

Another issue is leadership itself. I am aware of a sort of lovey sugar-coated authoritarianism in some encounter groups, which covertly holds the members in a non-confronting set. How can you turn father into brother, if all the while he is pretending he's little Sis?

Another issue is elitism, at all levels. Another is the double-standard - the open and confronting style in groups, and the gossip and back biting between them. Another is how people are *used* by groups. This can be an experiential path to a reverberating social insight.

I wrote the title to this article before I began. Then indignation made me begin a defense of the writers who had been attacked. A righteous and elegant defense. But it sounds to me now to be for the most part a loud 'Boo' in answer to Barry Richards 'Yah'. Daft really. I feel better pleased with my try at clarifying the developments I want within humanistic psychology. Ah. We must love our enemies: they give us life.

Claudio Calvi

Transcendental Meditation

A Special School Subject?

Introduction

A growing number of scientific studies are suggesting that Transcendental Meditation (TM) has exciting educational and psychotherapeutic potential. Perhaps the time has come for educators in this country to consider the evidence and study the feasibility of incorporating TM as an adjunct to current educational programmes, particularly those concerned with educational handicap.

Maharishi Mahesh Yogi, who personally trains all 'teachers' of TM, brought the technique to the West some 14 years ago. He is also the founder of the Science of Creative Intelligence (SCI), an interdisciplinary study which purports to explain and apply the experience of TM.

Anatomy Of Meditation

TM is a simple relaxation technique for gaining very profound levels of rest, and is based on an innate, but hitherto untapped ability of the nervous system to neutralise stress effortlessly and at will. The nervous system, which includes the brain, controls body functions and is the machinery of experience. Its style of functioning is cumulatively refined and integrated by regular practice of TM (two daily 20-minute sessions).

Evidence: *Wallace & Benson (1972)* established that during TM profound physiological changes take place which are sharply distinguishable from the three normal states of consciousness (waking, dreaming, or deep sleep) and from hypnosis and operant conditioning. The mean drop in oxygen consumption (a prime measure of metabolic rest) was 16% in 20-30 minutes of TM, compared with the 8% which gradually occurs after six hours' sleep. The electrical resistance of the skin (which falls during anxiety states) rose an average by 200%; during sleep there is a 50% increase. At the biochemical level, a marked reduction was noted in the arterial concentration of lactate (a chemical associated with anxiety and high blood pressure) and in secretions of norepinephrine (which causes blood vessels to constrict). Also reduced were respiration, heart rate, and cardiac output (by 25%). The EEG (i.e. brain wave) pattern of intensification of slow alpha waves with occasional theta wave activity had previously only been observed in expert monks with 15-20 years experience of Yoga and Zen meditation.

So long as the alpha rhythm is present the subject is alert; theta waves are associated with drowsiness or sleep and always spread across the hemispheres. During TM the alpha rhythm at the back of the head spreads forwards a little, whilst in the temple area (which deals with memory and the synthesis of emotion) and the frontal area (which deals with personality and the control of basic autonomic functions) theta waves appear. The co-existence of these apparently contradictory patterns is unique to the meditative state, which Wallace and Benson call 'restful alertness'. They are led to view TM as an integrated response or reflex, involving a quiescence of the sympathetic nervous system, which is directly opposite in its characteristics to the 'fight or flight' response believed to be primarily responsible for the high incidence of hypertension and related diseases in today's fast-paced society. These results suggest that TM is a 'guidepost to better health'.

Orme-Johnstone (1972) reports that the rapid habituation of galvanic skin response to a stressful stimulus indicates that meditators recover from stress more quickly than non-meditators. He found also that meditators show a more stable response than control subjects, and that this stability of the nervous system continues to be maintained after TM.

Graham (1971) found that the ability to discriminate between different frequencies of a warble tone deteriorated by 15% after reading a book, but improved by 37% after 20 minutes of TM. Amplitude discrimination showed the same pattern.

Testing speed and accuracy in a hand-eye co-ordination experiment, *Blasdel (1971)* found that meditators made nearly three times fewer errors per second than control subjects, indicating that TM improves perceptual awareness and neuromuscular integration.

Shaw & Kolb (1970) report that meditators exhibit faster reaction times (by about 30%) than non-meditators and that reaction time further improves (by 12%) after 200 minutes of TM, whereas for non-meditators it deteriorates (by 10%) after 20 minutes of rest.

TM As Psychotherapy

The growing sense of psychological integration and stability experienced by meditators invites the hypothesis that TM serves as a 'meta-therapy' for developing all available personality strengths and resources. Though it has long been suspected that man fails to utilise his innate potential fully, efforts to unfold mental potential in psychiatry and psychotherapy have been largely unsuccessful, due to the lack of convenient and reproducible methods. But the idea is supported in the writings of Abraham Maslow, of Gestalt psychotherapists and others of the 'humanistic' orientation who posit self-actualisation as a goal for therapy and for individual growth.

Evidence: In a study of personality development as measured by Shostrom's Personal Orientation Inventory (*POI*), *Seeman, Nidich & Banta* (1972) found that after two months' experience of TM, meditators become significantly more self-actualised than control subjects. *Nidich, Seeman & Dreskinn* (1973) confirmed that significant differences between meditators and non-meditators appear in the direction of predicted self-actualisation.

Hjelle (1972), also using the *POI*, found that experienced meditators were significantly less anxious, more internally controlled, and more self-actualised than novice meditators. *Bowers* (1973) used TM as an adjunct to psychotherapy and reports that regular meditators showed a much faster - and in some cases, spectacular - improvement in the course of treatment. Some patients were relieved of symptoms that had never been helped by psychotherapy.

Ferguson & Gowan (1972) used the Cattell Anxiety Scale, the Spielberger Anxiety Inventory, and the Northridge Development Scale; meditators showed significant increases in self-actualisation and decreases in aggression, depression and neuroticism over control subjects, who did not indicate significant change on any of the scales. Using a test similar to *MMPI*, *Fehr* (1972) observed that practitioners of TM exhibit significant reductions in aggression, inconsiderateness, tension, irritability, nervousness, depression, and emotional instability; and increases in calmness, self-confidence, outgoingness, and sociability. Work continues with several hundred meditators.

Shelly (1973), who has devised tests to measure personal resources, finds that meditators have more than non-meditators: they depend less on their surroundings for happiness; are more relaxed and happier individuals; experience the feeling of enjoyment more often; develop deeper personal relationships; and seek arousal as much as non-meditators (but tend to avoid extreme excitements). He is led to the view that TM taps inner resources that may be crucial in meeting the demands man will encounter in post-industrial society.

Abrams (1972) reports that meditators perform better on short and long-term recall tests and learn more quickly than non-meditators. Meditators also show significantly better results on more difficult material. Strong evidence was found of the cumulative nature of TM's benefits: meditators with two or more years experience of TM performed better on the tests than those with up to one year's experience.

Tjoa (1972) found that TM significantly lowers neuroticism and boosts intelligence, as measured by psychological tests. The control group initially started with lower neuroticism and higher intelligence scores than a group of novice meditators. Over a period of one year the situation was reversed. Investigations are under way on a much bigger scale to verify this study.

A major long-term clinical investigation of the value TM may have in the belief of mental illness is being undertaken by *Glueck* (Institute of Living). Most people use primarily one side of the brain - the left side is right-handed. Generally speaking, the sicker the psychotic is, the more the hemispheres of the brain are 'out of phase'. Preliminary electroencephalograph observations on 56 patients suggest that TM appears to 'synchronise the hemispheres and quieten down the mid-brain'. The tentative hypothesis has been advanced that perhaps after years of TM practice, both hemispheres become fully operational, thus 'adding billions of cells to the operating mental capacity'.

TM And Education

TM's potential as an anti-drug device made the breakthrough in winning Maharishi official support in America. Studies by *Benson & Wallace* (1970), *Otis* (1972) and others have shown a dramatic drop in the use of drugs such as marijuana, LSD, heroin, amphetamines, barbiturates, alcohol and tobacco after subjects learnt TM, much more so than could have been achieved by conventional therapy. These persuaded the Army, Public Health Service, and the Department of Health, Education and Welfare to provide public funds for a variety of projects.

Schools that initially introduced SCI courses to suppress drug-abuse soon also reported a lessening of student unrest, improvements in grades, reading speed and comprehension, and in relationships with teachers, family, and peers among meditating pupils. This was confirmed in a resolution passed by the general assembly of the Illinois House of Representatives (May 24th, 1972) which, among other things, resolved 'that all educational institutions, especially those under State of Illinois jurisdiction, be strongly encouraged to study the feasibility of courses in Transcendental Meditation and the Science of Creative Intelligence . . . '.

SCI courses qualify for degree credit at Harvard, Yale, Stanford, Berkley and many other universities. They are being introduced in junior and senior high schools and in Adult Education programmes throughout the United States. The 250,000 American meditators are, in fact, mostly students, though among the 10,000 or so people who begin the practice every month is a growing proportion of businessmen and administrators. In the U.K., the London-based charity set up by the Maharishi to promote the teaching of TM through 60 local centres has 'initiated' over 25,000 people, and its operations, now backed up with scientific evidence, are gaining momentum.

Interest in TM has mushroomed rapidly over the last few years, even outside medical and educational circles TM has received backing from business firms (e.g. Kaiser Aluminium Company, Siemens and others), Strategic Air Command, the Houston

Space Centre and airlines.

Paradoxically, one trend working in SCI's favour is the declining morale in education. Across the globe the defects of secondary schooling now overshadow the merits. The boom in education that characterised the 1950s and early 1960s, in terms of both funds and ideas, is gradually dying out. Over and above considerations of equality of opportunity, the missing element in education closely corresponds to what SCI is apparently able to offer. Last March, Maharishi addressed the 28th Annual Convention of the American Association for Higher Education, attended by 3,500 college and university professors and deans, whose theme was 'Higher Education and the Quality of Life'. In his invitation, the conference's Executive Director said: 'It will be important for us to consider ways in which affective and cognitive experiences of individuals can be enriched during their education in colleges and universities, and we believe you can offer important information about the role that Transcendental Meditation and Creative Intelligence can play in this process'. Among those who participated in Maharishi's own academic symposiums on SCI were Nobel laureates Melvin Calvin and Donald Glaser, Buckminster Fuller (inventor-architect-philosopher), Harvey Brooks (President of the American Academy of Arts and Sciences), Major General Franklin Davis Jr. (Commandant of the U.S. Army War College), and Apollo IX astronaut Rusty Schweickart.

Unlike other eastern or western techniques, TM can be learned and practised with ease by absolutely anyone, since no effort, concentration, mood-making, or intellectual skills of any kind are involved. Moreover, it calls for no changes in diet, life-style, or philosophical outlook. All that is required is a *reasonably* intact nervous system. The effortlessness and simplicity of the technique, and the spontaneity of its effects, are mainly responsible for its growing popularity.

Therefore, there is little that has been said so far which would not also apply to Special Education where in view of the high incidence of multi-handicap, the impressive range of TM's salutary effects would be most welcome. TM is particularly suited to this field because it seems able:

1. to unfold affective and cognitive potential spontaneously, yet systematically;
2. to produce significant changes in a relatively short time;
3. to enhance the chances of success of accompanying educational and psychiatric treatment;
4. to reduce anxiety and emotional instability;
5. to develop greater resilience to unfavourable environment;
6. to encourage a greater sense of personal involvement in the individual's own development;
7. to accelerate the process of learning and improve school achievement;
8. to improve self-confidence, behaviour and social relationships;
9. to prevent drug abuse and stress-related diseases;
10. to tap inner resources that increase the likelihood of adult stability and competence.

In my view, TM is perhaps the most promising educational innovation to emerge from America so far, and should be incorporated in the Rathbone Society's field work. Moreover, we should advocate its general application in Special Schools by suggesting, along with other proposals, that TM be carefully examined by the Department of Education and Science during the course of its Enquiry into Special Education.

References

The psychobiological and sociological effects of TM are currently being investigated at some 40 medical and academic institutions throughout the world. The findings cited above are conveniently listed in 'The Psychobiology of Transcendental Meditation: an annotated bibliography', Miu Press, Spring 1973 (available from SRM, 32 Cranbourn Street, London, WC2H 7EY, telephone 01-240 3103).

Dr. Bernard Glueck, Institute of Living, 400 Washington Street, Hartford, Conn. 06106, U.S.A.

'Transcendental Meditation and its Potential Uses in Schools', Al Rubottom, *Social Education*, December 1972.

'TM as a secondary School Subject', Francis Driscoll, *Phi Delta Kappan*, December 1972.

'Guardian Extra', John Windsor, *The Guardian*, January 19th, 1973.

The introduction of TM into a school, if properly planned, has been shown to be a painless affair, since both staff and pupils usually respond very favourably. If there are any heads or teachers who would like to explore this possibility, or who are meditators themselves, we would be very interested to hear from them.

Jacob Stattman talking

with Mona Lisa Boyesen, Clothilde and Vivian Milroy

(continued from last month)

So far you have almost entirely been talking about groups as therapy situations. Are you limiting your comments to the therapy side or are you including the growth potential groups?

When I say 'therapy' I really mean 'growth'. I'm not sure what the difference is.

But you were talking about people who have specific problems.

I would say that most of what goes on in groups, encounter or gestalt groups and so on, whether they call themselves personal growth groups or not, is fundamentally