

The Debacle of the Large Hadron Collider - Paper I

A couple of programmes on the LHC and the Big Bang on BBC 4 in January, made it clear that a job must be done on this latest colossally expensive, cul-de-sac in Physics research..

I will have to download both of these to be in a position to do a blow-by-blow criticism on them, but I can perhaps preface that work with a series of initial reactions, and a brief exposition of my own standpoint before I start on theirs.

The narrator in the programme on the LHC, is a researcher on the Atlas project at that installation, and from what I remember having watched the programme straight through, he delivered a clear exposition of what is the consensus position of not only the scientists involved there, but in addition of the great majority of physicists in general at the present time.

It was clear that the researchers involved expected to solve quite a few intractables via this, the biggest ever atom smasher in history.

Their idea is that the gigantic energies generated by this system would, when the two counter-rotating streams of protons were deflected into each others' paths, produce first of all the Higgs Boson, which is "theoretically" supposed to have been present when the first Matter ever appeared out of pure Energy soon after the Big Bang.

If they find it, (and it is truly massive in size compared to most "elementary particles") it will "confirm" their theories, though I cannot see it myself.

The theory that they are using, and expecting to confirm, cannot see fields and force in any other way than to involve a particle which is swapped about to give the "appearance" of a force being involved. It is their solution to the old "action at a distance" conundrum, and their 16 elementary particles of the Standard Model of the sub Atomic World, is made up of just such particles "generating" ALL the usual fields and forces, as well as being "components" of ALL larger particles.

NOTE: Just this sentence about **components** makes it clear how they see Reality. Larger particles are "composed of" smaller particles. Now many particles, when "persuaded" to break apart, DO produce other particles PLUS, or sometimes MINUS, appropriate amounts of energy, but to call them components may still be far from the truth.

If, on the other hand, we take a holist view of what is going on, the particle that is in some way split, and considering it as merely some sort of *summation of certain components*, may well be entirely incorrect.

I feel I must liken the methodology involved to trying to find the components of living tissue by firing particles of very high energy at it. You would certainly DESTROY what made your target alive, and the slivers of matter that you scatter to all corners, could surely never reveal themselves as the crucial components of life.

It seems to me that in both cases you are only producing the shrapnel of your destroying collision.

You are also assuming that violent destruction is merely the reverse of natural "construction" – indeed, of evolved Form!

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It all depends on what causes the break up. If, for example, this is caused to happen in a Collider (such as the LHC), then you **cannot** really say the ensuing products are *components* of the initial particle at all. For what is happening there is that vast amounts of Kinetic Energy are pumped into a collision of two particles (normally extremely stable), and with that crucial inclusion we study the results. So what happens is the smashing in of that energy into the situation. The resulting products cannot be said to be "components" of the smashed particles. That infers that the reverse process from those "products" to produce the protons is a simple recipe – particle1 + particle2 + + energy = 2 protons - a classic assumption if you are a pluralist.

BUT, if you are a holist, you might well insist that such a transition is no reproducible recipe, but is clearly some sort of Emergence.

Now, if this is true, two things must be insisted upon.

First, it is clear that our experimenters are attempting to *precipitate* an Emergence of their own by force alone! No maturing undermining is involved: no cumulative build up towards increasing instability: no *process*, just an almighty hammering!

Second, you cannot predict the outcome of Emergences from their precursors, for what happens is a sort of revolution, in which all the old entities and relations are totally undermined and indeed *vanish*, to be replaced first by turmoil, and then by a precipitated new order - a wholly New Level in which new entities, relations and properties are actually **created for the first time**, and become stable.

Obviously, **Plurality** builds up such events very differently.

From that point of view every such particle is ultimately “composed” from a tiny set of fundamental immutable units.

While **Holism**, on the other hand, reorganises from a myriad of new, inter-related factors, and it is only the currently-dominant, higher order creations that we can discern. And these *change radically* at each and every one of the Emergences, that together constitute the Evolution of Reality.

Indeed, as must by now be obvious, Pluralists are **mechanists**: Holists are *Evolutionaries*.

NOTE: As this may be contested, I must clarify!

Each Emergence does NOT change everything, everywhere in the Whole Universe! It is limited to its own, self-maintained realm. The older Levels still persist, but only *outside* the aegis of Living Things. Inanimate Matter carries on, as before, in parallel with the new Level. But, as will be seen later, the Living Level can and does begin to change the conditions of the older Inanimate Level too.

Now, as Energy and Mass can be converted one into each other (or so we are told) almost anything can be produced by stepping up the quantity of Energy involved. We must NOT talk about “components” as if they are merely “set free” from their place in the larger particle. It would be much more correct to talk about the Stability (even if temporary) of initial particles, being destroyed by the stupendous impact, and out of the debris and turmoil thus produced a new, different situation would be precipitated which includes all the products whatever they are.

NOTE: In other papers on Emergences, I have described the completely different trajectory of Change that must occur in such Revolutions. It can never be a simple flip to a new situation, but rather a wholesale sequence of cataclysms, each very quickly precipitating the next. The seemingly run-away situation only, finally resolving into a wholly New Stability – a New Level.

Yet, when you look at the evidence supplied by the scientists involved in investigating such momentous Events, it is surprising just how accurately the holistic alternative is borne out. The “explosions” captured on photographic emulsions, or within Cloud Chambers and the like represent millionth of a second, yet display just such a sequence of successive avalanches of Change!

Now, to the uninitiated to this type of debate, they may by now be somewhat confused, so I think the best thing at this point is to recap the alternative positions of, on the one side, Pluralist scientists such as those involved in the LHC project, and, on the other, Holist scientists who see the World in a very different and constantly changing way!

It is not the sort of debate that occurs everywhere. Indeed, the vast majority of scientists all over the World are pluralists, and cannot conceive of there being anything at all in the “jabberings” of the holists.

So let us, briefly I hope, set out the crucial differences.

To be continued

(1,295 words)