Preface to Chapter 1, (on Realism and Mind as a Non-Representative Model)

Sometimes in the attempt to solve an exceedingly difficult or a seemingly impossible problem we tentatively adopt what is, on the face of it, an ostensibly absurd or even an *outrageous* hypothesis and see where it leads. Sometimes we discover that its consequences are not so outrageous after all.

I agree with Chalmers[1] that the problem of consciousness is "the hard problem". But I think it is *considerably* harder than anyone else seems to think it is. I think its final scientific solution requires new heuristic principles as deep and as wrenching to our innate preconceptions as, (though different from), the "uncertainty", "complementarity" and (physical) "relativity" that were crucial to the successful advance of physics early in this century.[2] I think its resolution involves a profound extension, (though not a refutation), of classical logic as well. A full consideration of those deep new cognitive principles: "cognitive closure", (Kant, Maturana, Edelman), "scientific epistemological relativity",[3] (Cassirer and Quine), and of the necessary extension of logic, (Cassirer, Hilbert, Rosch, Lakoff, Edelman, Iglowitz), must await later chapters however. In a very real sense, moreover, it is a "chicken and egg" problem. I must ask for some latitude therefore. This is too big a problem to be focused in a single chapter.

In this chapter I will propose, instead, just the first and simplest part of a three pronged, (and multidisciplinary), hypothesis for a solution of the problem of consciousness. This first hypothesis proposes, ("outrageously"), that the evolutionary rationale for the brains of biological organisms was *not* representation[4] -nor reactive parallelism -nor transcendent logic![5]- as is generally asserted, but was, rather, an optimizing, (and non-representational), *internal operational organization*, (by metacellulars), of their *own* primitive, reactive biologic process instead –and for which I will propose a specific model. I will

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[1] Chalmers. 1995

[2] For a vivid recreation of that time and the comparable intellectual dilemmas presented by the empirical findings of quantum physics see "Uncertainty: the Life and Science of Werner Heisenberg". Cassidy, 1992, for instance.

[3] This is not an ad hoc relativism, but a scientifically structured one –I will elaborate this point shortly and develop it at length as the subject of Chapter 4.

[4] This is not so peculiar an idea as it may seem but is being advocated more and more frequently by eminent biologists of our day- e.g. Maturana and Varela, Freeman and Edelman.

[5] i.e. an ultimate, objective logic dealing with the ultimate, objective, (ontic), world -the absolute world in which we exist. This is Kant's distinction between "transcendent" and "transcendental".

argue that this organization was vital for the adroit functioning of profoundly complex metacellular organisms in a hostile environment and *antithetical* to a representative role! Representation is *in conflict* with an optimization of biological response! This is an "outrageous" hypothesis in that it proposes a premise which *presumes*[1] our ordinary physical and evolutionary world, (ordinary biology), while the consequences of that *selfsame* premise are that our ordinary worldview, (to include the aforementioned "ordinary physical and evolutionary world" in which it was framed), is neither probably, nor even likely, to be (metaphysically[2]) correct![3] We humans, after all, are metacellulars too.

How is this possible? Why is it not a logical absurdity? I will supply a cogent *realist* resolution of this seeming "reductio" in Chapters 3 and 4 drawing from Kant, Cassirer, Quine and Bohr. I will argue, with Cassirer, that our science is a relativistic[4] *organization of phenomena*, ("experience"), and not *metaphysically*, (i.e. absolutely), *referential*.[5] This proposal, like Bohr's, will

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[1] In its very statement

[2] "Metaphysics", as a word, refers not just to historically obsolete scientific ideas such as "final causes", "purpose", et al, but also to *ultimate being* -i.e. "ontology". This aspect of metaphysics, (i.e. what is the world *really*?), still remains at the core of most conceptions of science and philosophy despite Kant's herculean efforts. Though unfashionable to give it a name, that which it names is ubiquitous. I will address the issue at length in Chapters 3, 4, and 5 as its clarification is crucial to the mind-body problem just as it was crucial to the successful advance of modern physics.

[3] The same dilemma is shared, clearly, by Maturana and Varela, Freeman, Lakoff, Edelman, … Maturana calls it "the razor's edge".

[4] I had probably best clarify mine, (and Cassirer's), meaning of the word "relativism" right here. It does not have the sense of "cultural relativism", "ethical relativism", or that "anything is as good, (or true!), as anything else". It does not signify an abandonment of truth or legitimacy. Rather, we understand the word in the mathematical and *scientific* sense -in the sense of Einstein's Special Relativity for instance. It denotes an exact and invariant *rule of connection*. One set of measurements in a particular frame of reference is *not* arbitrary as regards another set of measurements in another frame under Special Relativity, (for instance). It is related to it in a rigid and invariant relation -i.e. the specific equations of the theory of relativity. *This* is the sense of "relativism" and "invariance" that Cassirer and I utilize, and it is diametrically opposed to "capriciousness".

[5] I will argue that the business of science is the prediction of *correlations* of events, not about what those correlations ultimately correspond *to* in some ultimate ontic "nether world". I will argue, with Maturana and Varela, and with Gerald Edelman that brains, (and the product of those brains), are *adaptive*, (e.g. "ex post facto selective of preexisting internal variation" using Edelman's terminology -cf Edelman, 1992, p.82), and not *information* processing. But "adaptation" does not imply isomorphism or objective mapping, it implies *competence*, which is quite different from implying a "God's eye" knowledge of the world, (information). I will pursue this discussion in Chapter 3. Edelman draws a similar conclusion, but then goes on,

resolve the apparent self-contradiction of this first premise by placing it as a scientifically significant and useful *relative*[1], (i.e. organizational), but not *metaphysically referential* assertion. It is proposed, (itself!), as a legitimate and scientifically productive *automorphism* within our ordinary world, not as a metaphysical (objective) mapping *to* an external, absolute domain.

My overall thesis is neither solipsistic nor idealistic, however, but scientific and realist. Ultimately I will propose that our ordinary world, (our "folk world"[2]), *is a blind working algorithm*, (in just Bohr's sense of quantum mechanics), on the Kantian "nuomena"[3] but incorporating, like physics, a principle of fundamental epistemological uncertainty. It is, therefore, a *realist*[4] hypothesis in the essential meaning of that phrase, but embodying a tenet of metaphysical indeterminacy. It is "Kantian" without the categories.

I will show in later chapters, (though not in this one), how this first hypothesis, (in concert with ancillary logical and epistemological hypotheses), opens the first real possibility for an actual and adequate solution of the problem of "consciousness" commensurate with the legitimacy of science. I will argue that it leads to an actual solution of the fundamental paradoxes of sentiency. That solution actually *explicates* those paradoxes rather than merely denying or reducing, (i.e. eviscerating), them -and "consciousness" in the process -as has been the case heretofore and is a crucial measure of a new theory. It foreshadows, moreover, the beginnings of a truly scientific psychiatry for the first time.

The Alternative Positions:

The nonrealist philosophies: dualism, idealism and solipsism appear to have a certain advantage in the problem of consciousness. Admittedly, they circumvent certain of the primal difficulties, but they do so at a price too costly

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inexplicably, to propose *exactly* such a "God's eye" view himself! I attempt to resolve that difficulty in Chapter 4 in a modification of Cassirer's "Symbolic Forms".

[1] see footnote above

[2] and ultimately, (as an extension of that world), our science as well

[3] ultimate reality

[4] Contrary to his own (grudging) acceptance of the label of "critical idealist", Kant was very much a realist. His arguments in "Prolegomena" very clearly and pointedly distinguish him from classical idealism. A more modern classification, I propose, would be "ontic indeterminist". The "categories", I believe, are a different issue, and open to question. See Introduction to Chapter 2 for an elaboration of essential realism.

for most scientists and other practical minds. Because they detach[1] physical presentation, (i.e. sensory perception[2]), from our consciousness, (or discount it entirely), the problems of "the homunculus" and of *how* we know clearly disappear -at least in regard to external perceptions. We know because we know. We *begin* by knowing. There is, they claim therefore, no problem of knowing!

But it is only an illusory advantage for these philosophies do not solve an even deeper problem of "presentation" and *another* "homunculus" implicit in our very logic itself. How can this part *of even a "mental stuff"* know *that* part?[3] How, in Leibniz's formulation of the problem, can "the many" be known to "the one"? Whence comes the integration of the parts? Whence, furthermore, comes the "abstraction" and "attention"[4] at the theoretical foundations of the classical logical "concept"/"category" -at the very basis of classical logic itself? What do we abstract *from* -and where, and what do we pay attention *to* -in our formal theory of concepts -and how? How can there be a logical homunculus? How can there be meaning?[5]

It is the problem of *logical* presentation. I call it the logical problem of consciousness, and it is the *hardest* problem. It is a problem that *no* philosophy has yet answered. It is the purpose of this chapter to present the first of three synergistic[6] hypotheses intended, (at their end), to answer it fully, (and the core of the mind-body problem as well), in a manner consistent with science and realism.

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[1] or reinterpret

[2] to whatever extent it may exist for them

[3] other than that mind is "nonextensional" and "non-divisible" -i.e. "it just does"!

[4] cf Chapter 2

[5] A large part of the problem of "mind" and of "consciousness" lies in our inability even to properly and adequately *frame* it. This ambiguity is pretty much admitted by all parties. I believe it is a consequence of the lack of an adequate underlying conceptual framework, and not because of a lack of substance to the problems themselves. It is only when an adequate substrate theory has been formulated, (or while it is being formulated), that the problems will take on clear and logical form, and solutions will be cogent. There are clear precedents in the history of science to illustrate the case. How, for instance, could the perspectives, (the questions and the answers), of Galilean or Newtonian physics be formulated in the causative framework of Aristotle or the cosmological framework of Ptolemy? The answer is that they *could not*. It was only in the evolution of a *different* context and a *different* science that they could be explicitly formulated at all.

The problems and the answers of "mind" and of "consciousness" are considerably clearer *within* my thesis -i.e. they can achieve a concise formulation, but not in a prelude *to* it.

[6] and, thereby, *individually* somewhat perplexing

Ordinary realism, (ordinary materialism), on the other hand, throws away the baby with the bath. It leads inexorably to the conclusion, as Dennett[1] has so forcefully argued, that we can *have* no consciousness -we are all automatons - "zombies"! Simply put, there is no way that *one part* of a spatially and temporally distributed process[2] can know *another part*.[3] There is no "*place*" that knowing can be; there *can be* no "Cartesian Theater"! We are "multiple drafts" published on a mechanical "demon press". Supervenance and epiphenomenalism,[4] on the other hand, are profoundly challenged by Occam's razor[5] since by definition they can add nothing causative to physical explanations.

The real problem for those of us who believe we "have a life" therefore, is how to account for *both* consciousness *and* a reality external to that consciousness in a philosophy of realism and science. I will argue ultimately that it requires a reduction of the excessive and blatantly *metaphysical*[6] demands made on realism while retaining the essential core we vitally require. This (essentially Kantian) realism[7] will enable a viable solution to the logical problem in my second thesis, (and to the problem of meaning as well), and answers our innate demands for *both* science and consciousness. My third hypothesis[8], (in conjunction with the first two), undertakes to supply the actual "substance" -the "matter of mind"- within the context of that same realism. Consciousness without realism and science is inconsequential. Science and realism without consciousness is pointless.

Sometimes it is necessary to walk *around* a mountain in order to climb the hill beyond. It is the particular mountain of "representation", and the cliff, (notion), of "*presentation*" itself, (to include *logical presentation*), embedded on its very face, I will argue, which blocks the way towards a solution of the

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[1] Dennett, 1991. I will not reiterate these kinds of arguments within this book -we have much larger and original ground to cover. They have been powerfully and beautifully made innumerable times before. (Cf, for instance, Dennett, P.S. Churchland, Paul Churchland, … - even Edelman!) Furthermore I accept their conclusions *within the context within which they were made* and expect my intended reader to have been strongly challenged by them. It is that context itself we must examine but we must do so without presupposing our conclusions, "heterophenomenologically", as Dennett would say

[2] the process of the brain, for instance

[3] (though it can *react* to it!)

[4] and property dualism ...

[5] The principle that entities are not to be multiplied beyond necessity, i.e. beyond explanatory sufficiency.

[6] i.e. ontological –see footnote above defining "ontology"

[7] see prior footnote concerning Kant's realism

[8] Chapters 3, 4, and 5

problem of consciousness. This first chapter points out the path around the mountain so that we may approach the more manageable grades beyond. "Presentation", I hold, is not implicit in consciousness nor is it innate in realism.

Let me now present just the first of three synergistic hypotheses whose combination I will ultimately propose as a scientifically plausible solution for the problem of consciousness. This first hypothesis is not intended to stand on its own. Though it opens new and fruitful perspectives on the problem, it raises very large problems itself. The latter are the subject of the second, (Chapter 2), and third hypotheses, (chapters 3, 4, and 5). Their adequate resolution involves a paradigm shift of monumental proportions and is dependent on the whole of the three hypotheses. It is the latter fact, I believe, which has made the problem so long intractable.