## The Demise of Formalism II: Part VI The Rise of E M E R G E N C E

## How do we Address Emergent Change?

Now, to locate, or infer a location, for these significant, active processes, we cannot approach the problem using our methods honed WITHIN existing *stable* Levels. We HAVE to establish a better, holistic conception of Reality – a conception imbued with Change!

Instead of purely Pluralistic and pragmatic methods of analysis and study, we have instead to try to conceive of a more real, active and multilayered ferment. Though there is a dominant foreground, which we are drawn to as amenable to further study, we must also be aware that this is embedded in an extended background context, and also accompanied by myriads of hidden, yet currently minor, and independent processes, which the current stabilities keep that way.

This is a more accurate picture of a normal, stable situation - the type of situation that Science **recasts** in terms ONLY of its dominances, and then proceeds to study and attempt to explain that portion alone.

Such a selection is quite understandable. Obviously, faced with a daunting Reality, we do the sensible thing, and study the more amenable features, that obviously present themselves, and USE our results to get what IS achievable in such a situation. TO attempt any other approach from the start, would NOT lead to the development of Science, but to the elaboration of Religion.

But, we have passed that stage. We now have to address questions where our past invented techniques and methods cannot deliver answers. In tackling the question, "What brings about the revolution?", we MUST renovate our conception of Reality. So let us begin.

## A New Concept of Reality

First, Reality is NOT a mere addition of ever more complex, natural occurrences - a simple Accumulation.

THAT is incorrect! Reality itself **evolves**. Change cannot be sidelined as in Formal Logic. It is imperative to any understanding of the questions we are attempting to address. The question must be, "How, does Reality evolve?"

When attempting to address this question, we immediately come up against that "foundation stone" of Science, the Second Law of Thermodynamics – the one that fits the World into a trajectory from Order to Chaos that insists the Universe can ONLY run down. Evidently, if Reality itself evolves, then the opposite is true. It moves from Chaos to Order. Its natural state is one of building up!

Now, I will not waste time arguing this point. It will take a long time and involve a full discussion of Plurality, Pragmatism, and many other assumptions of Science. But, if we are to tackle the questions outlined, we MUST start by pointing ourselves towards the important problems, and the Second Law will only affirm, "Give up now you'll never do it!"

Now, it is clear that Emergences such as that involved in the Origin of Life on Earth ARE the big turning points in the march of Reality, but for such to actually happen, they MUST result from a Ground of Permanent Change. The Big Overturns must rest on an environment of incessant Small Changes. Now, already we come up against the straight jacket of Formal Logic. There is a contradiction inherent in a world full of change, which nevertheless exhibits the most profoundly self maintaining stabilities - those stabilities on which Formal Logic was erected. The "formal" consequence of incessant change would surely be Chaos. I think you can see what I mean.

To grasp Reality as it really is, we have to hold BOTH stability and instability as simultaneously present, and we have to comprehend how forces can both drive to stability, and yet also drive to undermine each achievement of Stability.

To encapsulate both we MUST involve Levels, and these are NOT absolutes, and NOT eternal.

Indeed, Levels must be seen as the means of resolving conflict. Reality is constantly changing, but its micro changes are temporarily held within a Level of Stability. Only when they build up sufficiently, can the situation be resolved, and when it is, it is in the form of the Emergence of a New Level.

This new view is, it is true, contradictory, whereas the conceptions that it replaces were not. The old methods did seem to offer dependability and stability, whereas the new proposed view seems to be undermining and destructive, as well as coherent and constructive. But the trajectory of the long term process is NOT one of a succession of phases, each one demolishing the previous one, but, on the contrary, the most profound principle is that it **overthrows yet maintains**. It is NOT a succession of Levels, but a Hierarchy of Levels, each opening up new possibilities, while maintaining its producing Levels.

Non Living reality coexists with Living Reality, and the laws of previous Levels remain. They are just constrained into a subset of particulars by the new upper Level, such that they are supporting of that Level.

Thus we now have a steadfastly contradictory conception of Reality, which nonetheless FITS THE FACTS. Change is constantly taking place, but does NOT change the major structures of Reality. The changes are constrained within the current Level to maintain it. But quantity can become quality! The stability is NOT permanent, and can be overthrown, yet the process, remarkably drives inexorably towards a new Level of stability.

Even this model is a major simplification. Because the Levels once formed, do NOT replace the previous Level. In fact the old Levels still exist. It would be more accurate to see the Levels as stacking one on top of the other, each resting on the content of past Levels, but having its own aegis of control. Now, we must also question the nature and indeed size of the Emergences. Our narrative has seemed to imply that each and every Emergence is Universal in extent, radically changing the whole of Reality. This would be inconceivable. We must think of Emergences coming in all shapes and sizes, from the infinitesimal to the colossal.

With such a view, we can correct our general scheme to see Reality as constantly producing tiny Emergences, which are NOT immediately and universally evident. We can have a constantly changing Reality, with new entities, properties, processes and laws appearing all the time, BUT not of universal extent and effect.

The usual contexts for such inventions are special and local, and some will be short-lived and vanish soon after they have appeared, but some PERSIST. They survive because the containing environment is cumulatively adjusted, and sometimes these changes are conducive to their survival.

The point here is that the containing environment CONSTRAINS included innovations only allowing those which are conducive to the context. We have a top down control of these occurrences.

Thus, on a small scale, Emergences produce new contributions and processes to the local situation. These do not normally threaten the existing stabilities, but as Hegel deduced from his studies with Thought, sufficient quantity can, and does, result in changes in quality. These minor changes can contribute to an undermining of the status quo.