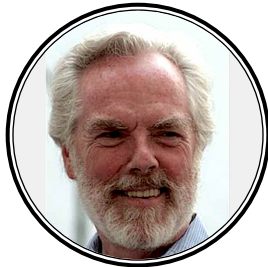


SHIFTING GLOBAL CONSCIOUSNESS TO GLOBAL AWARENESS



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We haven't worked on ways to develop a higher social intelligence [...] Ordinary thought in society is incoherent – it is going in all sorts of directions, with thoughts conflicting and canceling each other out. But if people were to think together in a coherent way, it would have tremendous power. – DAVID BOHM.



EVIDENCE FOR NOOSPHERE



OUR DECADES AGO I ENCOUNTERED Teilhard de Chardin's ideas, and I've never forgotten the excitement of his conviction that our human purpose is to become a "noosphere" for the earth, a sheath of intelligence covering it like the winds of the atmosphere¹. He thought it would be thousands of years before there could be a coalescence, before this great mind might begin to know itself, but this deeply spiritual scientist, a palaeontologist, was sure the trends of evidence for this direction and this "Omega" point were clear. Much later, chance brought me

the opportunity to look for indications of Teilhard's noosphere with the tools of science. The full story² is too long to tell here, but the research has implications for how we view ourselves and what we might be doing to manifest our potentials. I believe there is a growing global consciousness and that we should work to shift it toward a living global awareness.

In the mid-1990s I began developing an instrument that might be responsive to special moments of mass consciousness in which large numbers of people feel shared emotions. Great events on the world stage sometimes bring us together in something approximating a global consciousness, a faint suggestion of noosphere. We attend in our millions to occasions like the Kumbh Mela or New Year celebrations, and we're brought together in witness to horrifying terrorist attacks or massively destructive earthquakes. Our compassion is aroused by the death of major personalities or tragedies befalling our neighbours.

The Global Consciousness Project (GCP) instrument, which comprises a world-spanning network of random number generators (RNG), normally produces a swath of truly random data. But during such global events, we observe structure in the data where there should be none. This network has been in place since 1998, and its output is a history of random data we can compare against the history of major events which focus our attention and synchronize our emotions.

Let me proceed by giving one exceptionally powerful example, the terrorist attacks in New York City and Washington, DC, September 11, 2001. The data changed significantly, showing anomalous correlations between research quality RNGs separated by global distances. Multiple statistical measures by several independent analysts all showed persuasive indications that the network activity was not random on that day and indeed for as much as three days beginning early on the 11th³. Similarly clear and instructive effects have been found for other cases in a long replication series of 500 formally specified hypothesis tests assessing the correlation of our data with many kinds of events in the world. All together, the aggregation of data shows trillion to one odds against the deviations being just chance fluctuation.

The GCP response on 9/11 was so powerful and persuasive that it brought out the entrepreneurs, who saw a chance to make big bucks on “terrorism detectors.” They interpreted suggestions of a precursor response, with the data making a strong inflection four hours before the first plane hit the towers, as a tool for predicting other disasters and giving a warning to allow prevention or mitigation. But in fact, even if our GCP system showed a big spike of activity, the only workable message would be that a major event might be coming soon. Interest waned when the entrepreneurs finally understood that a big spike in the data might reflect either positive or negative happenings, and that even if it was unmistakable, we would have absolutely no idea what it represented, or where it might be. The detector flurry was a good example of the difficulty science has dealing with wishful thinking, which often overwhelms objective evidence. More important, this over-optimistic response to one aspect of the data was also a distraction from more general implications. The results hold useful messages about human interaction and interconnection.

We are not finished asking questions and seeking answers in continuing analysis of the data, but we should be comfortable with some straightforward interpretations of the evidence. Although some researchers believe the effects we see may not be from mass consciousness but a form of observer or experimenter effect, the array of indications is better aligned with explanations based on something like an “information field” generated by masses of people whose thoughts and emotions become coherently synchronized by events.

As I was working on experimental designs for the GCP I envisioned a faint, developing interconnection among people, which would be global in scope, and which might be reflected by effects on RNG data. It seemed reasonable to refer to this as a “global consciousness” (GC) even though it was unlikely that we could be aware of the necessary interconnections, and even less likely that the GC would be actually “conscious” in the normal usage of the term.

For us as individuals, the existence of this inchoate entity and our possible participation in it would be unconscious and inaccessible. For the new global entity, an actual “consciousness” would be similarly unlikely and unmanifest, at least in any way we might perceive. Nevertheless, the search for evidence of something in this domain seemed worth pursuing, and the resulting 17-year experiment has yielded remarkable food for thought⁴. Some of the implications are quite clear, while others remain speculative or tentative, but it is worthwhile to list some that

seem most prominent. Without much in the way of explanation, here are some reasonable statements about what this research implies. These ideas and conclusions are supported by other research in various ways, but I see them as directly evident from the GCP results.

- Consciousness has presence in the world
- Consciousness is extended and non-local
- Humans are connected at a deep level
- Mind can have effects we have not imagined
- Cooperative intention has consequences
- When we are coherent we create a Noosphere
- It is time to accept oneness as modern wisdom

ORDERLY MIND STUFF: THE BEGINNINGS OF A THEORY

Overall, it seems most consonant with the complex of results to interpret the anomalous structure as evidence that there is something like mass consciousness, or what we’re calling global consciousness, which exists in a faint but detectable form. With our limited detection capabilities we cannot be certain whether it is momentary and fluctuating or instead may be persistent. If we could make that distinction it would tell us the difference between a few flickers of intelligence or something like Teilhard’s noosphere. When we look at all the data rather than the subset corresponding to specified events, we do see statistically significant long-term trends that might represent effects of a weak, continuing mass consciousness. But the primary and scientifically robust evidence is from the series of formal events that comprise somewhat less than 2% of the time we’ve been running the experiment. Whether the source of our anomalous correlations is persistent or not is an important question we need to ask in future work to learn more about a global presence of mind.

Suggestions like those made in many intellectual and cultural traditions, that there is an Earth consciousness, appear to have a modicum of scientific support in the GCP results. Similarly, the idea of a large-scale group consciousness, potentially engaging whole populations, gains some credence. At the very least, these results are consistent with the idea that a subtle linkage can exist between widely separated people, and that we may be linked on a grand scale by something like a consciousness field. We seem to have captured a faint indication that Teilhard de Chardin’s vision of our destiny is beginning to manifest.

If we read the great books and poetry, or look and listen to great art, it is clear that humanity has long

since begun to exhibit its global destiny. Even though we cannot easily see it, there is an intertwining golden braid of great beauty that links our cultures. We have a poetic history, and that is where we will find our future. We need to appreciate our human qualities, and the nearest, richest source for that is what we call art. As Lewis Thomas said, if we want to know about consciousness, we ought to listen to music⁵. More specifically, he said listen to Bach. But each of our major cultural streams has its own Bach, and at this moment in history these streams are mingling and we are on the verge of understanding how much alike we all are. From there it is a small step to begin a global dance. We still need the communication channels of electronics and airplanes, but these are creating a common language and bringing us face to face with ourselves.

We are, in the most personal sense, orderly mind stuff. The aspect of myself that “I” refers to is made of something different from matter and molecules. This is an experiential fact, and it deserves attention because we don’t quite know what to make of it; we don’t yet see how to benefit from knowing what mind is – and is not. But for the moment, talking about and studying the greater mind of global consciousness, it is enough to know that this orderly mind stuff can interact, not only with other mind stuff, but with our curious machines. The random event generators create a roughly textured page on which the mass mind can impress a message. We would like to understand this better and have a theory to explain orderly mind stuff, but we will have to learn much more to formulate adequate questions.

Many people ask, “Well, what do you mean by the term, consciousness? Don’t you have to define that first before presuming to study it, and the more so if you want to study something you call global consciousness?” It is a fair question, though I think we have to recognize the slippery nature of definitions, at least those put into words. Why? Because, to paraphrase Wittgenstein, “Language bewitches intelligence.” He meant that when we put language on some object we think we have captured it and properly defined it – but we don’t recognize the fact that what I hear you say may be and usually is coloured by my personal experiences and motivations. But we can give it a try.

Consciousness seems to result from a coalescence of connections among the elements of brain and its context. We must include mind in the equation, to represent the ineffable but inescapable personal experience. Consciousness is created (or perhaps it finds a place to touch down) when coherence develops in an otherwise chaotic, random flux

of subtle chemistry and faint electrical signals. Ordering influences may be external agents and operators, and they also may be internal, self-organizing principles. Consciousness is a hugely complex confluence of seemingly disparate elements to make a singular entity that lives in both the physical world and an abstract universe of thought and imagination.

The essence is order, pattern, structure, and ultimately, meaning. The metaphoric confluence can be extended in most any domain. Consciousness can be small and simple, like what we would imagine for mice, birds, snails, and bacteria. It can also be stretched mightily, to help think about forests, oceans, flocks, herds – and groups of people. And, of course, it can be extended to the world, where we can apply the metaphor on multiple levels, ranging from crowds and cultures, to all living beings, to Gaia herself. In human terms, consciousness is usually associated with being awake and aware, possibly even self-reflective. Because we are here looking at a broader set of possibilities, our usage necessarily implies also the unconscious and subconscious aspects of the organized activity that defines the mental world.

PUTTING CONSCIOUSNESS TOGETHER

Is it possible, even without a fully satisfactory definition of consciousness, to go beyond the individual and speak of combining or melding together two or more minds? In personal experience and poetry, there is an especially apt candidate. When two people meet and share a kind of recognition that develops into what we call love, they create something new. The two become one in ways that are recognized by others as well as by the couple themselves (itself?) There are many mundane ways for this shared consciousness to manifest, and in addition there are some that suggest interconnections operating at a level we can’t access normally, even though we may perceive something of their effects.

Let’s consider more than two – groups of people who may be functioning with a common interest and focus. When we’re part of a group that really comes together and begins to resonate and become coherent, there is a change that only becomes apparent if we step back. Of course doing so interrupts the coherence in some measure. Indeed the observation of group consciousness when it is powerful or profound is typically retrospective. We say that was a really good meeting, looking back to see it was creative and collaborative to an unusual degree. We shared in a new thing, an independent group mind, for a while. This is a subjective

and personal observation, but it seems to be confirmed in data from the FieldREG, protocol⁶ to study group consciousness that was a stepping stone leading to the GCP.

Data recorded when people feel they are part of a group that becomes deeply integrated shows some structure. Actively creative groups, ritual activities in sacred places, truly captivating music, any deeply engaging shared moments tend to manifest departures from expectation in what should be random data. Thus, group consciousness produces small, but significant changes in the data. The mental coherence of a group appears not to be internal, confined to the individuals, but to bind them together and even to include somehow the RNG. We find structure that is evidence of coherence within the data sequence in the form of small but detectable correlations, which are shifts away from purely random behaviour. The changes are strongest when the group is most integrated and most completely absorbed.

GLOBAL AWARENESS?

There is almost a sensual longing for communion with others who have a large vision. The immense fulfillment of the friendship between those engaged in furthering the evolution of consciousness has a quality impossible to describe. – PIERRE TEILHARD DE CHARDIN.

The next level, with participation by large numbers of people in a shared experience, is even more difficult to define. And yet, although we haven't much ability to recognize that we are part of a mass consciousness, it isn't hard to grasp the notion. Just as we can reflect on the group consciousness experience and retrospectively note its power, we also do see the common emotions and sharing created by great tragedies. I think we are even able to identify the potent connections based in emotions like compassion linking us to vast numbers of fellow humans whom we don't know and will never meet. When the news is full of a major earthquake, or yet another suicide bombing that brings great suffering to people, there is an outpouring of deep feeling, of connection with the people who have lost loved ones. Even without thinking, we shift a part of our consciousness to their tragedy, and we give them unspoken love and we share a deep sadness for their troubled time. That movement of thought and emotion is profoundly human. We are creatures of compassion and thus we are interconnected in our unconscious responses and reactions. That interconnection is worth our attention, for it is a defining human quality, which is the foundation of a global consciousness and awareness.

The idea of a great composite mind exists in virtually all cultures and times. But it isn't a scientific construction, so in working toward actual research that might reveal something of its possible nature we made an "operational" definition of global consciousness which predicted correlations in our random data during moments of synchronous collective emotion shared around the world.

And that is what we have found – departures from expectation, which happen just when we come together, sharing experience and emotions, becoming one great organized observer – a global consciousness. The next step is for us to take this oneness, which at this stage is essentially accidental, and turn it around to be intentional, collaborative, creative, and effective. We are just at the edge of becoming evolutionary entrepreneurs, ready and able to decide what future we will have, what we will become. We are creating our future now, but accidentally, unconsciously. It is time for us to take over.

LET'S GET PRACTICAL

Do synchronized emotions touch the physical world? Let's do a recap to look for an answer. Based on laboratory and field experience, we built an experiment to gather evidence of mind-matter interactions on a global scale. The idea was to create a monitoring system that could register consciousness effects using random number generators in a network with nodes around the globe.

The formal scientific experiment uses a two-level hypothesis, with a general statement of the question tested in a series of specific hypotheses applied to particular events. The combination across all formal tests of the general hypothesis shows that what we're calling global consciousness is linked to small but ultimately significant correlations among the RNGs in the network. This is an anomaly because these devices are designed to be truly random and moreover are separated by great distances. But they do become correlated. The odds against chance for the GCP's composite result are more than a trillion to one ($p \sim 10^{-13}$). In addition, and arguably more important, an ongoing program of deeper analysis and modelling produces enlightening results⁷.

The analyses have revealed several measures of structure in the data beyond the primary discovery of nodal correlations. We see characteristic variations that depend on distance, and the slow development of effects over time suggests the dimensions of a global consciousness moment. We discover that effects are larger when people are awake, which is an unpredicted but eminently reasonable result⁸. In addition, categorizing the events by quantifying some aspect or by rating

the presence of some quality yields sensible differentiation. For example, important events judged to engage hundreds of thousands or millions of people show stronger effects than those at the other end of the scale.

More subtle and subjective issues can also be addressed with reasonable clarity. We can ask about the level or strength of emotions characterizing the event, and, not surprisingly, the higher the level, the stronger the correlations in the data. We can go further in this direction to test the power of various particular emotions⁹. One of the best examples is compassion. People can reliably rate the events as embodying or evoking compassion, and when we calculate the associated effect size, the result is clear. Compassion is a powerful determinant, so that events characterized as strong on this dimension produce significantly greater correlation. This is an interesting and important finding because the defining quality of compassion is a local and familiar model of what we hypothesize might be the source of the GCP correlations. Compassion is by definition an interaction, an interconnection, between two and sometimes many people. Compassion happens when people share deeply, touching each other emotionally and melding together around a felt commonality. This is a good description as well of the interconnection generated by events that produce the correlations we see in the GCP data.

While there is room for different interpretations, for me the meaning of our slight departures from expectation in data that should be random is quite clear – human interconnection happens. Mostly this goes unnoticed, however, because we are usually much too busy with our individual stuff, the things that make our lives “real” even if we are somewhat unconscious about it. We are usually preoccupied, captured by what needs to be done, or by entertainments brought to us by media and sought by us in games and theatres and sporting events. But sometimes it is very different. Once in a while we are taken by surprise out of the regular run and into a common path with others, by a great catastrophe or an accident that rouses broadly shared attention and emotion. Or we go deliberately with millions of others into a shared celebration, or a ritual observation of a moment or a day. In these “different” moments shared with great numbers of other humans near and far, we escape the personal and enter the common ground of our fundamental nature.

A SINGULAR PERSPECTIVE

Although I claim to be an empiricist and not much given to theoretical speculation, people ask how it all fits together, and it turns out that I do have some well-established opinions. Of course I

have been thinking about formulating good questions in this difficult border domain for a long time, more than 35 years. I have a collection of personal experiences like those of many people who meditate and people who have surprising personal episodes of “anomalous” communication and striking runs of “luck.” In addition, I’ve been doing hands-on research developing a broader view of human consciousness since 1980 in the company of bright and thoughtful people. I don’t have any doubt about the phenomenology we’re touching here, because of direct engagement in the entire process of experimental design, data collection and processing, and interpretation of results.

The Global Consciousness Project is an effort to capture some faint indications of a true global consciousness. Its purpose is to examine subtle correlations that appear to reflect the presence and activity of consciousness in the world. Just as the biosphere is composed of all the organisms on Earth and their interactions, Pierre Teilhard de Chardin postulated that the noosphere would be composed of all the interacting minds on Earth. What he encouraged us to envision is a transhuman consciousness emerging from our interactions to become a guiding intelligence for the planet. Scientific evidence documents our subtle but profound interconnections, and it may be that as our unconscious links mature, humans will grow into a role like neurons in a global brain, creating an intelligence for the earth – a global mind.

Evolution starts with particles that coalesce to become atoms and then simple molecules that merge to become enormously complex molecular structures. These become life building blocks from which smaller and then larger animals emerge, and eventually you have us: self-aware animals. While that has been quite a run, it’s not over. There is at least one more stage, in which we become a new organ of consciousness for the earth, evolving into something analogous to the cerebral cortex in humans. We can, and to survive I think we must, engage in conscious evolution to decide and then to create what the future will be.

My favourite picture is that we are all already participants in a giant interaction, similar to that among the neurons in a brain. The neurons don’t know anything about the mind or the questions we ask, or what consciousness is, but they participate anyway by doing perfectly what neurons do. I think we are participating in something that is a higher level of consciousness and that for all we know, could even be conscious and self-aware. Like the neurons, we don’t need to know anything about this; we only need to be developed humans doing our job, manifesting our humanity.

Consciousness has a creative, productive, generative role in the world such that what we wish for is more likely to happen than if we hadn't wished for it. We have good evidence that this is true. What we envision together will manifest in the world in a subtle way. This means that we have an enormous, untapped (or at least uncontrolled) capability of changing the future. The corollary is that we also have a responsibility. Succinctly put, we have the capacity and the need to change our world so that the future is brighter. Doing so depends on coalescing into a greater consciousness.

When rain falls on a mountaintop it creates rivulets that flow together and become streams. They wind down the mountains and join to become rivers, and the rivers eventually get to the sea. Each of us in our way is such a rivulet, and sometimes we even feel the power of joining others in a stream – of thought, of prayer, of intention. What would it be like to have most people on the earth join in a conscious intent?

The ancients talk about 24,000-year cycles where consciousness wakes up and then goes to sleep, wakes up and then goes to sleep. I think this is a framework in which the global awareness idea might make sense. We can use it as a mirror to look at ourselves in a different way, allowing us insight into the ride we are taking on the universal wave of consciousness. To be clearer, the idea is that we are on the verge of a peak of the wave, the waking part of the long cycle. To take advantage of the moment, we need to become doubly self-reflective – to watch ourselves learning to see our destiny. Our task is to observe and in observing, to foster our coalescence into consciousness. The truth is, most of the time we are asleep. But we can wake up a little bit. That is the promise of global consciousness.

We are not usually conscious at all of our connections to other people, to the trees and birds and animals all around us, but those connections exist. By intention we can become aware of the matrix of life and mind in which we are swimming as a fish swims in water. We want to see and feel the water, the matrix that sustains us. I believe it is time for conscious evolution toward our potential, which means working with as much clarity as we can muster toward becoming fully human.

For those of us with the leisure to write and to read scholarly works it is hard to perceive, but our life on this planet is in a precarious moment now. What we do in the next months and years, individually but also as families and communities and cultures, will either devalue our future or make it bright. We're sitting on a very sharp edge, and we have to make decisions for the ages. What

will our grandchildren – what will the seven generations have left to them? It can be beautiful, but I believe that will happen only if we act together in shared wisdom, with charity and benevolence that crosses all the spaces that appear to separate us.



¹ Pierre Teilhard de Chardin, *The Phenomenon of Man* (Lulu Press, Inc, 2015).

² Roger Nelson, *Unified Mind: The Emergence of Global Consciousness* (Watkins, in press, 2017).

³ R. D. Nelson et al., "Correlations of Continuous Random Data with Major World Events," *Foundations of Physics Letters* 15 (6) (2002): 537–550.

⁴ Nelson, Roger D., "The Global Consciousness Project" (Website), accessed January 30, 2017, <http://global-mind.org>.

⁵ Lewis Thomas, *The Medusa and the Snail: More Notes of a Biology Watcher*, Reprint edition (New York: Penguin Books, 1995).

⁶ R. D. Nelson et al., "FieldREG Anomalies in Group Situations," *Explore: The Journal of Science and Healing* 3(3) (May 1, 2007): 278, doi:10.1016/j.explore.2007.03.013.

⁷ Peter Bancel and Roger Nelson, "The GCP Event Experiment: Design, Analytical Methods, Results," *Journal of Scientific Exploration* 22 (3) (2008): 309–333.

⁸ R. Nelson and P. Bancel, "Effects of Mass Consciousness: Changes in Random Data during Global Events," *Explore*, 7(6) (December 2011): 373–83, doi:10.1016/j.explore.2011.08.003.

⁹ Roger Nelson, "Emotional Nature of Global Consciousness," in *7th Symposium of the Bial Foundation: Behind and Beyond the Brain*, vol. 7th (Fundacao Bial, 2008), 97–114.

