

*A Scientifically
Validated Programme*



INDIA
Land of
the
Veda

**CREATING
IDEAL
SOCIETY**

1979
Fifth Year
of the Age of
Enlightenment
The Year of
All Possibilities
for Every
Nation

*Transcendental Meditation
and TM-Sidhi Programme*



HIS HOLINESS MAHARISHI MAHESH YOGI

Founder of Maharishi European Research University
and the World Government of the Age of Enlightenment

In the past, science had brought out the knowledge of specific laws of nature for improving life, and man acted according to each separate law. Now, through the practice of the Transcendental Meditation and TM-Sidhi programme, man is learning to act from the ground state of all the laws of nature, the field of least excitation of consciousness. So every wise person should quickly adopt this precious knowledge in his own life to become a pioneer of the Age of Enlightenment and contribute his full share to our global undertaking to bring enlightenment to every individual and invincibility to every nation.

—*Maharishi*

A Transcendental Meditation Publication
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A Scientifically Validated Programme

CREATING AN IDEAL SOCIETY

THE QUALITY OF LIFE in society is determined by the quality of life of individual citizens. If citizens are enjoying enrichment of body, mind, and behaviour then the whole community will be characterized by peace, harmony, and progress. The Transcendental Meditation and TM-Sidhi programme, as taught by His Holiness Maharishi Mahesh Yogi, provides the technology to develop the full potential of the individual, thereby improving the quality of life and creating an ideal society.

Extensive research on participants in the Transcendental Meditation programme, in over 100 universities and research institutions throughout the world, has demonstrated the effectiveness of the Transcendental Meditation technique for unfolding mental potential, improving health, and creating ideal social behaviour. These benefits are expanded through the practice of the TM-Sidhi programme, a set of advanced procedures which bring out into daily life the inner coherence and harmony developed by the Transcendental Meditation technique. With this growth of coherence in activity there is an automatic development of creative abilities which in the past have seemed far beyond the capability of the ordinary individual. Such higher abilities are now seen to be part of the natural endowment of everyone. They are the normal adjuncts of enlightenment and naturally develop from the practice of the TM-Sidhi programme.

The charts contained in this book summarize a small selection of the scientific research on the Transcendental Meditation and TM-Sidhi programme sufficient to give an idea of the immense potential that the development of higher states of consciousness holds for enriching human life. In his explanation of the Transcendental Meditation programme, Maharishi has said that the state of least excitation of consciousness experienced during the practice is 'a field of all possibilities, the ground state of all the laws of nature, and a field of infinite correlation'. When this most fundamental level of nature is brought to the awareness and stabilized through the Transcendental Meditation programme, the TM-Sidhi programme can then be employed to gently stir this most silent, simplest level of awareness and set it in motion through all available channels of mind-body co-ordination. The practice of these two aspects of the Transcendental Meditation programme results in a state of perfect health of mind and body, the basis for the development of a fulfilled individual and ideal society.

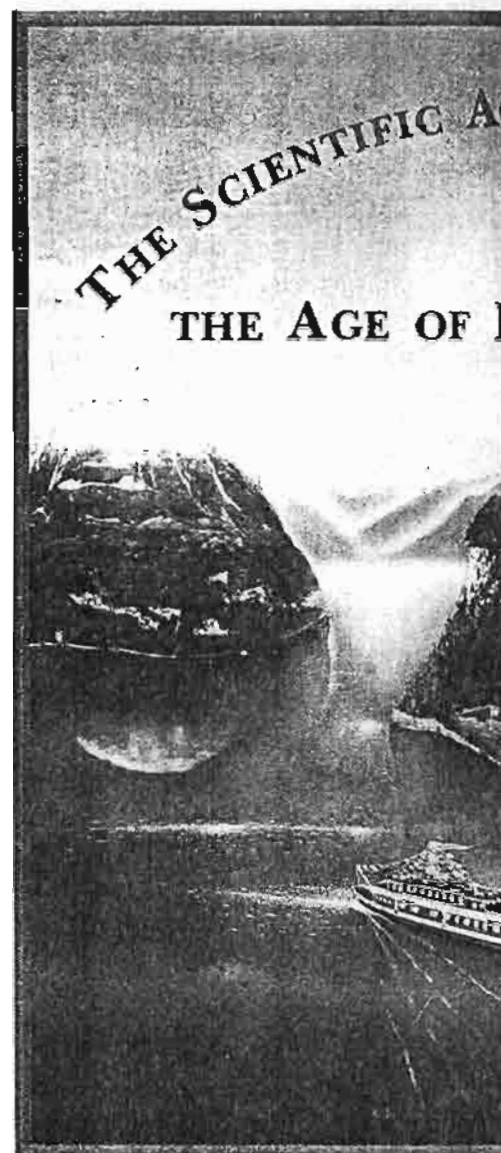
THE MAHARISHI EFFECT:**Individual Enlightenment Increases Harmony in Society**

One of the most exciting research discoveries on the Transcendental Meditation programme has been that of the Maharishi Effect—the phenomenon in which about one per cent of a population practising the Transcendental Meditation technique can create a spreading influence of orderliness and coherence in the collective consciousness of the whole society. This effect has been demonstrated in studies showing decreased accidents, sickness, and crime in cities with one per cent or more of their population practising the Transcendental Meditation programme (pages 18–19). By April 1978, the Maharishi Effect was being experienced in over 1,100 cities throughout the world.

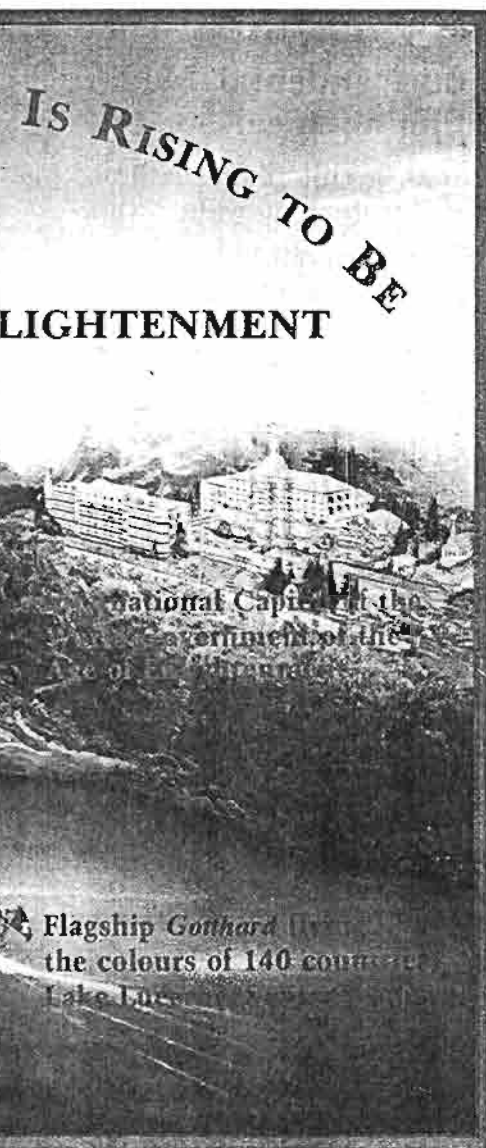
The Maharishi Effect brings fulfilment to the great need of mankind to have a simple means for bringing fulfilment to individual life while simultaneously enriching the society as a whole. Being a natural biological phenomenon, the Maharishi Effect operates irrespective of the type of political philosophy or economic system of the government of the time. The Transcendental Meditation and TM-Sidhi programme, being a validated scientific technology, provides a simple and direct means for bringing coherence to the physiology of the individual, as well as to what may be called the collective physiology of society. This achievement could only come about through the discovery that the simplest state of human awareness is nothing other than the ground state of all the laws of nature, the universal field that is responsible for co-ordinating the growth of every aspect of the physiology, psychology, sociology, and ecology of a nation.

THE DAWN OF THE AGE OF ENLIGHTENMENT

The discovery of the Maharishi Effect, at first in four cities, then in twelve cities, and then in many cities throughout the world, led



On 12 January 1975, aboard the flagship *Gotthard*, Mahesh Yogi inaugurated the Dawn of the Age



At Lake Lucerne, Switzerland, His Holiness Maharishi inaugurated the Dawn of Enlightenment for the whole world.

Maharishi, on 12 January 1975, to inaugurate the Dawn of the Age of Enlightenment for all continents on Lake Lucerne, Switzerland. Since then, thousands of reports have been collected confirming increased order and positivity and decreased crime, accidents, and sickness in more and more nations in the world, indicating that the time has now come when order and coherence have begun to influence the entire collective consciousness of the world. While the Maharishi Effect is strongest in those areas with the highest concentration of individuals practising the Transcendental Meditation programme, the penetrating influence of coherence in human consciousness is such that there is now no corner of the world that is not feeling its beneficial and harmonizing effects.

WORLD GOVERNMENT OF THE AGE OF ENLIGHTENMENT

On the basis of the successful demonstration that the simplest state of man's awareness is actually the ground state of all the laws of nature—the governor of all the trends of time—Maharishi, on 12 January 1976, inaugurated the World Government of the Age of Enlightenment. Having its sovereignty in the domain of consciousness and being free from any responsibility for territorial power, the World Government has come into being to play a parental role for all governments in the world. By supplying the one element that was missing from the administration of every government, the technology for developing human consciousness, man's most basic resource, the World Government of the Age of Enlightenment assists every nation to fulfil its own highest aspirations. This it accomplishes not by engaging in any organizational activity, but simply by creating ideal men and women in every nation who do not make mistakes and who are capable of living life according to natural law. On this basis, life in every country is now becoming more balanced, health is improving, and both individual citizens and government organizations are beginning to enjoy life in fulfilment of their most cherished goals.

SCIENTIFIC RESEARCH

A Summary of Research Results Validating the Transcendental Meditation and TM-Sidhi Programme as a Means of Creating an Ideal Society

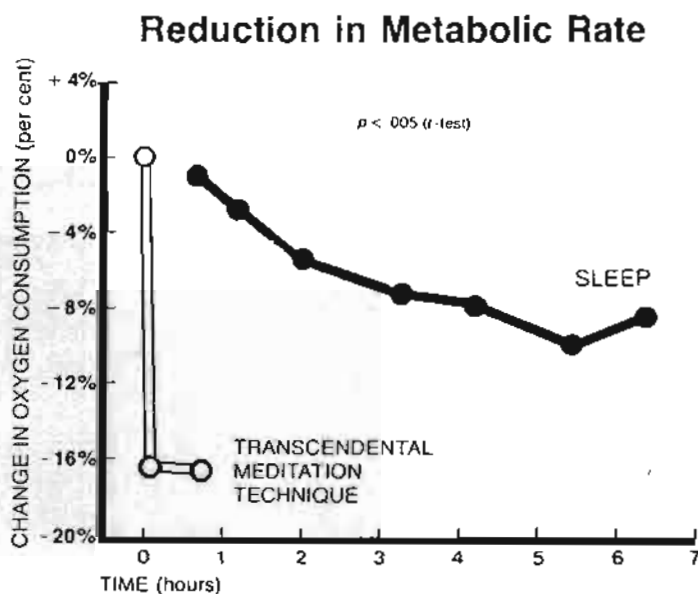
In the pages that follow, a selection of scientific charts* and summaries is given to illustrate how creating an ideal society has its basis in the development of an ideal individual: an individual who exhibits perfect functioning in every aspect of mind and body, as indicated by perfect health, accurate perception, keen memory and problem-solving ability, good emotional adjustment, and ideal relations with others. Each research study shows how, through the Transcendental Meditation and TM-Sidhi programme, the development of the fully coherent and expanded state of consciousness known as enlightenment increases the orderliness of mind and body from within, and results in a natural growth of happiness, harmony, and success in daily life. Even though each research result deals with only one small aspect of physiology, psychology, or sociology, all the results taken together indicate that the Transcendental Meditation and TM-Sidhi programme has the effect of developing order and coherence at the deepest levels of physiological and psychological functioning, resulting in a profound improvement in the integration of the individual with his surroundings. That this is not merely an isolated, individual improvement is shown by the many studies on the Maharishi Effect (pages 18-19), which illustrate how even one per cent of a city population practising the Transcendental Meditation programme can improve the quality of life in the whole city, resulting in a decrease in crime, accidents, and hospital admissions.

The World Government's pilot project to create models of an ideal society and invincibility in 108 countries (pages 24-25) is the fulfilment of all scientific research on the Transcendental Meditation and TM-Sidhi programme. It is the ideal cross-cultural, controlled research study. Already it has become a testing ground for many scientific experiments, ranging from detailed biochemical and physiological studies on the growth of enlightenment to large-scale sociological assessments of the impact of the Maharishi Effect on crime, accidents, health, agriculture, industrial productivity, and the environment.

The scientific research illustrated in the following pages presents a new technology capable of developing the infinite creative potential of every citizen, creating an ideal society, and bringing invincibility to the nation.

* All research results are taken from papers published in scientific journals and in *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. I*, MERU Press. Chart numbers cited in the text and appearing above each study refer to the complete list of illustrated abstracts published in *Results of Scientific Research on the Transcendental Meditation Programme, 1976*, MERU Press.

CHART A1

Levels
of Rest

Finding: Metabolic rate was obtained by measuring oxygen consumption in 20 subjects during the Transcendental Meditation technique. The study showed that during the TM technique oxygen consumption markedly decreases. The average decrease was 16 per cent within the first ten minutes of a session of the Transcendental Meditation technique. Further, the study showed that the partial pressures of oxygen and carbon dioxide in the blood remained essentially constant. The decrease in metabolic rate during the Transcendental Meditation technique was greater and much quicker than during deep sleep.

Interpretation: The decrease in total oxygen consumption during the Transcendental Meditation technique indicates a unique state of deep rest.* This decrease is not caused by manipulation in breathing pattern or forced deprivation of oxygen, but is a

natural physiological change due to a lowered requirement for oxygen by the cells during this effortless process.

* Ref. charts B1, C1-C4, E5—biochemical, electrophysiological and electromyographic evidence of deep rest; charts K2, K4, K9, K11-K17, K24—decreased anxiety.

First Reference: Robert Keith Wallace and Herbert Benson, 'The Physiology of Meditation', *Scientific American* 226, no. 2 (U.S.A.: 1972): 84-90.

Second Reference: Robert Keith Wallace, Herbert Benson, and Archie F. Wilson, 'A Wakeful Hypometabolic Physiologic State', *American Journal of Physiology* 221, no. 3 (U.S.A.: 1971): 795-799.

Third Reference: Robert Keith Wallace, 'The Physiological Effects of Transcendental Meditation: A Proposed Fourth Major State of Consciousness', Ph.D. Thesis, Department of Physiology, University of California, Los Angeles, California, U.S.A., 1970.

CHART D10 Growth of EEG Coherence with the Growth

FIGURE 1
Low Coherence

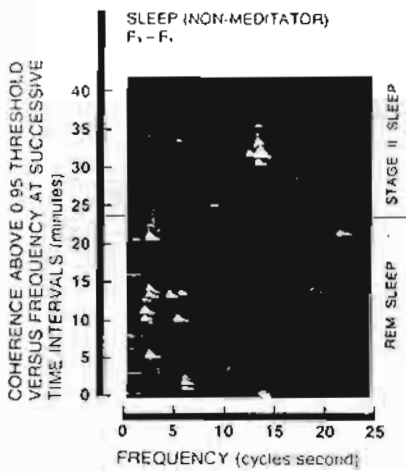


FIGURE 2
Coherence Beginning in One Frequency

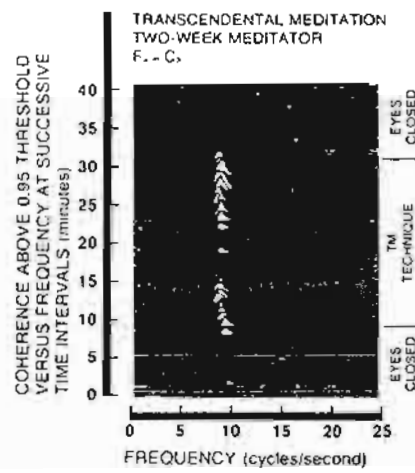
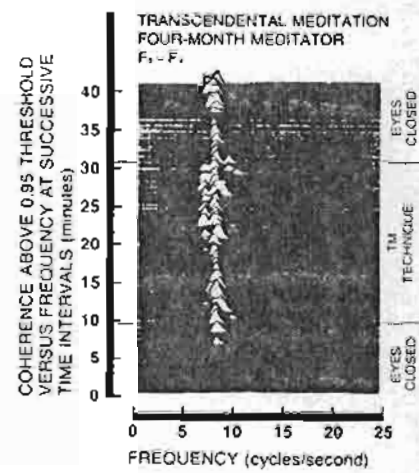


FIGURE 3
Coherence Spreading to Two Frequencies



Finding: The coherence spectral array (COSPAR) is a means to display coherence of the EEG—the electrical activity of the brain. The COSPARs of individuals practising the Transcendental Meditation technique show sharp increases in orderliness even during the first session of the TM technique and they exhibit a progressive increase of coherence as the practice advances. *Figure 1* shows the coherence pattern for sleep. There is no coherence above the 95% threshold except briefly during sleep spindles at 14 Hz. *Figure 2*, the COSPAR of a subject who had been practising the TM technique for two weeks, shows the sudden appearance of coherence in the 10 Hz (alpha) range as soon as Transcendental Meditation begins and its disappearance equally suddenly at the end of the meditation period. *Figure 3* shows that after a few months of regular practice coherence spreads to the 7 Hz (theta) frequency and persists at the end of meditation. *Figure 4*, the COSPAR of a more advanced

meditator, shows coherence in three or even four frequencies simultaneously, ranging from theta to alpha. *Figure 5* shows a very experienced meditator exhibiting coherence in up to four or five frequencies simultaneously, including a strong band of coherence in the beta range (above 14 Hz). Notice that coherence continues outside the meditation period—it has become a permanent feature of physiological functioning. *Figure 6* shows a closely similar pattern occurring during the TM-Sidhi flying technique in a subject who had been practising the Transcendental Meditation technique for less than two years.

Interpretation: Coherence of the EEG rhythms between different brain areas is interpreted as indicating greater orderliness in brain functioning. It is highly correlated with creativity, subjective experience of the state of enlightenment, and speed of physiological recovery after stimulation

of Enlightenment

FIGURE 4

Coherence Spreading to Three Frequencies

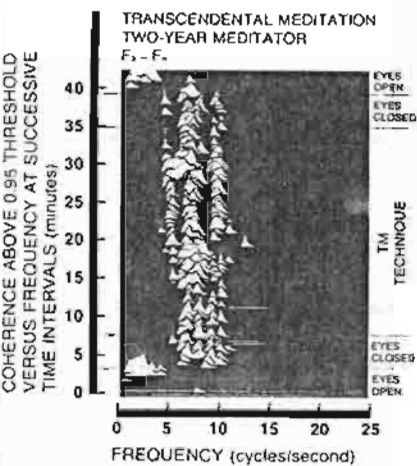


FIGURE 5

High Coherence in All Frequencies

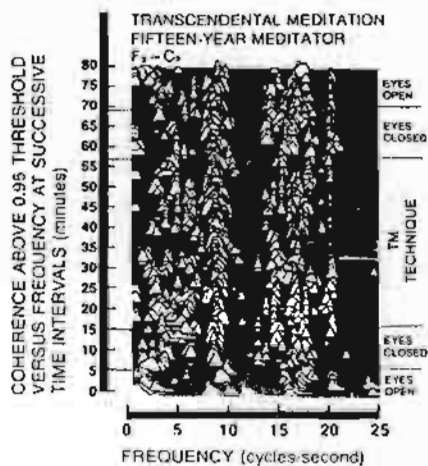
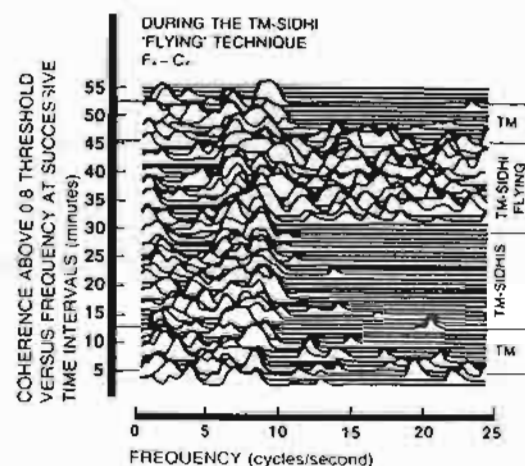


FIGURE 6

Maximum Coherence during 'Flying'



(see chart D12). These coherence spectral arrays show that as the subject begins to experience the persistence of unbounded awareness and bliss after the Transcendental Meditation technique, he also shows persistence of coherence in the EEG (Figures 4 and 5). As he finds that unbounded awareness begins to accompany even vigorous physical or mental activity, coherence also begins to be found in the fast frequencies associated with focused attention and action (Figures 5 and 6). Figure 6 illustrates how the practice of the TM-Sidhi flying technique can bring about coherence at both fast and slow frequencies (a characteristic feature of higher states of consciousness) in a fraction of the time that would be required if the Transcendental Meditation technique were practised alone, thus cutting short the path to enlightenment by many years.

These studies summarize the basic neurophysiology of

enlightenment—increased orderliness in the functioning of the central nervous system arising from repeated exposure to the state of least excitation of consciousness. Greater orderliness in brain functioning results in improved information processing (i.e., improved memory, problem-solving ability, and mind-body co-ordination) and action that is free from mistakes. This state of perfect functioning of mind and body is the basis for perfect health in the individual and the creation of an ideal society. When the state of unbounded awareness is experienced by everyone, spontaneous co-operation, harmony, and happiness become natural features of every aspect of life.

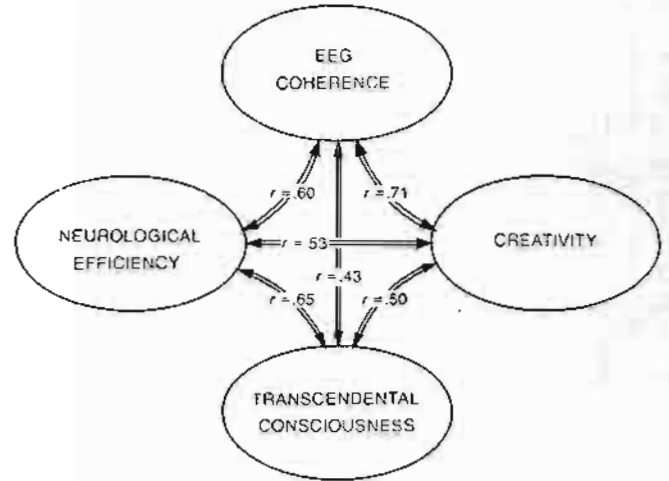
First Reference: Paul H. Levine, J. Russell Hebert, Christopher T. Haynes, 'EEG Coherence during the Transcendental Meditation Technique' (MERU, 1975). Published in *Scientific Research on the Transcendental Meditation Program: Collected Papers*, Vol. 1, MERU Press, 1976.

Second Reference: David W. Orme-Johnson, Geoffrey Clements, Christopher T. Haynes, and Keredine Badraoui, 'Higher States of Consciousness: EEG Coherence, Creativity, and Experiences of the Sidhis' (MERU, 1977). Published in *Scientific Research on the Transcendental Meditation Program: Collected Papers*, Vol. 1, 2nd edition, MERU Press, 1977.

Correlations Between Brain Wave Coherence, Creativity, Neurological Efficiency, and Transcendental Consciousness

CHART D12

High Correlations Between Parameters of Enlightenment



Finding: A statistical study was conducted on 23 individuals practising the Transcendental Meditation technique and participating in an advanced TM programme for training governors of the Age of Enlightenment. Positive and significant correlations were found among the following parameters: EEG alpha band coherence between the left and right hemispheres of the brain (frontal derivations) during the practice of the TM technique (displayed as in chart D10 and D11); Torrance verbal creativity test (fluency scale sub-test score); recovery of responsiveness at 200 msec after stimulation of spinal motor neurons as measured by paired Hoffmann reflex; clarity of experience of transcendental consciousness (state of least excitation of consciousness) as evaluated by subjects. The correlation between coherence and creativity ($r=0.71$) was especially strong (chart D11).

Interpretation: Evolution of consciousness, physiology, and psychology occur simultaneously in an integrated manner in persons participating in the TM programme. Clear experience of transcendental consciousness was found to be accompanied by high creativity and orderly, coherent brain waves. In addition, more efficient functioning of the nervous system is indicated by means of the paired Hoffmann reflex.

Previous studies indicate a profound development of isolated aspects of physiology and psychology. In the present study correlations reveal a holistic pattern of growth in all areas of life, subjective and objective, psychological and physiological. These correlations indicate growth towards the state of enlightenment, a state of consciousness characterized by simultaneous perfection of all aspects of the individual.

Further physiological characteristics of the growth to this higher state of consciousness, called by Maharishi 'cosmic consciousness', are demonstrated in chart A11 (respiratory suspension). Psychological characteristics of the growth to enlightenment include increased field independence, the ability to maintain an internal frame of reference (chart 14), and increased self-actualization (charts K1, K8, K10, K24).

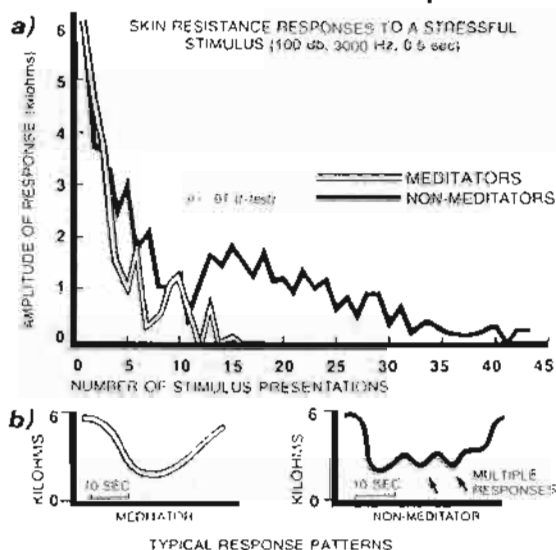
Reference: Christopher T. Haynes, J. Russell Hobert, William Reber, and David W. Deane-Johnson, "The Psychophysiology of Advanced Participants in the Transcendental Meditation Programme: Correlations of EEG Coherence, Creativity, Hoffmann Recovery, and Experience of Transcendental Consciousness", MERU Report 7603, Psychophysiology Laboratory, Centre for the Study of Higher States of Consciousness, Maharishi European Research University, Wiggles, Switzerland, 1976.

CHART F2

Effective Interaction with the Environment

Responses to Stress

More Rapid Habituation of Skin Resistance Responses



Finding: In this study induced changes in skin resistance in response to a stressful stimulus were measured. Both the wave form of the individual response and the degree of habituation (reduced response) to repeated stimuli were recorded. Subjects practising the Transcendental Meditation technique were found to habituate more rapidly to a series of auditory stresses (loud noises) than controls (figure a). In addition, the wave form of the response to the first stress was significantly smoother and more stable in the meditators (figure b).

Interpretation: Those practising the TM technique recover from stress more quickly than controls. This faster habituation is known from other psychophysiological studies to be correlated with a more mature style of functioning of the nervous system and a more stable and expressive personality.* In

addition, TM programme participants show a smoother style of response to stressful stimuli than individuals not participating in the TM programme, indicating a more stable functioning of the nervous system in general. The practice of the Transcendental Meditation technique strengthens the individual's nervous system and allows him to function more effectively in a stressful environment.†

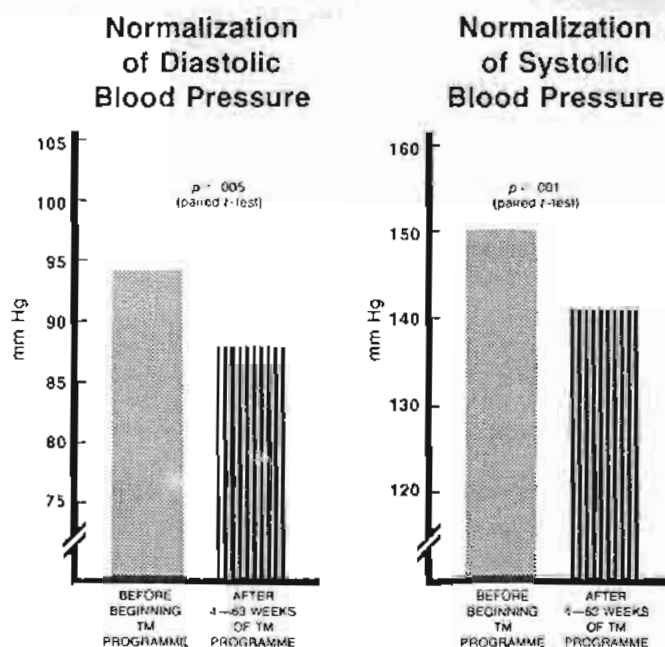
* Ref. charts K1-K3, K8, K10, K21—development of a stable, expressive personality.

† Ref. chart K3—improved psychology, more tolerance and calmness in frustrating situations; increased emotional stability; greater self-reliance, vigour, and balance; charts B1-B4—biochemical evidence of resistance to stress; charts E1-E5—improved physiology stabilized.

Reference: David W. Orme-Johnson, 'Autonomic Stability and Transcendental Meditation', *Psychosomatic Medicine* 35, no. 4 (U.S.A.: 1973): 344-349.

CHART G1

Normalization of High Blood Pressure



Finding: Systolic and diastolic arterial blood pressures were recorded 1,119 times in 22 hypertensive patients before and after they began the Transcendental Meditation programme. The decreases in blood pressure after patients began practising the Transcendental Meditation technique were statistically significant.

Interpretation: These findings indicate that the Transcendental Meditation programme is useful and effective as an adjunct in the treatment of high blood pressure. In the U.S.A. alone, essential hypertension affects over 23 million citizens, including one out of every three adult males. High blood pressure increases the risk of disease and death due to heart attack, stroke, and damage to vital organs. Autonomic lability (instability) has been shown to be a precursor to hypertension. The Transcendental

Meditation programme promotes autonomic stability (charts A10, F1-F4) and may be important in both the treatment of hypertension and the prevention of cardiovascular disease.* (Note: People under the care of a physician should go by their physician's advice in co-ordinating participation in the TM programme with ongoing medical care and medication.)

* Ref. charts A7-A9, E1, G8, H4—increased cardiovascular efficiency; chart G6—normalization of weight; chart G2—decreased use of cigarettes; charts K2, K9, K11-K17, K24—decreased anxiety.

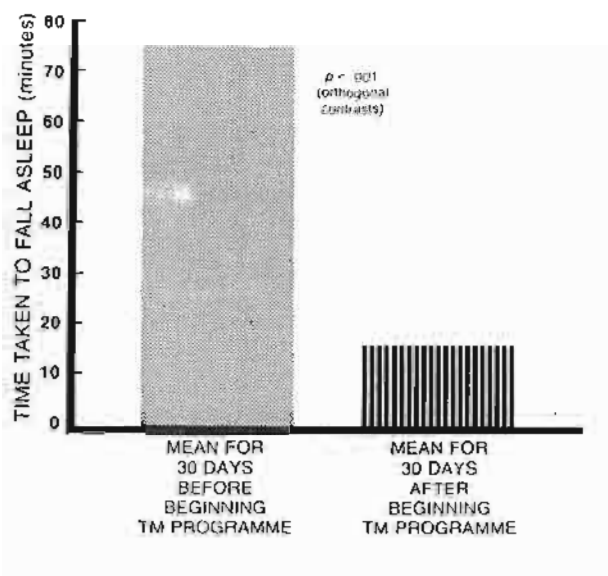
First Reference: Herbert Benson and Robert Keith Wallace, 'Decreased Blood Pressure in Hypertensive Subjects Who Practiced Meditation', Supplement II to *Circulation* 45 and 46 (U.S.A.: 1972): 516.

Second Reference: Barry Blackwell, Irwin Hanenson, Saul Bloomfield, Herbert Magenheim, Peter Gartside, Sanford Nidich, Ann Robinson, and Ronald Zigler, 'Transcendental Meditation in Hypertension, Individual Response Patterns', *The Lancet*, (31 Jan 1976): 223-226.

CHART G5

Relief from Insomnia

Reduction in Time of Sleep Onset



Finding: The Transcendental Meditation programme significantly reduced the time taken for insomniacs to fall asleep. As a therapy against insomnia, the Transcendental Meditation programme was reported to be simple to administer, immediately effective, stable over time, and without unfavourable side effects.

Interpretation: The Transcendental Meditation technique relieves deep-seated stress from the nervous system on a direct physiological level. Consequently, it produces a wide range of beneficial effects without requiring specific attention to any one area. The effect seen here—greater regularity in the sleeping cycle—was subsequently shown to be stable

throughout the first year of practice of the TM technique. The results of this study reflect a stabilization of basic biological rhythms, one aspect of a holistic stabilization of the physiology.*

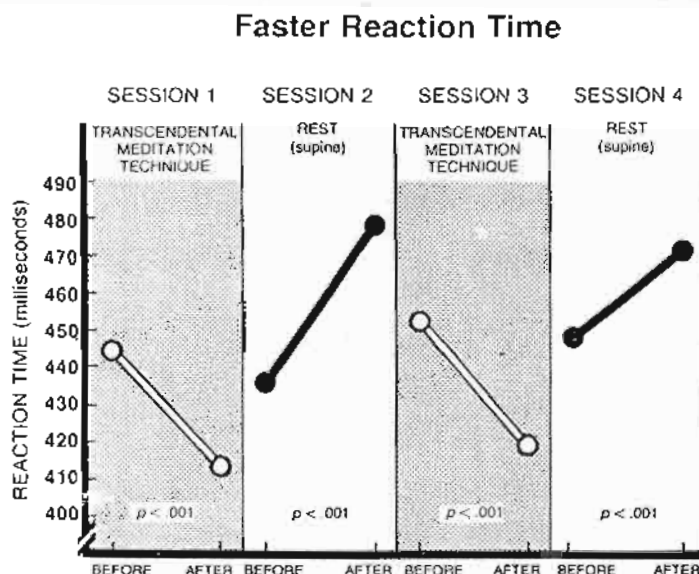
* Ref. charts E1, E2, E3—improved physiology stabilized; charts F1—F4—increased autonomic stability; see also charts K6, K7—improved psychological health.

First Reference: Donald E. Miskimán, 'The Treatment of Insomnia by the Transcendental Meditation Program' (University of Alberta, Edmonton, Alberta, Canada, 1972). Published in Volume 1, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

Second Reference: Donald E. Miskimán, 'Long-Term Effects of the Transcendental Meditation Program on the Treatment of Insomnia' (University of Alberta, Edmonton, Alberta, Canada, 1975). Published in Volume 1, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

CHART I1

Faster Reactions



Finding: Twenty-five subjects were measured over four different sessions of either practising the Transcendental Meditation technique or relaxing. The Transcendental Meditation technique was consistently found to speed up reactions, whereas resting in a supine position resulted in a slowing of reactions.

Interpretation: The Transcendental Meditation technique speeds up reactions, indicating increased alertness, improved co-ordination of mind and body, and improved efficiency in perception and performance. This experiment also shows that the TM technique results in significantly more freshness and alertness than is achieved by merely lying down.* The state produced by the TM technique is a superior form of coherent deep rest.†

* Ref. charts K3, K21—increased liveliness and energy.

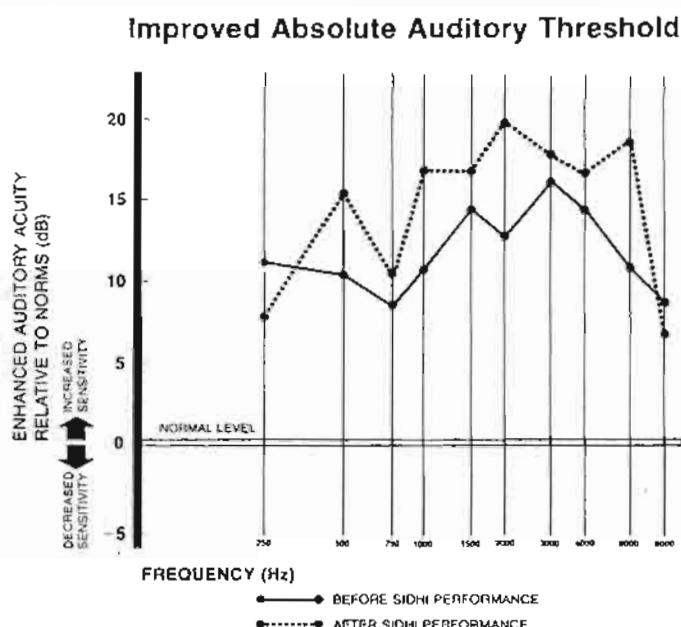
† Ref. charts A1–A11, B1, C1–C4, E1, E2—physiological deep rest; charts D3, D5, P10—increased brain wave coherence.

First Reference: David W. Orme-Johnson, David Kolb, and J. Russell Hebert, 'An Experimental Analysis of the Effects of the Transcendental Meditation Technique on Reaction Time' (Maharishi International University, Fairfield, Iowa, U.S.A., 1973). Published in Volume 1, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

Second Reference: Robert Shaw and David Kolb, 'Reaction Time Following the Transcendental Meditation Technique' (University of Texas at Austin, Austin, Texas, U.S.A., 1971). Published in Volume 1, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

CHART I6S

Enhanced Hearing Ability Resulting from Practice of the TM-Sidhis during the Age of Enlightenment Governor Training Course



Finding: In a pilot study the absolute threshold of hearing at frequencies from 250 Hz to 8000 Hz was determined using a standard von Bekesy technique for eight female students (ages 23–30) participating in an advanced Age of Enlightenment Governor Training Course at MERU; the determination being made before and also after 15 minutes of practising the TM-Sidhi for enhancing hearing ability. In the initial measurement the subjects displayed hearing thresholds unusually sensitive even for healthy young adults (11.7 dB more sensitive than norms averaged over all frequencies). After the TM-Sidhi performance, the hearing of the subjects became even more acute by a further 3.0 decibels ($p < 0.1$, two-tailed t -test).

Interpretation: The unusually sensitive hearing thresholds measured in this study demonstrate the remarkable developments in physiological performance taking place in participants in advanced courses in the TM programme.

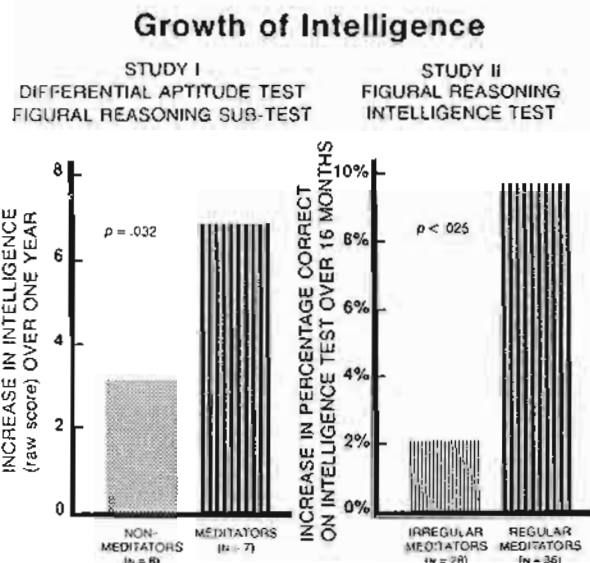
The short-term improvement in hearing, which approached significance even in this pilot study of eight

subjects, occurring after 15 minutes of performing the TM-Sidhi for enhancing hearing ability, confirms the effectiveness of these procedures to develop fully one aspect of mind-body co-ordination. The base-line measure, showing the stability of the enhancement of auditory thresholds in the subjects of this study, indicates the cumulative benefit of the Age of Enlightenment Governor Training Course and the TM programme in general.

Current theories of audition suggest that such improvements in hearing—particularly short-term improvements—are centrally mediated, occurring as a result of an improvement in the processing of the incoming signal. These results therefore reflect the integration of neurophysiological functioning found as a result of the TM programme and may be closely related to the high EEG coherence found during the technique (charts D10, D12, D13S–D18S).

Reference: Geoffrey Clements and Stephen L. Milstein, 'Auditory Thresholds in Advanced Participants in the Transcendental Meditation Programme' (MERU, 1977). Published in *Scientific Research on the Transcendental Meditation Programme: Collected Papers*, Vol. 1, 2nd edition, MERU Press.

CHART J1
Increased Intelligence Growth Rate



Finding: The results of an initial study showed greater increases in intelligence among high school students practising the TM technique than among control students. These results were confirmed in a second study that indicated that a group of university students and adults who practised the Transcendental Meditation technique regularly (N = 36) increased significantly more in intelligence than those whose practice was irregular (N = 28) over the 16-month period after they began the Transcendental Meditation technique (*p* < .025).

Interpretation: These findings indicate that the Transcendental Meditation programme increases general fluid intelligence, which enables the individual to respond to new situations with greater adaptability, creativity, and comprehension.* After the age when intelligence growth is expected to reach a

plateau, individuals participating in the TM programme continue to grow in greater degrees of creative intelligence.

* Ref. charts D11, D12—brain wave coherence correlated with creativity.

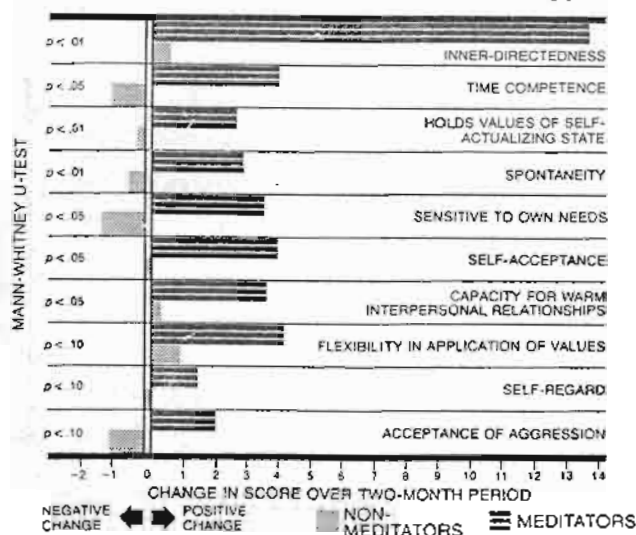
First Reference: André S. Tjoa, 'Some Evidence that the Transcendental Meditation Program Increases Intelligence and Reduces Neuroticism as Measured by Psychological Tests' (G.I.T.P., Verdijkstraat 6, Amsterdam, the Netherlands, 1972). Published in Volume I, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

Second Reference: André S. Tjoa, 'Meditation, Neuroticism and Intelligence: A Follow Up', *Gedrag: Tijdschrift voor Psychologie* 3 (the Netherlands: 1975): 167-182.

Third Reference: André S. Tjoa, 'Increased Intelligence and Reduced Neuroticism through the Transcendental Meditation Program' (G.I.T.P., Verdijkstraat 6, Amsterdam, the Netherlands, 1972). Published in Volume I, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

CHART K1
**Development
of Personality**

**Improvement in Personality Traits
(Personal Orientation Inventory)**



Finding: Subjects practising the Transcendental Meditation technique, measured once prior to beginning the technique and again two months later, showed significant positive improvement in the following traits when compared with a matched control group of subjects not practising the TM technique: inner-directedness, time competence, self-actualization, spontaneity, sensitivity to one's needs, self-acceptance, and capacity for warm interpersonal relationships. The test used was the Personal Orientation Inventory (POI). Two independent studies also using the POI confirmed these results.

Interpretation: The POI was developed by Shostrom to measure Maslow's concept of self-actualization. Maslow defines self-actualization as a high level of maturity, health, and fulfilment (charts H1, H4, H5, G1, G4, K3); transcendence of deficiencies; a clearer, more efficient perception of reality; (chart I4); more openness to experience;

increased integration, wholeness, and unity of person (chart D7); increased spontaneity, expressiveness, aliveness; a real self; increased objectivity, detachment, transcendence of self; ability to fuse concreteness and abstractness; ability to love; a firm identity, increased autonomy, and resistance to enculturation (charts F1, F2). All the personality changes brought about by the Transcendental Meditation programme are clearly in the direction of what is generally recognized as the development of a healthy, self-actualized personality.

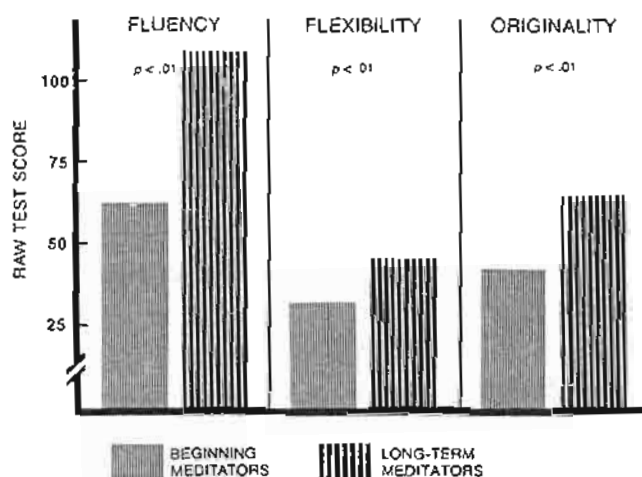
First Reference: Sanford Nidich, William Seeman, and Thomas Dreskin, 'Influence of Transcendental Meditation: A Replication', *Journal of Counseling Psychology* 20, no. 6 (U.S.A.: 1973): 565-566.

Second Reference: William Seeman, Sanford Nidich, and Thomas Banta, 'Influence of Transcendental Meditation on a Measure of Self-actualization', *Journal of Counseling Psychology* 19, no. 3 (U.S.A.: 1972): 184-187.

Third Reference: Larry A. Hjelle, 'Transcendental Meditation and Psychological Health', *Perceptual and Motor Skills* 39 (U.S.A.: 1974): 623-628.

CHART L1
**Increased
 Creativity**

**Increased Creativity
 Torrance Test of Creative Thinking**



Findings: The Torrance Test of Creative Thinking (TTCT), Verbal Form A, was used to compare 44 subjects practicing the Transcendental Meditation technique for an average of 18 months with 41 subjects who had just learned the Transcendental Meditation technique. The two groups were equivalent in age, sex, education, and income level. The long-term meditators scored significantly higher ($p < .01$) on all three scales of the TTCT—fluency, Flexibility, and Originality—indicating that practice of the Transcendental Meditation technique increases creativity.

Interpretation: The TTCT was developed to measure the scope of creative thinking process described by eminent scientific researchers, inventors, and creative writers. Psychologists such as Carl Rogers and Abraham Maslow have associated this type of creativity with increased self-actualization, which has also been found by independent studies

(charts K1, K8, K10, K24) to result from the Transcendental Meditation programme. These findings give objective validation to the statement that the Transcendental Meditation programme systematically develops creative intelligence by providing a means to directly experience the source of creativity in the mind. The aspects of creativity measured here—fluency, flexibility, and originality—may be associated with integration (charts D2–D7, D10–D12), adaptability (charts F1–F4, H3, H4), and growth (charts I3, I4, J1, J6, J9), three of the fundamentals of progress* that are enhanced by the Transcendental Meditation technique.

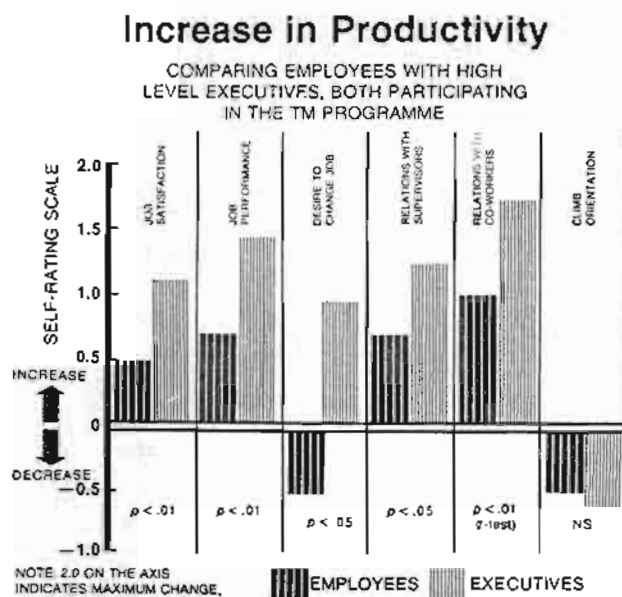
* *Fundamentals of Progress—stability, adaptability, integration, purification, and growth.*

Reference: Michael J. MacCallum, 'The Transcendental Meditation Program and Creativity' (California State University, Long Beach, California, U.S.A., 1974). Published in Volume I, *Scientific Research on the Transcendental Meditation Program: Collected Papers*.

CHART M2

Increased Productivity

Employees and Executives



Finding: Executives at higher levels of responsibility practising the TM technique showed improved job performance, more job satisfaction, more stability in their jobs, and improved interpersonal relationships when compared with individuals practising the TM technique at lower levels of organization.

Interpretation: The higher the individual's level of authority, the greater is the gain in productivity through the Transcendental Meditation programme (charts M3-M6). The study indicates that although individuals at all levels of an organization gain in

productivity through the Transcendental Meditation programme, those at more responsible levels, where greater productivity is needed, find an even greater application for the increased creative intelligence systematically developed through the TM programme.*

* Ref. charts D11, D12—brain wave coherence correlated with creativity and experience of transcendental consciousness; charts L1, L2—increased creativity; chart H—broader comprehension and ability to focus attention.

Reference: David R. Frew, 'Transcendental Meditation and Productivity', *Academy of Management Journal* 17, no. 2 (U.S.A.: 1974): 362-368.