

Further Addendum to Diagrams of Emergence (*emergdiags1a.doc*)

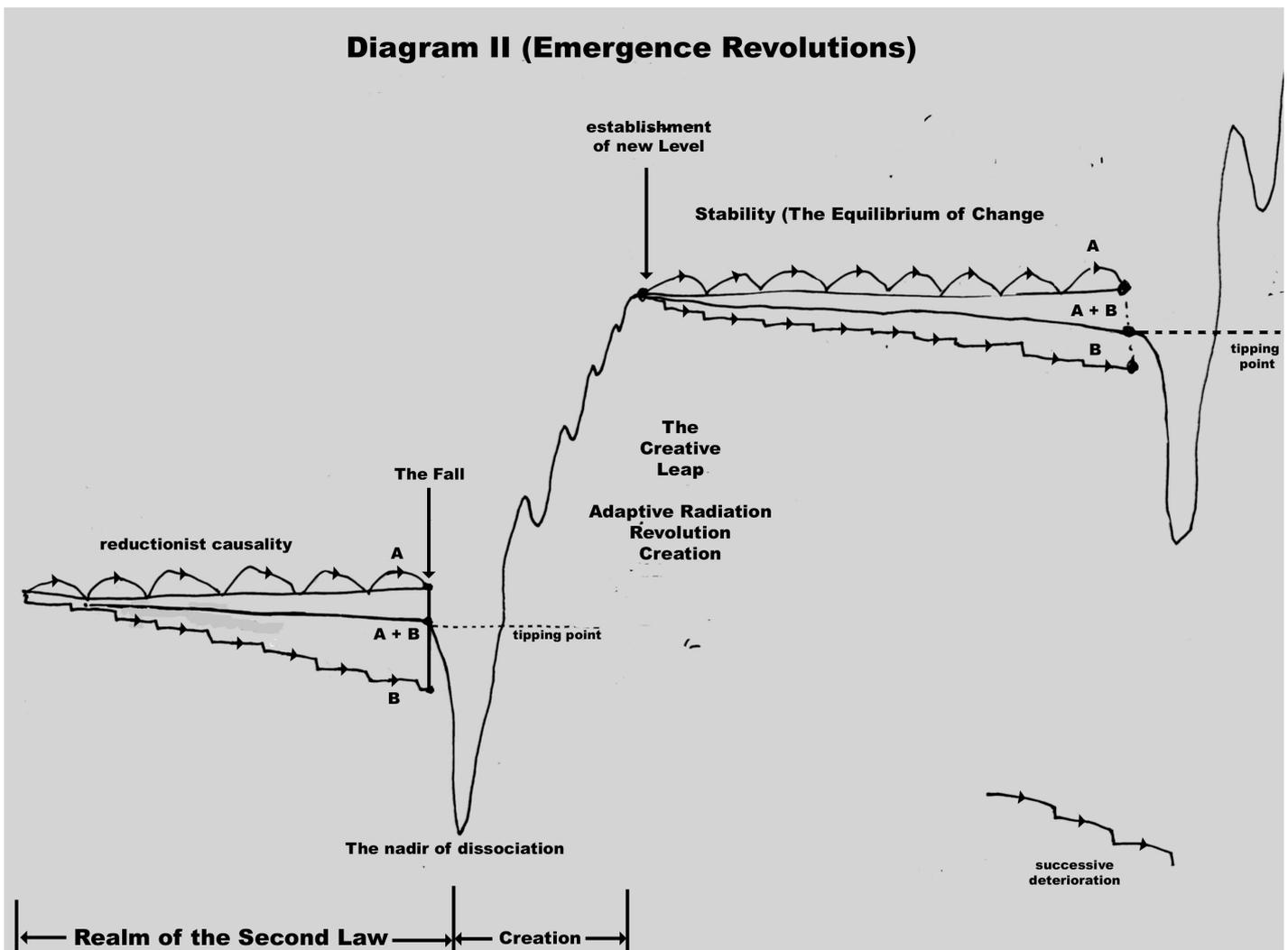
One key diagram, attempting to show pictorially the ebbs and flows, and varying swings within the process of an actual Emergence has had to be modified (yet again), and the updated version is included herewith (on the following page).

I am sure that ALL of these various efforts should be available to those who are interested in this vital area, for NONE are confirmed or even comprehensive. They are speculations based on evidence in Reality of much less significant cataclysms and even Revolutions. But, obviously, they are still hypotheses, but as with all such extrapolations, they are also **necessary**.

This is because their expression and development will lead to their demise when they prove to be inadequate, and will also lay down an informed basis for the next improved ideas.

Having hypotheses has always been the scientific way of moving forwards, in that consequences from such a construction can be worked through and, where possible, checked with Reality itself. It is, of course, the renowned Scientific Method.

Fragments of ideas seem to persist for long periods because there is insufficient evidence for a damning critique to be put forward. A worked through and consistent theory can be effectively checked, modified and even dumped if necessary.



Now, it is very clear that Emergences are NOT available round every corner, by any means. So, **most** of our ideas will be initially speculative, but they are nonetheless essential. In my searches for theories about Emergences, I have found very little that can be checked for accuracy. They are mostly very general systems developed from philosophical standpoints, but rarely constructed *in order to be proved right or wrong*, which is essential.

As in the previous versions of this diagram, which show a newly Emerged Level, its immediately previous Level, and finally a fragment of its following Level, it must require at least two versions – one for an overall view, and the other for details.

Two important revisions are considered to have been necessary (see diagram overleaf).

The **first** shows two differing effects on phenomena *within* the Level and consists of the normal reductionist links connecting a whole string of causes and explanations.

The **second** displays the gradual deterioration of the Level due to contending, and growing, minor factors, which though originally were totally negligible, and therefore quite legitimately ignored, from any explanations and equations that are produced, are nevertheless constantly growing in effect, and working *against* all coordinating relations and processes within it and dominating it.

The two strands are shown separately and then combined (they are labelled A & B, and the final result as A + B). This result noticeably undermines the stability of the Level towards the end, and a **tipping point** is passed, which pulls the whole set of processes down in significance and hence their power to maintain the Level. The result is an Avalanche of Dissociation, which destroys the integrity of the Level and seems to be directing things into total chaos. The organisation and control evident within the Level disappears, and drops to a **nadir of dissociation** – a lowest point in the situation.

But this new situation has its virtues!

The destruction of the old Level structure not only defeats its forces for stabilization, but also its crucial forces *prohibiting* new possibilities, and an even wider range of possibilities is immediately enabled, which were NOT possible within the Level at its most stable. The stability not only held in check the processes of dissolution, but also any other processes of Change, including those which could possibly lead to further development.

Now once this situation has been established many potentially conducive processes can support one another, and grow at the expense of contending processes.

Instead of the positive feedbacks of destruction being the only game in town, we now begin to have positive feedback avalanches of conducive changes, so that mutually supporting sets of processes begin to make headway and grow in abundance. Constructive processes towards increasing order begin to dramatically transform the situation.

What has been found to occur generally in similar situations occurs here too. The situation *selects for* conducive processes and against contending processes wherever they require the same resources. The order in the situation is undoubtedly increased.

Now this illustrates the *opposite Law* to the **Second Law of Thermodynamics**: a Law, which drives towards increasing Order, NOT increasing Disorder. Needless to say such a constructive situation could not last long if it did not include sufficient self-maintaining processes, and the Second Law would soon re-establish its dissociation and the situation would again move *back* towards increasing disorder.

But for the same reasons as before the forces for Order would again establish a different set of conducive processes, which this time had more resilience (or self-maintaining qualities). The situation would be “on the up” again”.

It is evident that the situation will then proceed to seesaw between constructive and destructive feedback phases, but each new *development* would only get going if it were more resilient than the last.

It must be becoming clear that this interlude is *selecting for* more and more resilient constructive phases, and the effect is that the phases of retrenchment get smaller and smaller. So, instead of an eternal oscillation between construction and destruction, we have TWO processes alternating, with the “level” getting ever higher as the forces for stability in the succeeding sets get stronger. The forces of Order prevail more than the

forces of Dissolution, and in the end a new Level is established; with self-maintaining forces strong enough to stop any precipitous decline, and a new Emergent and Stable Level is established.

(943 words)