

phil henshaw

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**From:** amerikalistan-owner@mg.skola.mark.se on behalf of phil henshaw [pfh@synapse9.com]  
**Sent:** Tuesday, November 11, 2008 11:21 PM  
**To:** 'Stanley Salthe'  
**Cc:** amerikalistan@mg.skola.mark.se  
**Subject:** RE: Butterfly/Whale effect

Oops, the 1<sup>st</sup> reply didn't get sent till after the p.s...  
Phil --

That sounds a bit wishy washy.

That would be a developmental, rather than an evolutionary perspective.

A scientist might speak that way to try to get a point across, though. Extinction is not well understood as far as I know.

Most are thought of as inability to survive environmental disasters of various magnitudes.

*[ph] Right, but the usual real cause could be the process that makes the system unstable and vulnerable to disruption. Most of the time species seem highly resilient and tenacious in adapting to their environment, and at others times not. The simple metaphor is that it's the pump bursts the bubble, not the pin prick or the flaw in the containment.*

Plants clearly do naturally die and provide compost for future plants. All systems also seem to clearly develop out of environments heaped with what amounts to a compost pile of the inventions of others, and most seem to creatively recombine 'found objects' in that pile, is how I would draw the picture. Evolution amounts to an exploratory development process as I see it. The waves of extinctions are probably like the food chain collapse in the pacific we circulated yesterday, from a food web being unstable from lack of diversity in part, plus mass slaughter of the whales. There is also clearly evident 'teleology' or 'appearance of preconceived purpose', but seems only evident on hind sight.

That is the way science gets its formulations.

*[ph] Are you saying that science is an exploratory process like evolution and business development seem to be?*

The way nature works is that the real purposes of things are discovered in how they come to be used by others at a later time.

That is a most interesting perspective. I have used that idea in trying to come to grips with the 'meaning' of a concatenation of energy flows. This is 'hindsight'.

*[ph] Right, hindsight is a codification of the retained paths of exploration, that exclude as 'non-information' most of the various explored paths that did not take hold.*

That gives all developmental change with an appearance of 'momentum' also an appearance of having been purposeful. Any purpose of the past that depends on being discovered in the future is the problem for interpretation. ;-)

It becomes potentially convincing when the same pattern gets to be shown by many different systems. That leads us to posit a developmental trajectory. This idea has little traction in biology at present.

*[ph] In theory I think it's necessary to conclude that the developmental trajectory is built, and not preordained, though. It's quite clear that successful developmental processes first find successively larger opportunities and then successively smaller ones, universally. What's not universal is that the discoveries of the past determine the discoveries of the future.*

STAN