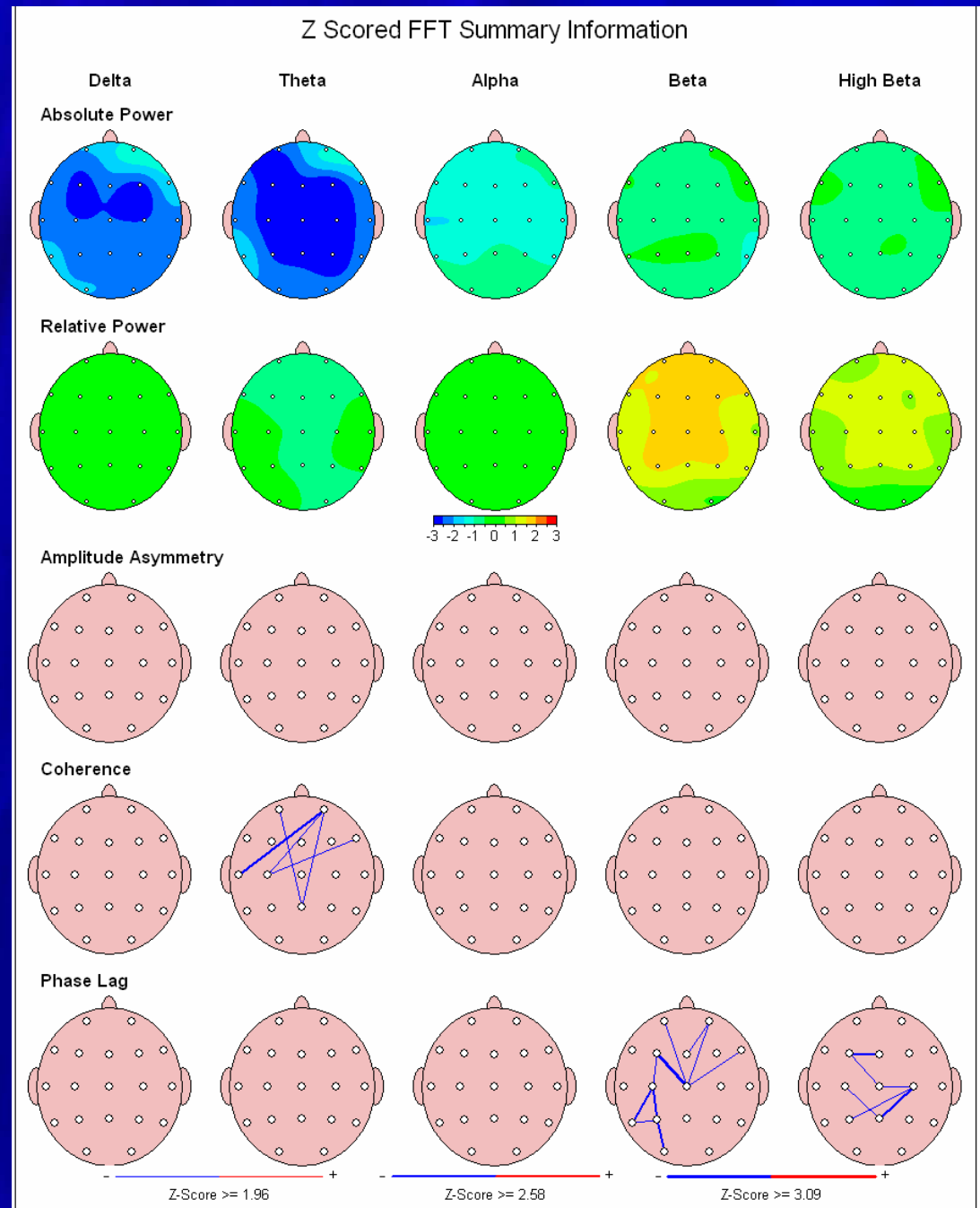
THIRD HIGHEST PERSONALITY SCALE BR 65 OR HIGHER: SCALE 1 Schizoid

SCALE	SCORE		PROFILE OF BR SCORES						FACET SCALES
	RAW	BR	0	60	70	80	90	100	
1.1	4	67							Temperamentally Apathetic
1.2	3	43							Interpersonally Unengaged
1.3	1	10							Expressively Impassive

MCMII-III Diagnoses

- *296.33 Major Depression*
(recurrent, severe, without psychotic features)
- *300.02 Generalized Anxiety Disorder*
(with Negativistic and Depressive Personality Traits and Schizoid and Self-defeating Personality Features)

QEEG Baseline Eyes Closed

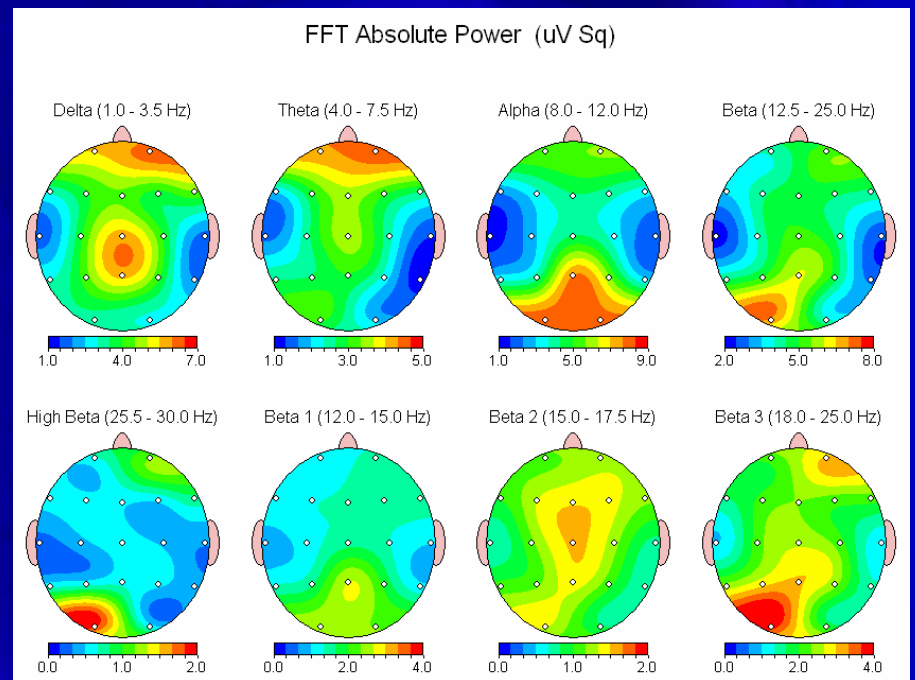
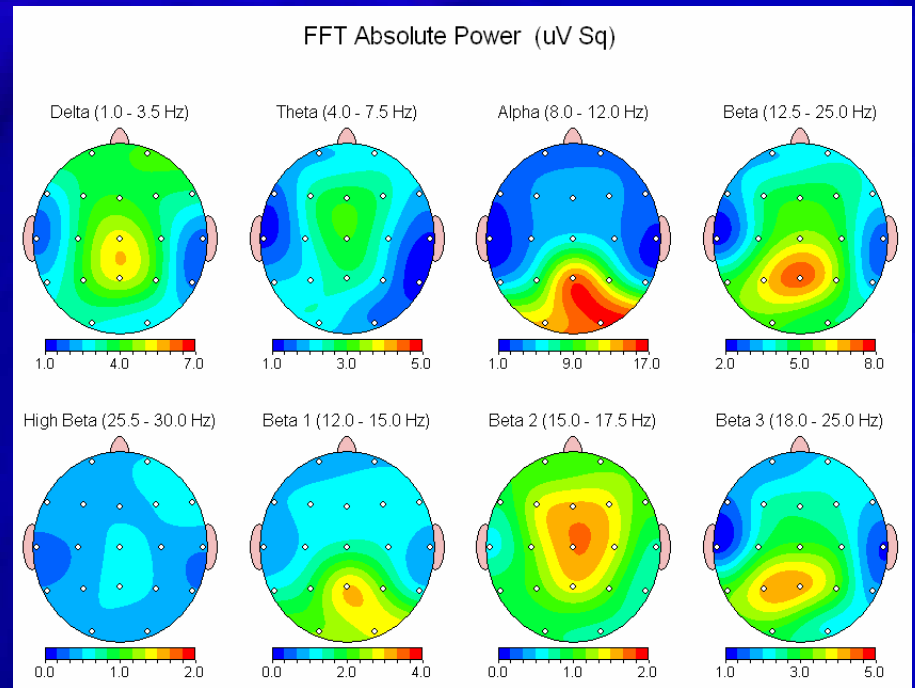


Absolute Power:

Eye Closed Baseline

“Connected”

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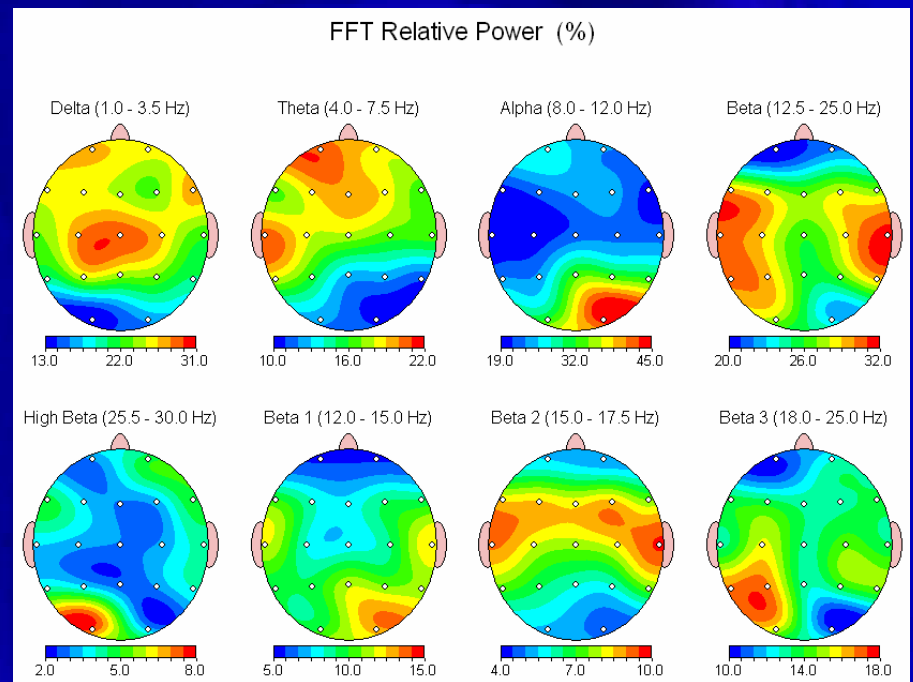
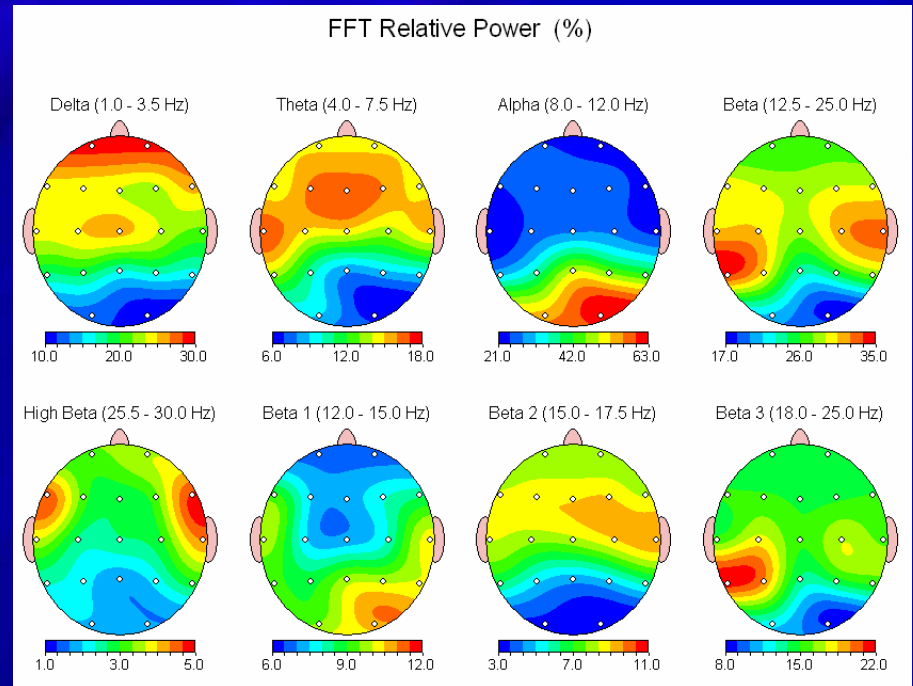


Relative Power:

Eye Closed Baseline

“Connected”

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Comparison of SPECT & QEEG Findings

SPECT Scan

Decreased Activity

- Anterior temporal
- Inferomedial temporal
- Superior anterior frontal
- Superior posterior frontal
- Inferior frontal

Increased Activity

- Occipital

QEEG

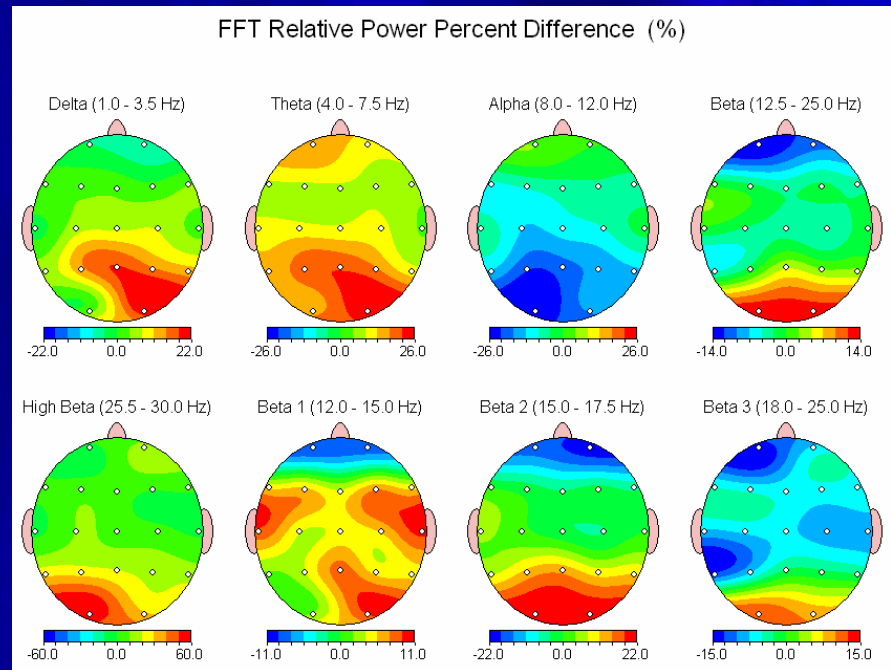
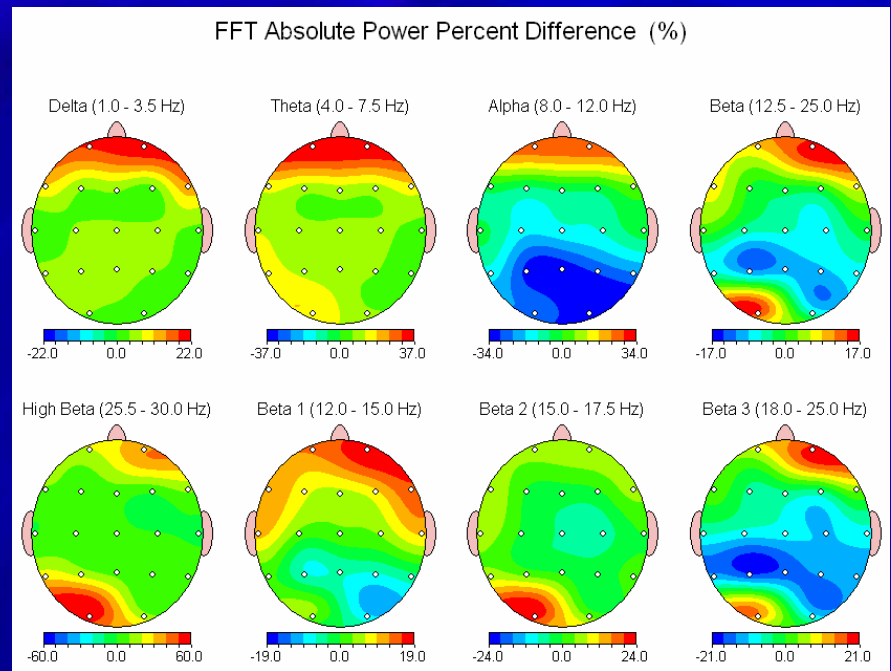
Increased Activity

- Anterior temporal
- Anterior frontal
- Posterior frontal
- Occipital

Decreased Activity

- Occipital (11 Hz)

Percent Difference: “Connected” minus Eye Closed Baseline



LORETA Percent Difference: “Connected” minus Baseline

1 Hz	Superior Temporal Gyrus	(BA 38)	Left
2-10, 12 Hz	Orbital Frontal	(BA 11)	Bilateral
	Medial Frontal	(BA 10)	Bilateral
	Anterior Cingulate	(BA 32)	Bilateral
11 Hz	Paracentral Gyrus	(BA 5)	Bilateral
13, 16-26 Hz	Inferior Occipital Gyrus	(BA 18)	Left
	Mid. & Sup. Occipital Gyrus	(BA 19)	Left
14-15 Hz	Superior Frontal Gyrus	(BA 11)	Right
20-22 Hz	Superior Frontal Gyrus	(BA 10)	Right
26-32 Hz	Inferior Occipital Gyrus	(BA 17)	Bilateral
	Lingual (Occipital) Gyrus	(BA 19)	Bilateral

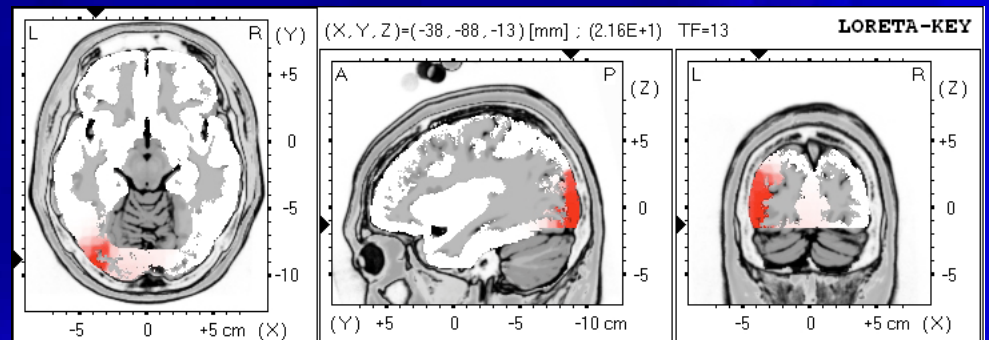
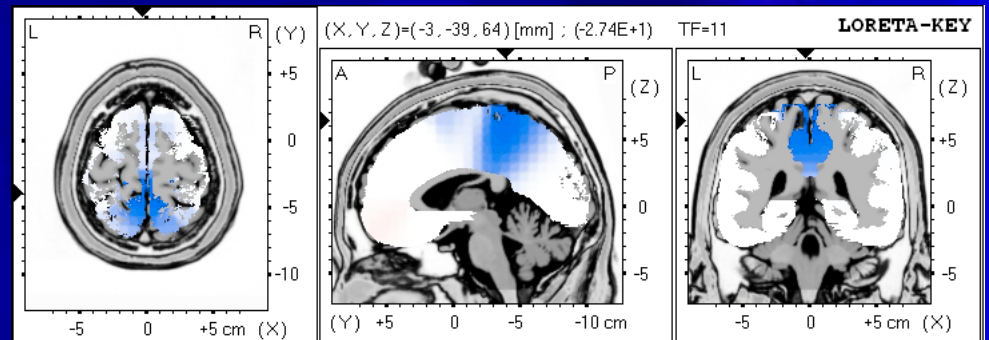
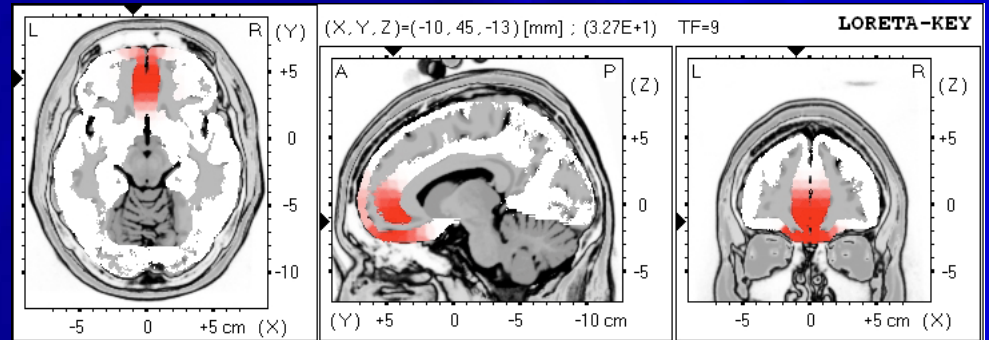
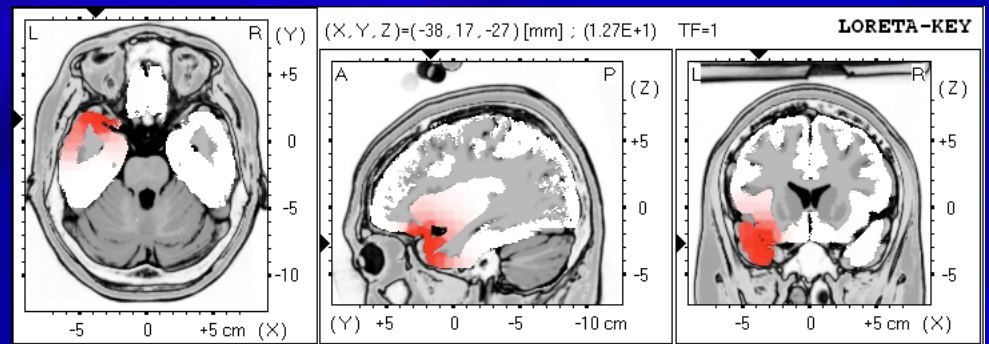
LORETA

Percent Difference: 1 Hz
“Connected”
minus Baseline

2-10 Hz

11 Hz

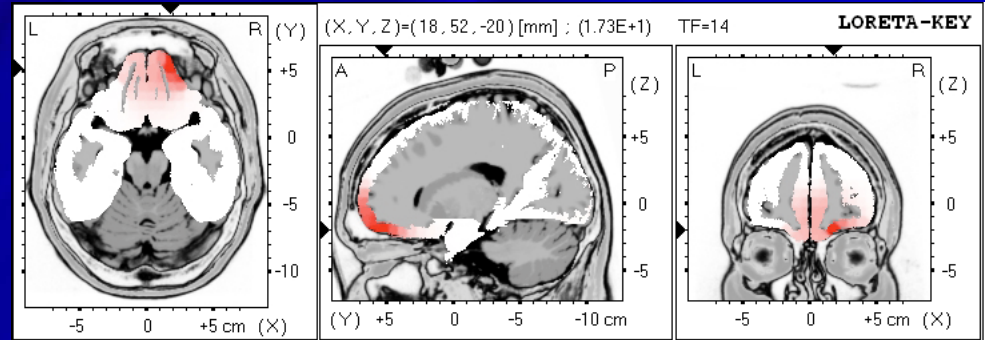
13, 16-26 Hz



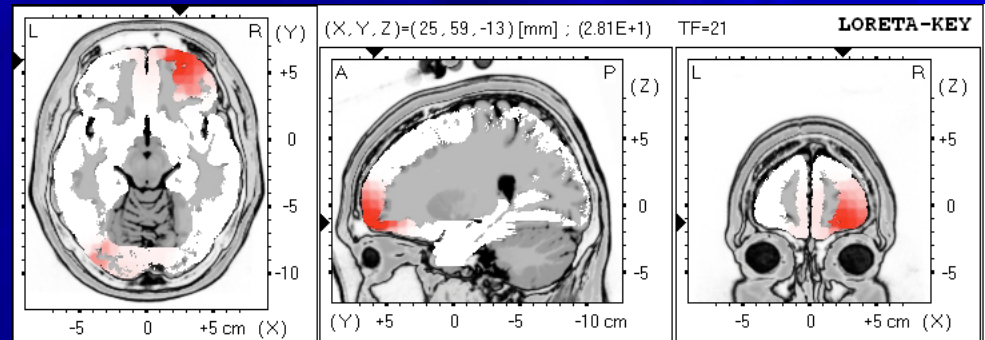
LORETA

Percent Difference:
“Connected”
minus Baseline

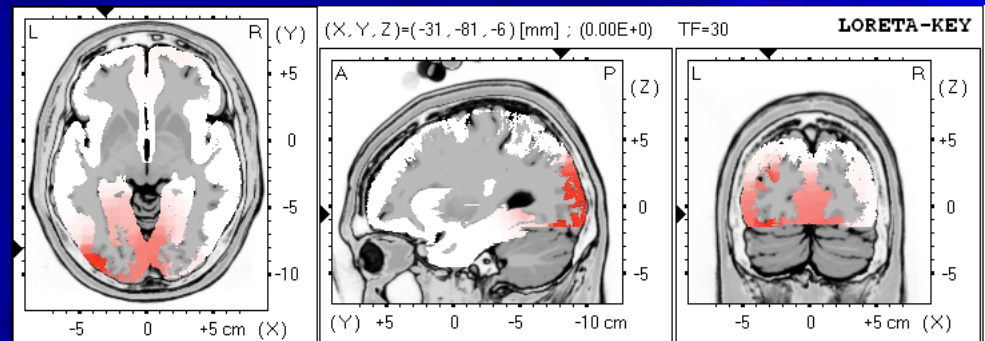
14-15 Hz



20-22 Hz



26-32 Hz



Previous Neuroimaging Findings -1

Anomalous Experiences (AE)

- Alexander (2000) QEEG PSI Task minus Baseline increased frontal-temporal left side

Visual Hallucinations (VH)

- Harvey et al, (1996) EEG intermittent abnormal slow waves & left temporal single sharp components
- Blanke et al (2000) Brain stimulation of left prefrontal area produced VH

Previous Neuroimaging Findings -2

Auditory Hallucinations (AH)

- Lee et al, (2006) 25 schizophrenics, increased Beta1/2 in left inferior parietal lobe & left medial frontal gyrus
- Flugel et al, (2006) Diffusion Tensor Imaging in TLE patients w & w/o inter-ictal psychosis (IP); IP associated with subtle abnormalities in fronto-temporal white matter
- Gaser, et al (2004) AH significantly correlated with volume loss in left transverse temporal gyrus, left inferior supramarginal gyrus, right middle & infer. prefrontal gyrus
- Ishii et al, (2000) increased theta, left sup. temporal area during AH
- Seeck et al, (1999) depth electrodes, left anterior temporal semi rhythmic sharp slow waves

Fact vs. Interpretation

- Results are presented and are descriptions of factual events
- Interpretations can be biased by one's personal world view or paradigm
- If so, conclusions become simply opinion or belief
- The latter holds true for all - Naturalists, Mechanists, Emergent Materialists and Dualists

Materialist Paradigm

Assumption:

- The brain is the source of any mental experience
- Or, for “emergent materialists”, the mind and its experiences arise from the interaction of the brain and its environment

Anomalous experiences are a result of...

- brain damage and/or dysfunction
- brain stimulation

Dualist Paradigm

Assumption:

- Brain and Spirit are separate

Anomalous experiences are a result of one of the following...

- Dysfunctional brain/mind → Real Psychosis
- Non-supportive environment but intact brain/mind → Pseudo-Psychosis
(One just thinks one is crazy)
- Supportive environment and intact brain/mind → Medium

Most Factual Description of Results

- That a particular brain area or network of areas, or patterns of brain activation or de-activation is associated with a certain experience
- However, that alone does nothing to establish the validity or reality of an individual's experience or the source of that experience

Phenomenology of Anomalous Experience

Is the experience...

- unintentionally imagined or *hallucinated?*
(via brain dysfunction or brain stimulation)
- intentionally *imagined?*
(e.g., Highest yoga tantra “generation stage” practices)
- or *real?*

Conclusion and Impressions

Conclusion:

- That medial and orbital frontal, left anterior temporal and left occipital brain regions are associated with this individual's experience of seeing and hearing spirits
- However, this alone does not establish the validity or reality of his experience, nor the source of his experience

Impressions:

- Results not meant to be viewed in mechanistic, reductionistic, localized or linear fashion
- Interpreted with a dualistic paradigm, the brain can be viewed as a "receiver" or mediator of the mind/spirit

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