

1996 Tucson-II Abstracts

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Brief Background

Following the First Tucson meeting in 1994, David Chalmers identified the “hard problem” of consciousness studies as relating to the nature of consciousness itself – how is it that we are aware of anything? I read his December 1995 article in Scientific American – “The Puzzle of Conscious Experience” (<http://consc.net/papers/puzzle.html>), called him to express my appreciation of the article, and asked him for several reprints – I knew many people who would enjoy the piece. He suggested I submit a paper to the upcoming conference and mailed me a package that included the call for submissions.

Simultaneous with these events, Sri Adi Da held a series of “gatherings” with a small group of students during which he discussed the matter of consciousness in great depth. These talks were recorded, transcribed, and excerpted regularly for the general Adidam membership. I was inspired by the co-incidence to compose and submit the following three abstracts. They are very deeply indebted to Sri Adi Da in too many respects to enumerate here.

I never imagined one would be accepted, let alone all three. They were, but for poster presentation, which, as it turned out, was just as well since my father died not long before the conference and I was unable to develop these ideas any more fully until more recently.

Readers might be interested as well in my brief dialog with Thomas Kuhn concerning these abstracts just several months before he died in June of 1996 (see “Kuhn dialog” [link]).

This is approximately the way the Summa abstracts appeared in Consciousness Research Abstracts for the Tucson-II meeting – Toward a Science of Consciousness in April of 1996 – reformatted for ease of reading:

The SummaTime Scale: a tool for ‘hard problem’ research

The most appropriate way to represent time may be -- as with many other biologically relevant parameters (e.g., pH, intensity of light or sound, etc...) -- to use a logarithmic transform. A logarithmic scale of time past in SI units of seconds can span a range from exa (10^{18}) to yocto (10^{-24}) seconds encompassing the most remote event for which we have a time estimate -- the ‘Big Bang’ (in the range of exa seconds) -- to the shortest time interval to which some meaning has been attached -- the yocto second (often represented as the length of time it takes a photon to cross the diameter of a proton).

A salient feature of this time scale is that nowhere on it does the ‘now’ of conscious experience appear. When, then, is now? Or better still, when am I? Any and all events in cosmic, evolutionary, cultural, or personal history can be placed somewhere on this scale. Likewise with any observable phenomenal process in the psychophysiology of the body/mind/self. However, that which is most immediate to our own awareness -- our own personal ‘now’ -- has no obvious ‘place’ here. Where then do we look for ‘The Link’ between consciousness and our psychophysiology?

I suggest that this scale allows various hypotheses regarding this question to be considered in a new light in terms of where on the scale they fall or how they relate to time altogether. The SummaTime Scale suggests that conscious awareness is not 'in time' at all. Rather, we are associated with time via mechanisms yet to be elucidated. Or, it could be argued that to be an object of science a phenomenon or process must 'have a place in time' or else it isn't subject to scientific 'rules of engagement.' In this case, science could not be expected to provide an 'answer' to the question of exactly how we are linked to our experience. In either case, however, the SummaTime Scale provides a potentially useful way to compare various theories concerning 'The Link.'

The SummaTime Scale suggests other possibilities as well: perhaps all of time (and its vast range of scales over some 42 orders of magnitude) is somehow 'contained' in 'now.' This represents a topological inversion of our usual 'point of view' wherein we conceive of ourselves as existing in (or at) a 'point in time' that somehow creeps along on a line stretching from infinite past to infinite future with us trapped in a zero between two infinities. Here this 'point in time' is turned 'inside out' and we become instead ourselves the infinity which contains time. Consciousness is the container of time, rather than epiphenomenon arising somehow in history as a 'result' of a complex of evolutionary processes. Such a view is more compatible, it seems to me, with the 'Great Tradition' of the totality of human experience. It also suggests that our view of science altogether may need likewise to be 'turned inside out' to produce a 'science IN consciousness' that I call the SummaScience.

The SummaParadigm -- science in consciousness: turning the 'hard problem' inside-out

1. Kuhnian criteria for paradigm have not been met for any 'science of consciousness.' Since Thomas Kuhn many sorts of ideas and 'models' have been put forward as 'paradigms.' Examination of Kuhn's original work, however, reveals that his definition of paradigm requires 'a concrete result of scientific experiment' or 'universally recognized scientific achievement that for a time provides model problems and solutions to a community of practitioners.' I suggest that there are no such results or achievements forming the basis for the pursuit of a 'science of consciousness.' Furthermore, I suggest, there cannot be any such result or achievement because the doing of science requires a separation between the observing scientist and the observed objects (structures or processes), and consciousness (the 'observer') cannot itself (in the sense used here) be an object to itself. Thus any possible 'science of consciousness' would necessarily be: based directly in the experiencing of the 'scientist' involved, therefore 'without object,' and thus very different from any science we now accept as such.

2. The phenomenology of consciousness must come first. Science has only just begun to ask the question 'what is consciousness?' We have first to inquire if we have a sufficiently comprehensive phenomenology to work from. I suggest that science has, up to now, actually excluded the possibility of developing such a phenomenology because of the religious context of most historical 'consciousness research.' If you consider human experience with these matters in its entirety ('The Great Tradition'), the phenomenology of consciousness is a vast subject --

one that rapidly gets into the deeper waters of religion, theology, and esoteric spirituality -- not just the philosophy, physics, mathematics, etc... considered worthy 'topic headings' here. Is science ready for this?

3. Kuhnian criteria have been met for a science IN consciousness. My reading of the Great Tradition is that the summary of the evidence found there is -- most succinctly -- that there is ONLY consciousness, all phenomena arise in consciousness, and all the science I will ever do is as an apparently separate entity likewise arising in consciousness. Thus, I suggest that the paradigmatic 'experiment' has been done already in the body/minds of numerous individuals throughout history who have realized the radical nature of their own deepest subjectivity as consciousness itself. The implications for science of this 'SummaParadigm' -- a kind of ultimate or final paradigm -- are many and profound: to begin with, Chalmers' 'hard problem' is only hard so long as we insist in banging our heads against the non-objectifyability of consciousness in our search for the proposed 'science of consciousness.' This effort is, in my view, an expression of the hubris of science -- however understandable that hubris might be (science at its inception had, after all, to do pitched battle with the dogmas of the religions and theologies of its time). As the 'SummaScience,' I suggest, this posture of science can be grown beyond and science can begin to take on a larger and more mature function as an effective 'servant' of consciousness.

The making of a SummaScientist: doing the 'hard problem' two-step

Becoming a SummaScientist -- an authentic, serious, and scientific researcher of consciousness for real -- requires following a two-step injunction: first, embrace the total phenomenology of our common humanity in your own person, and second, embrace that totality in consciousness. Neither of these is a trivial undertaking -- to say the least. Rather, they involve the would-be SummaScientist in the most profound personal and total process of growth and deeper human understanding.

Step 1: Science as we know it is a fledgling human enterprise. Barely several hundred years old, it is rooted in uniquely 'Western' and 'rationalist' cultural perspectives, presumptions, and limitations of 'point of view' which have specifically denied the objective reality of subjective experiences. Thus, the first step to a complete (or 'Summa') science will necessarily be a process of going beyond these limitations and embracing the totality of our human experience. The would-be SummaScientists must be willing to look openly and without prejudice at all aspects of his or her own experience as well as that of others. This includes experiences in sleep and dreams, intoxication, visions, intuition, ecstasy, transcendence, awe, immersion, clairvoyance, etc... As common forms of human experience, these have been described and explored throughout human history -- the 'Great Tradition,' taken as a whole. This greater totality of experience can be considered the phenomenologic ground of human consciousness from which will grow the SummaScience. The would-be SummaScientist must embrace (or at least allow for) this totality in his or her own experience.

Step 2: Since the single most salient and common feature of all experience is experiencing itself, doing SummaScience also involves a most direct and experiential investigation of consciousness. The performance of any such direct investigation is not a 'mere' laboratory exercise, or intellectual, or philosophic undertaking only. Rather, it is the inherently paradoxical activity of the investigation of the very consciousness engaged in the investigation -- an activity that is better described as 'contemplation.' And there are real conditions that must be established for such contemplation to bear fruit: the body/mind of the investigator must itself offer sufficiently little distraction so as to allow attention to 'turn back upon itself.' Although anyone may apply this process at any point in life, and, although it has been pursued historically without any scientific background whatsoever, formal training in conventional science is a 'new ingredient' that will facilitate the emergence of consensual forms of numerate description and the development of practical engineering applications of the SummaScience.

The 'Hard Problem' Two-step: Both of these aspects of doing SummaScience can be seen as forming the left and right of a coordinated movement or dance. Exclusive emphasis on either can be imaged as trying to dance on one foot only. Instead, first learn to dance with the whole body, then dance, and enjoy the dancing!