

Promoting a Sense of Connectedness among Individuals by Scientifically Demonstrating the Existence of a Planetary Consciousness?

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Sperry Andrews is the originator and executive director of the Human Connection Project, a scientific and educational media research project designed to test whether it is possible to reinforce the underlying sense that human beings are innately psychologically and physiologically linked, even when in widely separated geographic locations.

The subjective experience of feeling consciously connected with others and our environment--to that which is larger than ourselves--has been found to promote physical and mental health, or well-being. Various ways of evaluating this sense of connectedness have been studied under controlled scientific conditions. Through these studies, more has been learned about the effect of connectedness, ways of facilitating a sense of connection, and how to approach some objective understanding of its physical basis and human value. Evidently, we do share a interconnected rapport with others and with nature. However, we may have formed the contrary habit of dissociating and repressing a sense of connectedness for reasons strategic to our individual survival. Nevertheless, individual and global health could depend on therapeutically confronting these choices--both personally and socially. (Alternative Therapies in Health and Medicine. 1996;2(3):39-45)

Darwin's concept, "survival of the fittest," was not meant to refer exclusively to "superior" individuals. He wrote, "Those communities which included the greatest number of the most sympathetic members would flourish best and rear the greatest number of offspring."¹ Similarly, over thousands of years, religious, political, and intellectual movements have promoted various kinds of human sympathy, successfully enhancing the lives of individuals.

Today, an international community is held accountable for engineering worldwide cooperation. How will humanity--composed of so many segmented systems, each with its differing beliefs--come to adopt a capacity for sympathy through a sense of connectedness, such that we and the ecosystem of this planet survive and flourish?

Until recently, the concept of connectedness was treated as not suited for scientific study. However, with improvements in instrumentation and changes of interest, various kinds of connectedness are now being explored in many areas of research. Over the past 30 years a significant number of studies have been conducted, and these have scientifically begun to

determine its value and extent. A sense of connectedness appears to be a more fundamental and profound natural characteristic than is commonly recognized. Receiving the Nobel Prize in 1971, Neptali Ricardo Reyes (pseudonym, Pablo Neruda) said that the poet must achieve a balance "between solitude and solidarity, between feeling and action, between the intimacy of one's self, the intimacy of humankind, and the revelation of Nature."

Connectedness

At least three books by independent authors summarize a large number of clinical studies showing that the depth and character of our emotional, physical, and psychological bonding as children (ie, our first experiences of connectedness) substantially contribute to our earliest concepts about ourselves, each other, and the world in which we live.²⁻⁴ At Clark University in Massachusetts, pairs of strangers of the opposite sex, when asked to share each other's (connective) unbroken gaze, reported significantly greater feelings of affection and even passionate love for each other than controls induced to gaze at each other's hands or accurately count their partner's eye blinks.⁵ Perhaps how we pay attention--and are paid attention to--significantly affects whether we care about each other.

A study conducted by cardiac researcher Dean Ornish et al⁶ at the University of California-San Francisco, published in *Lancet*, received the approval of the National Heart, Lung, and Blood Institute. The director of the institute stated that the study "offers strong scientific evidence that lifestyle changes alone can actually reverse the progression of atherosclerotic plaques in coronary arteries" (press release from Claude Lenfant, MD, July 19, 1990)--something applied pharmaceutical medicine has not been able to accomplish.⁶ The experiment was considered particularly significant because it was controlled in part by skeptical colleagues.

Ornish et al observed that chronic stress and heart disease begin with a sense of isolation or alienation from ourselves and society. With the help of meditation, diet, and support groups, participants were able to choose a sense of connectedness over isolation. Ornish and colleagues have recommended that developing a sense of connection with others can promote our health and well-being--even our chances for survival--whereas psychological isolation can lead to severe illness or death. The notion that improved health can result from developing a sense of connectedness with others is supported by additional studies.⁷⁻¹²

What role does selective attention play? Modern cognitive psychology suggests that human "attention provides the `glue' that integrates initially separate features into unitary objects."^{13(p98)} Controversial experimental and theoretical neuroscience support this notion, suggesting that consciousness may actually be constructed out of an attention-induced synchrony, causing our brain's various perceptual centers to meaningfully interconnect information that would otherwise remain disjointed.¹⁴

It may be that what we focus our attention on literally determines what we make sense of (at least on a conscious level). In other words, by refocusing our attention, we can consciously choose this sense of connectedness. Is this sense purely subjective, or is it an objective quality? If inattention to this sense is detrimental, as seen in Ornish's study, then perhaps connectedness has some objective reality.

In *The Man Who Mistook His Wife For A Hat*, Oliver Sacks, MD,¹⁵ a neurologist at Albert Einstein College of Medicine, chronicled several representative cases of what is called neurological dissociation. One such case involved a 60-year-old blind woman who had never used her hands. Her dissociation was so complete that when Sacks put his hand in hers, she did not know what it was she was holding. Given encouragement and use, she was able both to learn with and express herself through her hands. In fact, she discovered that she could sculpt highly sensitive works of art.

Though the majority go untreated, dissociations such as this are far from rare.¹⁶⁻¹⁸ If such an accepted aspect of conscious awareness can be awakened after a lifetime of disuse, could our much less familiar capacity for sensing connectedness in time become a commonly accepted, everyday experience?

Are we chronically insensitive to ourselves, one another, and our environment in ways we do not yet fully understand? Also, is there some limit beyond which such perceptual sensitivity cannot be considered possible or practical?

Noncontact therapeutic touch is used by nurses in hospitals internationally. This technique does not involve direct physical contact; instead, a practitioner moves his or her hands near a patient while maintaining a strong sense of connection. This procedure has been shown to

reduce pain and anxiety^{19,20} and even improve the rate of wound healing when patients could not have known when or even if they were receiving treatment.^{21,22} Still others have observed that healing occurs most effectively when the healer, the patient, and the environment are experienced as "fundamentally one."²³⁻³⁸

Directions in Research

To test the extent of connectedness, other researchers have attempted to isolate people and/or events from each other such that no known means of sensory interaction between them was possible. Even under these conditions, evidence for both conscious and nonconscious psychophysiological connectedness between people has been strong.

Some scientists are asking whether humanity itself shares a self-organizing consciousness. For this type of connection to exist in any sense, there would have to be evidence in the form of a wide variety of subtle communication anomalies occurring between people, and between people and their environment, even under circumstances that would seem to preclude any conventional form of sensory connection.

In fact, several generations of scientists have amassed evidence in support of remote communication anomalies. Numerous studies^{31,36,39-47} have provided evidence that identifiable and consistent electrical brain signals (as distinguished from electrical brain signals occurring during control periods) occurred in one person when a distant second person was either meditating or provided with sensory stimulation, or when a distant person attempted to communicate with the subject being monitored.

In some studies, researchers have measured congruent autonomic reactions between distant subjects.⁴⁸⁻⁵⁰ Findings from more than 40 studies indicate that the prayers and meditations of widely separated individuals play a significant role in promoting health and beneficial behavior in and for others over great distances.^{34,51,52} The effect of remote attention on biological as well as electronic systems has been significant in more than 500 studies.^{35,53-63}

People isolated from one another under scientific control have shared their thoughts and experiences.⁶⁴ A meta-analysis of 39 similar studies yielded a probability of these results occurring by chance alone of less than one part in a trillion.⁶⁵ Study volunteers have even

shared the future experiences of others when these experiences had not yet been selected or enacted.^{54,66} No significant difference in success rating was found between comparable precognitive, retrocognitive, and present-based studies.

To test specifically whether focused or selective attention serves as a connecting link for people conventionally shielded from one another, a series of tests was conducted in Texas by the Mind Science Foundation, under the direction of Dr William Braud,⁶⁷ with significant results ($P=.018$, two-tailed). During the experiment a one-way, closed-circuit video system allowed for the periodic observation of a volunteer by an experimenter. With this protocol, a series of volunteers were monitored for autonomic nervous system (electrodermal) reactions during both observation and nonobservation (control) periods. The volunteers did not know when or for how long they were observed. Results remained undisclosed within automated computer memory until each stage of the study was complete. This series of tests indicated that the autonomic nervous system activity of one person is strongly correlated with the focused attention and intention of a conventionally isolated second person.⁶⁷ Surveys conducted during these studies, and during two other independent sets of studies, indicated that most people under everyday circumstances have an ability to sense someone staring at them from behind (eg, across a restaurant, in an elevator, etc).

Prior studies⁶⁸⁻⁷⁰ had tested the degree to which people can subjectively guess whether someone is staring at them from across a room or from an adjoining room. A more recent study⁷¹ also used closed-circuit video, but continued to employ subjective guessing as the measure of accuracy.

A preliminary meta-analysis of all staring detection studies reported up to this point yielded quite significant results ($P=.0044$, one-tailed). These results were then successfully replicated, again at the Mind Science Foundation,⁷² and it was found that the magnitude of the effect was significantly related to the degree of introversion as measured by a Meyers-Briggs-type indicator psychological scoring and to the degree of social avoidance and distress (SAD scoring). As the average participant's index of introversion increased, or the degree of a participant's social avoidance increased, their ability to be calmed by remote attention significantly increased. Extroverts and socially undistressed participants on average were significantly excited by remote attention. Interpretation of these findings are open to speculation.

These studies were twice replicated (combined, $P < .005$) in 1994 at the Cognitive Sciences Laboratory of Science Applications International Corporation in Menlo Park, Calif., and published by Dr Marilyn Schlitz, head of research at the Institute of Noetic Sciences, and Dr Stephen La Berge of the Lucidity Institute.⁷³ Due in part to the success of these studies, scientists within the departments of psychology at the Universities of Edinburgh in Scotland, Hertfordshire in England, Cornell in Ithaca, NY, and the University of Nevada-Las Vegas are either planning or conducting related studies as of spring 1995.

In another group of studies,⁴⁸ volunteers attempting to influence their own physiological activity were only somewhat more effective than experimenters who, in a directly comparable test, attempted physiologically to influence a similar series of volunteers from a conventionally shielded and distant location. These self-influence studies were designed to be comparable to these remote influence studies and used identical techniques. Though conducted with a relatively large number of individuals, a nonsignificant difference was found between remote influence and self influence ($P = .08$, two tailed). Overall, remote influence by a second person was nearly as effective as self influence.⁴⁸

In addition, results of an experiment conducted by Braud⁷⁴ at the Institute of Transpersonal Psychology in Palo Alto, Calif., indicated that a person's level of concentration on a task can augment another's capacity to concentrate on the same task, even when they are spatially separate from one another. Perhaps these results lead to a deeper question: Is it possible that humans share an interactive psychophysiology?

Due to these and other successful, similar studies already cited, researchers associated with the Mind Science Foundation, along with a significant number of other scientists, foundations, and institutions, now believe that if humanity does possess an interconnected mind and body, it will be possible to find further supporting evidence using existing technology.

Specifically, this hypothesis will be tested by a consortium of cooperating researchers and laboratories^{75(note 1)} by looking for objective, real-time correlations among the neurophysiological and autonomic activities of teams of individuals positioned in widely separated geographic locations.

Individuation and Survival

At this point we may want to consider why this evidence contradicts the average person's everyday experience. The question has been asked many times and a variety of answers have been suggested. I would like to offer yet another possible answer. I believe that, neurologically, we may be choosing to dissociate on purpose. For example, we might be maintaining our sense of identification with a separate personality and body as a protective camouflage to avoid conscious awareness of what is "ordinarily" taken to be too self-effacing or vast (eg, connectedness) to assimilate as useful or meaningful. In this light, new questions could be asked. Could such self-limiting behavior be considered a form of denial, motivated by fear? Do we control this fear and, by extension, our circumstances, through limiting or denying what we can "know" such that even the concept of experiencing or learning with an open mind threatens us in specific ways?

What is the origin of our self-limiting behavior? Perhaps it began with an evolutionary adaptation--one that has saved us in the past from being dangerously sympathetic. For example, animals who identified themselves as "one" with their predators would more than likely not survive. Also, to encourage the growth and diversity of self-regulating organisms, nature might have favored individuation. Indeed, the way the world responds to our will seems directly related to who we think we are and what we take to be our psychological and physical territory. The warning "nice guys finish last" is a negative expectation about interconnecting. And it is said that our greatest fear is our fear of intimacy.

Extending Ornish's work on heart disease to dysfunctional behavior in society, is it possible that if a large number of people were to develop a sense of connection, that this could be measured to promote general human health, even the survival of humanity? It may be noteworthy that more than 40 studies conducted over a period of 19 years by 42 psychologists, statisticians, and physicists at Maharishi International University in Fairfield, Iowa, claim that they have verified this experimentally.^{34,52} Still, there is understandable confusion and caution about group consciousness. The possibility that someone else's happiness could be directly related to our happiness requires a profound shifting of assumptions in nearly every area of human endeavor. Also, skeptics want to know why wars, injustice, and stark inequities between haves and have-nots take place without the "oppressors" being affected. People ask, Is interconnectedness just an illusion driven by

wishful thinking for a utopian world? Anyone can be both suspicious and fearful--yet also interested--in a radically different way of "meeting" the world.

The Quantum Self

In *The Quantum Self*, Danah Zohar⁷⁶ describes the physical basis of human consciousness in the following way:

[F]or there to be one integrated self ... something must account for the unity of the separate brain states associated with each of the contributing elements of experience.... To achieve the degree of unity required, necessitates that the separate brain states attending to each element become identical. All their properties and all their information must entirely overlap (italics hers).

David Bohm,⁷⁷ late professor emeritus of physics at Birkbeck College, University of London, proposed that

Quantum Theory implies a new kind of wholeness in which the analysis of the world into separately existing constituents have at most a relative and limited kind of applicability. This wholeness is general and means that each element in the universe participates in all the others to such an extent that it is not possible to attribute what happens unambiguously to any one alone; ie, there is a universal participation. In particular, this participation is involved during an observation, such that the observing instrument and the observed object participate in each other....

Clearly, both Zohar and Bohm appear to be proposing something even more general than the "attention-induced neurological synchrony" cited earlier.

Up to now, scientists have attempted to explain life in terms of quantities of matter and energy, or as space and time. Everything but observation has been observed. Nevertheless, observation is coming under study because it literally forms the basis of all measurement. Reducing nature to uniquely separate objects can, perhaps, never hope to explain observation or its ability to nonlocally link multiple events. Alternatively, can matter and

energy and space-time be derived the other way around, that is, from observation itself? Is observation a primary physical dynamic?

The author is currently working on a cosmological model in which a primary, indivisible rest frame, devoid of energy and matter when undergoing random and discontinuous collapse, develops within itself all known physical and metaphysical properties. In this model, observation results from the nonlocal interaction of this indivisible rest frame with an unlimited number of localized, quantum mechanical observational measurement systems. Each system would necessarily observe uniquely, adding to the overall density and complexity of the whole. In some rudimentary sense, all phenomena would be observed and observant. ^(note 2)

Attentional Integration

Each of us, as human observers, may literally be participating in and making "meaningful" sense out of "all-there-is." However, until the role of observation in the creation of the physical world is perceived by us, life may be experienced as less than meaningfully interconnected, ie, as a random, largely unconscious grouping of objects and objectives.

In terms of human consciousness, therefore, we might want to look for more than synchronous neurological correlations among the various sensory centers within the brain. Instead, we might find a complex set of correlated states occurring among all people and the whole of humanity.

Optimal integration on a subjective level might be summarized in the following way. By revealing self-isolating behavior patterns, we can observe ourselves, as participants, in a coincidence with what seems to be a fully informed (omnipotent) observation or omnipresence (eg, God?). Is it more than a coincidence of human insecurity that historically people have longed to share a sense of connection with something or someone called "God"?

Science and Religion: Connecting Through Awareness

Sigmund Freud and others considered telepathy to be an authentic phenomenon,⁷⁸ linking it to "an archaic communicative system submerged in the course of man's evolution because of

its dysfunctional adaptive features."⁸⁰⁻⁸⁵ There is, of course, Carl Jung's concept of synchronicity as an acausal connecting principle. Montague Ullman, MD,³⁸ an authority in dream research, has written recently of humankind's common dreaming consciousness, expressing that it is essential to both species connectedness and human survival.

Researchers dedicated to verifying the philosophical observations of Maharishi Mahesh Yogi have found consistent evidence in the form of field effects due to individual and group meditation. They have evaluated statistically the "Maharishi Effect" with phenomenological instruments and noted measured decreases in negative trends such as crime, disease, mortality, and accident rates; alongside growth in positive trends such as increasing prosperity, friendliness, optimism, and improved international relations. This effect also has been seen in the physiology, electrophysiology, psychology, and biochemistry of people in the vicinity of a gathering of meditating people. In practice, these researchers report that, when fully relaxed, the commonly fragmented content of mind is singularly united in the form of an essential awareness that, alone, is free of the relative disorder and conflict of "normal" consciousness.

Their express goal is to reeducate society by means of an uncompromising identification with this unified state of mind. They believe that this may eventually attract a sufficient number of adherents to bring about an insightfully organized global civilization.

This belief is also reflected in ancient Buddhist philosophy as "the state of total completeness." The "Noble-One" is said to preside over all things as "the pure and total presence of awakesness."⁸⁶ Similarly, in Christianity it is said that those who are beholden to the son of God are part of the body of Christ.

According to Ullman, Eisenbud⁷⁹ refers to psychic connectedness as "the cement that operates in an underground or unconscious fashion to link our otherwise disparate lives together," and that "in matters of life and death the vigilant scanning of one's emotional environment reaches out across spatial boundaries in a manner that has yet to be explained."

Popular Culture: Connecting Through Stories and Images

Perhaps Hollywood, in a sense, is a religion too, resembling in many respects the Greek mythic assemblage from Mt Olympus. Ostensibly, we finance the "detachment" of a few "ideal" people to surprise us by imaginatively portraying symbolic dreams and perils, hoping that our "stars," at least (like the pharaohs, royalty, or gods our ancestors once worshiped), with all their power and freedom, might clarify who we are and what we are capable of. Whereas identifying, adapting, and creating a wide range of self-concepts is entertaining and essential for participation in a complex social world, overidentification with any image of ourselves can become contentious, chronically suppressing and eclipsing the development of interpersonal love and social empathy.²⁴⁻³⁸

Prognosis: MPD?

The conclusion may be that, individually and socially, we are sustaining more than just significant neurological disuse. Indeed, what it means to be a part of humanity may be complicated by our experience of and "blind" attachment to a severe, social, multiple personality disorder (MPD). Some sources^{24,76,87-100} support but do not directly assert this speculation.

Bennett Braun, MD, the director of Associated Mental Health Services in Chicago, Ill, and author of an authoritative text on MPD, recognizes two principal causes. The first is (1) an inborn biological/psychological capacity to dissociate that is usually identified by excellent responsiveness to hypnosis, and (2) repeated exposure to an inconsistently stressful environment. The inconsistency being in the person's receiving love and abuse for the same behavior, at unpredictable times.^{101(p5)}

The result is that many poorly related personality structures develop that are characterized as defensively autonomous and symbolically "two-dimensional."

Each person with MPD usually has one personality that oversees or caretakes the others (ie, executive ego). The various personality structures carry distinctly different (individual) physiological and medical predispositions. Often, they draw on unique knowledge bases.

Ultimately, they all seem to fear integration because it connotes loss and death instead of enrichment.^{96,102,103}

We may want to reflect on these conditions. Do our senses hypnotize us? Do we experience our lives as unreliable and inconsistent? How secure are we about what we have become? Is it possible that we do not dare notice who or what we are, for fear that we would be utterly confused and helpless? What are the characteristics of the personality or personalities that oversee and caretake us? What are our intentions for the earth? The poet TS Eliot¹⁰⁴ asked, "What are the roots that clutch, what branches grow out of this stony rubbish? Son of man you cannot say, or guess, for you know only a heap of broken images...." Would the world seem less unpredictable and a safer place if we felt more connected to it?

If these conjectures or implications, even in some limited way, reflect actual conditions, we may well ask, Does humanity currently benefit and/or suffer from strategies it has developed? What is the purpose of our madness? The answers to these questions may be important in that there is now a growing body of evidence to support the notion that what we believe or imagine affects our physical functioning¹⁰⁵ and our health and well-being^{25,93,106} in important ways. These studies, in addition to those cited earlier, are only a small sample of what appears to be a rapidly expanding area of research.

Conclusion

An increasing world population demands that all human activity become more sensitively coordinated. Rules and regulations may come to be considered crude substitutes, whereas a more fully awakened sensitivity to life could guide us in treating ourselves, others, and our environment with greater empathy.

Perhaps it may be determined and popularly accepted that doing away with divisiveness, in the way we pay attention, automatically brings about a "connected-awareness-process"--one that could spontaneously produce personal and social reorganizations and benefits greater than those now accomplished through strictly cognitive or intellectual rules.

Finally, life on earth is in a precarious state with unresolved problems of pollution, dwindling natural resources, increasing human population, and possible long-term meteorological

changes. Humanity is now in the unique position of being conscious of these problems, scientifically and otherwise, at a level never before achieved.

We know very little about consciousness from a scientific perspective. There are new possibilities for its study with the advent of sophisticated technology, allowing us to introduce old questions in new and experimentally feasible ways. It is necessary that strong cooperative and collaborative efforts resolve our dilemma. Below our conscious awareness, an underlying, integrative, "attention-driven" synergy may be responding to these challenges as they are brought to our conscious attention through the rapidly expanding world media.

The vitality of such a collective survival instinct could be significantly encouraged through responsibly "fueling" popular interest. International television programs could present the scientific evidence for, and promote the health benefits of, a sense of global connectedness. With international audiences, the following question could be raised: By actively paying attention, individually, to feelings of connection with each other and the whole of life, can we actually promote both personal and global health?

Is it desirable to look on ourselves as a thoroughly united development (in "observation")? By conceiving of ourselves as not separate from what we perceive, would our actions and their consequences be better organized? Can we promote global health and well-being by individually developing a sense of connectedness?

Everybody feels everything that occurs in the entire universe, so that anyone, who sees all, could read in each particular thing that which happens everywhere else, and, besides all that has happened and will happen, perceiving in the present that which is remote in time and space.^{Leibniz (1646-1716)107(pp11,12)}

Social Experiment: The Human Connection Project

The author is currently fund-raising and directing a long- term educational/research project working with the hypothesis that humanity shares a common consciousness. Five brain research laboratories based in North American cities are now committed to becoming electronically linked in order to measure the extent of psychophysiological covariance among geographically isolated participants assessed in a variety of ways on EEG, ECG, galvanic

skin response, plethysmograph, and breathing monitors. Participants will be recorded on film using one-way closed-circuit video during random observation and nonobservation periods. Results will be graphically represented on film as well. If the hypothesis is supported, these documentary results will be combined in real-time, dramatized, and presented to international television audiences as part of a social experiment with the following reasoning.

Within an individual, it takes millions of cooperating brain cells, orchestrating together, for there to be a conscious perception. Similarly, for humanity, a significant number of people may need to perceive compelling evidence of their interconnectedness for there to be a conscious perception of this deeper level of connection. If the results of this media experiment are positive, there might be an irreversible shift in the average person's tendency to experience a spontaneous sense of connection with others. A "whole-system-transition" could be triggered, implementing a beneficial shift in the overall consciousness of humanity. This might help us reassociate the divisive characteristics of personal, familial, cultural, national, and economic boundaries, bringing us a step closer to a planetary civilization. The knowledge that we are not separate--that we are not alone, even in our darkest hours--needs to be sensed, felt, and thought, intuitively.

To contribute to this project, please contact:

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Notes

1. The consortium will include the following projects: Andrews S. Human Connection Project (funding proposal); Andrews S. Global overview of the research proposal: two lab interlaboratory pilot study (preliminary to detailed technical protocol, unpublished); Wall S, Wynia K, Andrew S. Group biofeedback research project. Cotati, Calif.: Biofeedback Training and Research Institute (funding proposal in preparation). Copies of these proposals are available from the author.
2. See Andrews S, Berezin A. Gravitational aspects of spacetime connectedness; 1992, unpublished data (available from the author).

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