



### JOHN HAGELIN

E'RE LIVING IN AN EPIDEMIC OF STRESS.

Doctors report an alarming rise of stroke, hypertension, and heart disease—now called metabolic syndrome—all of which are diseases of stress. As a result, we would expect to see stressed behavior in society, and it turns out there is plenty of it: crime, domestic violence, terrorism, and war.

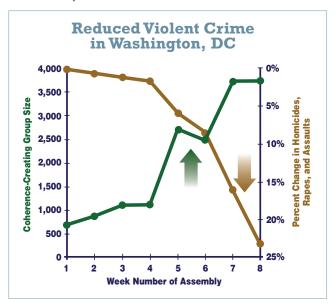
Since meditation provides an effective, scientifically proven way to dissolve individual stress, and if society is composed of individuals, then it seems like common sense to use meditation to similarly defuse societal stress. A reduction in crime and stress-related behavior would then be expected to follow.

Nobody would have ever guessed—I wouldn't have guessed—the extraordinary degree to which you can reduce social violence through meditation, because it doesn't take everyone meditating to generate profound effects. A relatively small number of people meditating together has a powerful spillover effect, reducing stress throughout a surrounding area in a measurable way. That's the phenomenon I want to focus on. That's where the really interesting physics and metaphysics can be found.



#### **REAL-WORLD EFFECTS**

A study I conducted in the summer of 1993 in Washington, DC, shows rising crime levels over a period of six months, which take place every year as the temperature gets hotter between the winter and the summer. People stay out later, they are more aggravated and agitated, they get into more fights, and the crime rate goes up. This is an absolutely known annual trend. From June through July of that summer, we brought to the area a large number of practicing meditators and trained quite a few others. When the group reached a particular size—2,500 (ultimately reaching 4,000)—which was about halfway through the period, there was a distinct and highly statistically significant drop in crime compared to expected rates based on previous data, weather conditions, and a variety of other factors.



Source: Social Indicators Research 47:153-201, June 1999

We collaborated with the local police department, the FBI, and 24 leading, independent criminologists and social scientists from major institutions, including the University of Maryland, the University of Texas, and Temple University, who used highly sophisticated research tools to control for variables such as weather. Everyone ended up agreeing on the language, the analysis, and the results, and those results were quite astonishing. We predicted a 20 percent drop in crime, and we achieved a 25 percent drop. Just before the study, the Washington, DC, chief of police went on television and said something like, "It's gonna take a foot of snow in June to reduce crime by 20 percent." But he allowed his

department to participate in the experiment by collecting and analyzing the data. In the end, the police department signed on as one of the authors of a published paper (see Social Indicators Research 47:153–201, June 1999).

In this case it was only a few thousand people in a city of about a million and a half. So a relatively small group was influencing a much larger group. This is what is so fascinating. And it has implications for more than just crime. In my opinion the most immediate implications today in the world are stopping ethnic wars, the conflict in the Middle East, and so on. And in fact a similar experiment was done during the peak of the Israel-Lebanon war in the 1980s. We found that on days when the numbers of meditators were largest (and also on the subsequent day), levels of conflict were markedly reduced—by about 80 percent overall. This turned out to be a statistically significant effect and also a surprising one, because there were only about 600 to 800 people meditating in the midst of this entire conflict and the highly stressed surrounding population.

The results were published in Yale University's Journal of Conflict Resolution (32:776–812, December 1988), which also published a letter urging other universities, collaborators, and groups to repeat this study. The editors felt that the implications of this were so far reaching, so fundamentally important, that it must be repeated to test the likelihood that the results were a statistical fluke. And that's exactly what happened over the next two and a quarter years. During this 821-day period, seven subsequent experiments were performed to examine the effects of group meditation on the Israel-Lebanon war. These groups gathered in Israel, in Lebanon itself in the actual conflicted neighborhoods, and at locations throughout the Middle East, Europe, and other parts of the world.

In each case, when the size of the group reached the threshold that was predicted (based on previous research) to have an effect, there was a marked and statistically significant reduction of violence. We have also found in other studies that in the geographic vicinity of such a meditating group, people experienced physiological changes—increased EEG coherence, reduced plasma cortisol, increased blood levels of serotonin, biochemical changes, and neurophysiological changes—as if *they* were meditating.

When you put all these studies together, the likelihood that

continued on page 19

## TM and Intention

As Shift and the team at the Maharishi University of Management collaborated on this article, a conversation ensued on the role of intention and location. Here is part of that thread:

**Matthew Gilbert:** In thinking about this phenomenon and related research, would you say that intention is an aspect of it? It occurred to me that intention may have nothing to do with these effects, that they are the result of a general, undifferentiated resonance shift without specific purpose.

**Ken Chawkin:** You raise a very interesting point. The Demonstration Project that John Hagelin led in Washington, DC, in 1993 had an associated prediction: that meditation would lower the severe crime rate. Same thing with the Israel-Lebanon war in 1987. Would you call each of those an intention?

The only role that intention plays in Transcendental Meditation (TM) is that one does the specific technique; participants don't intend anything in the outside environment. If anything, they are told to "mind your own business," which means focusing inward and on the practice. The outward effect is a lessening of negativity in the surrounding environment; the larger the group, the greater the extent of their influence.

**David Orme-Johnson:** Just to reinforce what Ken said: During TM there are no specific intentions for any specific effect, only the intention to do the simple procedure. The TM-Sidhi program does entail specific intentions related to specific predicted outcomes—for example, to gain some perceptual abilities or to "fly" [an advanced TM-Sidhi technique]. But these are all personal results that the person wants to have. There is no intention to achieve a specific collective effect.

In contradistinction to techniques that have an intention to produce some specific effect (such as healing a particular person or praying for world peace), the intention of TM and TM-Sidhi is to simply get to pure consciousness and to leave the outcome to that level. It's akin to "Let Thy Will be done" as opposed to "Please God, I would like such and such." Unlike prayer, there is no God concept or intentional verbal thought involved.

Having said that here, Maharishi Mahesh Yogi [who brought TM to the West] once commented that we call our gatherings "World Peace Assemblies" and that people come to them with that outcome in mind. And there are large banners in the meditation halls that say "World Peace Assembly" or "Invincible America Assembly" as a kind of reminder of why we are there.

And there are predicted outcomes about such things as crime rates that some or perhaps most of the course participants have heard. But it's not something that one thinks much about, and certainly it isn't a part of the techniques themselves. Maharishi explains that it is like going to the store. You have that initial intention, but you don't think at each step of the way, "I am going to the store ..." You put it on automatic.

The mechanics of it are very subtle. There are no specific intentions about specific impacts on society in any part of the program, but the overall intention of being in these assemblies is to make things better in a somewhat specific way, such as world peace. We are hoping for the best but leaving it to God, if you will, to define what is best and to work out how to accomplish it. What we have to do is raise our own level of consciousness. MG: The other question I have is whether violence-reduction measurements are taken in a particular place (for example, Washington, DC) because it's more conducive to these techniques or whether in theory the same effect would be found everywhere. DOJ: In theory the effect would be found everywhere. The limitation is available variables. Crime is one variable that is systematically kept. Additionally, since our primary goal is world peace, we focus on stopping violence as a first step. Obviously, we also want economic prosperity, equity, justice, and a

**KC:** We also noticed that once our groups were pulled out of an area, the violence would return to historical levels. We want to create permanent world peace and not just a momentary quelling of violence in a specific area. To that end, large groups are being set up in many countries, especially in India and the United States. An added feature is to have these groups functioning from the geographical *brahmasthan* (in Vedic tradition, the "central point") of each country because the effect then becomes that much more powerful.

reduction in racial and cultural tensions—the (Maharishi Effect)

theory predicts that everything will improve globally. The

**Ken Chawkin** is media relations officer at the Maharishi University of Management.

**David Orme-Johnson, PhD,** is one of the world's most published researchers on the Transcendental Meditation technique.

**Research Links** 

www.permanentpeace.org www.invincibility.org

challenge is how to measure it.

### continued from page 17

the reductions of violence were simply coincidental—a statistical fluke—was less than one part in 10 million million million (10<sup>19</sup>). An overwhelming number of papers documenting more than sixty different experiments of group meditation's effect on conflict have been published in peer-reviewed scientific journals that have the most stringent standards for research. I believe it is the most rigorously established and thoroughly tested phenomenon in the history of the social sciences.

# STRINGS AND SPACE-TIME

There is a fundamental principle called *constructive interference*. It has to do with the coherent influence of multiple radiators, such as when more than one loudspeaker or radio antenna is playing the same music. The individual sound waves from each source combine to make a bigger wave; the power is proportional to the square of the height of that combined wave. Therefore, the radiated power when you move loudspeakers together grows in proportion to the square of the number of loudspeakers-in this case, you get the power of nine loudspeakers by moving three of them together. The same will be true with any group of coherent radiators,

whether loudspeakers, antennas, or number of people meditating, which helps explain why only the square root of a certain percentage (1 percent) of a population is enough to have a repeatable and demonstrably measurable effect on, in the case of our meditation assemblies, rates of violence. In the United States, the square root of 1 percent of 300 million citizens is only 1,732 people.

But how we do have such an influence on one another at

a distance? There are no clear answers yet, but I believe that the clue lies in the notion that beneath the physical levels of human existence—our bodies and the quantum realm of molecules, atoms, quarks, and leptons—is a unified field of pure, abstract, universal consciousness. It's at this level of reality, this level of nonlocal mind, where you discover that the qualities of space are, at least in theory, capable of accommodating extraordinary experiences. As you get way down there, space starts to change. It starts to roil and boil in what's called space-time foam. And in this space-time foam, this continual frothing and upheaval of space-time geometry, wormholes get created. These

"I think the claim can be plausibly made that the potential impact of this research exceeds that of any other ongoing social or psychological research program. It has survived a broader array of statistical tests than most research in the field of conflict resolution. This work and the theory that informs it deserve the most serious consideration by academics and policy makers alike."

—David Edwards, PhD Professor of Government University of Texas at Austin wormholes do not obey Einsteinian causality. You're able to influence things in the past as well as the future.

In addition to the particles and forces we know and love-gravity, electromagnetism, and so forth—there are additional forces and particles that we don't see, but they fill the room. It was once thought that these were irrelevant to human life because they only interacted with us gravitationally, which is too weak to be of any interest. But if you do the calculations properly in the context of the superstring, you find that they also interact with us electromagnetically, even if rather weakly. This means that surrounding us in this room is a dimly lit world—dimly

lit from our perspective, not dimly lit from its perspective. We are dimly lit from its perspective. And in that dimly lit world there may be, and probably are, bodies and objects and things—and some very interesting mechanisms—that we don't have in our observable-sector world and yet are very effective radiators or communicators over vast distances.

This is not science fiction; it is demonstrable using the mathematics of superstring theory. A physics of subtle



bodies—of thought—is emerging that is very new, very exciting, and suggests additional mechanisms for longrange interactions between people. It suggests that we live in predominantly flat space, and that this space is crisscrossed by shortcuts that provide paths of instantaneous communication across vast distances, even into the past or the future. If we assume that at our core level of being we are all intimately connected in a unified field where we are all one, it becomes very easy to understand how we influence one another. And when we contact this unified field of being, we enliven that unity, that harmony, and that coherence in the collective consciousness of society. And by doing so, everybody seems to flow more 

—The preceding was excerpted, abridged, and edited from a talk

given by Dr. Hagelin in Holland and videocast at an IONS regional conference on February 18, 2007, in Tucson, Arizona.

JOHN HAGELIN, PhD, is a quantum physicist, educator, public policy expert, and one of the world's foremost proponents of peace. He is director of the Institute of Science, Technology, and Public Policy, and international director of the Global Union of Scientists for Peace. For more information, go to http://hagelin.org.

