

Visual Thought Stopping for Pain Stress and Depression

***World Congress on Advanced Integrative Rejuvenology
OCT 21st , 2006 Gulf Shores, Alabama USA***

***Professor R. H. Brian Costello
PhD FCP (Lond) Dip FAB Med Psych FAAIM FACFE MACE***

Subliminal Induction Technique for Pain Control From his book

The Applied Psychology of

Computerized Assessment

Biofeedback

And

Stress Reduction

Cassel Research Centre Australia

ISBN 93-160183

Thirty Years of Research:

Dr. Costello first became interested in "twilight learning" techniques in 1961 while attempting part-time studies for Year 11 when he was a factory worker as well as working in a Richmond factory. He used an old fashioned "reel to reel tape-recorder" in attempts to remember segments of Shakespeare's *Macbeth* when asleep. Pre-recorded tapes of speeches were activated by an SEC time-clock, the fore-runner of the modern radio clock alarm. Cassette tapes and recorders had not been invented in those days. It was not until 1975 as a State registered psychologist that Dr Costello administered Dr Thomas H. Budzynski's progressive relaxation techniques and biofeedback in the control of lower lumbar chronic backache in a research study with Dr. Michael Ginsberg (Orthopaedic Surgeon) at the Queen Elizabeth Hospital, Adelaide South Australia. A comparison, in the fullness of time, was made with Electromyograph EMG relaxation training. However, it was not until 1987 that Dr Costello learned of Dr Budzynski's work in hypnotic subliminal relaxation techniques when presenting his papers at the American Psychological Association (Division of Experimental Psychology & Human Engineering) at New York.

They became colleagues in pioneering these advanced techniques internationally, including an interface which allows computerised biofeedback and together they presented papers at the 1988 International Congress at Sydney New South Wales. An article on assessing the progress of two therapy sessions was published in the *Journal of Instructional Psychology* (Costello, 1988). A clinical validation sample of N=93 was later published (Costello, Budzynski and Urban, 1991).

From the above results, the authors concluded that statistically, one could not differentiate between the positive effects of guided imagery, progressive relaxation and subliminal induction. We considered that improvement was achieved through a combination of these techniques together with guidance after thorough psychological testing and analysis of the presenting problems (Rogers Carl, 1974).

When introducing this abstract, the writers offer advanced techniques that are well referenced to address behaviour modification in stress reduction. The technique has been used successfully in numerous areas of behaviour change, such as Stress Reduction, Pain Control, Neuromuscular (adrenergic-adrenalin) Tension release, Relaxation training through progressive relaxation and guided imagery or visualisation, Motivation in Learning and Self-esteem enhancement.

This research follows four years of preliminary clinical and experimental evaluation by Budzynski and Costello. In clinical practice, all patients were pre-post tested with computerised psychological and biofeedback assessments. There was no inference of aversion therapy. Neither, was there any intrusive technique developed to alter personality in any way that was not acceptable to the individual. It is the individual himself or herself who decide to use this method. The difference is not in the technique but the specific ways in which it may be used with other methods suggested by the authors.

Philosophical Considerations:

One may support changes in societal mores and expected behaviour but the real question remains, does the community possess the financial resources needed for

Analysis Of Variance

A brief synopsis of the data analysis (ANOVA : 1-Within/1-Between) is presented below :

ANOVA Table.

	df	Sum of Squares	Mean of Squares	F-Values	P-Values
Treatment	1	7650.55	7650.55	18.15	.0001
Subject(Group)	89	37525.70	421.64		
Lifestyle Test	1	6065.39	6065.39	43.26	.0001
Test* Treatment	1	787.85	787.85	5.62	.02
Test* Subject	89	12479.49	140.22		

Dependent: Pre/Post Test

Repeated Measures ANOVA (1-Within/1Between)

Costello Data : Self-Esteem Only
Data Analysis : Michael Urban, Ph.D

Type III Sums Of Squares.

Source	df	Sum of Squares	Mean Squares	F-Value	P-Value
Column 1	1	7650.549	7650.549	18.145	.0001
Subject(Group)	89	37525.714	421.637		
Lifestyle	1	6065.387	6065.387	43.257	.0001
Lifestyle* Column	1	787.849	787.849	5.619	.0199
Lifestyle* Subject	89	12479.492	140.219		

Table of Epsilon Factors for df Adjustment

Dependent: Compact Variable 1

	G-G Epsilon	H-F Epsilon
Lifestyle	1.000	1.011

Note : Probabilities are not corrected for values of epsilon greater than 1.

Duncan New Multiple Range

Effects: Column 1

Error term: Type III sum of squares for Subject (Group)

Dependent: Compact Variable 1

Significant level: .05

	Vs	Diff	Crit.diff.
Subliminal	Control	14.048	6.548

S = Significant different at this level

Mean Table

Effect: Lifestyle* Column 1

Dependent: Compact Variable 1

	Count	Mean	Std Dev.
Pretest, Subliminal	63	53.587	17.145
Pretest, Control	28	72.143	14.544
Posttest, Subliminal	63	70.603	16.432
Posttest, Control	28	80.143	18.587

Interaction Plot

Effect: Lifestyle * Column 1

Dependent: Compact Variable 1

With 95% Confidence error bars.

