

phil henshaw

From: Stanley Salthe [ssalthe@binghamton.edu]
Sent: Saturday, October 25, 2008 4:02 PM
To: otwo@synapse9.com
Subject: RE: [POSSIBLE SPAM] RE: [downslope_strategies] maximum entropy production principle

I had not realized that you had corresponded.

STAN

Loet and I corresponded again for a while last year, but it dropped off. I guess it was the usual reason for people who develop whole systems of thought, that they always want things discussed in their terms. There's also the basic difference that he's a modeler of conceptual systems it seems, and I'm a naturalist with theory tools made for exploring real systems. They should connect, of course, theoretically! I'll drop him another line.

Phil Henshaw

From: Stanley Salthe [mailto:ssalthe@binghamton.edu]
Sent: Friday, October 24, 2008 3:42 PM
To: otwo@synapse9.com
Subject: RE: [POSSIBLE SPAM] RE: [downslope_strategies] maximum entropy production principle

Phil -- Loet Leydesdorff has been working on anticipatory models of social systems. Why not check out his pages.

STAN

It's even simpler than that, though I'd quite agree that it's important to acknowledge that history describes change and identifies a subject that established science has yet to find a good way to describe or explore. The usual "rear view mirror" solution, that when things we thought we understood go haywire we then look for what happened, has made a very definite mark on our history too!! The better option, using my way or anyone else's, is to scan the environment for signals of impending change to explore and discover options for ahead of time. Could you call it the "pro-active historical" approach, or maybe just "anticipatory" science?

The barrier, as always, is that people who rely on making self-consistent explanations of inconsistent things in changing environments end up packing all of their realities into images within their own minds that always ***feel*** better to leave unchanged! ;-)

Phil Henshaw

Phil -- I would sum up your point by making one I have been making lately -- that science studies only repeatable phenomena, and these become the developments modeled and expected. But all actual occasions and phenomena are mediated by history, so that every instance is unique. Your point seems to be that we should try to form a discourse about individual instances. Of course, there is one -- history. But this is NOT used in science. Science as it was and has continued to be is study of the in-principle predictable. You are calling for a new discourse, and that is a laudable aim. Good luck.

STAN

Stan,

From your previous email:

- > Phil -- I agree that even currently established and highly
- > corroborated scientific principles become beliefs if they are not
- > actively being tested. But there are beliefs and beliefs. To
- > compare belief in the possible explanatory efficacy of a scientific
- > principle in terms of delivering understanding (I don't mention
- > usefulness in technology) with belief in a religious hope is just
- > plain outrageous. Perhaps you are referring to some neurological
- > suggestion that belief could be said to be a brain state?

[ph] I'm reading a paper by Murray Code from the current *Cosmos & History* issue on "What is Life". It seems to relate to my observation that by representing the world with fixed rules for things stripped of their individuality, modern science misses the all the individually different and changing things. There are certainly lots of times that the individuality of nature's working parts does not matter to us, but the obsession with denying that it ever does has cost modern man heavily. Code is hard to read in making connections between Coleridge, Pierce, Deleuze, Merleau-Ponty, Whitehead, Heraclitus, Nietzsche and Arendt, but he's clearly driving at their common observation that the western mind clings to a misguided form of reason and "sense". Code sees a need for "putting the dialectic behind us" and taking Whitehead's advice for "beginning in the rough" to seek what it would be to become true naturalists.

What I object to in physics is it's arrogant stupidity of representing nature as operating by our own rules of prediction. The problem isn't a matter of failing to confirm that things that seem to fit the model actually do. It's a matter of not looking at other kinds of questions, even when someone demonstrates their validity and productivity. A true naturalist would not approach life by protecting the universality of old answers with new denials.

Take the question of the hour. If you have a system that continuously follows the same rule, say for changing itself ever more rapidly, does it remain the same? Our 'sensible' mind says "Oh yes, we can fix on it as a stereotype and it's always the same". The true naturalist says "No, both the thing and its environment are irreversibly changing at each step and unwritten in the rule is a certainty that the conditions allowing the rule will cease to exist as new ones will emerge". Phil

Stan,

Phil --

Stan,

Sure there's a difference between classical and modern physics in acknowledging that divergent phenomena need to be accounted for, but it's being done with tricks of terminology and computer graphics, representing environments as having abstract definitions and such. It posture that programmed symbol generators are like emergent physical systems in open environments. It's a kind of "test philosophy" that is failing horribly, but never questioned.

S: In what way is 'what' failing?

[ph] it's missing all of nature's individual parts and processes

I think it displays the same sort of incomprehensible audacity of that fellow who declared the "end of history" when the Soviet Union collapsed or the "death of God" when hippies started smoking a lot of pot. Having a great capacity for overstatement does not demonstrate much.

I gather you include in "overstatement" any application of a theory / model. I happen to be a generalist, and see things through general principles.

[ph] no I don't intend to use "overstatement" to apply to any sensible idea to which one can find exceptions. That would be overstating the meaning of overstatement. I think. :-)

Distributions having "fat tails" point more directly to the problem of self-deception when things may be mostly true in a normal statistical sense, and also quite often completely wrong when looked at more broadly. Then skipping the inclusion of a footnote pointing to the opposite interpretation (either the central bell of the curve or the 'fat tail' of the distribution) is materially misleading for both reader and writer.

The problem with absolute trust in general principles is just that, that in no particular instance in nature does anything appear to actually quite follow them, and it's definitely a distribution with a fat tail for when that does or does not matter. Generalities make great questions, but trusting them as explanations seems to leave out the footnote that individual things might sometimes make a big difference by behaving individually.

What I think does demonstrate much, is that we have a society that is functionally designed to require all its parts to learn ever more complicated things having ever greater remote effects on each other with ever less investment of thought, proceeding at exponentially growing rates forever, and the great majority of 'experts' expect no particular learning difficulty or conflict should come from that. That's our real situation, and our traditional ways of reasoning seem responsible.

Complexity is overwhelming us, I agree. I also agree that our reliance on logic and fully explicit modeling is part of the problem. Even our reliance on language is a problem. We are caught in a net of our own constructions.

[ph] Yes, and when caught together in a net preventing us from responding to the earth, some individual threads need cutting to start a tear to let us escape

STAN

Phil Henshaw

From: downslope_strategies@yahoogroups.ca
[mailto:downslope_strategies@yahoogroups.ca] **On**
Behalf Of Stanley Salthe
Sent: Wednesday, October 22, 2008 2:48 PM
To: downslope_strategies@yahoogroups.ca
Cc: amerikalistan@mg.skola.mark.se;

malcolmdean@gmail.com

Subject: RE: [downslope_strategies] maximum entropy production principle

Phil --

Stan,

Physics has no capacity to create or explain phenomena that emerge from their own environments,

What about Bénard cells?, or all the spontaneously emergent vortices in nature (tornadoes, eddies, etc.)?

or even any means of representing environments.

In the constants of descriptive equations.

Maybe it's something of an overstatement to say that life "IS the result of physics". Physics is descriptive, not operative,

I refer to the 'physical world', not the discourse of physics.

and is missing any kind of description for such a wide range natural phenomena, it's almost embarrassing that you'd say it's outline sketches of a few of the predictabilities of nature is all encompassing.

I think you are referring to a physics of long, long ago!

STAN

Phil Henshaw

From:
downslope_strategies@yahoogroups.
ca

[mailto:downslope_strategies@yahoo
groups.ca] **On Behalf Of** Stanley
Salthe

Sent: Tuesday, October 21, 2008
10:38 PM

To:
downslope_strategies@yahoogroups.
ca

Cc:
amerikalistan@mg.skola.mark.se;
malcolmdean@gmail.com

Subject: Re: [downslope_strategies]
maximum entropy production
principle

Replying to Adam -- I'm afraid that you are missing the fact that human experience, including its brain -- which is the MOST energy intensive organ in the body -- IS the result of physics. Not ONLY of physics, inasmuch as chemistry is a big part of it. The actual experiencing of it cannot "be reduced to physics" because it is not of the same logical kind, yet it does seem to emerge from physics. One way to see the difference in kind is to note that physics is stated (represented) in the Third Person, universal present tense, while experience is stated in the First Person, present progressive tense. This experience itself cannot be shown, using our scientific knowledge to date, to be anything but an epiphenomenon. It may actually be more than that, but we do not know that to be the case, even if we would believe it. As well, until psychokinesis can be demonstrated, we are at the mercy of our knowledge of physics and chemistry.

STAN