NEUROPHYSIOLOGY OF ENLIGHTENMENT

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This contribution outlines the broad historical implications of scientific research on the Transcendental Meditation program for developing enlightened individuals, an enlightened society, cultural integrity, and world peace. This address, presented in October 1974, includes Maharishi's projection that one percent of a population participating in the Transcendental Meditation program will cause a phase transition in society to greater harmony, a projection that was confirmed in December 1974 in four U.S. cities, and further confirmed in January 1975 in eleven U.S. cities (see Borland and Landrith, paper 99). — EDITORS

INTRODUCTION

Since this 26th International Congress on Physiology is being hosted by India, it is appropriate to recognize that India is the ancient home of the most profound knowledge and procedures for the development of physiology. The goal of this development is the perfection of physiology for the sake of gaining enlightenment.

Enlightenment results from the full development of consciousness and depends upon the perfect and harmonious functioning of every part of the body.

What is unique today is, first, that the most ancient system for the development of consciousness has been re-established in its purest and most effective form by Maharishi Mahesh Yogi, as the Science of Creative Intelligence. Second, it is being expressed in a way that makes it fully accessible to modern scientific techniques of investigation. The benefit of this meeting of the ancient and modern sciences of physiology is that enlightenment is now being taken out of the realm of mysticism and uncertainty, and is shown to be a specific reality that is verifiable, universally available, and of immense practical value.

The most precious domain in the study of physiology is the investigation of consciousness. Enlightenment, which is the development of consciousness to its full potential, is therefore the most important discovery of modern physiology.

Recent and rapidly growing investigation into the reality of enlightenment, which has drawn the attention of scientists all over the world today, is certainly the most important event in the history of physiology, for it connects the known values of physiology with the ultimate possibilities of human development.
degree of organization in the face of environmental disorder, that is, to be alive and to grow.

It is shown in the various studies on the Transcendental Meditation technique that the TM technique is a means by which the human being can increase the functional integrity and the orderliness of his body and mind. All of these improvements may be summarized by saying that the TM technique is a specifically human process which extends the quality of being alive to its ultimate value—enlightenment.

Enlightenment means, in a physiological sense, maximum stability with minimum entropy. Minimum entropy in turn is defined in information theory as maximum certainty. As certainty is an aspect of knowledge and as enlightenment has been traditionally defined as pure knowledge and can now be measured for its physiological correlates, the Transcendental Meditation technique and the physiological development it generates provide a connection between physiology and knowledge.

What the ancients meant by supreme knowledge, gyana, is the state of pure consciousness and may be defined as the subjective experience of perfect order, zero entropy. Thus the field of enlightenment provides modern science with a link between the objective and the subjective, between the values of orderly physiology and orderly psychology—supremely developed consciousness, the state of pure knowledge.

NEUROPHYSIOLOGY OF HIGHER CONSCIOUSNESS: TURIYA, THE FOURTH STATE OF CONSCIOUSNESS, RESTFUL ALERTNESS

The last few decades have established the neurophysiological criteria for waking, dreaming, and sleeping states of consciousness. With the advent of the Transcendental Meditation technique, this decade is establishing the criteria for the fourth state of consciousness (2, 42, 43, 44, 45).

As the sophistication in research is increasing along with the increasing practice of more than half-a-million participants in the TM program in the world, inevitably the criteria for higher states of consciousness are forthcoming, and it will not be very long before the neurophysiological standards for the state of enlightenment are firmly established. This will be the supreme achievement of modern physiological science (Maharishi Mahesh Yogi’s forthcoming second edition of his commentary on the Bhagavad-Gita, carefully connects the ancient descriptions of enlightenment with the results of scientific research on the Transcendental Meditation technique in the fields of physiology, psychology, and sociology). It is really a privilege for modern physiologists to be able to verify objectively the ancient records of human development.

NEUROPHYSIOLOGY OF THE ENLIGHTENED INDIVIDUAL

The increased strength and orderliness of brain functioning generated by the Transcendental Meditation program (2, 3, 46) is the basis of the growth of enlightenment in the individual, which is validated by improved neuromuscular functioning (6, 33), improved intellectual functioning (15, 24, 40), improved coordination between neuromuscular and intellectual functioning (6, 29, 30, 31, 33), improved health—both prevention and cure (4, 5, 9, 16, 17, 19, 22, 27, 34, 36, 38, 39), and development of full creative potential (8, 11, 12, 13, 15, 20, 24, 25, 31, 35, 37, 40). This objectively verified evidence of the enrichment on all levels of the individual through a natural procedure of neurophysiological refinement presents a vision of a better quality of human life rapidly evolving in our generation.

NEUROPHYSIOLOGY OF THE ENLIGHTENED SOCIETY

The scientific research on the Transcendental Meditation technique performed so far is sufficient to indicate that the Transcendental Meditation technique develops perfect neurophysiological functioning, which is the basis of an enlightened society, as evidenced by the growth of ideal behavior (5, 11, 12, 19, 26, 32), social fulfillment (11, 12, 35, 37), ideal education (8, 15, 18, 24, 40), maximum creativity in business (14), rapid rehabilitation (1, 5, 7, 10, 28, 36), a profound basis for progress, and a profound basis for law and order (5, 7, 10, 36, 37). This objectively verified evidence of the enrichment on all levels of society through a natural procedure of neurophysiological refinement presents a vision of a better society rapidly evolving in our generation.

NEUROPHYSIOLOGY OF CULTURAL INTEGRITY

The cultural values of every land arise on the basis of its geographical and climatic conditions. Manifesting as the expressions of the laws of nature, they constitute the natural basis of survival and progress in each specific area.

As neurophysiological functioning is the basis of human life and cultural values are the basis of survival and progress of a society, the cultural values of each land are just the expansion of the neurophysiological values of the individual.

Since the Transcendental Meditation technique improves the integrity of the neurophysiology of the individual (2, 3, 8, 15, 18, 20, 23, 24, 27, 28, 30, 31, 40, 45, 46), it can be inferred that the TM technique is the basis of cultural integrity.
As the Transcendental Meditation technique is a natural procedure and as it is now equally available to all the people in every country through the World Plan, it should be within the ability of the custodians of culture in every country not only to preserve but also to strengthen the cultural values of the nation while promoting maximum progress.

It must be obvious to educators in all parts of the world that the influence of cultural values in every country is on the decline. The fast means of global communication and growing friendship among nations are intermixing cultural values and diluting the uniqueness of every culture.

It is beyond the ability of the proud custodians of any culture today to resist the influence of other cultures, for this would also mean resisting progress. It will be wise to transform this situation into a means for strengthening the cultural values of every country and at the same time ensuring all progress everywhere.

The Science of Creative Intelligence, with its practical aspect, the Transcendental Meditation technique, offers that knowledge and experience which develop stability, adaptability, integration, purification, and growth on all four levels of life: physiological, psychological, sociological, and ecological. The individual members of every society, growing in these qualities, will naturally become stabilized in their own cultural values and at the same time, remaining adaptable, will be able to welcome any outside influence, purify it, and integrate the best of it into their own culture, thereby allowing the fuller expression of cultural values in the life of the nation. This is so vitally important, particularly in the education of the growing youth in secondary schools.

If the members of society do not grow in these five values they will always be swayed by outside influences, the cultural values will always be threatened, and society will always remain incapable of deriving maximum benefit from the outside world. It is only fully developed individuals on the basis of fully developed neurophysiology who can secure for themselves and their society the blessings of living life in fullness. The introduction of the Science of Creative Intelligence at all levels of education in every country will ensure the safety, the security, the growing strength of cultural values, and the progress that are so dear to the spirit of education in every land.

—Maharishi Mahesh Yogi (21, p. 211)

NEUROPHYSIOLOGY OF WORLD PEACE

Peace of the individual is the unit of world peace. The unit of world peace is structured in the specific pattern of neurophysiological functioning that is generated by the Transcendental Meditation technique (2, 3, 46). This is reflected in physiological and psychological measurements demonstrating increased peace in the individual (26, 27, 35, 37, 39, 41, 45).

The Transcendental Meditation technique thus provides the neurophysiological basis for world peace. This objectively verified evidence of the enrichment on all levels of the unit of world peace through a natural procedure of neurophysiological refinement presents a vision of a united family of nations rapidly evolving in our generation.

A PROPOSED SOCIOLOGICAL EXPERIMENT OF GLOBAL SIGNIFICANCE

The history of research on the Transcendental Meditation program has been that the physiological results have to a remarkable degree born out Maharishi’s projections, based on the Rig Veda, which contains the cognitions of the seers of ancient India.

Now that the physiological reality of the Transcendental Meditation technique has been thoroughly established, scientific attention is turning to consider its potential applications for the state of society as a whole.

It seems an obvious conclusion that the widespread use of the Transcendental Meditation technique is a scientific basis for world peace.

Therefore, Maharishi’s most recent and far-reaching projection in this field calls for immediate attention by the well-wishers of peace and progress. Based on the two decades of experience teaching the Transcendental Meditation technique to over half-a-million individuals around the world, Maharishi has projected that a phase transition in society from a disorderly to a harmonious state can be achieved even if a small fraction of the world’s population—on the order of one percent—is practicing the Transcendental Meditation technique.

It will be interesting for the pioneers of the Science of Creative Intelligence in every country and the leaders of every community in the world to see what percentage of participants in the TM program brings about an observable phase transition in their country. Figure 1 represents those countries closest to achieving the projected goal of one percent.

Maharishi’s projection of one percent is supported by many examples from physics and biology, where a coherent effect among a small fraction of individual units, atoms or cells, can produce an influence which dominates the behavior of the system as a whole. Given the current world situation, it is timely that Maharishi’s projection of one participant in the TM program in every one hundred population to create permanent world peace be immediately subjected to scientific evaluation—an experiment on a nationwide scale to determine the point of phase transition in each country.

If this projection is born out, then not only will we have world peace through the Transcendental Meditation
technique, but we will have it much more quickly than anyone could have thought, and it will last longer than anyone could have foreseen because it will be sustained, generation after generation, by that most highly developed neurophysiology of enlightenment.

This has always been the characteristic of great scientific discoveries: to produce unforeseen technological breakthroughs of immense benefit to human life.

MAHARISHI INTERNATIONAL UNIVERSITY

Maharishi International University was founded in 1971 under the laws of the State of California, in response to the growing demand for the knowledge of the Science of Creative Intelligence (SCI) presented in a broad-based format to bring fulfillment to the study of all disciplines. In 1974 the central campus for the United States was moved to a seventy-two building facility in Fairfield, Iowa. The inspiration to evolve a complete university structure came from the hundreds of thousands of students, faculty, administrators, and parents at more than 600 campuses around the world who had experienced the wide-ranging benefits of the Science of Creative Intelligence in all areas of their lives. Teachers of SCI in different countries are currently engaged in establishing MIU according to the laws of each nation.

MIU brings to fulfillment an ideal of life that has been sought by educational institutions throughout the ages: that every man, irrespective of his interests, abilities, or background, can develop the full potential of human life. Life in fullness will be a living reality based on the knowledge and experience that the Science of Creative Intelligence provides.

The goal of MIU is to implement the World Plan and bring maximum enrichment to life everywhere.

WORLD PLAN

On January 8th, 1972, on the Mediterranean island of Mallorca, after seven days of silence with 2,000 newly trained teachers of the Science of Creative Intelligence, His Holiness Maharishi Mahesh Yogi inaugurated the World Plan to share the knowledge of the Science of Creative Intelligence with all the 3,600 million people of the world. Maharishi International University was given the responsibility for implementing the World Plan by establishing 3,600 World Plan Centers, one for each one million population: to teach SCI, train teachers of SCI, and offer SCI courses for primary and secondary grades and undergraduate and graduate degrees.

Each World Plan Center will train 1,000 teachers of SCI and maintain their strength through refresher courses year after year. This will provide one teacher of SCI for 1,000 people in every area of the globe for all generations to come. All that remains is for each individual to develop his full potential in life through the Science of Creative Intelligence and to help provide this universal knowledge and experience of the basis of creativity and intelligence to his fellow man by becoming a teacher of the Science of Creative Intelligence.

SEVEN GOALS OF THE WORLD PLAN

1. To develop the full potential of the individual
2. To improve governmental achievements
3. To realize the highest ideal of education
4. To eliminate the age-old problem of crime and all behavior that brings unhappiness to the family of man
5. To maximize the intelligent use of the environment
6. To bring fulfillment to the economic aspirations of individuals and society
7. To achieve the spiritual goals of mankind in this generation

These admittedly ambitious but necessary and now attainable goals must soon be realized in every area of the globe now that the knowledge, organization, and means are available.

—Maharishi Mahesh Yogi

Courses are available from Maharishi International University in color videotapes, audiotapes, textbooks, and teaching manuals in each World Plan Center to realize each of these goals of the World Plan.

SUPREME FULFILLMENT FOR ALL MANKIND

By culturing the physiology and raising it to the state of enlightenment, the Transcendental Meditation technique brings together the highest aspiration of modern science.
with the ideal of life put forth in that most ancient record, the *Rig Veda*.

Maharishi holds the *Rig Veda* to be the encyclopedia of the Science of Creative Intelligence and thus it is not surprising to find the qualities of enlightenment within its text. The following verses, the last of the *Rig Veda*, describe more than the features of an enlightened individual, they speak of the ideal society, a long sought for, but until now unattainable ideal. It is the triumph of the scientific age that the technology has been developed to link the most ancient with the most modern—the *Veda* with science; and it is the real value of the research on the Transcendental Meditation program that it validates the growth of consciousness to enlightenment.

With these words, Maharishi makes a profound statement about the nature of enlightenment. He suggests that the *Veda*, with its ancient wisdom, provides a blueprint for a just and fulfilling society. The *Rig Veda* speaks of an ideal society, a long-sought-after state of being that is now within reach due to the technological advancements of our time.

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