

Individual and Collective Consciousness as the Basis for Sustainable Development

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Abstract

The world has long been beset by problems. Many, if not all, of the problems we currently face as a species and as a planet stem in large part from the role humanity has played in its interactions with those of our own kind and with our animate and inanimate surroundings. To the extent that our attention is primarily focused on our own personal needs and those of our families, immediate communities, cities, states and nations, the larger-scale health needs of our species and our planet, both in the present and over time, may be ignored or relegated to a secondary status. Our educational systems have to a great extent been focused primarily on imparting information and developing skills directed towards external practical applications, emphasizing the acquisition of facts and modes of thinking that will allow an individual to move about successfully in the world. Often missing in educational settings is an additional emphasis on cultivating an individual's capacity to draw on deeper inner resources that can promote increased stability, flexibility and breadth of appreciation of larger scale societal and environmental needs. One approach to structuring an educational component designed to address these outcomes has been the introduction of meditation programs of various types in school, health care and community settings. Experience with such programs indicates that individuals trained in meditation practices exhibit improved academic and professional performance, reduction in anxiety and inner stress, broader comprehension, and more fluid and productive social interactions. Moreover, data suggest that with at least one type of meditation practice, an influence of positivity and harmony is created that extends into the surrounding society and that can be detectable at large distances, depending on the numbers of people engaged. It is possible that a societal influence of this sort may be mediated at a fundamental level of nature at which the consciousness of individuals is interconnected. Since achievement of the Sustainable Development Goals depends on the quality of consciousness of the individuals that make up society and of the collective consciousness of social and governmental systems at all levels, a consideration of the data and theoretical mechanisms related to these observations, and the potential application of such programs on a broader scale, merits further attention.

Education for Sustainable Development: An Issue of Consciousness and Values

In February of this year, Professor Jeffrey Sachs delivered a lecture at Durham University in the UK entitled "World Consciousness and Sustainable Development" (Sachs 2017). In that lecture he described challenges confronting the world that have been outlined in the 2030 Agenda for Sustainable Development and posited that a critical problem humanity is facing exists on the level of our consciousness, our awareness, our ability to keep our attention on addressing the issues that are of such fundamental importance to our future as a species. Recognizing the role that humanity has played in creating or exacerbating major problems that we face, he quoted John F. Kennedy who said on June 10, 1963 that "Our problems are manmade – therefore they can be solved by man." Professor Sachs pointed out that failure to solve these problems would be a result of bad choices on our part, not a result of necessity, and urged us to combine our consciousness, our faculties of attention and our capacities to reason in order to understand our

options and to choose well. But he raised the question as to how we can do that at a societal level and at a global level, asking whether we can have a social consciousness, a worldwide consciousness, that enables us as a world, as a community, to think together about what to do. He exhorted in particular the “epistemic communities”, the knowledge communities, the expert communities, to create a roadmap, a way forward, to mobilize the requisite expertise and technology to confront our complex problems at a global scale, saying that we need “mass public education” and that we need to find the ways to “light up the social consciousness”.

Another global thinker and doer, the late Jonas Salk, who led the team at the University of Pittsburgh that developed the first polio vaccine in the 1950s, pointed to consciousness as fundamental to what he termed the “metabiological” phase of the evolutionary process, in which evolution is taking place in the human mind and its social, cultural and technological products (J. Salk 1983; P. Salk 1992). He emphasized the importance of intuition as well as reason in the functioning of the mind, and the need for appropriate interaction and balance between the two in order to optimize both creativity and the choices that we make as individuals and collectively. He viewed human society as being in the midst of a transition from an era in which the dominant values and attitudes were shifting from those geared to support continual outward growth, such as competition and a self-centered orientation, towards those that would be necessary to promote a sustainable phase of human existence, such as cooperation and mutualism. He foresaw the need for our educational systems to be cultivating both intuitive and cognitive dimensions with the goal of creating well-balanced individuals (J. Salk 1977, 148).

The question then arises as to what sort of additions to our educational systems, on all levels, might be useful in cultivating an individual’s capacity to draw on deeper inner resources that can promote increased stability, flexibility and breadth of appreciation of larger scale societal and environmental needs, and to what extent such programs might exert a positive influence on the surrounding society.

Supplementing Educational Programs

Two approaches that have been explored in educational settings in recent years are mindfulness and Transcendental Meditation (TM) (Shapiro et al. 2015; Colbert and Nidich 2013). Programs of both types have been found to create positive changes in students’ educational and life experiences, improvement in the school environment, and reduced stress and increased resilience on the part of participating teachers.

For example, the Quiet Time program was introduced between 2007 and 2011 in the San Francisco Unified School District (SFUSD) by the Center for Wellness & Achievement in Education in two middle schools and two high schools with high proportions of socioeconomically disadvantaged and English-learning students (CWAE 2015). In this program, students had the option to learn and practice TM during two restful 15-minute periods each day, or to do another quiet activity such as sustained silent reading or quiet sitting. A series of 17 studies was conducted to evaluate the impact of Quiet Time as a whole and the specific impact of practicing the meditation program. Participating students demonstrated significant increases in academic performance, particularly among students who were lower-performing prior to the start of the program, as well as improvements in psychological and social measures such as reductions in anger, anxiety, depression and fatigue, and increases in ability to focus, resilience, self esteem and happiness. Results were more pronounced among students who were most regular in their practice of the meditation program during quiet time periods. Teachers and administrators who learned and practiced the meditation program showed similar improvements with respect to increases in resilience and measures of brain integration, and decreased

emotional exhaustion, burnout and mood disturbances. Moreover, clear changes were observed in the school atmosphere, with substantial decreases in fighting and, as one teacher put it, “the whole school became more peaceful and functional.” Speaking in support of the success of the program, the SFUSD Superintendent said in reference to the usual approaches to education, “Isn’t it ironic that we teach students about everything except about themselves?”

Applications in Other Settings

Mindfulness and TM have also been applied in a variety of clinical and community settings. One area that has been targeted is the use of these programs in individuals suffering from posttraumatic stress disorder (PTSD), which is common, for example, both among U.S. military veterans and among refugees in Africa. A study comparing mindfulness-based stress reduction (MBSR) therapy with a control therapeutic intervention showed a clinically significant improvement in self-reported PTSD symptom severity in the MBSR group after two months of weekly group sessions (Polusny 2015). Introduction of TM in a group of 21 Congolese refugees who had fled to Uganda following severe traumatic experiences during the Second Congo War resulted in a marked reduction in self-reported clinical symptoms within 30 days compared to a matched delayed-start control group (Rees 2013), with substantial effects observed within 10 days in a group of 11 individuals from the initial control group in a follow-up study (Rees 2014). A video record of the experience of a refugee who fled to Uganda from Sudan in 2009 and reports the changes in her mental and emotional state shortly after learning TM is particularly telling (Transcendental Meditation 2014).

Both types of programs have also been investigated in other high-stress situations, including in prisoners (Samuelson 2007, Alexander 2003) and in prevention and treatment of drug and alcohol addiction (Witkiewitz 2013, Alexander 1994), with favorable results. For example, the introduction of a mindfulness program as part of aftercare treatment for substance abuse disorders produced a significant reduction in craving for alcohol or drugs (Witkiewitz 2013), and the use of TM by inmates resulted in a 33% reduction in the rate of recidivism following release compared with participants in four other rehabilitation-oriented prison programs (Alexander 2003).

These examples, together with the examples noted above with respect to the use of these programs in educational environments, along with other research not touched on here, suggest that both mindfulness and TM should prove useful in multiple settings in which reductions in stress, expansion of comprehension and improved social interactions would be beneficial not only to the individuals practicing these programs but also to the communities in which they live.

Creating an Influence of Positivity in Society

A body of research has accumulated suggesting that positive effects of the practice of at least one form of meditation, TM, are not limited to the individuals practicing the program, but that in addition a positive influence can be detected in the surrounding society.

A phenomenon of this sort had been predicted based on the concept that during the practice of TM the activity of an individual’s mind would settle down to a state in which the usual content of consciousness – thoughts and sensory experiences – would cease and the individual would be left in a state of what has been described as “pure consciousness”, where the person would be aware of consciousness itself in the absence of particular boundaries of ideas or experiences. One way of looking at this proposition is that in such a situation, a person’s subjective nature would be experienced in its “least excited state”, where the person would be experiencing inner

wakefulness without the limitations ordinarily imposed by our usual focus on and preoccupation with specific ideas and/or sensory impressions. Another way of describing such an experience would be that it is an experience of “unbounded awareness” (awareness not limited by particular boundaries imposed by thoughts and/or sensory inputs), or “transcendental consciousness” (consciousness that has transcended the boundaries of our ordinary thinking process).

Parallels have been suggested between this type of subjective experience and the structure of physical nature at finer levels. Modern physics has been examining the relationship between the four so-called fundamental fields: the electromagnetic field, which supports the propagation of photons and forms the basis for the transmission of light and other aspects of electromagnetic radiation; the weak nuclear force, which is responsible for radioactive decay; the strong nuclear force, which binds together the particles (protons and neutrons) in the nucleus of atoms; and the gravitational field, which is responsible for the gravitational attractions between physical objects. For many years, each of these four forces was understood to be independent from the other three. However, in recent decades, with the advent of more powerful instrumentation capable of conducting experiments at higher and higher energy levels, it became apparent first that, although the electromagnetic and weak nuclear force fields appeared to be separate from each other at ordinary energy levels, at a deeper level (able to be probed with the higher-energy instrumentation), the two fields turned out to be one and the same: the so-called “electroweak” field. Later, it was discovered that at yet deeper levels, the electroweak force and the strong nuclear force were indeed one and the same. A concept has been developed that it should be possible ultimately to discover that gravity, now an outlying force field of its own, is, in the final analysis, one and the same as the other three now-unified fields. If that turns out to be the case, then our understanding of nature at its deepest level will be simplified, with there being only one “Unified Field” at the basis of all of nature, with respect both to the force fields and to the plethora of “fundamental particles” (e.g., electrons, muons, neutrinos, quarks, etc.) that have their source in, or are expressions of the activity of, the proposed underlying Unified Field.

How are these two concepts – a state of unbounded awareness at the basis of our conscious experience and a single Unified Field at the basis of physical nature – potentially linked? We might ask ourselves where the subjective aspect of existence comes from to begin with. If all of the world we live in is made up simply of inert, non-sentient physical particles and force fields that interact in such a way as to create stars, galaxies, molecules and the bodies of biological creatures, where would we look to understand where the subjective element that we know so definitively to be present came from? How would it arise from purely “objective”, physical “stuff”? Given the two streams of thought outlined above, one suggestion might be that, at its base, subjectivity is part and parcel of the single underlying Unified Field that supports the expression and existence of the outer physical world. If that is the case, then the subjective experience of “pure consciousness”, or “transcendental consciousness”, could represent an individual’s experiencing on a subjective level the essence of a Unified Field that underlies all of what we might think of as “outer” physical reality.

If this view were to hold up to scrutiny, one important implication would be that, since each person in theory has the ability to experience a state of “pure consciousness” on an individual level, and since that state of consciousness would, given this conception, be identical with the single Unified Field that underlies all of existence, then, in the final analysis, the state of “pure consciousness” that underlies each individual’s ability to experience the wide range of subjective phenomena associated with thoughts and perceptions would be identical for all people – being nothing other than the Unified Field itself. In that case, conceptually, it would not be difficult to understand why one individual practicing Transcendental Meditation might create an influence within his or her own consciousness (in its most settled state, the Unified Field) that

could have an effect on the consciousness of others in the surroundings – whose consciousness also, on the deepest level, is nothing other than the settled state of the Unified Field.

For a more extensive discussion of the concept that consciousness is an integral aspect of the proposed Unified Field, see Hagelin (1987).

An intriguing study was conducted on the intensity of the war in Lebanon during a 27-month period in 1983-1985 (Davies 2005). During this time seven gatherings were organized in Israel, the U.S., Lebanon, Yugoslavia and the Netherlands in which individuals trained in the practice of TM and a related advanced program called the TM-Sidhis program came together for periods ranging from 9 to 77 days in order to practice in groups that ranged from a maximum size of 70 (the Lebanon gathering) to 7,830 (the first of the three U.S. gatherings). The purpose of each of these gatherings was to create a positive influence and reduction of stress in local and/or world consciousness (depending on the location and size of the groups) that would result in a greater degree of positive and a lesser degree of negative behaviors on the part of individuals and the surrounding society as a whole. Only in the case of the Israel gathering and the gathering in Lebanon was there a directly expressed consideration of a possible constructive influence on the ongoing war in Lebanon. Participants in the gatherings were not instructed to focus attention on any particular outcome; they were merely to practice the meditation programs together in a group in the same way that they would otherwise practice at home.

Figure 1 (taken from Hagelin 1989, 54, with permission) shows a plot of changes in a war/peace index constructed from news reports reflecting the status of the situation in Lebanon that were coded by an observer blind to the purposes of the data analysis. The time period of this plot (from November 13, 1983 through May 18, 1984) includes the large Iowa assembly (maximum size 7,830), the much smaller assembly in Lebanon (maximum size 70), and the assembly in Yugoslavia (maximum size 2,500). The chart suggests that improvements in the war/peace index (movement in an upward direction) were observed during each of the three assemblies – and in the case of the Iowa assembly, particularly during the second half of the gathering when a second wave of participants joined the group. Time series analysis indicated that the changes observed in the war/peace index were significantly different from what would be expected by chance alone ($p < .00005$).

Figure 2 (taken from Hagelin 1989, 56, with permission) depicts on the left changes in a conflict scale (constructed in a fashion similar to the war/peace index shown in Figure 1) during the period from June 1983 through August 1985, comparing the periods when each of the seven assemblies occurred to the remaining 89% of the time (“non-experimental period”) when no such assemblies were in place. The right side of the chart shows a similar display of war fatalities during the full period of observation. The charts indicate that the conflict in Lebanon was less intense during the 11% of the period of the study when assemblies were in place (48% overall reduction in the conflict scale and 71% overall reduction in war fatalities) than during the combined non-experimental periods (Hagelin 1989, 55). Time series analysis indicated a high degree of statistical significance with respect to both comparisons ($p = 3 \times 10^{-9}$ for the conflict scale comparison and $p = 1 \times 10^{-10}$ for the war fatalities comparison).

These data suggest the possibility that an influence of harmony may have been created by the groups of meditators that affected the intensity of the war in Lebanon. In five of the seven cases, the groups were convened at large distances from Lebanon itself.

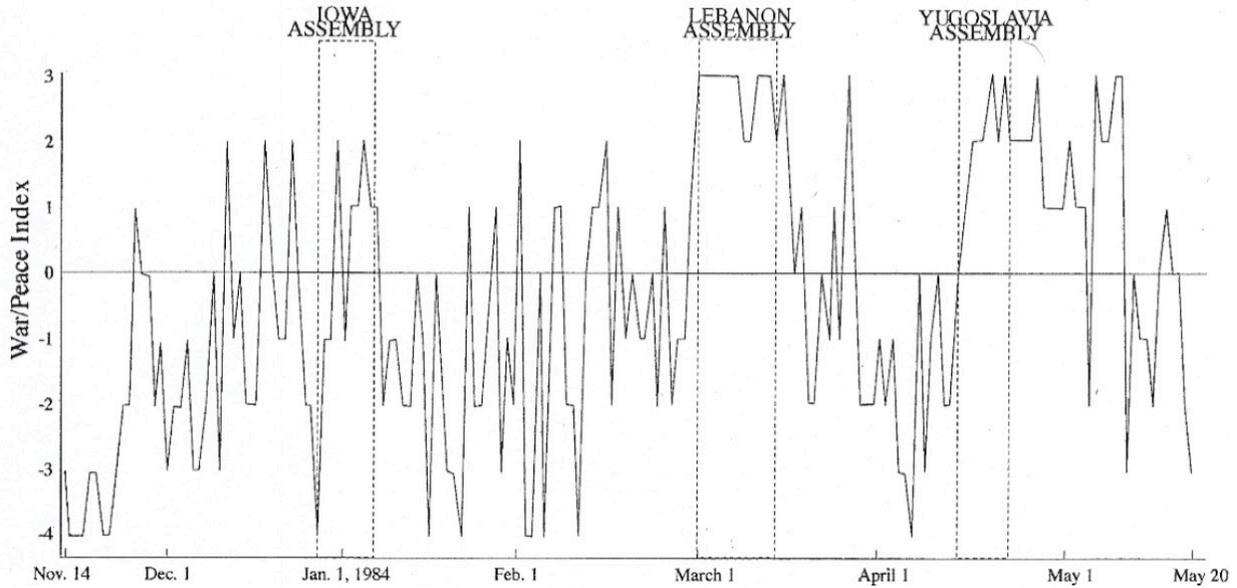


Figure 1. Changes in the war intensity in Lebanon in association with three different assemblies of groups practicing TM and the TM-Sidhis program during the six-month period from November 13, 1983 to May 18, 1984. Upward changes in the index represent decreased war intensity and/or progress towards peace.

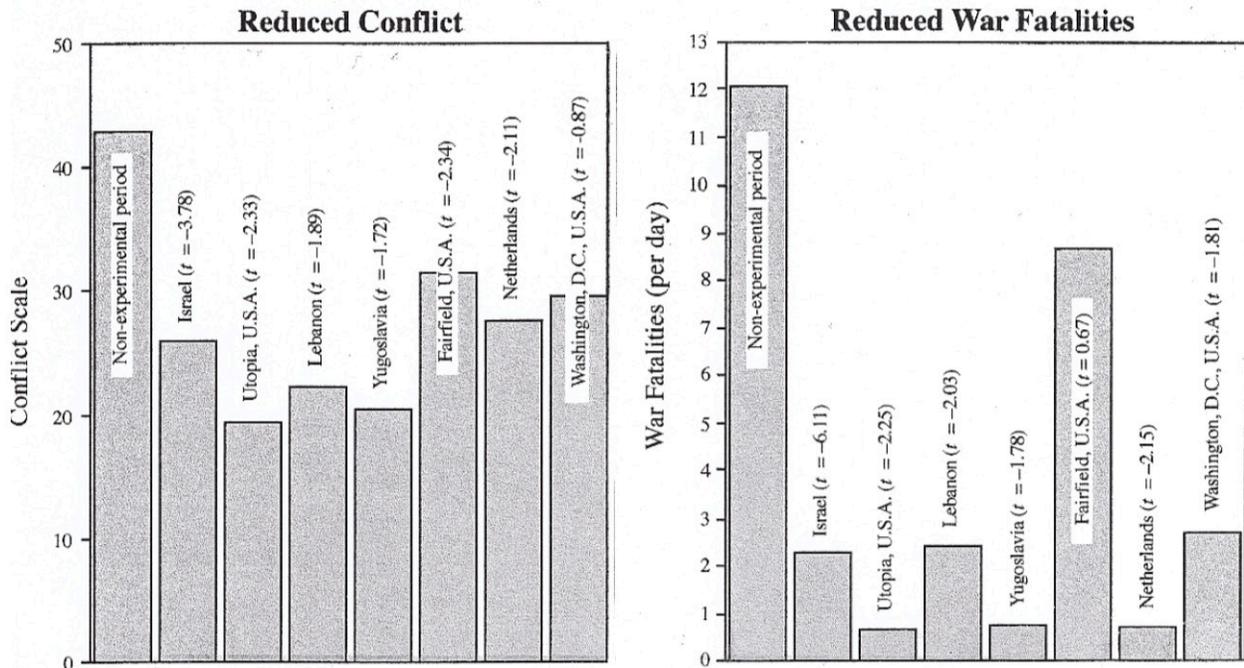


Figure 2. Changes in the war intensity in Lebanon in association with seven different assemblies of groups practicing TM and the TM-Sidhis program during the 27-month period from June 1983 to August 1984.

Is it possible that the suggested effect is real? Might there indeed have been an effect exerted at the level of the Unified Field through groups of individuals creating quietness and coherence in their own consciousness that influenced the thinking, feelings and behavior of others at a distance? The possibility is intriguing, both in terms of its potential implications for our understanding of the way nature may be structured at its depths, and also in terms of the potential practical implications if an effect of this sort could be mobilized and used to the world's advantage.

Implications for Sustainable Development

The world is in the process of attempting to come to grips with significant problems that threaten not only humanity's present, but also its future. Yet, despite all of the good will on the part of the many people engaged in trying to put the world on a better course, including through the fulfillment of the Sustainable Development Goals, there are substantial human obstacles that may stand in the way of our success in this undertaking. These obstacles are primarily on the level of the individual and collective consciousness of the 7.5 billion individuals that currently inhabit our planet. It would seem useful, as part of the Sustainable Development Agenda, to include novel approaches to improving the quality, clarity and coherence of the minds, attitudes and behaviors of the individuals and groups making up our human family. To this end, exploring the application of programs that have the potential to create a positive influence on the way we think, feel and behave, not only on individual and community levels, but also on a larger and perhaps global scale, would seem worthwhile. Given the possibility that there may be something of value in the approaches discussed above, a consideration of the data and theoretical mechanisms related to these observations, and the potential application of such programs on a broader scale, merits further attention.

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