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TRANSFORMING POLITICAL INSTITUTIONS THROUGH INDIVIDUAL AND COLLECTIVE CONSCIOUSNESS: THE MAHARISHI EFFECT AND GOVERNMENT

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Presidential approval ratings, media positivity towards the president, and five District of Columbia quality of life variables all showed significant improvement beginning during the period of a large assembly of experts in the Transcendental Meditation Sidhi Programme in Washington, D.C. in June and July of 1993.—EDITORS

A study empirically tested the effects of large groups of individuals practicing the Transcendental Meditation® (TM®) and Transcendental Meditation-Sidhi® program on success and support for government. This study assessed the impact of a National Demonstration Project (NDP) held in Washington, D.C. in 1993, on success and support for President Clinton and on improved quality of life in Washington. Predictions of the NDP were lodged in advance of the research with an independent review board comprised of criminologists, sociologists, and political scientists from six universities, civic leaders and the representatives from the police department, who participated in the research design and implementation.

Seven variables investigated these predictions using time series structural break analysis. All seven variables showed a significantly changed trend in the predicted direction toward greater positivity after the start of the NDP: Clinton's approval ratings ($p = 5.29 \times 10^{-8}$), media positivity toward the president ($p = .01$), and five indicators of social stress in D.C.: emergency psychiatric calls ($p = .009$), hospital trauma cases ($p = .02$), complaints against the police ($p = .01$), accidental deaths ($p = .05$) and a social stress index of the four ($p = 3.22 \times 10^{-5}$).

These short-term results of the NDP on presidential approval ratings and other variables support the hypotheses that stress can be reduced in society and coherence enhanced in government by large groups practicing the TM and TM-Sidhi program together, replicating 41 previous studies on this phenomenon, which is known as the Extended Maharishi Effect.

INTRODUCTION

The theme of this conference, "new institutions for a new century," evokes a sense of all possibilities, of evolution toward a broader, more advanced perspective. This study explores a new paradigm that is emerging across many disciplines. This paradigm is often expressed in terms of consciousness and the language of quantum physics. The previous paradigm can be likened to Newtonian classical mechanics, in which isolated physical entities interact in a mechanistic world, "in which the world consists of

large, solid objects with empty space between them" (Ray, 1993, p. 2). In the context of the Newtonian viewpoint, social interactions are understood solely in terms of behavioral and sensory interactions among individuals who are otherwise not connected. In contrast, according to the new paradigm, everything in nature, including everyone in society, is fundamentally interconnected by, and is an expression of, unbounded universal quantum fields. Hagelin (1992) explains that the history of the last 30 years of physics has been the progressive unification of the four fundamental forces of nature: electro-magnetism, the weak force, the strong force and gravity via electro-weak unification, grand unification, and finally super-unification, in which individual objects, including people, are not fundamentally distinct, but are "various modes of vibration of a single, underlying unified field" (p. 50).

How does this quantum mechanical paradigm interface with human awareness? Hagelin (1992) enumerates the remarkable parallels between the attributes of the unified field discovered in quantum physics and the qualities of consciousness specified by ancient Vedic Science recently brought to light by Maharishi Mahesh Yogi, the great contemporary Indian scholar and humanitarian. This view that the nature of nature and the nature of mind are essentially the same reality at fundamental levels has a long history in both the East and West, ancient and modern. A founder of modern psychology, William James (1892), described a state of consciousness which is transcendent to thinking activity, but which provides the basis for thought and action. Max Planck, one of the fathers of quantum theory remarked "I regard consciousness as fundamental. I regard matter as derivative from consciousness" (quoted in Klein, 1984). Quantum physicist Bernard D'Espagnat (1979) wrote in a Scientific American article that "The doctrine that the world is made up of objects whose existence is independent of human consciousness turns out to be in conflict with quantum mechanics and with the facts established by experiment" (p. 158).

What makes Maharishi's formulation of this view most interesting to political science is that it provides a theoretical understanding of the significance of the Unified Field of consciousness for government that is empirically testable. The theory, known as "Maharishi's Absolute Theory of Government" (1995), holds that the transcendental field of pure consciousness, identical with the unified field glimpsed by modern physics, is a field of "infinite correlation" that underlies and connects all human activities and institutions.

Considering this phenomenon [infinite correlation] in the light of the Unified Field Theories of modern Physics and Quantum Cosmology, we understand that the scale of Super Unification at the level of the Unified Field is associated with a fundamental phase transition in the structure of Natural Law from a diversified state to a completely unified state. The defining characteristic of such a phase transition is that the 'correlation length', which is a measure of the connectedness or correlation of different components of a system, expands to finally become infinite. (Maharishi, 1995, p. 515)

This means that everyone is influencing everyone else on the level of the unified field, a concept that is expressed in the ancient Vedic texts as "the world is my family" (Maha Upanishad, 6.71).

Maharishi's theory of government further posits that there are levels of collective consciousness corresponding to every level of social organization — family, community, city, state, nation, and world. There is a family consciousness that we feel when we enter a home, whether it is stressed or happy. Similarly, we feel a city's consciousness when we enter the city, and we feel the differences in two national consciousnesses when we cross the border from one country to the next. This idea is not new, although it has not been an ordinary part of everyday parlance or mainstream social science. The concepts of zeitgeist ("spirit of the time") and "spirit of the nation" are familiar. In his third inaugural address, Franklin D. Roosevelt said: "It is not enough to clothe and feed the body of the Nation, and instruct and inform its mind. For there is also the spirit. And of the three, the greatest is spirit" (Zevin, 1946, p. 269).

According to Maharishi, there is a reciprocal relationship between individual and collective consciousnesses. Individuals are the units of collective consciousness; collective consciousness is the sum of the influences of the individual members of a population. Reciprocally, collective consciousness influences every individual. The behavioral and mental processes of anyone coming into the purview of a collective consciousness will be wittingly or unwittingly affected by it, as is our experience when we enter a home or city or nation.

In Maharishi's Absolute Theory of Government, the overall outcomes of societies, defined, for example, by their rates of crime, hospital admission,

and auto accidents, are not merely the products of the individuals involved. They are also the products of collective consciousness. If we as individuals are stressed, then we contribute stress to the collective consciousness which exacerbates all the problems of society. On the other side of the coin, if we are coherent, our coherence spreads throughout collective consciousness to contribute to society's successes and progress.

In Maharishi's view, government is particularly vulnerable to influences in collective consciousness because it represents the constituency as a whole. "Every decision of government is the expression of national consciousness. National consciousness governs the activity of every nation in the same way that the consciousness of the individual governs the activity of the individual" (1995, p. 61). In particular, the head of state, as the pinnacle of national consciousness, is likened to "an innocent mirror" reflecting the level of collective consciousness of society. As such, whatever his or her personal aspirations and programs for the nation, when a head of state steps into office he/she comes under the sway of the collective consciousness. If the collective consciousness is incoherent and crime ridden, government become chaotic and imbalanced.

On the other hand, if the collective consciousness of a nation is more coherent, government will function smoothly (Maharishi, 1995). In Maharishi's view of government, national consciousness is the wholeness of all the diverse tendencies arising from different sectors of society. National consciousness is the synthesis of the different economic interests of agriculture, industry, transportation, communications, manufacturing, services, etc. As well, it is the summation of different cultural interests, generation differences, etc. In this view, the ability of the leader to synthesize and fulfil the needs of the diverse constituency of a nation, even with best intentions, best advisors, and best platform, depends to a great extent on the level of social stress, and the level of coherence (or lack of it) in the nation.

Maharishi's approach to creating coherence in collective consciousness is grass roots. Since the individual is the unit of collective consciousness, creating coherence in the national consciousness must start with creating coherence in the individual (Maharishi, 1977). To do this, he offers the technology of the Transcendental Meditation (TM) program, which he introduced 40 years ago, and the TM-Sidhi program, which he introduced 21 years ago. The Transcendental Meditation technique is said to allow the mind to settle to pure consciousness, the Unified Field of Natural Law, and the TM-Sidhi program is said to train the mind to function from that level. In this view, this holistic level of Natural Law is only creative and life supporting.

At any isolated level of creation natural law could be used in a creative or a destructive manner, according to one's ability and desire, but the holistic value of natural law at the level of the unified field, being the source of all the laws of nature, can be used only for creative purposes.

It can never be used for destructive purposes because the quality of destruction is non-existent in the eternal continuum of the self-interacting dynamics of the unified field. (Maharishi, 1986b, pp. 16, 17)

When the individual learns to function from this fundamental level of nature's intelligence, all areas of his/her life are said to become more coherent. Over 500 studies conducted in more than 200 universities and research institutions have provided empirical support for the theory, demonstrating improvements in all areas of individual life, physiological, psychological, and social (Orme-Johnson & Farrow, 1977; Chalmers, Clements, Schenkluhn, & Weinless, 1989a, 1989b, 1990; Wallace, Orme-Johnson, & Dillbeck, 1990).

Moreover, over 50 studies and theoretical papers directly demonstrate beneficial effects on society as a whole. As early as 1960 Maharishi proposed that as few as 1% of a population practicing the TM technique would have a measurable influence of coherence on the entire society. The theoretical rationale for how a few can affect the many is the coherence principle found throughout nature, that coherence is more powerful than incoherence. For example, coherent laser light will shine further than incoherent, incandescent light. In 1974 a group of researchers found that when one percent of a city was practicing the TM technique, the crime rate dropped significantly compared to controls. This phenomenon became known as the "Maharishi Effect" (1995) in honor of Maharishi who predicted it. Over the last two decades, the initial research has been replicated in a series of increasingly rigorous experiments, through greater sophistication of statistical methodology, investigation of larger sample sizes, comprehensive control for factors affecting the dependent variables, replication across outcome variables and geographic locations, and employment of prospective research protocols (e.g., Borland & Landrith,

1977; Dillbeck, Banus, Polanzi, & Landrith, 1988; Dillbeck, Landrith, & Orme-Johnson, 1981). For example, Dillbeck et al. (1988) used causal analysis to demonstrate the Maharishi Effect controlling for demographics in a random sample of 160 cities and 80 Standard Statistical Metropolitan Areas, which constituted over half the urban population of the U.S.

An even more powerful influence has been found when individuals practice the more advanced TM-Sidhi program. Researchers discovered that when individuals practice the TM and TM-Sidhi program together in a group, only the square root of one percent is necessary to influence the quality of life in society in the direction of greater harmony and coherence, a phenomenon called the Extended Maharishi Effect. Hagelin (1987) connected the Extended Maharishi Effect to coherent systems in physics: "This prediction is based on a field theoretic model utilizing a coherent superposition of amplitudes, in which the intensity of the effect generated is proportional to the square of the number of participants" (p. 65). Borrowing from physics terminology, the Extended Maharishi Effect is also known as Super Radiance and the group of TM and TM-Sidhi participants as the Super Radiance (SR) group. The studies, which largely utilized time series methodology, have found that SR groups improve the economy (Cavanaugh, 1987); reduce crime rate (Dillbeck, Cavanaugh, Glenn, Orme-Johnson, & Mittlefehldt, 1987; Hagelin, Rainforth, Orme-Johnson, Cavanaugh, Alexander, Shatkin, Davies, Hughes, & Ross, 1999; Hatchard, Deans, Cavanaugh, & Orme-Johnson, 1996); improve the quality of life in cities and states (Dillbeck et al, 1987; Orme-Johnson, Gelderloos, & Dillbeck, 1988; Reeks, 1990); increase positivity of interactions between heads of state (Gelderloos, Frid, Goddard, Xue, & Loliger, 1988); and alleviate international conflicts (Orme-Johnson, Alexander, Davies, Chandler, & Larimore, 1988; Orme-Johnson, Alexander, & Davies, 1990).

The present study was a critical test of the theory in Washington D.C. (Goodman, 1997). The crime rate of the national capital was very high for many years and the District earned the name "murder capital" of the U.S. According to the present theory, the pervasive influence of criminal tendencies and stress in D.C. has resulted in divisiveness, infighting, and gridlock in government (Hagelin, et al., 1999). The research examined the Extended Maharishi Effect in the context of a National Demonstration Project (NDP) held in Washington, D.C. during the summer of 1993, in which up to 4,000 Transcendental

Meditation and TM-Sidhi participants came to DC for group practice over a two month period (June and July). The study was of the effects of the NDP on presidential approval ratings, media attitude towards the president, and stress in the collective consciousness of Washington D.C., as measured by four quality of life variables: emergency psychiatric calls, complaints against the police, trauma cases seen at the hospital, and accidental deaths, and a composite quality of life index constructed from the arithmetic mean of the z-scores of the four stress-related variables. A previous study on the NDP showed that violent crimes were reduced by 23.3% in the final weeks of the Demonstration (Hagelin, et al., 1999).

Predictions of the NDP were lodged in advance of the project with an independent review board comprised of criminologists, sociologists, and political scientists from six universities, civic leaders and members of the police department, who advised on the research design, oversaw the research process, and gave critical feedback on the research reports. Thus, this was a highly publicized, critical test of the Extended Maharishi Effect in the nation's capital.

METHOD

Hypotheses

The hypotheses of the current study were that the NDP would increase support for President Clinton as measured by approval ratings and media positivity toward the president, and reduce stress in collective consciousness in Washington, D.C. as measured by the four quality of life variables and the index of the four.

Independent Variable

The independent variable consisted of the numbers of participants in the group practice of the TM and TM-Sidhi program at the National Demonstration project over the eight-week period. The numbers rose in a step-wise manner approximately every two weeks for the eight weeks of the Project with an average of approximately 1,000 participants during the first month, 2,500 participants for the next two weeks, and close to 4,000 for the last two weeks (Hagelin, et al., 1999). In the structural break analysis, the independent variable was operationalized as an increasing trend starting at the beginning of the Demonstration Project.

Dependent Variables

All data were received from sources not affiliated with the researcher or the researcher's institution.

Independent researchers gathered the data and, in the case of the media data, coded it. The coders of the data were unaware of the hypotheses of the studies at the time when the data were being coded. After acquiring the data, the data were aggregated by averaging it to the necessary time period. Thus, a strong measure of objectivity was maintained in each of the studies. The dependent variables are as follows:

1) *Presidential popularity* was measured by presidential approval ratings from public opinion polls. In the case of the Clinton period, aggregated (averaged) weekly and bi-weekly data sets were created from public opinion ratings gathered by several polling organizations and compiled by the American Enterprise Institute for Public Policy Research (Bowman, 1995). The first poll data available to the researcher were purchased from the Roper Center, and the analysis of this set was included in an earlier report on the Washington D.C. National Demonstration Project (Hagelin et al., 1999). However, rather than purchase a set for 1994, American Enterprise data were obtained without charge. Certain smaller polling organizations were included in the American Enterprise data set that had not been in the Roper set. Thus, to allow the final data for 1993–1994 to be consistent with the preliminary data for 1993, only those polling organizations (with the exception of NBC) that had been available from Roper were included in the American Enterprise data set. NBC was included, as the Roper Center usually used it (although not in the set they originally sent), and it was considered a comparable polling organization to those of ABC and CBS (Bowman, personal communication, 1995). The correlation between the 1993 Roper Center data and the 1993 edited American Enterprise data was 0.9775. The Roper Center, the American Enterprise Institute and other researchers felt that there would not be much difference between the two sets.

In the initial study of presidential approval ratings, responses were analyzed on 86 public opinion polls received from the Roper Center for Public Opinion Research (1993) which asked the question: "Do you approve or disapprove of the way Bill Clinton is handling his job as president?" The initial period was from January 20th to December 15th, 1993. The polls were aggregated on a weekly basis with a weekly starting date of Sunday.

To compare the analysis of The American Enterprise data set with the preliminary Roper Center data, both data sets were aggregated on a weekly basis, but with a starting date of Saturday, rather than Sunday. This change was considered necessary because changes in the numbers of the participants in the Demonstration Project in Washington, D.C. occurred on Saturdays. The data were then consistent with other data in the Demonstration Project (particularly crime rate).

When the data were aggregated on a weekly basis, the following decision rules were applied: 1) A poll was included in a particular week if the end date of the poll fell within that week; 2) If there was no poll with an end date for a particular week, one poll was used which had a beginning date within that week. (If there was more than one poll with a beginning date for that week, only the first one listed in the AE data was used); 3) If there were no polls with either a beginning or end date within a week, data were averaged using the three previous and three subsequent poll figures (thus creating a number based on the six most proximate polls).

2) The effect of the Super Radiance Group on the *positivity of the media*, was examined via data sets from the Center for Media and Public Affairs (Noyes, 1994, 1995). Researchers at the Center coded evening news stories about President Clinton broadcast on ABC, CBS, and NBC evening news programs, as either positive or negative. (Neutral statements were not included in these data). Analysis was made on a statement by statement basis, rather than assessing the valence of the story as a whole. Each statement was coded by actor, topic of statement, and whether the statement was positive or negative. Within one news story, for example, if the news commentator made a positive statement about Clinton, but also reported that Dole had made a negative comment about Clinton, each was noted separately. For the purposes of analysis described in this study, the data were aggregated on a weekly basis, so that there would be an average percent positive for each weekly period.

The following data, which comprised the "D.C. Quality of Life" variables and index, were acquired by researchers during the Demonstration Project through repeated inquiry to many sources, within the time-frame of the project. The sources noted are those which had data in a form that could be immediately utilized and aggregated for time series analysis.

3) *Emergency psychiatric calls* was comprised of calls made to the Emergency Psychiatric Response Division, Commission of Mental Health Services, District of Columbia and the Emergency Psychiatric Service of Saint Elizabeth's Hospital. The categories

of the data were comprised of calls concerning suicides and other crises.

4) *Trauma* (which was comprised of seven categories including motor vehicle accidents and assaultive wounds) was received from District of Columbia General Hospital.

5) *Complaints against the police* was received from the public records of the Civilian Complaint Review Board, District of Columbia.

6) All *accidental death and suicide* data were received from the District of Columbia Department of Health and Human Services.

7) An index of *D.C. Quality of Life* (measuring community stress) was a z-score average of variables numbered three through six above. For graphical purposes, the result was multiplied by –1 to make positive numbers reflect a positive change in society.

Control Periods

Controls were data from either the previous or the following year for each of the variables. For the approval ratings, and media, 1994 data were used because this data was already available and it was essential to use data during the same presidency. For the "D.C. Quality of Life" variables and Index, 1992 data were used, which had already been made available by the data sources in 1993. (The 1992 control data set was prepared for analysis only through the end of September, 1992 so that it would be 39 data points as was the 1993 data). No large Maharishi Effect project similar to the Demonstration Project was conducted in North America in either 1992 or 1994. Data for the controls were aggregated and analyzed following the same rules and procedures as for the experimental data.

The hypothesis for the control periods stated that: During the control period (the same time of year as the experimental period, but in other years) the data will not change significantly in the same predicted direction as the direction of the experimental period during the National Demonstration Project.

Time Series Structural Break Analysis

In this study, time series structural break analysis was used with approval ratings, media, and with the "D.C. quality of life" variables, individually and as an index. It was apparent that a time series analysis was necessary, as approval ratings and other dependent variables had autocorrelations. Time series analysis was possible because the data could be aggregated on an equal-interval basis.

The time series structural break analysis used in this study can be seen as a special case of interrupted time series analysis in which the null hypothesis is used to determine if the intervention in question has had an impact on the dependent variable (McDowell, McCleary, Meidinger, & Hay 1980). Liu and Hudak (1992) indicate that plotting the data and visually inspecting the data is crucially important: "The first aspect of a time series analysis, and almost all statistical analyses, is to plot the data" (p. 5.3). When the data were examined visually, it was noted that the trend change (consistent across variables) lasted well beyond the experimental period. This was true of crime data as well as the data analyzed in this study. Therefore, it was important that the issue of trend change be addressed. Use of structural break analysis would indicate if the trend during and after the experimental period was statistically different than the baseline trend. In an example of a similar type of inquiry to those in the studies presented in this paper, McDowell, McCleary, Meidinger, and Hay noted that "The impact was visually obvious. Impact assessment analysis nonetheless provided a precise estimate of the form and magnitude of the effect" (p. 74). Structural-break analysis allows one to depict the significance of the trend through the time-frame specified by the equation, in this case, a change in trend from before the Demonstration Project to after the project. In this method, both the baseline variable, which modeled the trend prior to the experimental period, and the variable modeling the trend during and post the experimental period were sets of ascending numbers.

The SCA program provided the best least-squares fit of the prior and subsequent trends. In addition, significant residual autocorrelations were removed from the model by appropriate autoregressive and moving average components. Thus the final models accounted for the trends prior to and subsequent to the experimental period as well as for any other serial dependencies in the data. As will be seen in the Results section, for most of the dependent variables, the final models using this method accounted for a high percentage of the variance in the data. A limitation of this method is that one cannot by this method alone account for the exact point when the trend decayed. However, as will be seen in the Results, it appeared to last until the end of 1993. The main threat to validity (potential alternative explanation) using this method is the possibility that trend changes at the time of year of the experimental period are a usual occurrence. Therefore, control analysis was performed as described above, using the same time

series structural break methodology at the same time of year but with data for different years.

Statistical Procedure

Time series data analysis using SCA statistical software (Liu and Hudak, 1992) followed precedents developed by Box and Jenkins (1976) and described in McDowell, McCleary, Meidinger, and Hay (1980); Liu and Hudak (1992); and Vandaele (1983). The steps included 1) formulation of the structural-break model; 2) preliminary identification of the model including ascertaining the need for stationarity; 3) specification of the model; and 4) diagnostic checking. These steps are described further:

1) The first step was creation of the time series structural break equation in the time-series context. The equation took the form (for the seven variables) of:

$$Y_t = b_{\text{baseline trend}} + b_{\text{during and post}} + e_t, \text{ where:}$$

Y_t = the tth observation of a time series; $b_{\text{baseline trend}}$ = the trend throughout the year, assuming no intervention; $b_{\text{during and post}}$ = the series trend as an impact of the Demonstration project; and e_t = an error term (after McDowell, McCleary, Meidinger, & Hay, 1980, p. 12).

When placing the equation in the SCA syntax for the variables analyzed with time series structural break analysis these terms appeared in the following manner: Dependent Variable = a Constant (where needed) + Wkno (a baseline series of ascending numbers counting on a weekly basis from the beginning of Clinton's term in office to the last data point of the set to represent the baseline) + SRwkno (the intervention period indicated by a data set consisting of zeros prior to the beginning of the Demonstration project, and counting upward "1, 2, 3" etc. from the beginning of the Demonstration project, as the impact assessment, and continuing to the end of the year, to model the ascending trend over time) + a Noise Model.

2) Stationarity was then determined. This was to account for any trends or drifts in the data, and was determined by the mean, variance and ACF (autocorrelation function) of the process. According to Liu and Hudak (1992) "The ACF paragraph calculates a statistic measuring the correlation present between residual at time t ... and the residual that occurred... [x] time prior to it ..." (p. 4.17). The ACF will show if there is any significant autocorrelation, and/or the need for differencing.

3) A noise model was then calculated, using the ACF, PACF, and AIC diagnostic tests. The ACF (autocorrelation function) and PACF (partial autocorrelation function) of the residuals of the noise model indicate possible additional autoregressive (AR) or moving average (MA) parameters to include in the model until the residuals do not significantly differ from white noise. According to McCleary and Hay, 1980, "the lag-k PACF, PACF (k) is a measure of correlation between time series observations k units apart after the correlation at intermediate lags has been controlled or 'partialled out'" (p. 75). Several iterations of the equation, with different AR and MA parameter values were attempted, usually starting with lower lags (such as an AR1 or an MA1), and moving to higher order parameters as essential. According to McDowell, McCleary, Meidinger, and Hay (1980), this model-building strategy is followed until one arrives at a model that is both "statistically adequate (its residuals are white noise) and parsimonious (it has the fewest parameters and the greatest number of degrees of freedom among all statistically adequate models)" (p. 85).

The minimization of the AIC (the Akaike Information Criterion) is a procedure used at different stages of the analysis to help determine the most adequate and parsimonious model (Larimore and Mehra, 1985). In this study, the AIC was used to determine preliminary noise models and to determine the most appropriate final model if there was a choice of models among those in which the parameters were significant, and for which all diagnostic tests had been completed satisfactorily.

4) To complete the analysis, a series of diagnostic checks was accomplished:

a) ACF and PACF of the residuals indicated whether there were any further parameters needed in the noise model.

b) Roots were checked to determine that all were outside the unit circle; this is again to check for stationarity and invertibility in both the autoregressive and moving average polynomials (Vandaele, 1983).

c) The Ljung-Box Q statistic (LBQ) of the residuals was calculated, as an additional determination that there were no significant autocorrelations in the residuals. The LBQ statistic is calculated for the ACF of the residuals of a model. If there are still significant parameters in the noise model that should be estimated, the LBQ, which has a chi-square distribution, will be significant (McCleary & Hay, 1980; Liu & Hudak, 1992).

d) The AIC was calculated for each model.

e) Outliers were checked using the OESTIM command of the SCA statistical program, which locates any outlier of four types in the data, and adjusts the results accordingly. The four types are 1) the Additive Outlier (AO), which has an effect on the data set for only one time period; 2) the Innovational Outlier (IO), which affects all the values after its appearance; 3) the Level Shift (LS) is an event which has a permanent effect on the series; and 4) a Temporary Change (TC) which has an initial impact, but the effect "decays exponentially" (Liu and Hudak, 1992, pp. 7.3–7.6). (The OESTIM program gives an adjusted t test value and "parameter value" for the affected data points).

f) The p values were determined for each significant intervention (SR week) parameter.

g) The effect size was calculated for the parameter results. This entailed dividing the t value for the independent variable parameter by the square root of the effective number of observations for the model. The effect size provides a statistic which allows comparison across variables.

RESULTS

National Demonstration Project

Using the structural break analysis, there was a statistically significant change in trend in the predicted direction for all seven variables during the experimental period. Using two-tailed tests during the control years, there were no significant changes, except the Quality of Life Index which changed in the opposite direction (worsening of quality of life). Using one-tailed tests during the control year, media changed in the direction of increased positivity. Thus, with one-tailed tests for the control year, two out of seven variables changed significantly, one in the opposite direction and one in the positive direction.

Table 1 shows the results of the structural-break analysis with each dependent variable, giving the type of parameters in the model, the parameter values, the t value, p value, and summary statistics, including effective number of observations, R^2, AIC, residual standard error, and Q statistic at lag 12.

1) The t statistic indicates the significance of the change in the trend of the variable.

2) The parameter value indicates the change in the trend of the variable.

3) The effective number of observations gives the number of data points utilized in a particular noise model (and is used to calculate the Q statistic and the AIC).

4) The R^2, or coefficient of determination, indicates the percentage of variance accounted for by the model.

5) The p value indicates the level of significance of the t statistic: the level of probability that the result was due to chance under the null hypothesis of no intervention effect.

6) The residual standard error is the standard deviation of the residuals, and is used as a measure of model accuracy.

All seven variables showed a significantly changed trend in the predicted direction toward greater positivity after the start of the NDP. Measures included Clinton's approval ratings ($p = 5.29 \times 10^{-8}$), media positivity toward the president ($p = .01$), and variables utilized as indicators of social stress: emergency psychiatric calls ($p = .009$), hospital trauma cases ($p = .02$), complaints against the police ($p = .01$), accidental deaths ($p = .05$), and a Quality of Life (social stress) index ($p = 3.22 \times 10^{-5}$). All p values are one-tailed because the hypotheses were directional. These results are shown in Table 1. Further detail on approval ratings, media, and social stress index results are presented below.

Approval Ratings

Visual inspection of the aggregated data for approval ratings (AE) showed a trend of decreasing approval for President Clinton prior to the Demonstration Project. However, a reversal in trend toward greater positivity during and after the Demonstration Project was also apparent (see Figure 1). This observation was confirmed by the results of the broken-trend time series analysis (See Table 1). The parameter value of the presidential week number term for both approval ratings analyses (−1.2162 for Roper and −1.2836 for AE data) indicates that there was a decline in approval ratings of about 1.2% per week prior to the start of the Demonstration Project. The intervention parameter (independent variable) is called Super Radiance (SR) week. The parameter value of the SR week term indicates that there was a significant net change reversal of that trend of 1.5% and 1.6%, respectively, from prior to the beginning of the Demonstration Project. The net change in trend of approximately 1.58% per week of the adult population amounts to approximately 3 million people per week becoming more positive towards the

TABLE 1.— DETAILED SUMMARY STATISTICS FROM
TIME SERIES STRUCTURAL BREAK ANALYSIS ON EXPERIMENTAL VARIABLES

Dependent Variable	Variable	Parameter Values	t	p	Model Summary	Statistics
Approval Ratings (Roper)	Constant	65.587	22.28	3.04×10^{-25}	Effective No. of Obs.	47
	Baseline Week	−1.2162	−6.63	4.43×10^{-8}	R^2	.71
	SR Week	1.5347	6.55	$2.9 \times 10^{-8*}$	AIC	105.8243
	AR2	0.3137	2.29	.03	Residual Standard Error	2.83
					LBQ at lag 12	9.4
Approval Ratings (A.E.)	Constant	66.9082	21.84	6.7×10^{-25}	Effective No. of Obs.	47
	Baseline Week	−1.2836	−6.55	5.79×10^{-8}	R^2	.68
	SR Week	1.6315	6.37	$5.29 \times 10^{-8*}$	AIC	116.5230
	AR1	0.3202	2.4	.02	Residual Standard Error	3.38
					LBQ at lag 12	5.1
Media Positivity (Media Monitor)	Constant	42.034	5.9	1.29×10^{-6}	Effective No. of Obs.	39
	Baseline Week	−0.723	−1.66	.1	R^2	.462
	SR Week	1.3158	2.41	.01*	AIC	184.5036
	MA4	0.3754	2.59	.01	Residual Standard Error	9.13
	MA6	0.4444	3.12	.004	LBQ at lag 12	7.3
	AR10	−0.4314	−2.87	.007		
EPRD Emergency Psychiatric Calls	Constant	25.688	3.83	.0005	Effective No. of Obs.	37
	Baseline Week	0.8501	2.07	.05	R^2	.353
	SR Week	−1.767	−2.5	.009*	AIC	145.6371
	AR2	0.4308	2.85	.007	Residual Standard Error	6.42
					LBQ at lag 12	12.2
Trauma Cases	Constant	32.8847	17.96	1.33×10^{-18}	Effective No. of Obs.	37
	Baseline Week	0.8438	7.09	4.06×10^{-8}	R^2	.549
	SR Week	−0.5014	−2.1	.02*	AIC	147.0846
	MA2	.6008	4.44	9.5×10^{-5}	Residual Standard Error	6.55
					LBQ at lag 12	14.4
Complaints Against the Police	Constant	5.6323	5.25	6.99×10^{-6}	Effective No. of Obs.	39
	Baseline Week	.1307	1.7	.096	R^2	.134
	SR Week	−.4001	−2.40	.01*	AIC	85.4851
	MA6	.3950	2.77	.009	Residual Standard Error	2.63
	MA9	.3181	2.20	.03	LBQ at lag 12	5.6
Accidental Deaths	Constant	9.2478	5.34	1.1×10^{-5}	Effective No. of Obs.	33
	Baseline Week	.2484	2.20	.04	R^2	.251
	SR Week	−.3889	−1.75	.05*	AIC	96.3155
	MA9	.3164	2.16	.04	Residual Standard Error	3.70
	AR6	−.4304	−2.78	.01	LBQ at lag 12	16.9
Index of Vars. 4–7 above	Constant	−.8407	−4.82	2.6×10^{-5}	Effective No. of Obs.	39
	Baseline Week	.0633	5.38	2.34×10^{-6}	R^2	.426
	SR Week	−.1086	−4.52	$3.22 \times 10^{-5*}$	AIC	−62.3399
	White Noise	—	—		Residual Standard Error	.416
					LBQ at lag 12	14.5

(* p value is one-tailed)

president out of the 190 million adults in the U.S. in 1993 (c.f. Hagelin et al., 1999). The two approval rating results showed the greatest trend change of the seven variables studied, with effect sizes for Roper and AE data of .9554 and .9291 respectively.

Media

Visual inspection of the weekly aggregated data for media positivity indicated a trend change similar to that of the approval ratings (See Figure 2). The trend prior to the Demonstration Project indicated growing negativity of the media toward the president, with a parameter value of −.723 ($p = .01$) indicating a decline of .7 percentage points per week. However, there was again a significant reversal of that trend ($p = .01$, one-tailed) after the start of the Demonstration Project. The net change on media positivity relative to the previous trend was 1.3% per week, as indicated by the parameter value of the Super Radiance week number of 1.3158.
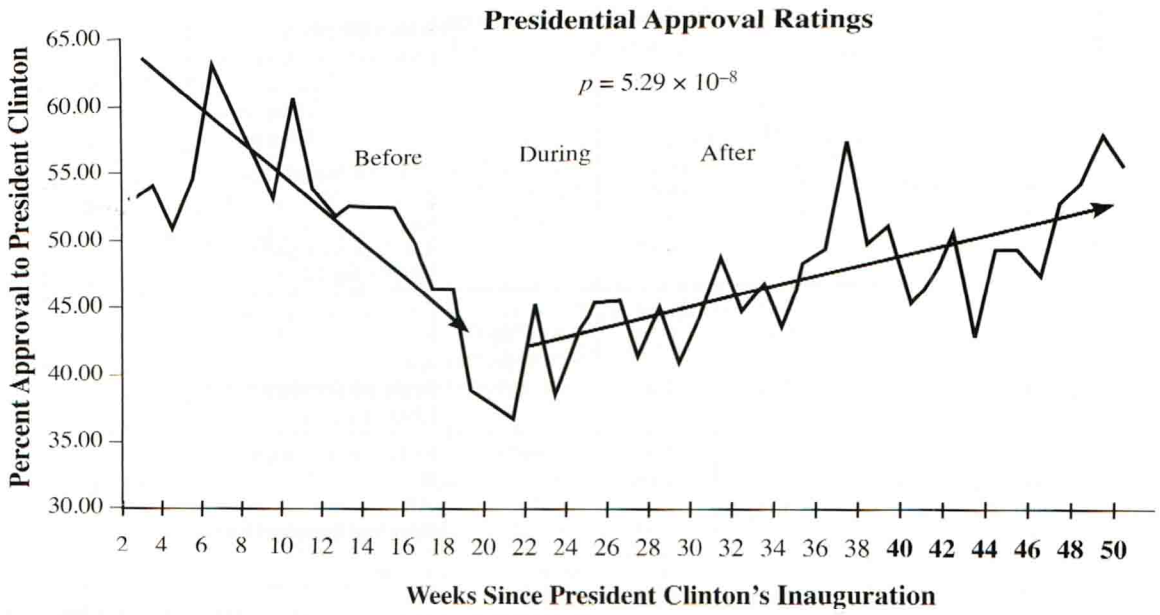
Presidential Approval Ratings

$p = 5.29 \times 10^{-8}$

FIG. 1. Increased Support for President Clinton During and After the National Demonstration Project

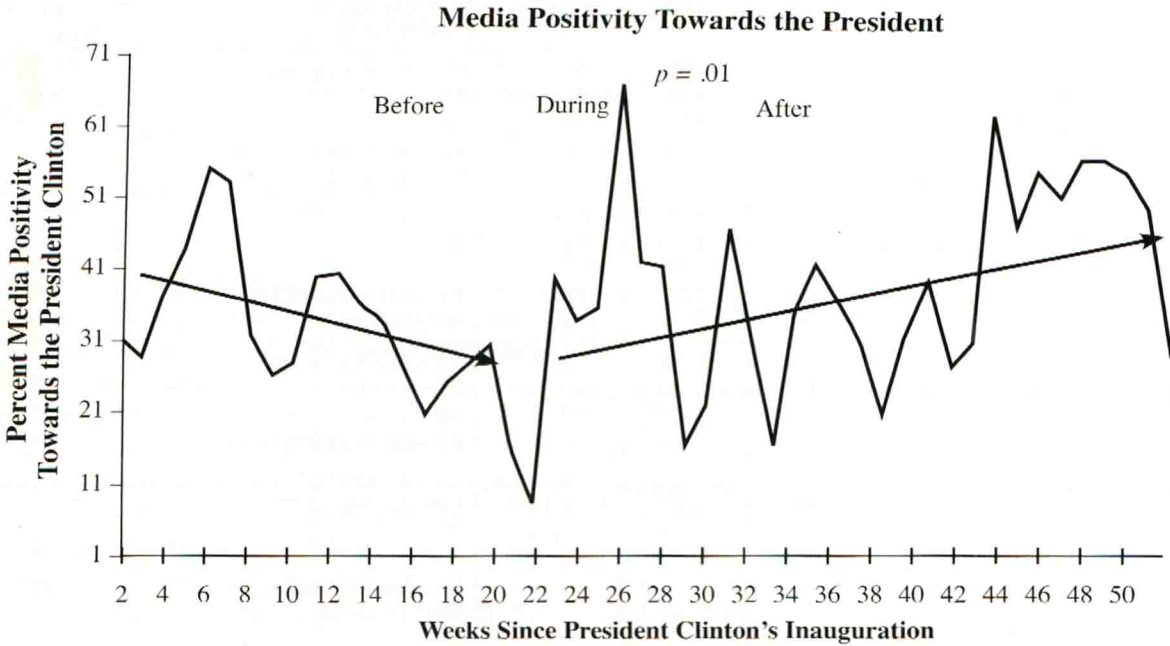## Media Positivity Towards the President

$p = .01$

FIG. 2. Increased Media Positivity Towards President Clinton During and After the National Demonstration Project

D.C. Quality of Life Index

This index of four variables (emergency psychiatric calls, trauma, complaints against police, accidental deaths) indicated a reversal of the trend of baseline week number with a strongly significant SR week term of $t = -4.52$, $p = 3.22 \times 10^{-5}$, one-tailed (see Figure 3 and Table 1). The significance for the SR week term reached a higher level of significance for the index than for any of the four variables taken individually. The "noise" in the individual variables was reduced by aggregating them, showing the trend more clearly. This indicates an underlying influence of the Maharishi Effect on all quality of life variables, as has been observed in previous research (Orme-Johnson et al., 1988).

Figures 1–3 show charts of the weekly data for approval ratings, media, and the quality of life index with the trend lines ascertained by the time series

Washington D.C. Quality of Life Index
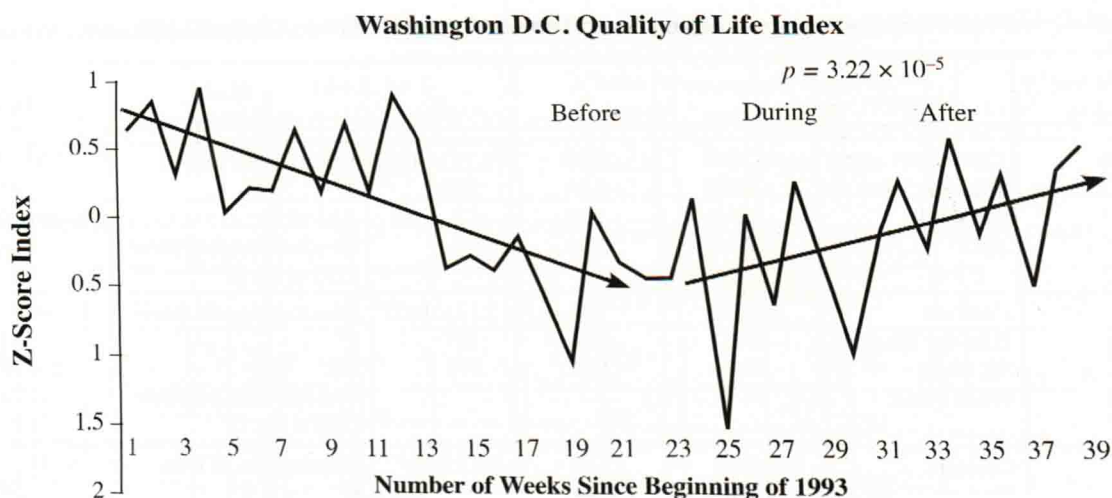
$$p = 3.22 \times 10^{-5}$$

FIG. 3. Increased Quality of Life in Washington D.C. During and After the National Demonstration Project

structural break analysis. The starting and ending weeks of the Demonstration Project are noted as week 21 and week 28 respectively for the first two variables (approval ratings (AE) and the media), and week 23 and week 31 for the index. This difference in week designation for starting and ending dates of the Demonstration Project occurred because the data for the D.C. Quality of Life variables and index were independent of any considerations of presidential inauguration date. The starting date of these series was two weeks before the starting date of the approval ratings and media variables, whose beginning data point coincided with Clinton's initial week in office.

Analysis of Control Periods

Table 2 presents the results of analysis of data for each variable during the control period, noting the parameter terms in the model, parameter values, t value, p values, and model summary statistics, as was presented for the experimental variables. There was only one control variable utilized for the approval ratings data, as only American Enterprise data were obtained for 1994. It can be seen in Table 2 that using two-tailed tests, only the D.C. Quality of Life Index changed significantly in the control year, and it changed in the opposite direction to the experimental year. Using one-tailed tests, the Quality of Life Index changed significantly in the control year in the opposite direction to the experimental year. In addition, one-tailed tests showed that the media variable changed significantly in the same direction in the control year as during the experimental year. Analysis of outliers did not change the outcomes.

Table 3 shows the effect size of each variable in order of strength of the trend reversal. As can be

seen, all variables in the experimental group showed results in the predicted direction. In contrast, the direction of change for the control data were not consistent, and only 1 out of 8 variables changed significantly, two-tailed, and this was in the opposite direction (toward greater negativity) from the experimental hypothesis. The same information is depicted visually for six of the variables in Figures 4 and 5.

DISCUSSION

As can be seen from the results, the Demonstration Project appeared to impact variables as disparate as presidential approval ratings and emergency psychiatric calls in Washington, D.C. This is consistent with the theory of the Maharishi Effect which is characterized as comprehensive in its effects (Maharishi, 1978). The results presented for the seven variables support the hypotheses that the NDP would influence the variables in the direction of greater positivity. This study is thus the most recent instance of several studies, where quality of life indices have been favorably impacted by the Extended Maharishi Effect (Davies & Alexander, 1983; Dillbeck, 1990; Orme-Johnson, Alexander, Davies, Chandler, & Larimore, 1988; Orme-Johnson, Gelderloos & Dillbeck, 1988). Approval ratings and media data have presented an interesting opportunity to further understand the mechanics of growth of coherence in collective consciousness, due to their sensitivity to public mood and to the various inputs comprising internal and external interactions of government (e.g., political parties within the Congressional branch, and interactions of the head of state with constituents and with other nations).

TABLE 2.— DETAILED SUMMARY STATISTICS OF TIME SERIES STRUCTURAL BREAK ANALYSIS OF CONTROL PERIODS

Dependent Variable	Variable	Parameter Values	t	p	Model Summary	Statistics
Approval Ratings (AE) (1994)	Constant	55.3267	22.99	8.75×10^{-26}	Effective No. of Obs.	47
	Baseline Week	−.4489	−2.94	.005	R^2	.677
	SR Week	.2746	1.39	.17	AIC	103.5740
	AR2	.2946	2.10	.04	Residual Standard Error	2.76
					LBQ at lag 12	9.4
Media Positivity (Media Monitor) (1994)	Constant	39.1332	7.74	7.17×10^{-10}	Effective No. of Obs.	49
	Baseline Week	−.5611	−1.64	.107	R^2	.64
	SR Week	.8686	1.81	.077	AIC	238.7083
	White Noise	—	—		Residual Standard Error	10.74
					LBQ at lag 12	14.3
EPRD (1992)	Constant	30.1515	15.10	2.83×10^{-15}	Effective No. of Obs.	34
	Baseline Week	−.0563	−.44	.66	R^2	.342
	SR Week	.3834	1.58	.12	AIC	123.5400
	MA3	.4935	3.55	.001	Residual Standard Error	5.80
	AR5	−.3384	−2.17	.04	LBQ at lag 12	6.4
Trauma cases (1992)	Constant	29.7487	11.36	1.85×10^{-13}	Effective No. of Obs.	39
	Baseline Week	.3355	1.90	.07	R^2	.194
	SR Week	−.1561	−.43	.67	AIC	142.5934
	White Noise	—	—		Residual Standard Error	6.24
					LBQ at lag 12	14.4
Complaints Against the Police (1992)	Constant	8.6402	12.21	3.61×10^{-13}	Effective No. of Obs.	35
	Baseline Week	−.0108	−.24	.81	R^2	.361
	SR Week	.0664	.07	.94	AIC	71.6578
	MA2	.3611	2.13	.04	Residual Standard Error	2.40
	AR4	−.3238	−2.43	.02	LBQ at lag 12	8.4
Accidental Deaths (1992)	Constant	11.7034	8.62	2.81×10^{-10}	Effective No. of Obs.	39
	Baseline Week	−.0326	−.36	.72	R^2	.155
	SR Week	.3072	1.64	.11	AIC	97.7682
	White Noise	—	—		Residual Standard Error	3.24
					LBQ at lag 12	6.9
Index of Vars. 3–6 above (1992)	Constant	−.1333	−1.11	.27	Effective No. of Obs.	39
	Baseline Week	−.0009	−.11	.91	R^2	.274
	SR Week	.0400	2.38	.02	AIC	−60.1664
	MA2	.3959	2.68	.01	Residual Standard Error	.42
					LBQ at lag 12	12.4

Duration of Trend

Results of the analysis indicated that the trend of positivity for the seven variables analyzed with time series structural break analysis continued past the experimental period. In the case of the approval ratings and media, for which 1994 data was available, visual inspection of charts indicated that the last high point in the data for approval ratings was data point 50 (week of Dec. 25–31, 1993), and, for the media, point 52 (week of January 8–15, 1994). Thus it appeared that the effect lasted until approximately the end of the year (1993). This is consistent with the study of effects of the Demonstration Project on violent crime (Hagelin et al., 1999). In that analysis,

it was found that there was a significant decay parameter that carried the effect until about the end of the year.

Seasonal effects were considered as a possible alternative explanation for the trend change, but although the results of the experimental analysis indicated that the trend change beyond the experimental period was consistent across the variables, analysis of the control periods in other years did not show a consistent significant pattern of positive change at the same time of year, as was illustrated in Figures 4 and 5.

A sustained change in trend is a major component

TABLE 3.— EFFECT SIZE FOR VARIABLES WITH TIME SERIES STRUCTURAL BREAK ANALYSIS

Variable Name	Effect Size Experimental Intervention	p Value for Intervention *	Effect Size Control Periods	p Value for Control Period **
Approval Ratings (Roper)	.9554	2.9×10^{-8}	(no Roper '94)	
Approval Ratings (AE.)	.9291	5.29×10^{-8}	.2028	n.s.
Index of DC Variables	.7237	3.22×10^{-5}	−.3811	.02
EPRD	.4109	.009	−.2710	n.s.
Media	.3859	.01	.2586	n.s. ***
Complaints	.3843	.01	−.0118	n.s.
Trauma	.3452	.02	.0689	n.s.
Accidental Deaths	.3317	.045	−.2626	n.s.

* p value is one-tail   ** p value is two-tail   *** at one-tail, p value is .038

of the theory of the Maharishi Effect. Maharishi has predicted that a "phase transition" toward greater positivity will be seen in society when sufficient coherence is generated in society (1977). Maharishi explains that "The values which are dominating today will be superseded by more complete values of life. Fear will be nonexistent. Suffering will be completely extinct" (1986a, p. 39). Although the National Demonstration Project was not a permanent group, it was nonetheless the largest short-term group of its type in the nation's capital in terms of meditation hours (number of TM and TM-Sidhi practitioners times the number of days of the Demonstration Project). Thus it may have had a more lasting impact on collective consciousness than previous Super Radiance groups in the D.C. area.

Another consideration is that the Demonstration Project did not exist in isolation as a coherence-generating group. Over two million people in the United States and more than five million people world-wide have been taught the Transcendental Meditation technique in the last 40 years. As well, over 75,000 individuals have been taught the TM-Sidhi program, and many practice individually as well as those who participate in group practice. There are several research studies indicating that the square root of one percent of a population practicing the TM and TM-Sidhi program brings greater coherence to society as seen by changes in crime rate (Hatchard, Deans, Cavanaugh, & Orme-Johnson,

1996), accident rate (Dillbeck, Larimore, & Wallace, 1991), and indices of quality of life (Dillbeck et al., 1987; Orme-Johnson, Alexander, Davies, Chandler, and Larimore, 1988; Orme-Johnson, Gelderloos, & Dillbeck, 1988). Thus, according to the theory that informs this research, the numbers of individuals practicing the TM technique and the TM-Sidhi program throughout the country have contributed to development of coherence in society which could support a more sustained effect of any particular project.

As well, a permanent group of practitioners of the TM and TM-Sidhi program was established at Maharishi University of Management (formerly known as Maharishi International University) in 1979, and has continued group practice to date. Several previous studies have assessed the influence of that group along with several short courses similar to the Demonstration Project on a number of variables including the economy, U.S.-Soviet relations, and crime rate. The influence of the permanent group on approval ratings and the media is discussed in a longitudinal study (Goodman, 1997).

The sustained effect after the Demonstration Project may have also been partially due to the synergistic interaction between the variables, whereby the Maharishi Effect influences the media, for example, which in turn influences approval ratings. The longitudinal study (Goodman, 1997) examined the implications of this relationship between variables in
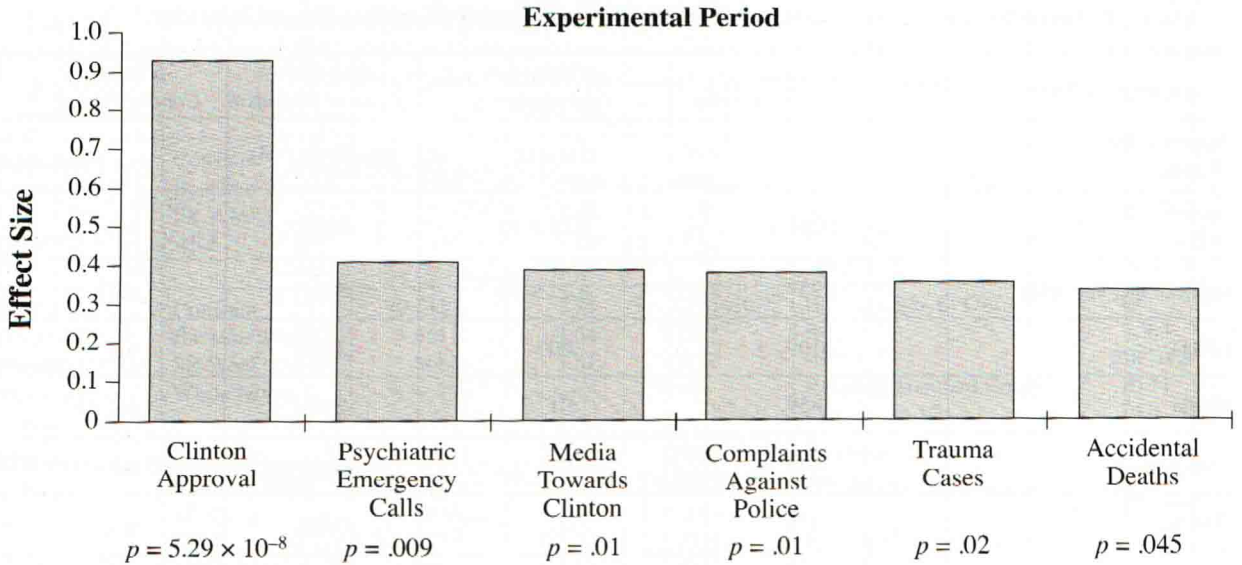
Experimental Period

Fig. 4. During the experimental period all the dependent variables showed a significant change in trend in the predicted direction of increased coherence in society. The effect size is calculated as the t value of the independent variable divided by the square root of the effective number of observations of the model.
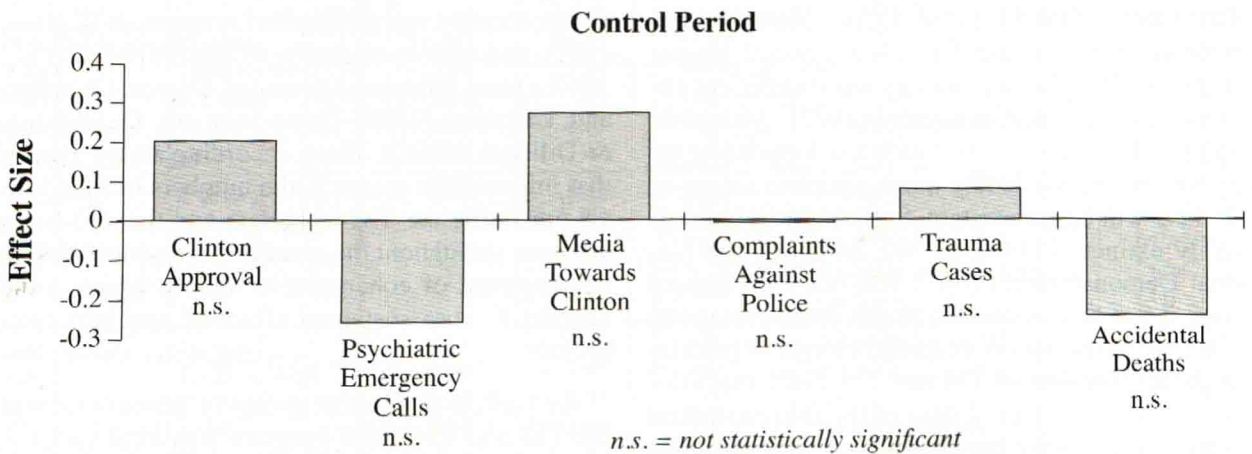
Control Period

FIG. 5. During the control periods at the same time of year in other years, the dependent variables did not change significantly or consistently in the predicted direction. The effect size is calculated as described for Figure 4.

an interactive system. Because the Maharishi Effect appears to have an impact on the media as well as on the approval ratings, perhaps the positivity attained by the media, resulting from the influence of the Maharishi Effect, is passed on at various lags to the approval ratings, thus providing for delayed effects of the Demonstration Project which would contribute to the extended duration of impact.

The major premise of the National Demonstration Project was that alleviating crime would create a more coherent atmosphere within which government could make more effective decisions (Hagelin,

et al., 1999). Results of the crime data analysis indicated that crime rate decreased by 23.3% in the final weeks, and there was a sustained effect in the crime results similar to that seen in the variables studied in the present research (Hagelin et al., 1999). The long decay parameter which was found with the crime analysis points to cumulative effects of the NDP— the effects of one day carrying to the next day over the period of the Demonstration Project, thus building the effect over time. This supports the findings in the current study because according to the prediction, a sustained decrease in the crime rate would contribute to sustained coherence in government. The

indicators of social stress studied also pointed toward a decreased trend in stressful outcomes in D.C. during and after the Demonstration Project.

Trends in the Approval Ratings Data With Other Presidencies

Unlike previous presidents, Clinton did not enjoy a "honeymoon" period, in which the media and the public suspend judgment for a short period of time. By visually examining the Gallup poll data for previous presidencies (Truman through Bush), provided by Public Opinion ("Closing the book," 1989), it was possible to note any similarities of Clinton's first year with the other presidents' approval ratings. Using approval ratings of those presidents who took office in January, it can be seen that no other president presented an identical pattern of change to that of Clinton. Thus, a trend of diminishing results from the beginning of the presidency with an upsurge in the sixth month can be ruled out as standard for a president.

Alternative Explanations for Results in the Approval Ratings During 1993

As has been described in the literature on approval ratings, a number of possible influences on public opinion have been proposed: the impact of the economy, international crises and events (including a possible rally effect), domestic events, and the media as a filter (Brody, 1991; Edwards, 1989; Kernell, 1978; MacKuen, 1983; Ostrom and Simon, 1985; Stimson, 1976). War was obviously excluded in this discussion as the United States was not at war during the experimental period in 1993.

The Economy. According to Peffley & Williams (1985), presidential approval ratings are influenced by the public's perception of the extent to which the president is responsible for economic conditions. However, change in economic conditions do not seem to be able to account for the turn around in President Clinton's popularity. Jones (1996) comments that Clinton did not get credit for a strong economy even though the respondents to poll questions concerning the economy indicated that they felt that the economy was improving (p. 35). The unemployment rate appears to have decreased gradually from 7.6% in July, 1992, to 6.4% in November 1993 (Survey of Current Business, 1993). This change in rate began prior to the beginning of Clinton's term and so would probably not be attributed to early policy implementation by the new administration. In a Gallup Poll survey of September 10th–12th 1993,

the public was asked: "What do you think is the most important problem facing this country today?" (p. 168). In the poll, respondents continued to feel that the economy was the most important problem.

International Crises. The approval ratings literature describes the impact of international events which may affect presidential approval ratings within the context of a variable called the "rally phenomenon." The rally phenomenon occurs when Americans appeared to rally in support for the President, and thus create a short-term surge in the approval ratings (Brody, 1991). The three criteria for rally events according to Mueller (1970) were that the event was international, involved the U.S. and particularly the president, and was "specific, dramatic, and sharply focused" (p. 21). The only international event which might be considered a "rally" point in June (and therefore responsible for a rise in approval of President Clinton in the polls) was the Iraq bombing on June 26. However, the turn-around in the polls occurred earlier in June and therefore the bombing could only account for a surge in the polls in late June, not for the change in trend that began sooner. As well, Edwards comments about this rally: "...Bill Clinton was not able to add new groups to his coalition of supporters through the use of military force. Even more important, the rally dissipated rapidly" (1996, p. 243). Moreover, whereas research and Edward's commentary indicates that the rally phenomenon accounts primarily for short-term surges in approval (particularly noted in this case), the Demonstration Project is associated with a change in trend that was sustained over six months.

Domestic Events. The impact of domestic crises such as scandals, riots, strikes, and the announcement of presidential policies, is more elusive than their international counterparts. Although there were no major scandals during the first six months of the presidency, in the eyes of the press and the public the whole series of events taken in combination, such as the failed nominations and the airport haircut, reflected poor judgment and lack of thoroughness on the part of the president. What factors contributed to the changes in public perception of the president's integrity and competence? Did President Clinton become more noticeably effective to the public, and/ or did the press find more interesting stories to discuss, as commentators have proposed?

David Gergen's appointment on May 29th to the position of Communications Director previously held by George Stephanopoulos was at first hailed as a

turn-around point in the administration's relationship with the media. Yet common sense must ask how it would be possible to assume that the press's cynicism, attributable to events going back as far as Watergate, could be turned around so quickly by only one person? More recently an article in Newsweek indicated that Gergen was not playing the key role that had been originally hoped (Clift, 1994). If Gergen alone was not responsible for the sudden turn-around in the polls, how could the long-standing cynicism be transformed so quickly? It is plausible, therefore to consider that a more profound change in collective consciousness was needed in order to create a climate within which the press could return to a more objective and even-handed level of reporting.

Sally Quinn commented on this change to the press on July 18th:

> Well, in case anyone hasn't noticed, Washington at the moment, is in a lull—at least from the vantage point of the inmates. After months of terrifying, near-death experiences, things have settled down. Put another way, having completed the first eighth of a presidential term ... the Clinton administration appears to have revived. You know this must be so because columns of newsprint have proclaimed it to be so. Suddenly, all you read about is that David Gergen saved the day, that Clinton 'captivates Japan,' that he is being tough with Saddam Hussein, that he is bringing relief to the flood states in the Midwest. Boring human interest stories ramble on. Washington has relaxed. *But such a swift reversal of political fortune is not easy to account for. The inmates may logically wonder whether Clinton really turned things around or if something else is going on ... almost mysteriously and almost overnight, in the face of government distress, the press seemed to be transformed from a hostile, angry mob to a pack of fawning pussycats* ... [italics added] (1993, p. C-1)

Maharishi's (1995) theory of collective consciousness suggests that it is stress in the collective consciousness which results in the head of state acting in a less than ideal way, and lack of coherence in society which leads to a lack of mutual support between the head of state and the constituents. Whereas the perception of President Clinton reflected in the press changed dramatically after the Demonstration period began, this was predicted in advance based on theory and previous research by the organizers

of the Demonstration Project who predicted that results of the project would include less government gridlock and more appreciation and success of President Clinton, his administration, and Congress due to the coherence in collective consciousness created by the Project (Hagelin, Orme-Johnson, Rainforth, Cavanaugh, & Alexander, 1994).

CONCLUSIONS

From the results across variables in this study it can be concluded that:

1) The Extended Maharishi Effect has a simultaneous, significant impact across many levels of society as demonstrated by the variety of variables presented in this study, including government-related variables and quality of life variables.

2) The Extended Maharishi Effect examined in this study demonstrated field effects, as the impact was seen in local and national events from groups practicing the TM and TM-Sidhi program in one area.

3) The results of the Demonstration Project were predicted in advance of the collection and analysis of the data.

4) Measurement bias was controlled for through use of publicly available data from governmental agencies (emergency psychiatric calls, complaints against the police, accidental deaths, trauma cases) and data which was coded by independent researchers and their assistants blind to the hypotheses during the coding of the data (presidential approval ratings, and media attitude towards the president).

5) Rigorous statistical tests were used to assist in disallowing measurement bias: time series analysis was utilized. An objective decision statistic was used to chose a final model for an equation, in the form of minimizing the AIC (the Akaike Information Criterion), which indicates the most adequate and parsimonious model (Larimore & Mehra, 1985).

6) The results cannot be attributed to coincidence, due to the consistency of highly significant p values across variables in contrast to the lack of consistent change in the control period at a comparable time of year in another year.

The findings may be viewed as indications of increased coherence in society. Taken together, they indicate the kind of change that could lead to a paradigm shift. The Demonstration Project and other

such short projects throughout the 1980's, and the permanent group of Transcendental Meditation and TM-Sidhi practitioners in Fairfield, Iowa have contributed to coherence in society in a way that can be measured and replicated. The results of these studies indicate that variables representing government success, public approval, and stress in Washington, D.C. are responsive to the field effects of consciousness in the direction of greater positivity. This points toward the possibility of a more effective, successful government with the support of the constituency, if a large group were practicing the TM and TM-Sidhi program in the nation's capital on a permanent basis—a Group for a Government.

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