The Shape of Selfhood: An Impolitic Panel Discussion on Consciousness and Scale

What paralyzes life is lack of faith and lack of audacity.
The difficulty lies not in solving problems but identifying them.
Pierre Teilhard de Chardin

Is Consciousness local or global? Classic or quantum? Is it both? And which kind of consciousness are the current Big Data, Brain Mapping efforts actually probing? Is there something we are missing in the way we define the problem?

In 2014, one hundred researchers published an open letter in the journal *Frontiers in Human Neuroscience*, asking the greater scientific community to admit "an open, informed study of all aspects of consciousness". The basis of the letter, the authors explained, was a number of experimentally proven phenomena that demonstrate nonlocal aspects of consciousness for which no explanation can be provided within current brain-based models [1].

The purpose of this Special Issue is to respond to that call in an informal and constructive way, looking at existing empirical data as well as theoretical frameworks that help support the evidence for a broader, "panpsychist" (in the words of Koch and Tononi) view of consciousness.

We have posed a series of questions (below), through which we are hoping to push the conceptual envelope of current investigations into the nature of Mind, or at least connect some interesting observations and theoretical models in a way that may lead to more powerful experimental frameworks. We welcome all answers and comments, which will be published in an Appendix to this issue, unless otherwise requested. Please submit your contribution to liansidorov@gmail.com and ben@goertzel.org and indicate if you wish your name published or withheld.

Thank you.

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PANEL QUESTIONS

INFORMATION PROCESSING, SELF-SCALING AND TOPOLOGICAL RE-MAPPING

Q1. Does the brain use both classical (synaptic) and quantum (such as microtubule-based, phosphate spin entanglement based, or other) information processing mechanisms – and does the alternation

between awake and sleep consciousness have anything to do with the relative predominance of one over the other? Where does meditation (which has been consistently associated with an increase in spontaneous or deliberate psi ability) fall on this spectrum?

Q2 What is the nature of consciousness during sleep – is there any evidence that it might serve a supra-individual, species-wide purpose? What about consciousness during other states of consciousness, besides the "ordinary waking state"? What may be the relationships between the physics, neuroscience, psychology or other aspects of various altered states of consciousness (e.g. psychedelic states, meditative states, persistent non-symbolic states) and non-local consciousness?

Q3 How do we interpret the Global Consciousness Project data (http://noosphere.princeton.edu/) in light of Integrated Information Theory, Topological Geometrodynamics or Orchestrated Objective Reduction? Are there any theoretical frameworks that permit the construction of a falsifiable explanation for what we are observing in this long-standing experiment?

Q4 Are attention, intent and free will qualitatively and computationally different from sensory and motor information processing? Does attention hold the key to a topological reorganization of information processing gates in both individual and collective (see GCP) "panpsychist" structures like human brains, computer systems and other sufficiently complex forms of organization?

Q5 What are the best candidates for a nonlocal information exchange currency? How consistent are photon signatures across different classes of psi experiments?

Q6 Given the statistical nature of psi, where do you see the greatest experimental potential in the decades to come? How can we design compelling group/network experiments to probe the nonlocal aspects of consciousness and which applications should we focus on?

Q7 Matti Pitkanen has provided a deep and extensive theory that extends contemporary physics and also addresses consciousness and psi phenomena – Topological Geometrodynamics (http://www.tgdtheory.fi/). Concrete thoughts on his ideas, their strengths and weaknesses, and how they might be experimentally explored, would be of interest.

A POST-QUANTUM PHYSICS? (Ben Goertzel)

Q8 (BG): Integrated Information Theory

Could looking at integrated information on the quantum level (or in the context of some extension of current quantum theory) yield insight regarding psi phenomena? Might there actually be subtle integrated information spanning systems that are currently thought of as "disentangled" from each other? Could this provide the foundation for some sort of "universal consciousness"?

Q9 (BG) Supposing that some sort of nonlocality going beyond what is allowed in classical physics is required to explain psi phenomena — is quantum theory actually enough? Or do we need some broader form of nonlocality? If so, what additional aspects must the nonlocality needed to explain psi possess?

Q10 (BG) Will the standard "scientific method" as now practiced and understood (involving gathering empirical data that is considered as "provisionally true" in an objective sense, and validated as such by members of the scientific community) be adequate for understanding psi phenomena? Or might an understanding of psi phenomena require a shift to a new understanding of science, involving a more radical subjectivity, a more relational interpretation of observations, or something else?

Q11 (BG) Are our current notions of "causation" and "correlation" adequate to understand psi phenomena? Or need they be extended somehow? If so, how?

Q12 (BG) Can we make scientific (or some sort of meaningful post-scientific) sense of the notion of a broader universe beyond our physical universe? How does the mystical notion of a world beyond our world, relate to the higher-dimensional aspects of physical reality postulated in modern physics theories? What properties would a broader "world beyond our world" need to have, in order to have useful explanatory value for phenomena we observe in this world, or for experiences we have and report that hint at the existence of realities beyond this physical world?

Q 13 (BG) How useful is Sheldrake's notion of "morphic resonance"? Is it too vague to be used to draw concrete conclusions about practical situations? How might it be refined into more precise ideas? How does it relate to quantum mechanics?

Q14 (BG) Many theorists, over the years, have proposed to explain psi phenomena in terms of a larger (sometimes "higher-dimensional") universe in which our physical universe is embedded. But the scope of data currently available appears insufficient when faced with the task of understanding the nature of this hypothetical larger containing reality. The relation between a larger universe that might explain psi, and the various higher dimensions of the physical universe proposed in contemporary physics theories (e.g. string theory, Kaluza-Klein theory, etc.), is also not clear. Any thoughts or comments on this direction?

Q15 MEASURING MENTAL ENTANGLEMENT – REMOTE PHOTON EMISSIONS (Patrizio Tressoldi)

Is it possible to measure the "mental energy" underlying both local and nonlocal mind-matter interactions? Is it also possible to investigate the characteristics of these interactions, e.g. do these interactions look like a single shot or like a long-lasting wave of energy? Could this line of investigation shed light on the basic "stuff" of our mind?

What has been observed by Tressoldi et al. (in press) after one pilot, one failed and one positive replication can be summarized as follows: mental entanglement (ME) at distance with a photomultiplier reveals its effects by increasing the bursts of photons exceeding by more than 6σ the average count, corresponding to bursts with more than ten photons. In other words, it seems that ME effects correspond to very fast bursts of light of approximately 20 photons/sec equivalent to an energy estimated at 65 eV, at approximately 788 THz, a really non-trivial energy. Furthermore, these effects seem to appear even after a delay of approximately 35 minutes.

Human (external qi) intention is a form of information. There are many reports on this. The first few white papers by William Tiller are interesting:

http://www.tillerinstitute.com/white_paper.html

And what if intention is simply thought-like energy? See our study:
Tressoldi, P., Pederzoli, L., Matteoli, M., Prati, E. and Kruth, J. (2016). Can Our Minds Emit Light at 7300 km Distance? A Pre-Registered Confirmatory Experiment of Mental Entanglement with a Photomultiplier.
NeuroQuantology, 14,3.47-455. doi:
10.14704/nq.2016.14.3.906 http://www.neuroquantology.com/index.php/journal/article/view/906

RELATED ARTICLES:

Bancel, Peter **"Determining that the GCP is a goal-oriented effect: a short history"** (please note that these private remarks were made available as is, and not prepared expressly for publication in the JNL)

Nelson, Roger **"Weighting the Parameters, a Response to Bancel's "Searching for Global Consciousness: A Seventeen Year Exploration"**

Sidorov, Lian **"The Locked-in Syndrome of Panpsychism: Integrated Information Theory, Orch-OR, TGD and the Search for the Right Experimental Model"**

Pitkanen, Matti **"Comments about Integrated Information Theory of Tononi and Koch"**

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[1] Cardeña, Etzel. "A call for an open, informed study of all aspects of consciousness." *Frontiers in Human Neuroscience* (2014). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3902298/