

Hypnotherapy in Anxiety, Depression and Happiness: an audit

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Introduction.

Therapists of divergent theoretical orientations employ hypnotic interventions for a host of presenting problems, including anxiety disorders, depression, etc,¹ and the usefulness of future research into hypnosis for anxiety has been indicated.²

Hypnotherapy is hypnosis for a therapeutic purpose – to be helpful. Hypnosis is a complete misnomer. It is based on the word '*Hypnos*'. Hypnos was the Greek god of sleep and dreams. The word hypnosis comes from a Dr James Braid (1795-1860).^{3,4}

Hypnotherapy has been known about since the start of recorded history, in communities all around the world. The condition has been known about since Wong Tai, the father of Chinese medicine (2600 BC) and the Hindu Vedas (1500 BC) refer to [what are now known as] hypnotic procedures (McKenna 1993).⁵

Although it stems from the Greek word, '*hypnos*' referring to sleep, hypnosis is *not* sleep. If you were wired up to an electroencephalograph (EEG) machine measuring brain-waves, this could be demonstrated (IBVA UK. 2008: see Appendix 1 below).⁶ The strongest evidence for this comes from examining EEG brain wave tracings which show that the brain can be much more active during hypnosis than at any other time. (Watson 2008),⁷ (see Appendix 1, item 5). The EEG of hypnosis is formally indistinguishable from a pattern of being relaxed, alert with eyes closed (see Appendix 1, item 2).

“By contrast, the EEG of sleep consists of four distinct polygraph defined stages that run in approximately 90-minute cycles of progressively less depth throughout the night”. (Aserinsky and Kleitman, 1953).⁸

Hypnosis is an altered state of awareness, where you remain *deeply* relaxed but conscious of all that is being said and happening around you. Importantly, you remain completely in control of all aspects of your being at all times.

Heap and Aravind (2002)⁹ explain and describe that statement thus:

“In fact, it’s rather like when you are absorbed in a book or some music or a daydream; you know that things are going on around you but you just don’t need to take any notice” (see Appendix 1, item 6).

Hypnotherapy is routinely used for a wide range of condition-specific therapeutic purposes including: anxiety, etc. (Gerard 2008).^{10, 11}

“It is estimated that work-related stress, depression or anxiety affected 415,000 individuals who had worked in the last 12 months in 2008/09 (prevalence) (Table SWIT3W12), with a corresponding estimated 11.4 million lost working days due to these work-related conditions (Table SWIT1). This represents an estimated average of 27.5 working days lost per affected case and makes stress, depression or anxiety the largest contributor to the overall estimated [UK] annual days lost from work-related ill-health in 2008/09”.¹²

The Scottish Parliament's public audit committee's review of mental health services states that: "the level of prescribing anti-depressants had quadrupled in 15 years and the reasons were unclear", and "one in four people will experience a mental health problem at some point in their lives".¹³

Placebo?

Just to be clear, hypnosis is not a placebo.

Hilgard & Hilgard (1975), from the data of McGlashan, Evans & Orne (1969) note: "Responsivity to a placebo, or sugar pill, is as valid an operational measure of suggestibility as one is likely to find. If hypnosis is no more than a matter of suggestibility, there should be no difference between response in hypnosis as opposed to response in a placebo condition, though one might expect differences between high and low hypnotizables. McGlashan, Evans and Orne (1969) sought to examine this question by comparing groups of high and low hypnotizables in conditions of hypnotic analgesia and placebo, in a study of response to ischemic pain. In both analgesia and placebo, subjects had a tourniquet placed on a forearm while pumping water from one container to another. This procedure milks the blood from the veins of that arm, and yields some quite elegant measures of work and effort, since the longer that an experimental subject can continue to pump water, the more one can say that his (all subjects were men) performance is unhindered by the rapidly mounting pain of ischemia.

The results were striking. Low hypnotizables showed a mild pain reduction in both the hypnotic analgesia and placebo conditions. By contrast, high hypnotizables showed substantial pain reduction in hypnotic analgesia, and a slight pain increase in the placebo condition; their performance in placebo did not differ statistically from that of the low hypnotizables in the same condition. This finding is diagrammed in Figure 1. From this, it can be concluded that the mechanisms underlying hypnotic response are formally distinguishable from suggestibility.

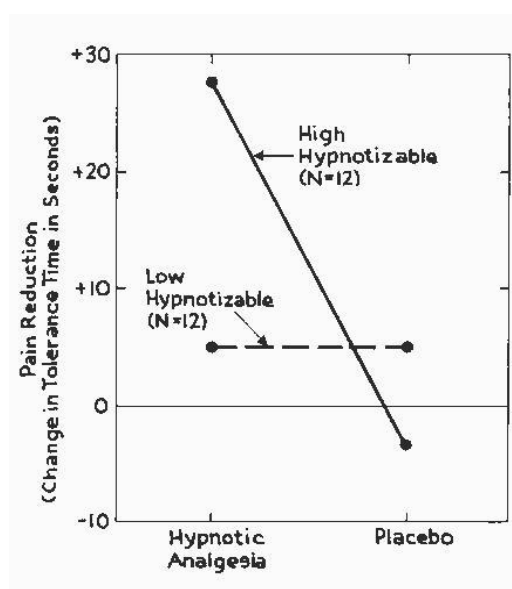


Figure 1. Differential effect of hypnotic analgesia and placebo in experimental subjects of high and low hypnotizability (compiled by Hilgard & Hilgard (1975), from the data of McGlashan, Evans & Orne (1969)).

Twenty years passed before an attempt was made to replicate this finding. Spanos, Perlini and Robertson (1989) reported two studies in which pain reduction was measured by a strain gauge. This involved placing a weight of 2300 grams on the first phalanx of a finger. The placebo was different, also. It was described as a "topical anesthetic," and was a solution of three parts colored water to one part ethyl alcohol. The latter produces sensations of cooling and mild tingling, and was used to communicate to the experimental subjects that the anesthetic was having the desired effect.

High and low hypnotizables were compared across the two studies in various combinations of baseline, placebo and control conditions. It was found that, in both studies, high hypnotizables showed significantly greater pain reduction in hypnosis as compared to both baseline and placebo conditions. The study is important since it is a rare instance of hetero-method replication; that is, Spanos et al. obtained the same finding as McGlashan et al., despite major differences in the pain stimulus, the placebo employed, and the way in which they measured responsivity to hypnosis. This point that hypnotizability is something distinct from suggestibility (as indexed by placebo response) has been confirmed independently, also, by Gudjonsson (1987) using the suggestibility scale that he developed".¹⁴

This audit was done to allow a background comparison with a particular case of reflex hypoxia/ anoxia where the subject had made rapid improvement following hypnotherapy,¹⁵ the subject of a separate paper.

Outcome measures

Questionnaire measurements: Hospital Anxiety and Depression scale (HADS), a well-validated instrument used internationally, routinely in medical research studies^{16, 17} and a visual analogue scale (VAS) of overall well-being completed by each subject immediately before each treatment session.

Analysis

PASW Statistics (SPSS for Windows) 18 was used for data processing and an intention to treat analysis was performed throughout. As Snaith (2003) indicates that the two subscales, anxiety and depression, are independent measures,¹⁸ Kruskal Wallis test was used for Anxiety and Depression (HADS-A and HADS-D). One-Sample Kolmogorov-Smirnov Test was used for the VAS 'Happiness' scale. A P-value of 0.05 was used to denote statistical significance.

Demographics.

Participants comprised 25 male and 75 female self-referring individuals completing two or more sessions of hypnotherapy for a wide range of presenting conditions. Age range was 8 to 62, with mean age of 36 years.

Results

Participant flow and presenting conditions

A total of 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy for a wide range of presenting conditions were included in this audit.

These 100 subjects presented an average of 2.53 conditions per patient (range: 1-11). The top 10 ranked conditions presented are detailed in Table 1 (the full list of 92 presented conditions is described in Appendix 2, below).

Rank	Presented condition	Number
1	Weight control	21
2	Stress	20
3	Insomnia	19
4	Anxiety	16
5	IBS	10
6	Depression	9
7	Fear of flying	8
8	Panic attacks	7
9	Headache	5
10	Migraine	5
		120

Table 1. Top 10 ranked presenting conditions.

Anxiety

Participant flow in relation to anxiety is illustrated in Figure 2.

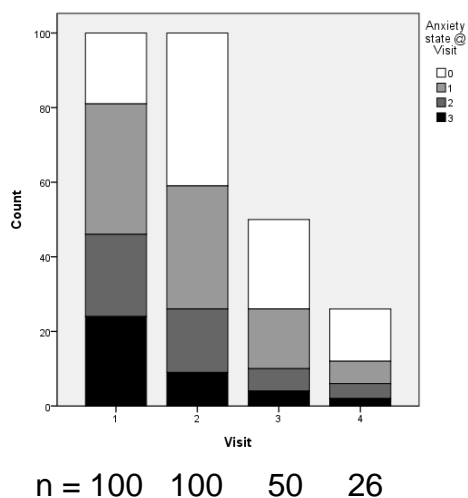


Figure 2. Participant flow of 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy in Anxiety.

Although only 16 cases presented anxiety, of the audit sample, 81% were anxiety cases scoring ≥ 8 on the Hospital Anxiety and Depression Scale (HADS-A) 0-21 scale where 21 is the worst: 24% Severe cases (labelled “3”), 23% Moderate (labelled “2”) and 34% Mild (labelled “1”); 19% were not anxiety cases.

After one treatment of hypnotherapy the number of non-anxiety cases had improved from 19 to 41, to 74 after 2nd and to 88 after 3rd treatment on an intention to treat basis.

Results were very highly statistically significant, $P < 0.001$. Box-plot of anxiety scores for the 24 severe anxiety cases is shown in Figure 3.

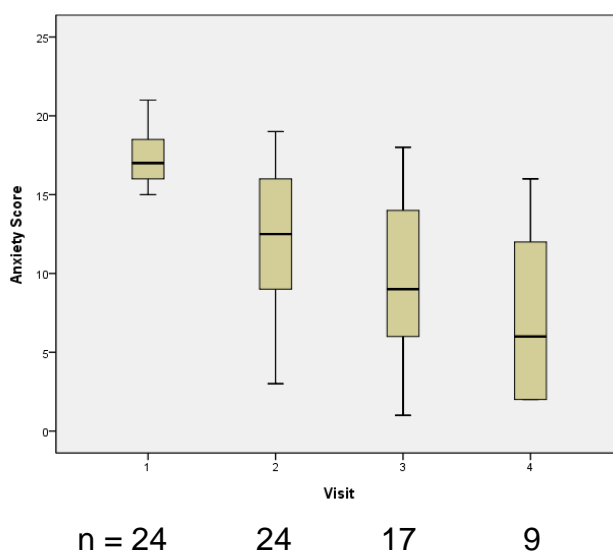


Figure 3. Box-plot of the 24 severe anxiety at presentation cases, over four visits.

Depression.

“A few people still think that depression is not a real illness and that it is a form of weakness or admission of failure. This is simply not true. Depression is a real illness with real effects.”¹⁹

Although only 9 cases presented depression, of the audit sample 40% were depressive cases, scoring ≥ 8 on the Hospital Anxiety and Depression Scale (HADS-D): 3% Severe cases (labelled “3”), 6% Moderate (labelled “2”) and 31% Mild (labelled “1”); 60% were not depressive cases.

Participant flow in relation to depression is illustrated in Figure 4.

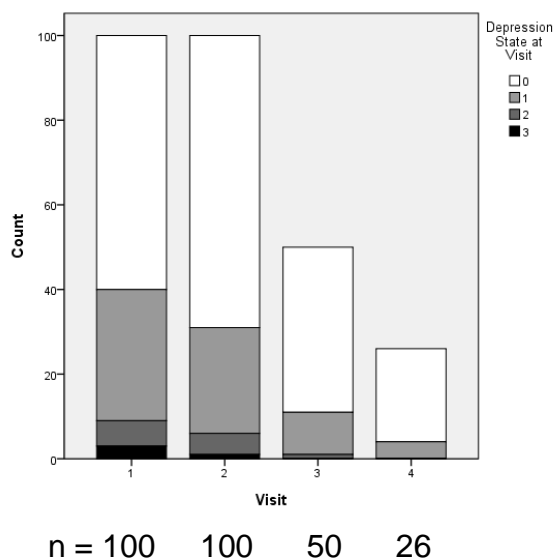


Figure 4. Participant flow of 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy in Depression.

After one treatment of hypnotherapy the number of non-depressive cases increased from 60 to 69 (by 15%) after 1st visit, to 89 (48%) after 2nd and to 96 (60%) after 3rd treatment on an intention to treat basis.

Results were statistically significant, $P=0.035$. Box-plot of depression scores for the 2 severe depressive cases is shown in Figure 5.

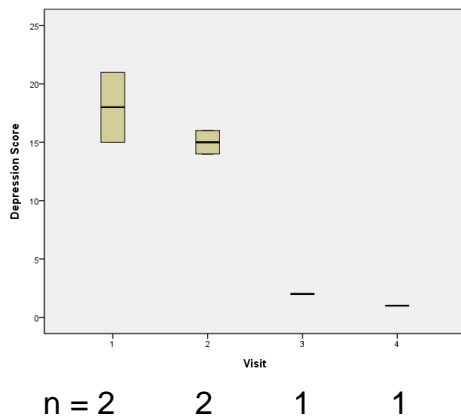


Figure 5. Box-plot of the 2 severe depression cases over four visits.

Happiness.

A visual analogue scale (VAS) of overall well-being (where 0 represents “as miserable as can be” and 10 “as happy as can be”) was completed immediately before each treatment session. Results from the 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy are shown in Figures 6 to 8.

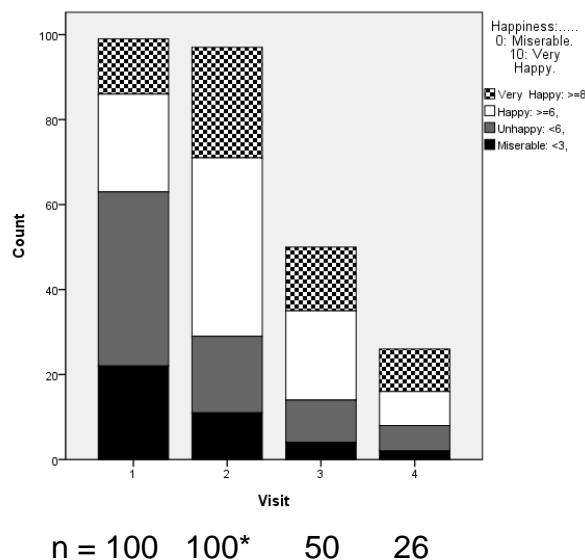


Figure 6. Participant flow of 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy in ‘Happiness’.

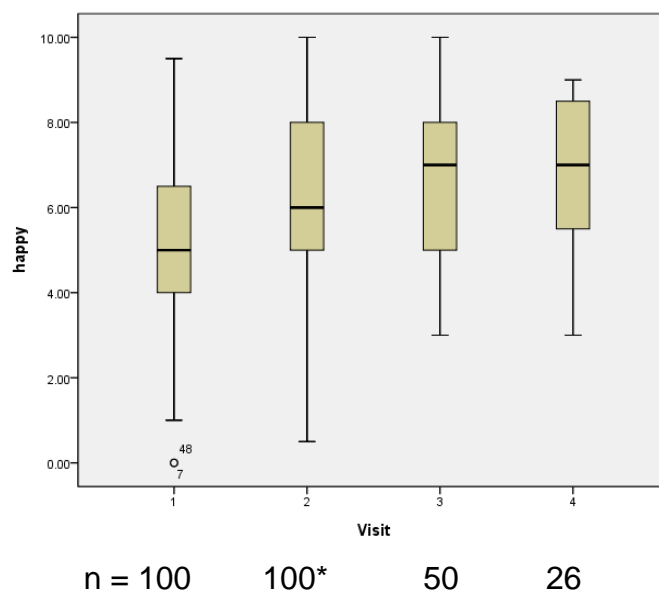


Figure 7. Box-plot of 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy in ‘Happiness’.

* There were 3 missing values from the VAS “Happiness” scale in second visit.

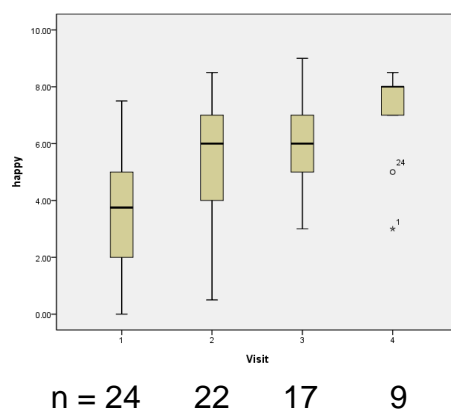


Figure 8. Box-plot of 24 consecutive self-referring severely anxious cases completing two or more sessions of hypnotherapy in relation to “happiness”.

Conclusion.

In this internal audit of 100 consecutive self-referring individuals completing two or more sessions of hypnotherapy, statistically significant results were established over three treatment visits in anxiety, depression and happiness. HADS and VAS questionnaires of overall well-being were made immediately before each treatment session – hence readings at start of 4th visit indicated change from 3rd visit.

Non-anxiety cases increased from 19 to 41 (by 116%) after 1st visit, to 74 (290%) after 2nd visit and to 88 (363%) after 3rd treatment.

Non-depressive cases increased from 60 to 69 (by 15%) after 1st visit, to 89 (48%) after 2nd visit and to 96 (60%) after 3rd treatment.

Happy cases (score ≥ 6) increased from 36 to 68 (by 88%) after 1st visit, to 86 (139%) after 2nd visit and to 92 (156%) after 3rd treatment.

On an intention to treat basis this audit supports the use of hypnotherapy as being beneficial in anxiety, depression and happiness, among a variety of 92 presented conditions with significant results, $P < 0.001$ in anxiety and happiness, and $P = 0.035$ in depression.

However, further research is required. This needs a randomised controlled trial (RCT) to include a longer study and follow-up periods. Consideration needs to be given to recruitment of a general population sample, diagnostic stratification of the sample, blinding of the measurer and use of multiple treatment centres. Although introduction of a placebo treatment would be problematic, comparison of Hypnotherapy with routinely prescribed treatments such as Counselling and Cognitive Behavioural Therapy (CBT) with a control group receiving only pharmacological treatment and at least three and six month follow-ups may provide suitably relevant comparisons.

In the field of complementary medicine, these issues present methodological challenges, but it is ideally through trials such as these that effectiveness may be determined (Margolin *et al*, 1998; Astin *et al*, 2000).^{20, 21.}

Interests declared.

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With a special interest in CAM research he is a full member of The Research Council for Complementary Medicine (RCCM), an Affiliate Member of the Medical School Hypnosis Association, a published author and holds a Professional Diploma in Headache and Migraine Care (Leeds Metropolitan University). By invitation, he is an associate member of the Royal Society of Medicine.

Appendix 1.

IBVA UK (2008) show evidence of hypnosis thus:

Seeing the evidence of hypnosis

What follows are snapshots of the brainwaves of somebody experiencing various hypnotic phenomena.

They were captured using the excellent IBVA system. This is a valuable tool for this kind of research, and you can find more out about the system at www.ibva.co.uk.

A text accompanies each picture and you can click on any of the images to see it larger and in more detail.

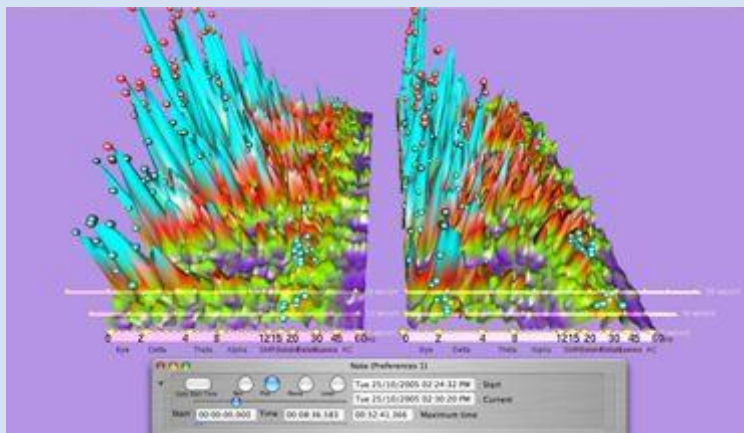
Data type: Frontal lobe EEG stereo (left/right sides)

1. Fully alert

In this image, where the patient is fully alert, both frontal lobes are producing similar brainwaves with quite high amplitude on the Y axis (showing microvolt units of electricity). Steady streams of beta waves are occurring above 15hz and below 30Hz on both frontal lobes.

This can denote active concentration such as listening intently or visual scanning.

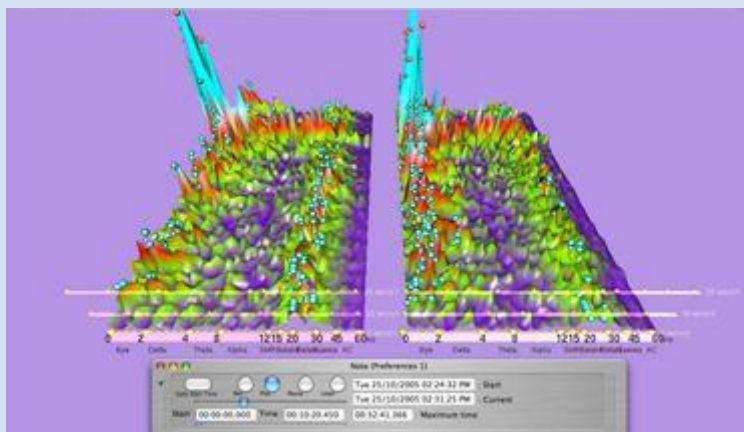
Eye movement and expression cause the large eye spikes and red dots on the far left of each side of the graph, whether the eyes are open or shut.



2. Medium focus

Here, the activity has lessened on both sides; only the left is now producing a more definite stream of beta waves under 10 microvolts, implying concentration is more active on this side. The right has lower-strength beta waves without as many round peak indicators, but is now showing the beginning of a succession of low delta waves.

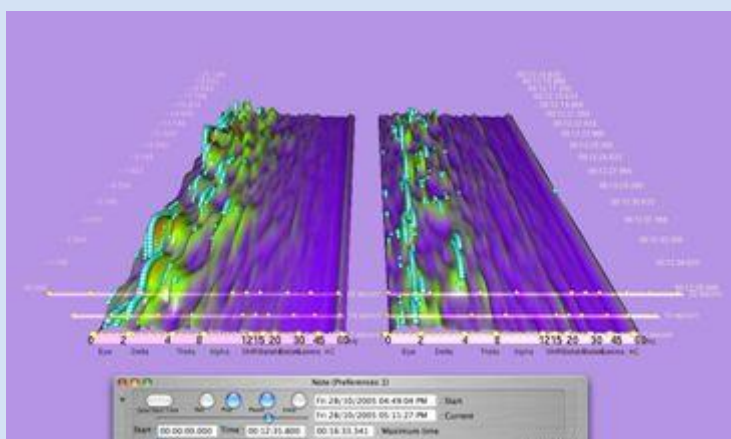
When a subject withdraws from external stimuli, focus begins to turn inwards, beta will lessen and cease, allowing the signs of alpha waves to appear if relaxed and then the slower theta, into delta waves.



3. Deep relaxation

All activity is at lower electricity levels, fewer than 5 microvolts in strength. The brainwaves are much slower - 8Hz and below. Overall this shows steady and slightly undulating waves between 1 and 4Hz (low delta – theta).

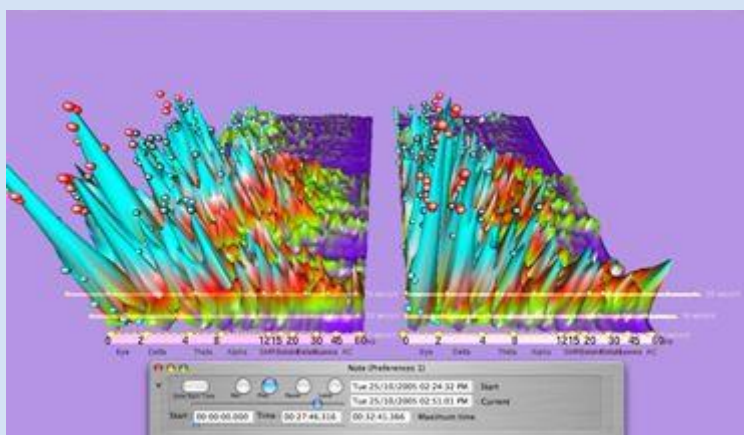
These brainwaves do not predominate during normal attention, similar to a certain stage of the human sleep cycle.



4. Awakening

As the waves move back into the horizon of the 3D graph, the gentler and slower waves are replaced with waves of higher amplitude and increased diversity in the foreground.

This shows the change from calmness to arousal, probably with eyes open, as the peaks are much higher now for the eye bandwidths on the X-axis.

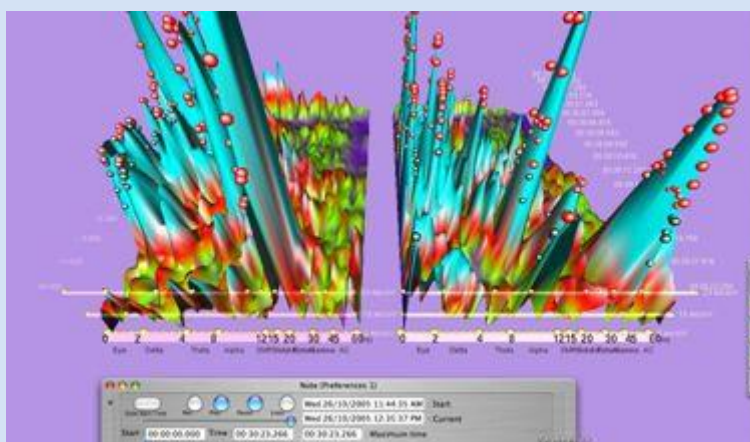


5. Abreaction

Incredibly high voltage beta brainwaves are visible on both sides. This is too large to be a result of normal conscious awareness, and something is amplifying the activity.

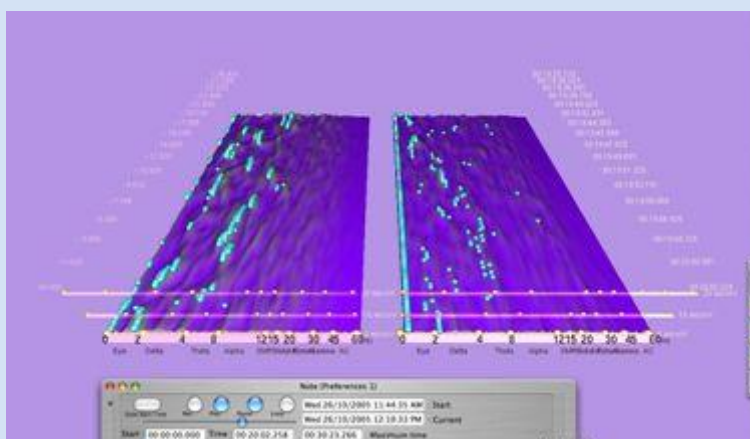
High levels of beta are associated with tasks that are complex, stressful, maybe logical and demanding of all real-time attention. The 0-1Hz eye waves are not showing on the left, so the eyes are likely to be shut or narrowed, as the right side shows some eye activity.

This follows a phase of very high delta and theta waves, those brainwaves can occur with trance or introspection, from a connection to the subconscious. Those thoughts have triggered this stressful appearance as within a few minutes the EEG reading has changed significantly.



6. IMR [Ideo Motor Response] (during the actual finger-lift)

The diversity of low delta and theta shown here on the right side of the brain seem connected to the subject responding by moving the finger on their left hand over time.



<http://www.thamesmedicallectures.com/ibva.html>

Appendix 2: full list of 92 presented conditions.

Rank	Presented condition	Number	Rank	Presented condition	Number
1	Weight control	21		b/fwd:	207
2	Stress	20	47	Burnout	1
3	Insomnia	19	48	Compulsive eating,	1
4	Anxiety	16	49	Confidence	1
5	IBS	10	50	Coprophobia	1
6	Depression	9	51	Cravings	1
7	Fear of flying	8	52	Crohn's disease	1
8	Panic attacks	7	53	Dermatology,	1
9	Headache	5	54	Distraught on arrival	1
10	Migraine	5	55	Distressed - bereavement,	1
11	Anger	4	56	Distrustful	1
12	Bladder control	4	57	Dizziness	1
13	Blushing	4	58	Eating Disorder	1
14	Jaw	4	59	Encephalitis	1
15	Lack of concentration	4	60	Endometriosis	1
16	Nail biting	4	61	Fear of bridges	1
17	Public speaking phobia	4	62	Fear of dogs	1
18	Back	3	63	Feels threatened	1
19	Binge eating	3	64	Food allergies	1
20	Ear	3	65	Food intolerances	1
21	Lack of confidence	3	66	Foot (R)	1
22	Neck	3	67	Guilt	1
23	Shoulder	3	68	HBP	1
24	Smoking cessation	3	69	Hip (L)	1
25	Agoraphobia	2	70	Insect phobia,	1
26	Alcoholism	2	71	IVF	1
27	Breast cancer	2	72	Liver	1
28	Claustrophobia	2	73	Low self-belief	1
29	Dental phobia	2	74	Low self-esteem	1
30	Driving phobia	2	75	Lung collapse (R)	1
31	Fatigue	2	76	Meetings	1
32	Fear of heights	2	77	Nausea	1
33	Fibromyalgia	2	78	Nightmares	1
34	Gagging	2	79	Past Life Recall	1
35	OCD	2	80	Performance	1
36	Sciatica	2	81	Relationship problems,	1
37	Sinusitis	2	82	Separation	1
38	Teeth	2	83	Skin picking	1
39	Trichotilomania	2	84	Sleep disorder (not Apnoea)	1
40	Worry	2	85	Social anxiety,	1
41	Arthritis	1	96	Stomach cancer	1
42	Asthma	1	97	Tension	1
43	Attention deficit disorder	1	88	Throat	1
44	Blood clot to brain	1	89	Tinnitus	1
45	Bloodshot eyes	1	90	Too analytical	1
46	Breathlessness	1	91	Traffic lights	1
	c/fwd:	207	92	Trauma	1
				Total:	253

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