PAPER 309

AN EMPIRICAL STUDY OF THE MORAL ATMOSPHERE AT MAHARISHI INTERNATIONAL UNIVERSITY/UNIVERSITY HIGH SCHOOL

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A very high level of moral atmosphere was found at Maharishi International University High School. The practice of the Transcendental Meditation technique was seen to be the major contributing factor.—EDITORS

The purpose of this study was to assess the moral atmosphere of Maharishi International University/University High School (MIU/UHS). A comparison was made between MIU/UHS and 1) the students' previous schools attended before enrolling in MIU/UHS and 2) the participatory democratic schools of Higgins, Power, and Kohlberg's (1981) study. Moral atmosphere is defined as consisting of the individual's perception of the group norms and the valuing of community. Instruments developed by Harvard to measure the moral atmosphere of high schools were used in this study. In addition, questions were asked to elicit responses concerning the students' previous schools attended and to find out what factors they felt most contributed to the moral atmosphere at MIU/UHS.

Results of the study indicate that there exists at MIU/UHS a very high level of moral atmosphere and that the practice of the Transcendental Meditation (TM) program is the major contributing factor. This study found that students perceive the moral atmosphere of MIU/UHS as being higher than their previous schools. In addition MIU/UHS was found to be higher on Pro-Social Choice and Behavior for Self and Others than the democratic participatory schools of the Higgins et al. (1981) study, schools which were specifically started to encourage students to reason at higher levels of moral development and view their school activities in terms of the community. Students at MIU/UHS scored extremely highly on the categories of Pro-Social Choice and Behavior for Self (93% and 95%, respectively) and Pro-Social Choice and Behavior for Others (both 95%).
The practice of the TM program as a viable tool for enhancing the moral atmosphere of schools along with suggestions for future research are discussed.

INTRODUCTION

Morally educating our youth has been a concern of educators throughout time. People recognize that the youth of today are the leaders of tomorrow. Cohen and Neufeld (1981) report that one of the greatest successes of American public education has been the free and equal access to elementary and secondary schools. As the schools became more fully public, though, they also became more problematic (Cohen and Neufeld, 1981). One of the major problems over the last decade and a half in our public schools has been how to promote ideal social behavior among our nation's students.

Grant (1981) in his observation of public schools found that more and more behavior is becoming tolerable unless specifically declared illegal by law. There is, on the whole, little direction given to students concerning what constitutes ideal social behavior. Grant states that this is not a healthy situation "for we can be within the technical limits of the law but without a shred of virtue."

Recent research in the field of moral education indicates that there are two major approaches which can be considered to promote the development of better student behavior: 1) to structure the external environment of the student (providing more strict disciplinary action, innovative content-based curricular changes, increased student participation in decision-making); and 2) to structure the internal environment of the student, i.e. the student's nervous system, to function in a more orderly and integrated manner so that thinking and behavior will become more orderly and integrated.

Regarding the external environment Rutter et al. (1979) found that the quality of leadership of teachers and administrators in a particular school can make a difference in the character and effectiveness of student behavior and achievement. Variables, such as positive teacher expectations, joint planning by teachers, frequent praise given to students, student outings, and the willingness of teachers to meet with students in or out of school time were all found to result in better academic performance and student conduct. Rutter argues that differences in climate between schools are independent of intelligence or home background of students.

For the past ten years, Kohlberg of Harvard has been studying the "moral atmosphere" of schools. The moral atmosphere consists of the group norms and the students' valuing of community (Higgins, Power, and Kohlberg, 1981). Kohlberg believes that by building collective norms and ideas of community at higher stages, one can promote morally better student action. Higgins, Power, and Kohlberg (1981) have found that when a school promotes moral development through "participatory democracy," collective norms are formulated at a stage which is the "leading edge" for the group and stimulates students of lower moral stage development to higher stages.

Higgins, Power, and Kohlberg (1981) developed an instrument to study the moral atmosphere of high schools. In one study, students from three regular public high schools and three participatory democratic high schools were compared. They found that democratic schools had a higher moral atmosphere than the regular high schools. They expected that this result would occur for two reasons: 1) participatory democracy puts the sociomoral decisions in the hands of students, giving them a greater sense of responsibility for their school-related actions; and 2) participatory democracy creates a sense of caring within the school community (Higgins, Power, and Kohlberg, 1981). Maul (1981), in a case study of a high school with intensive education and moral reasoning training, found that this school had a high level of moral atmosphere. One major factor Maul felt contributed to this high level of moral atmosphere was the time structure which allowed students to spend long periods of time on one subject, allowing for intensive social interaction among teachers and students.

Regarding the approach to stimulate the internal environment of the student to produce more ideal social behavior, a large body of research (see Orme-Johnson and Farrow, 1977; Chalmers et al., in press) suggests that the practice of the Transcendental Meditation (TM) program is effective in enhancing the orderliness and integration of the individual's psychophysiology. The TM technique is defined as turning the attention inwards toward subtler levels of thought until the mind arrives at the source of thought, or pure consciousness, the least excited state of consciousness (Maharishi Mahesh Yogi, 1969).
Recent research has found that the practice of the TM program increases EEG coherence, especially in the frontal area of the brain (Levine, 1976; Dillbeck and Bronson, 1981). Research on the frontal lobes has indicated that this area of the cortex is associated with sustained, goal-directed, purposive behavior (Luria, 1980). It has also been suggested that the frontal lobes are responsible for the ability of the individual to look inside to his world of values (MacLean, 1978). Nidich et al. (1983) found that high EEG coherence in the frontal lobes is associated with highly pro-social behavior, which contributes to the social cohesion and unity of the group. In an independent study, Nidich et al. (in press) found that EEG coherence in the frontal lobes is associated with highly developed and holistic, cosmic perspective responses to the question, "Why be moral?" in a group of students practicing the TM and TM-Sidhi program.

Other studies on the TM program have indicated that the practice of this technology of consciousness increases moral reasoning (Nidich, 1977; Nidich and Nidich, 1983); enhances ego development (Alexander, 1982); decreases drug abuse, and improves social relations (see Orme-Johnson and Farrow, 1977; Chalmers et al., in press).

According to Maharishi Mahesh Yogi, founder of the TM and TM-Sidhi program and the Science of Creative Intelligence, practice of the TM program enlivens the unified field of natural law, located at the basis of physical existence in the least excited state of one's consciousness. The enlivenment of the unified field of natural law, containing the total potential of natural law, results in more ideal social behavior on the level of the individual and an increased level of coherence in society (Maharishi Mahesh Yogi, 1969). According to scientists at Maharishi European Research University and Maharishi International University, the enlivenment of natural law is associated with an improved state of psychophysiological coherence and integration.

In this study, the moral atmosphere of Maharishi International University/University High School (MIU/UHS) was investigated. One of the prerequisites for attending this school is participation in the TM program. Although the school is basically traditional (not involving the participatory democracy model), it was apparent upon observation that within the school there exist shared norms for caring and trust and a high degree of group solidarity and cohesion. In this study it was hypothesized that: 1) Students at MIU/UHS would perceive a higher moral atmosphere in their present school compared to their previous school. This would be reflected in their scores on sense of community valuing, pro-social choice for self and others, and their amount of community valuing. 2) Students at MIU/UHS would score as highly as, if not higher than, students at Kohlberg's special alternative schools on pro-social choice for self and others and sense of community valuing stage. 3) Students at MIU/UHS would perceive the TM program as the most important factor contributing to the moral atmosphere of their school. 4) There would be a congruence between teacher ratings of students' behavior and students' scores of moral atmosphere.

METHOD

SUBJECTS—Subjects were 24 of the 30 tenth, eleventh, and twelfth grade high school students at MIU/UHS, located in Fairfield, Iowa. The subjects, 15 males and 9 females, came from a primarily middle class socio-economic background. The number of subjects interviewed from each grade was as follows: 7 students from the tenth grade, 12 students from the eleventh grade, and 5 students from the twelfth grade. All subjects practiced the TM technique with the mean number of years practicing the TM technique being 4.79. In addition, 8 students had begun instruction in the TM-Sidhi program, and 7 students had completed instruction in the TM-Sidhi program. The TM-Sidhi program is based upon the experience of the state of least excitation of consciousness cultured during the TM program and trains the individual to entertain intentions while established in this state of pure consciousness. Maharishi Mahesh Yogi derived the TM-Sidhi program from the formulas of Patanjali's Yoga Sutras.

INSTRUMENTS—Harvard's Center for Moral Education's Practical School Dilemma Interview, developed by Higgins, Power, and Kohlberg (1981) was used in a modified form to determine the moral atmosphere of MIU/UHS and the students' previous schools. This instrument was used to determine: 1) the students' perception of pro-social choice and behavior for self and others (both at MIU/UHS and their previous school); 2) the students' sense of valuing community (both at MIU/UHS and their previous school); and 3) the frequency by which students took the community into account while making a decision about upholding a norm (e.g., upholding the norm of caring).
The second instrument that was used was a modified form of Harvard's Moral Atmosphere Interview. This instrument was used to compare MIU/UHS with the students' previous schools in terms of the students' conception of an ideal school. In addition, students were asked on this form to rank order features that they felt most contributed to the moral atmosphere of MIU/UHS.

A third instrument developed by Nidich et al. (1983) was used to assess the students' actual prosocial behavior as perceived by two independent raters. This instrument was used to determine if those students who scored highest on sense of community valuing and frequency of pro-social choice (indicating pro-social behavior) actually were observed to act in a more pro-social manner. Nidich et al. found in their study an inter-rater agreement of 93%.

PROCEDURE—Twenty-four students were individually interviewed on the four dilemmas of instrument #1 during class time in the seventh week of their spring semester. A sample of one of the dilemmas is given below:

The college Harry applied to had scheduled an interview with him for the coming Saturday morning at 9:00 A.M. Since the college was 40 miles away from Harry's town and Harry had no way of getting there, his guidance counselor agreed to drive him. The Friday before the interview the guidance counselor told Harry that his car had broken down and was in the repair shop until Monday. He said he felt badly but there was no way he could drive him to his interview. He still wanted to help him out so he went to Harry's homeroom and he asked the students if there was anyone who could drive Harry to the college. No one volunteered to drive him. A lot of students in the class think Harry shows off and talks too much and don't like him. The homeroom teacher says he has to take his driving test because he can use his family car but he wonders whether he should do something for Harry when the few students in class who know him best say they are busy or just can't do it. Besides, he would have to get up really early on a Saturday morning which is the only morning during the week he can sleep late.

1. Should Billy volunteer to drive Harry to the college? Why or why not?

2. Should you try to help out an unpopular student in a situation like this?

3. Assuming you could help out, would you try to help out? Why or why not?

4. Would most students at your school feel they should help out?

5. Would most students at your school help out an unpopular student? Why or why not?

All interviews were given orally and audiotaped. The second instrument was administered in written form during the students' first period class. Both instruments were scored according to the criteria established by Harvard's Center for Moral Education. The third instrument was given to two faculty members at MIU/UHS and was filled out independently at the end of the week.

Significance for all statistical tests was set at the .05 level, two-tailed.

RESULTS

The results of the study indicate that each of the above four hypotheses was supported. Students at MIU/UHS perceived a higher moral atmosphere at UHS than at their previous school. The Sense of Community Valuing median stage score was found to be 3/4 (out of a possible 4) for MIU/UHS vs. a combined median stage score of below 2 for their previous schools attended. Subjects reported that students at UHS would take the community into account in making a decision in a higher percentage of cases (73%) than students at their previous schools (combined percentage 20%). In a breakdown of the students' previous schools it was found that the community would be taken into account in 50% of the cases in private schools that students previously attended (N = 6), 11% of the cases in public high schools previously attended (N = 11), and 5% of the cases in public junior high schools (N = 11). Using Wilcoxon Matched Tests, it was found that students perceived MIU/UHS as being higher in the following categories: Taking Community into Account (t = 0, p < .01); Pro-Social Choice for Others (t = 0, p < .01); Pro-Social Behavior for Others (t = 0, p < .01); and Ideal School Ratings (t = 34.5, p < .01). Of particular interest are the categories of Pro-Social Choice and Behavior. Subjects reported that students at MIU/UHS would make pro-social choices in 95% of the cases compared to students at their previous schools making pro-social choices in 36% of the cases. Perceived performance of pro-social behavior at MIU/UHS was in 95% of the cases compared to 26% of the cases at the students' previous schools.
attended. When taking into account the private schools MIU/UHS students previously attended, the percentage of pro-social choice and behavior was 63% and 53%, respectively.

The second hypothesis was also supported. Students at MIU/UHS scored as highly as, and on some categories higher than, students at the participatory democratic schools, represented in the Higgins, Power, and Kohlberg (1981) study. The Sense of Community Valuing median stage score for MIU/UHS was 3/4 (out of 4) compared to the scores of 3 and 3/4 for the two democratic schools used in the Higgins study. The percentage of cases of Pro-Social Choice for Self was 93% for MIU/UHS students compared to 83% and 86% for the two democratic participatory schools. The percentage of cases of Pro-Social Behavior for Self for MIU/UHS students was 95% compared to 74% and 77% for the two democratic participatory schools. The percentage of cases of Pro-Social Choice for Others was 95% for MIU/UHS compared to 81% and 84% for the other two schools. The percentage of cases of Pro-Social Behavior for Others was 95% for MIU/UHS compared to 58% and 67% in the other two schools. The above results indicate that for the categories Pro-Social Choice and Behavior for Self and Pro-Social Choice and Behavior for Others the MIU/UHS students scored higher than the two democratic participatory schools (see table 1).

The third hypothesis was also supported. Most students at MIU/UHS (75%) reported the TM program as the most important factor contributing to the moral atmosphere of the school. Taking the combined first and second rankings of the students, the percentage and order of contributing factors were as follows:

1. TM Program 88%
2. Academic SCI Courses 40%
3. Small Classes 25%
4. Faculty/Student Interaction 23%
5. Extra-Curricular Activities 17%
6. Field Trips 4%
7. Other 4%

Lastly, the fourth hypothesis was supported. Significant correlations were found between teacher ratings of pro-social behavior of the students and the following: 1) students' Sense of Community Valuing stage scores ($r = .426, p < .05$); 2) students' Pro-Social Choice for Self ($r = .481, p < .02$); and 3) Taking the Community into Account ($r = .475, p < .02$). No significant correlation was found between teacher ratings and Pro-Social Behavior for Self because of the high homogeneity of scores on the latter scale. Inter-rater reliability between the two teacher raters was .811.

In addition to the above results, the number of years practicing the TM program was found to be related to the student's Sense of Community Valuing stage score ($r = .464, p < .05$). Also $t$-tests were computed in the following cases: 1) to compare males to females on Sense of Community Valuing ($t = 1.72, NS$); and 2) to compare students who scored 100% on both Pro-Social Choices for Self and Behavior to students who scored below 100% in these categories on Sense of Community Valuing ($t = 2.28, p < .05$). It was found that a higher number of students in the twelfth grade exhibited a Sense of Community Valuing stage score of 3/4 or above compared to students in either the eleventh or tenth grades ($x^2 = 4.96, p < .05$; $x^2 = 6.12, p < .025$). There was no significant difference between students in the tenth and eleventh grades ($x^2 = .33, NS$).

### DISCUSSION

The results of the study indicate that there is a high level of moral atmosphere at MIU/UHS and that the TM program is the major contributing factor to the moral atmosphere as perceived by the high school students.

While answering questions on the practical school dilemmas, it was found that students at MIU/UHS tended to answer in a pro-social manner and felt that
others in their school would do the same. Almost every student felt that he/she should and would display the following behavior: 1) help out an unpopular student; 2) keep an agreement made between teachers and students; 3) not steal from other students; 4) trust other students with their possessions; and 5) chip in to repay a fellow student for money stolen by another classmate (assuming that the classmate did not confess to what he did). These responses indicate that there exists at MIU/UHS norms for 1) caring; 2) keeping agreements; 3) not stealing; 4) trusting others; and 5) restitution. In addition to the norms which are upheld, the students' sense of community valuing is indicative of the moral atmosphere of the school. MIU/UHS also scored highly on this factor (median score of 3/4 out of 4). The following examples distinguish stage 3 scores, involving a sense of community based on relationships and sharing among group members on a friendly social basis, and stage 4 scores, involving a sense of community being perceived as an organic whole composed of interrelated systems that carry on the function of the group:

Stage 3: The best part about this school is that it is like one big clique; everybody here is friends with everybody else; and everybody really respects the feelings and opinions of others.

Stage 4: That's what this school is all about, just being as one, being as a whole, acting together and being invincible. That's what makes this school different. Because acting together, you are invincible; you are more boundless. There's more you can do together. A whole group can do more than one person can do if you are focused.

The fact that teacher ratings were found to correlate with the students' Sense of Community, Taking Community into Account, and Pro-Social Choice scores lends validity to the students' subjective responses, indicating that there is a congruence between what the students say and what they actually do.

An interesting observation made in this study was that private school students tend to hold more pro-social norms than public school students. A rival hypothesis may be that since MIU/UHS is a private school, it would be expected to have a high moral atmosphere. In this initial pilot study, the results indicate that 1) MIU/UHS students exhibit a higher level of Pro-Social Choice and Behavior for Others than the schools previously attended by MIU/UHS students represented in the study and 2) there is a consistency between Pro-Social Choice and Behavior within MIU/UHS which is not expressed in either the private schools, or the democratic participatory schools. The fact that MIU/UHS is a private school certainly contributes to its moral atmosphere, although the extremely high level of moral atmosphere cannot be attributed solely to the fact that it is a private school.

What makes MIU/UHS unique among the schools in the United States is that the practice of the TM program is incorporated into its daily schedule. Twice a day, students experience the state of least excitation of consciousness which is the unified field of natural law. By enlivening this unified field of natural law in his/her own life, the student is enlivening the higher human values that guide life in an evolutionary direction. There is a general level of agreement among social scientists that values such as caring, responsibility, and trust represent higher values. Through the practice of the TM program, these values become enlivened. Research on the TM program with college students indicates that there is a positive increase in personality development. As a counterpart to this psychological growth, research has also shown an increased integration and orderliness in the physiology of the individual (see Orme-Johnson and Farrow, 1977; Chalmers et al., in press). According to Maharishi (1969) a more integrated and orderly nervous system is better able to reflect greater degrees of natural law.

According to a math teacher at MIU/UHS, the main reason the students are so coherent as a group is that they think of themselves as a group growing together. The most important activity she thought they engaged in was the collective practice of the TM program. She explained:

They really recognize that their experiences are much stronger and clearer when they meditate in a group together at school, as opposed to meditating individually at home.

This statement was also reiterated by many of the students during their interviews.

One factor that was clearly evident in the interviews was that the MIU/UHS students have a strong desire to live in enlightenment as ideal citizens. Most feel that the practice of the TM program expands their awareness and is the most important methodology to cause this to happen, and this is the main reason why they attend this school. One stu-
dent stated, in response to a question asking if she would report another student for breaking an agreement with the faculty, the following:

Most students would, not all; it's hard to tell on your friends. The students who think narrowly would not report them, but the ones who think of the holistic view would report. They know it would put a crack in the coherence of the group, and it's just not good for the person. The administration should know in order to keep us on the road to enlightenment. That's the reason we are all here in Iowa, to become enlightened, become pure, be established in unity all of the time.

In summary, this study indicates that the TM program is a viable tool for developing a higher level of moral atmosphere in the schools and promoting ideal student behavior. Future studies are encouraged to use the TM program as an independent variable to assess how the moral atmosphere of schools can be improved. Future studies should also evaluate the physiological aspects of the students to study the direct relationship between increasing psychophysiological integration and moral development. In addition, studies should be conducted assessing the positive changes in schools that result from the collective practice of the TM program.

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