

Situating "Microvita" within the Panoply of Disciplinary Jargon

Timothy Dolan
The American University in Cairo
Egypt

Perhaps nothing inhibits the development of integrative science more than the multiple disciplinary dialects that inflict a kind of semantic babble upon scholarly discourse. There are several examples starting with the most basic unit of analysis in the social sciences; that being people. If one is an anthropologist they are a culture. If an economist they are a market. If a political scientist they are "the public", and if a sociologist, "society". Psychologists, and social workers, physicians and judges see "cases", and the list goes on. It is part of a larger reductionism that takes place in both myth and theory; the two discourses themselves artifices of simplification of the world. The former simplifies in the language of poetry and literary prose, and the latter in the language of logic, math and science. It's a profound problem and one that might speak to the focus of the symposium as "microvita" itself might be seen as something else from other disciplinary points of view.¹

The term as used by P. R. Sarkar indicates that microvita is a fundamental and subtle unit of life, seemingly akin to the more widely conceived notion of "life-force". Sarkar further suggests a blurry line, or perhaps a link, or bridge-attribute between its being physical and thus occupying space/time, and spiritual, or at least certainly ethereal, and thus transcending what Towsey calls, "materialist monism". This is fair enough given the paradigm shift brought about by the quantum-mechanical revolution of the past century in which matter and energy blink in and out of perceived existence that has been difficult to achieve under experimental conditions. There is much hypothesizing among astronomers, cosmologists and particle physicists of yet unperceived entities that literally fill in the blanks in the composition of the cosmos. For astronomers this is the problem of "dark matter"; and for physicists it is the problem of dark energy. Many have adopted the term "quintessence" (literally fifth element) from the ancient Greeks and their medieval apostles; a testament to how long a missing component has been intuited. Again we are bedeviled by the jargon wherein scholarly communities quibble over two sides of the same coin. There is also the stuff of the void held by the Western classical world of "ether" as the medium through which action at a distance is achieved. This issue has more or less been set aside somewhat dealt with by Heisenberg's uncertainty principle.

What creates the conundrum in following Towsey's line is his attempt to link the processes of consciousness to those of physics, bringing with it a new jargon that may or may not have an analogue in the physical sciences. Is microvita thus the Higgs boson by another name? Are we on the

... cusp of creating a unified field theory of the biological and physical sciences? If so are the words getting in the way?

A primary concern with this project is that Towsey can draw upon the frankly speculative quotations of well-known and respected physicists and biologists who are, at the end of the day, pronouncing their own philosophies based upon their understandings of linkages between consciousness and the observed physical world. He would have a firmer case if this work were further informed by neuroscience where a lot of work on determining the locus of consciousness is taking place. However, the terms "neuroscience" and "neuroscientists" occur nowhere in this piece.

Microvita theory, or "Subtle Organicism" as coined by Towsey, interjects a biological dimension associating this energy with living properties of consciousness and suggesting that it is the essence of life itself. To put it in dialectical terms, Organicism carries the seeds of its own creation whereas materialism as enshrined in Newton's 2nd law of thermodynamics is a science of dynamic disintegration. To put it another way, Newtonian physics describes the process of order to chaos, whereas biology (and microvita theory) is the study of order created from disorder. The universe is thus the synthesis of this dialectical tension.

The dialectical process has a progressive dimension over time. Planetary geophysics gives us an example of this. Hanzen, 2010 describes the formation of Earth as initially formed by "planetesimals", dust and gas that coalesced composed of over 200 minerals, that would then be transformed into a black basalt from molten magma and lava. However, over the next 2 billion years some 1,500 minerals would be produced from partial melting and cooling of rock geologically distilling concentrations of these elemental combinations, producing an ever more diverse planet literally at the elemental level from countless meltings and solidifyings. Of course this is as gross an example of materialist science as there is, and the analogy might seem irrelevant beyond its connection with cyclical progressive complexity. However, Hanzen offers a relevant and remarkable insight. While the earth in its "sterile" phase produced those roughly 1,500 minerals from fairly straightforward physical processes, the life-infused earth has yielded over 2,900 additional minerals generated from organic life itself. It is a difference that makes a difference when comparing the planetary geophysics of other known planets and our moon none of which have anything close to the geodiversity of our home world:

... most of Earth's thousands of minerals owe their existence to the development of life on the planet. If you think of all the nonliving world as a stage on which life plays out its evolutionary drama, think again. The actors renovated their theater along the way. This observation also has implications for the quest to find life on other worlds.²

Hanzen demonstrates that the dichotomy between a manifestly materialistic reductionism of the conventional geological paradigm, and the processes of life is indeed a false one.

An equally remarkable article coincidentally in the same issue of *Scientific American* might confirm a connection between the established science of consciousness and microvita theory. The article title, "The Brain's Dark Energy", pretty much

says it all in terms of invoking a connection between a subtle background radiation within the sentient brain to consciousness itself. The article features summary bullet points that are reproduced below verbatim:

- Neuroscientists have long thought that the brain's circuits are turned off when a person is at rest.
- Imaging experiments, however, have shown that there is a persistent level of background activity.
- This default mode, as it is called, may be critical in planning future actions.
- Miswiring of brain regions involved in the default mode may lead to disorders ranging from Alzheimer's to schizophrenia.³

To put it somewhat over simple terms, the common assumption that the brain/mind at rest is powered down with only automatic functions operating is incorrect. There is apparently a brain default mode network that operates in at least five regions of the brain spanning the left and right hemispheres that chatter between themselves even when the mind is unfocused. The network is likened to an "orchestrator of the self" coordinating and cuing other brain functions as stimuli enter the senses. Thus more and more, neuroscience is moving towards descriptions of ever-active energies and processes; less fixated on static structures and the programming metaphors of behaviorism. This new paradigm suggests a dynamic equilibrium (Prama?) that "... balance planned responses and the immediate needs of the moment."

The University of Arizona Center for Consciousness Studies held its 9th biennial conference, "Toward a Science of Consciousness" April 12-17, 2010. Its eclectic nature was reflected not only in its hybrid blend of distinguished clinical neuroscientists and philosophers, but in the content documented in the conference program. There was the usual conference fair of academic presentations, on such topics as consciousness, representation and thought; materialism, dualism and higher-order thought; AI and computational models and altered states of consciousness. This conference, however, was augmented by art and technology demonstrations, and experiential sessions including guided meditation, and yoga asanas. Based upon the content of this now established gathering of 700 participants from 45 countries on 6 continents, Towsey's work might find a receptive audience in this consciousness studies community. At present there is a glaring weakness in Towsey in that he seems to not offer a single reference to the Center for Consciousness Studies and its rather substantial congruence with Sarkar's work. It has a solid international standing reflected in its conference participants and coming 2011 Stockholm conference which will feature Luc Montagnier, Nobel Laureate, Pasteur Institute, speaking on "The Transfer of Biological Information Through Electromagnetic Waves and Water", and prominent consciousness thinker, Deepak Chopra who will discuss the "Neuroscience of Enlightenment".⁴ To lump what is this de-facto scholarly community of consciousness thinkers into a materialist box, while suggesting organicism is singularly unique, simply carries too many assumptions if not downright caricatures about the state of contemporary consciousness studies.

In conversations with 2010 conference participants there was a common theme of no radical revelations or breakthroughs in the field. What this means is that the dynamic play between the, call them left-brain materialists and the right-brain spiritu-

alists, continues as an open conversation where each view has been sharing its work for now many years. It would seem a propitious time to enter this conversation in order that organicism be tested in the crucible of wider scholarly discourse.

In summary, it seems that any key to unlocking a unified field theory of the cosmos will have to reckon with "dark matter/dark energy" (microvita?). Organicism is not the only integrative approach and efforts at developing it should be as much in finding common ground with other integrative approaches as in drawing distinctions.

Correspondence

Timothy Dolan
The School of Global Affairs and Public Policy
The American University in Cairo,
AUC Avenue
P.O. Box 74
New Cairo, 11835, Egypt
Email: dolant@aucegypt.edu

Notes

1. It doesn't help matters when googling the word, "microvita" that an early link is to a microvita superdiet. See, <http://microvitasuperdiet.com/> retrieved January 18, 2011.
2. Hazen, Robert M., "The evolution of minerals". *Scientific American*, 302(3), March, 2010, pp.58-65.
3. Raichle, Marcus E., "The brain's dark energy", *Scientific American*, 302(3), March, 2010, p.44.
4. See the Center's website at, <http://consciousness.arizona.edu/>, retrieved February 13, 2011.