

Fractal Unreality? – Paper II

Now, so far I have only written about half as many words as Buchanan offers in his whole article, without yet dealing with any of his chosen content, so that must now be addressed. But before I do, I must preface my effort with an apology.

The reportage style of the criticised article is very different from an academic paper, and the “reporter” feels no responsibility to overtly justify in depth each and every one of the ideas he mentions. This makes my criticisms more than a little difficult. I cannot take ALL the involved data and methods and construct a thorough-going critique, as they are NOT available for me to comment upon as full details are not provided.

This is why I found it essential to spend the initial part of this essay on principles!

What else could I do when faced with this sort of “dissemination” of Science? So, I have no choice but to criticise the methods and assumptions, and most of all, the philosophy used as ground.

I am aghast that so-called scientists do NOT stress the concept of the *objective content* in all Explanatory Theories of merit, which they will involve whether they are fully correct or not! Science constantly develops from the *not-very-true*, via the *more-true* to the *even-more-true*: That is its function, its self confessed standpoint and its development path.

To dump Explanations because none of them are Absolutely True is frankly infantile. Babies and Bathwater comes immediately to mind! Do they not understand the unavoidable trajectory of Mankind’s increasing and improving understanding of Reality? It seems not!

The article reports on the work of Tim Palmer, who claims to see a reconciliation(?) between the ideas of Bohr and Einstein via the Science of Fractals” (Don’t you love it when an area of Mathematics is termed a Science?). As an aside (in its own explanatory panel) Buchanan explains Fractals as Forms which “repeat on all scales”, no matter how small or large, then justifies the use of this pure abstract Form by saying that they “fit” a whole set of situations in Reality. They don’t! Extrapolation down to the infinitesimally small and the infinitely large *never* pertain in Reality.

There can be NO formal description that covers everything in such a range! Indeed, in a way Fractals epitomise the universal limitations of Mathematics. All the Forms of Mathematics, like Fractals, are **eternal** and **universal** such that they are only idealised shadows of Reality at best!

The crucial question in the Real World is exactly when do ALL equations **fail** and *why*?

It is explicitly stated that our new batch of “researchers” are not trying to *reinterpret* Quantum Theory, but to merely to *derive* it from **something deeper**. Aha!

The next major fault in this way of thinking is revealed by the above statement.

It is the assumption of straight-through, never failing Reductionism. Each Part of Reality is “explained” in terms of a lower, contributing pluralist set of Parts, which in turn are similarly treated, and this analysis can be repeated all the way down until the fundamental basic entities and their relating laws are revealed..

But, this ignores the fact that this is, and always has been, impossible! Do they not know about **Emergences**?

Are they totally unaware of those major revolutions in Reality, wherein the known foundations of a Level of existence are finally first undermined and, then totally dismantled, via a cataclysmic sequence of avalanches of Change, and from which a wholly New Level of stability is miraculously born - a New Level which is NOT directly and mechanistically derivable from precursor conditions? It appears not!

[For those unfamiliar with these Emergent Events, the most well established are the Origin of Life on Earth, and the very much later emergence of Consciousness in living brains. But research has revealed that such revolutions have also been crucial in the whole Evolution of Reality, occurring throughout the History of the Universe.]

In trying to explain the Quantum Level in terms of an as yet undetected and therefore hypothetical deeper level, they are ignoring any involved Emergences and assuming universal Reductionism.

But, consider the many attempts to explain the Origin of Life from non-living Matter.

Nowhere has anything approaching an explanation been produced. The reason was that Life and non-Life are separated by the occurrence of an **Emergence**. Does not the inexplicable nature of the post nuclear world in terms of the Quantum World also infer an Emergence?

We surely *have to* place the **first occurrence** of such a development historically in the evolving nature of Matter as an Emergence.

Can you doubt that Reality itself has evolved, and that a particular point was reached wherein the prior non nuclear, non Atomic universe began to form these new and essential elements of further progress?

The reason that Bohr *et al* felt that they “had to” abandon Explanation , was that there had been an Emergence between their newly discovered Quantum realm, and the usually available areas of Physics, and that this Event *prohibited* any direct derivation of the latter from the former by our usual pluralist and reductionist methods. This sort of transformation is **unobtainable** by that currently universally accepted methodology based, most damagingly, on the ideas of Plurality. Our dearly won Scientific Methods are limited to working *within established Levels*. They cannot work across an Emergent Transition, because the assumptions involved do not pertain in these interludes of major and universal Qualitative Change. They are the methods of technical exploitation of level-constrained and even domain-constrained laws, and NOT of the actual *creative development* of Reality.

That vital area, though unavoidably evident in Geology and Evolution, is NOT part of the consensus Scientific Method.

NOTE: The above 2000 or so words have been necessary to address the first 500 of Buchanan’s in the New Scientist article. I mention this because it conforms my earlier explanation of how difficult it is to address such offerings as this. It is clear that these types of contributions are directed solely at those who *already subscribe* to the consensus view. No polemical argument of any kind is involved!

We are all agreed on the fundamental assumptions. We only disagree on detail”, is the inferred ground.

It is therefore difficult for someone who does not subscribe to that universal consensus to expose its errors, because the whole form of “discussion” is limited to **within** that consensus framework.

And such discussions cannot take us forward, but only dig an ever deeper hole.

To be continued

(1,094 words)