

Dominance breeds Stability, but Rust Never Sleeps *(The Dynamic of Real Development)*

Perhaps there has been some confusion in this author's papers on both **Plurality** and **Emergence**, in that though they refer to both these conceptions, they do not fully explain them.

For example, they do not fully explain why Dominances *actually* occur, and thereafter how they then not only play the major role in the locality they dominate, but also they even begin to *transform the context* which produced them.

Finally, though the process of analysis may have been fairly clearly explained, it has never been made clear just how that process is, to a major extent, determined by the quite evident dominances, to the detriment of currently insignificant factors, which will certainly not remain so as development proceeds.

So, let us be clear what **Dominance** is.

It can be viewed in two major ways. First, within a myriad of processes all of very similar weight, which are all relatively independent of one another, the overall effect is a kind of incomprehensible chaos: a formless, random mix!

But, such a situation is certainly something of an idealisation, and perhaps never exists as such, for, in such a circumstance, certain of these would definitely proliferate dramatically, at the expense of others, so that they become both discernable and relatively stable. And when such grow to the extent that they significantly affect things overall, they are said to be **dominant**.

Now these dominances gain such positions via their inner-relationships, which establish some sort of **Order** that both grows and persists.

With this view Dominance is Order, while an even "random mix" is Chaos!

Now, we must say that, because of such dominances, what we see of situations is both simplified and distorted by their overwhelming presence. For, in what we call Equilibria (or more broadly, **Stability**), we call always at least *glimpse* regularities, which though, in such completely unfettered circumstances, usually come and go, and are therefore difficult to extract, we are still definitely aware of them, and consequently seek further information about them.

Also, the pace of change is always slow in Stability, and hence many things appear to be constant. For the dominant things change the slowest and the smallest elements are much more difficult to see in any changes they are involved in (Like Brownian Motion, they are often totally invisible!).

For example a cat remains a cat next week, and even next year, and such seeming permanence colour our conceptions of the whole scenario.

Now, such features of Stability impel us to see the World *pluralistically*: we see all **Wholes** as primarily composed of the most evident and dominant things, and therefore seek to analyse them into their "similarly permanent" **Parts**.

Plurality is what we call this assumption of all **Wholes** being composed of their constituent **Parts**!

Now clearly, in such stable situations, this simplification can seem to be true, and when the required Parts are hard to extract, we naturally attempt to hold the situation *even more "still"*, by arranging what we see as clarifying omissions of various "blurring" factors, and with the holding constant of others, and even the elimination of many minor "inessentials" by means of *averaging*!

Such techniques seem to be both necessary and efficacious, for they frequently enable the extraction of relations delivering commendable accuracy, and their subsequent generalisation into widely applicable equations.

We had learned by such means to reveal and then to extract Form in these highly constrained and appropriately cultivated Domains.

It was a great achievement, but it did impose a major constraint upon the **use** of these relations.

The circumstances of extraction had to be replicated when attempting to use what we had taken from our experiments.

But, when this was done, accurate predictions could be successfully applied, and the results achieved were in conformity with those predictions.

Thus, in **Stability**, and using *pluralist* methods we could extract a hierarchy of Parts from each separate Whole, and use them, and their relations, to some intended purpose, and in accordance with an achievable overall plan.

It was a major advance.

So, we must be aware of two sets of conditions, which allowed these things to be possible.

First, quite apart from what we thought or did, Reality itself **had** to be in a situation of overall Stability *of itself*, and

Second, we had to constrain situations to a considerable extent to guarantee a **pluralist form** of that situation, so that we could meaningfully analyse.

The first is about how Reality changes, and the second is how **we** also have to manipulate it, so that we analyse, extract and abstract relations for use.

Now, such natural Stability, though common, is **never** permanent, and will, sometime, in intrinsically developing situations of crisis, suddenly undergo the most deep-going Qualitative Changes over a relatively short interlude of time, termed an **Emergence**. And such a revolution always produces a wholly New Level of Reality – a New Stability comprising new entities, properties, relations, laws and even processes.

Now though rare compared with Stability, these have happened throughout the evolution of Reality, indeed, being the **ONLY** real periods of significant qualitative change, and certain clear and revolutionary cases cannot be doubted.

For example, *The Origin of Life on Earth* was undoubtedly such an **Emergence**. But also, long before that, there were many others, which together *created* the Universe as we know it today, and many, many more have happened since – particularly in the enormous **Evolution of Life**, including such giant transformations such as the first *Appearance of Consciousness*, and clearly also the development of Societies and Civilisations of Mankind.

Now, the nature of these Emergences has NOT been merely that of a bigger step forwards – some sort of brief acceleration like a so-called Adaptive Radiation, but, on the contrary, a complex, multi-Phase Event, which starts with a calamitous dissociation of the prior Level – down to almost utter chaos, followed by a rising zigzag of changes between Development and Dissolution, until a final, and persisting Level is established, which persists.

This amazing trajectory *within* the Emergence *prohibits* any simple causal-path through it. And, because of the initial major dismantling of any prior Stability, also prohibits any straight-through predictions from that prior Level being possible either.

There is a **Kind of Causality**, but it is neither incremental nor progressive, and loses all Order from the preceding Level, to build *only* from the debris left after complete formal dissociation. Effectively, the first phase of an Emergence *winds back the clocks* to a chaotic starting point each and every time. Yet those Zero Points are NOT exactly the same each time.

They may be the same formally, but NOT in content!

The Order of the Level was destroyed, but its persisting primitives – the basic processes, will be different each time.

Each New Phoenix arises from a different Fire!

So, right away, we have dismissed a main plank of our usual, and universally accepted methodology: **Reductionism** cannot be universally applied.

It is a very local, within-Stability feature only! We will never be able to trace all the way back to some basic starting point, from which everything can be predicted. It is impossible!

Each Emergence interrupts such causal chains profoundly: no causal links are possible across Emergence Boundaries.

So, that large tribe of researchers looking for reasons for what finally emerges after such an Event *solely* in the conditions prior to the Event, will always fail! Such causalities will only apply to the moments **before** an Emergence, and for the moments *after* it, but **never** across it!

Now, we must also transfer considerations from solely Objective Reality and its trajectory of major Qualitative Change to **ourselves**, and our conceptions.

We must temporarily set aside Being for Epistemology – **not** what things actually are, but the much more fraught case of how we conceive of them!

And to tackle this we must return to our usual assumption of Plurality!

Now, as has been briefly explained, the assumption of Plurality, and the development of our techniques based upon this assumption, did indeed enable us to *isolate, extract* and *abstract* relations (even though it was from a specially *farmed* situation), and, therefore, enabled both accurate prediction and use, as long as both were restricted to that exact same *farmed Domain*.

Now, all of this is very pragmatic and useful, so it is hard to see how Mankind could have done it differently at that stage in his understanding of the World. But, it must be said that we did not see Reality for what it *really* was!

We, instead, conceptually extrapolated our arranged situation to other, wider *natural states* in a very flawed way! We *assumed* that the relations, which we had extracted in very special and arranged circumstances, were *exactly* the **same** in Unfettered Reality.

We knew very well that they looked very different, and were in addition always very hard to see in those wider circumstances, yet we put that down to mere complication, and assumed that our techniques were merely effective methods of extraction, and that our obtained results were the actual *essences* that applied in every single case, whatever the conditions.

In other words we made the fundamental mistake of assuming that those relations were entirely *separable* from their various possible contexts, and that the blurriness and apparent differences were just the effect of many other relations acting simultaneously. This would mean that sometime in the future, when ALL the relations had been so determined, it would be merely the complications of all the separable relations, acting together, that would deliver the actual behaviour.

Unfettered Reality would be NO problem: we would be able to cope with all circumstances reliably just by using the full set of such essences. Science would put us in total charge of Reality, and we would be able to do exactly as we pleased, and replicate everything that Reality itself was capable of doing.

It is a deterministic assumption very close to that of Laplace!

By just such redirections, valuable gains can be converted into inevitable cul de sacs!

Plurality, instead of being a purely pragmatic methodology for simplifying our interactions with defined Domains of Reality, had been turned into a **Principle** of Reality-as-is: and that it IS NOT!

Reality is in fact indisputably **holistic**, and only ever approaches plurality in very simple situations, or in the Domains we design, construct and work within.

The elements, which contribute to what we see in Unfettered Reality, are certainly NOT **separable**: they are formed by Reality in whatever situation is current, for everything does indeed affect everything else. They are NOT merely summed as **components**, but created, in each context, by everything present there, mutually transforming one another.

Indeed, it should by now be obvious, these equations are too limited, too pure and too abstract, to be anything but *eternal*. As we create them, they are NOT of this real World, but of a World of our conception and making! An equation as such can tell us nothing about its own guaranteed demise in Reality, because precisely those elements, which bring about that failure, are totally absent there. In Reality, on the other hand, the true nature of relations MUST include all the seeds of their own demise. And any simulation will prove this, for the pluralistic equations are always accompanied by experiential knowledge of when they will always fail: when their limiting threshold is passed, the equation must be pulled, and a more apt one substituted.

Finally, in the idealised World of Pure Form (where equations dwell) NO Emergences would ever occur, and yet we know for certain that they indeed do!

So the truth of Reality could never be extracted by pluralist methods, and the nature of such an Emergence, indeed of each and every Emergence, could never be analysed by such methods either.

The Phoenix arising from the Flames of Destruction is beyond the capabilities of our usual methodologies. Indeed, it is incomprehensible by such means.

Clearly, the Creative Phase of an Emergence, arising out of the initial conflagration, must show exactly how the entirely New can emerge from that seemingly barren ground, and how the basically destructive **Second Law of Thermodynamics**, which characterises that destructive initial Phase, could turn into its very opposite wherein Dominances and proto-systems can arise until wholly new and persisting Levels of Stability always finally occur.

Now, along with the assumptions already mentioned, Mankind has also discerned several others, which have helped to form both his conceptions and his methods when dealing with Reality.

A crucially significant one is certainly **Randomness**.

By this idea, Mankind has come to see any large proliferation of diverse causes as inevitably pulling in every possible direction, so that at any one time, and at any given point, we may well experience a particular contribution very clearly, but at any other time or elsewhere we will inevitably experience a very different one.

We only glimpse the contributing components momentarily, and the overall effect of all these factors acting together will tend to cancel each other out, and in “perfect randomness” will deliver ZERO overall effects.

This idea was yet another attempt to deal with holistic Reality-as-is with a conceivable model.

A Holistic World could indeed often appear to be accurately represented by a completely Random World, and a whole Branch of Form (that is of Mathematics) was developed to deal with such situations (and sometimes, it must be conceded, very effectively)

BUT, in truth, it is more of a useful invention than the real truth, for it assumes **Equal Weightings** and **independence** for each and every contribution.

But such *separability* (there is that word again) is rarely the case, and crucially cannot **GO** anywhere: it *should* remain the same forever!

The many different contributions (as processes for example) often require the very **same** resources to perform, so immediately the necessary independence and separability bites the dust, because they will compete for the same things, and what one process gets, the other will not!

Once again, in our artificially “well-mixed” World, these would, over time and locality, balance out, wouldn’t they?

But, you have guessed it that is merely yet another simplification!

Indeed, processes can be *mutually conducive* to one another, or they can be *mutually contending*, and it is quite possible that sets of the former will proliferate at the expense of the latter in given circumstances.

When such happens certain conducive “sets” of processes will begin to persist and grow, and even **dominate**! [This is explained at length in this author’s *Truly Natural Selection*.]

Now, the phase “in given circumstances” is clearly important, for these conditions, which precipitated the proliferations and maybe dominance of certain sets would also cause changes by *themselves* in those **contexts**. The appearance of such dominances would certainly transform that context: it would no longer conform to that theoretical randomness at all! And these new “biased” conditions could be even more conducive to these growing sets and a positive feedback run-away effect could effectively clear the decks of many “losing” alternatives.

In such circumstances the whole situation could be rapidly transformed, and (as with all avalanches of change) bring about their own ultimate termination (usually due to exhaustion of required resources).

Clearly, if such a dominant set also included processes, which generated required resources, particularly if those were part of **cycles of processes**, with each member providing what the next process needed, then the whole transformation would persist and ultimately be colossal.

Such dominant sets of processes would be so widespread and self-maintaining that the minor processes (outside of the dominance) would appear to be almost invisible.

Yet, nothing can be entirely self-maintaining!

Even such systems of processes **MUST** require some external resources, and the relative final scarcity of these could bring the avalanche to a close.

Now, in this Thought Experiment we have, I believe, explained how dominances could come to be within a presumed “Random Mix”, but also the trajectory of such a microcosm also gives some idea of the macrocosm, which is Stability – the Stable Level that can and does persist!

Now, the description so far does indeed seem to be **all-one-way** – inevitably and vigorously constructional, and, of course, that cannot be the Full Story!

Though such sets of inter-relating and conducive processes can be seen as incipient **Order**, any particular individual processes, which feed on such intricate dependences, will also survive.

These will not prosper in the same way as the conducive sets, because they do not involve constructive positive feedback, but they will proliferate *alongside* the providers of *their* resources, like “**parasites**” or “**predators**”!

And they will prosper along with their “hosts” or “prey”, and just as certainly decline with them when they suffer major retrenchments.

You may well have already realised what these amount to: they are the “components” of the **Second Law of Thermodynamics**, and instead of that being an ever present and over-riding “principle”, it is revealed as an inevitable product of increasing **Order**, without which it will just as certainly vanish!

So, any hesitations in the proliferation of the dominant sets of conducive processes will surely cause the depletion that excessive parasites and predators can bring about, and a heyday for these dissolatory processes could begin to undermine the usual Stabilities.

No trend is immortal, and as the circumstances are always changed by the very processes within these circumstances, every seemingly permanent Stability can, and indeed will, finally **END!**

The outcome can be no other in a holistic World!

Now, these dissolatory processes, and their combined and easily observed effects, are reflected by Mankind in his postulated Second Law. Yet that “Law” is from this discussion **NOT** the pre-eminent determinator of ultimate demise at all. It not only has an “opposite”, but also can only exist whenever Order is present. Indeed, it is only when the maintainers of prior Order are removed that the Second law vanishes and its opposite takes over!

And as in any discussion on primacy – with the usual Chicken or the Egg discussion, it is clear that one cannot exist without the other, and if I had to place a bet on the winner, it wouldn’t be the crude, old Second Law!

Now, the evident imbalance in the way we consider Reality, as outlined above, cannot cope with the most important and transforming developments, and because of this they are often put down to Chance alone. And though Mankind has developed a seemingly all-embracing conception of this to deliver anything and everything, it is merely a construct: it is **NOT** a causal explanation at all!

The only real solution to these problems has to be the concentrated effort to study, and actually *understand*, the actual inner trajectory of an Emergence, as only there can the other side – the creative constructive side, be revealed.

The present ubiquitous ideas about Reality are clearly very one sided and severely limited as is proved by the consensus idea of the guaranteed demise of the Universe as the Second Law marches to its inevitable conclusion.

But, in addition to this, most of the impasses that crop up all over the place in modern Science are due to this amazing insistence on *standing on one leg*. For though all these ideas are not pure invention and do indeed contain **objective content**, many are well past their sell-by date, and have brought developments almost to a halt! Indeed, real understanding is almost at a dead stop, and mere technological “progress” is now considered to be the fruits and the sole purpose of Science.

It is never the new understanding, which is applauded (for there isn't any), but merely the new bit of kit, the more detailed view, the wider range, the smaller size, the greater capacity etc. etc. etc that is trumpeted to the world. But, this change of direction, though it is hidden by incessant technological advances, actually involves NO advances in understanding at all. They just proliferate ever more use to the nth degree. The wonders that are acclaimed are merely the discoveries that are made possible by the advance of technology, but without the essential parallel development of THEORY, the interpretation of those discoveries is always superficial and simplifying rationalisations and NOT new conceptions and greater depth in explanations.

It seems that today's scientists have forgotten the role of increasing understanding. New understanding can never be gained by mere technology, which is ONLY about effective use of the understanding achieved by scientists. It was always clear in the past how important the development of theory was. It always multiplied up new areas for study.

Now, even the word Theory has been transformed in meaning. It now only means that a formal equation has been appended to measured data, so that predictions can be made. That's all!

The requirement that our explanatory theories get closer and closer to Reality has been dumped for useable formulae ONLY!

Nowadays, the same fixed group of explanations are *stretched-to-fit* every phenomena, and when they fail, they are simply integrated into some do-everything simulation along with myriads of others.

In spite of the fanfares, the current state of Science is truly abysmal.

The so-called theories in Sub-Atomic Physics, and their relatives in Cosmology are packed with old, abstract rubbish based on Randomness and Probabilities, along with the most unfounded speculations concerning Physical Singularities, Parallel Universes, Dark Energy, Cosmological Constants, Black hole never-ending sink holes to all Reality and much of the same ilk.

The Large Hadron Collider is purely a technical feat, which will move experimental evidence into unheard of regions never before encountered (in the laboratory) and THIS is trumpeted worldwide as the saviour from the present barren desert of Science. It is expected to reveal the initial stages in the development of the Universe, and even the mechanism for the initial creation of Matter from Pure Energy alone. Yet these “experts” don't even acknowledge Emergences. They believe in direct, traceable continuity of causality from the Big Bang to NOW! No calamitous catastrophes have actually been necessary for what has come to be. Under their expert hands, they will retrace the steps of the Universe without calamity.

Clearly, this “experiment” is doomed to failure. A few new things will be revealed (in these new territories) but will they have the wherewithall to explain them?

Of course they won't!

How, could they? The very branch of understanding essential to such creative processes is totally excluded from their methodology.

They haven't a hope in hell!

(3,741 words)