phil henshaw

From: amerikalistan-owner@mg.skola.mark.se on behalf of phil henshaw [pfh@synapse9.com]
Sent: Wednesday, October 22, 2008 9:05 PM
To: 'Stanley Salthe'; 'Adam Sacks'
Cc: amerikalistan@mg.skola.mark.se
Subject: RE: [downslope_strategies] maximum entropy production principle

Stan,
Maybe the gap is that you're thinking that the constraints of physics are the only ones… The thermodynamic laws are boundary limits, for example, and don't have any implication about what happens within such boundaries, and lots of other stuff does. Natural systems that are more than MEP systems are to be confidently unexpected unless a hidden energy source is to be found, but systems that are less that MEP is the norm, and there are many kinds.

Phil Henshaw

From: amerikalistan-owner@mg.skola.mark.se [mailto:amerikalistan-owner@mg.skola.mark.se] **On Behalf Of** Stanley Salthe
Sent: Wednesday, October 22, 2008 10:23 AM
To: Adam Sacks
Cc: amerikalistan@mg.skola.mark.se
Subject: Re: [downslope_strategies] maximum entropy production principle

Adam --

Dear Stan -

I don't miss the physics of human existence one bit. But there's a lot more to us than physics or chemistry or the thermodynamics of the brain (or of other organs I can think of that get even hotter than that, at least briefly).

Yes, but that 'more' 'stands on the shoulders of' physics and chemistry and, to the point, cannot TRANSCEND constraints from those levels. You would have to hope for discovery of more than we know in physics to get further.

For an example of a broader scientific view of human experience, see Ian Stevenson's scientific work on reincarnation at the University of Virginia School of Medicine. There may be physics and chemistry at play in reincarnational phenomena, but we don't know what they might be. Just because we don't understand little known forces yet doesn't mean that we can ignore evidence (the way climate skeptics do), or that such forces don't exist.

I can agree with that. So you can keep believing.

I might suggest that western science is only one way of organizing the world.

Agreed.

While it is arguably successful in its own terms,

In supporting technological development.

there are

you hope

many other ways, the success of which during human existence has persisted far longer than our own hubristic, variable-isolated linear thinking.

I have felt something similar to this. The first drop from a wider reality came with the origin of language, the next with the origin of agriculture, and the final drop (into mechanicism) with the origin of industrial development.

STAN

Cheers,

Adam

--- On **Tue, 10/21/08, Stanley Salthe <*ssalthe@binghamton.edu*>** wrote:
From: Stanley Salthe <ssalthe@binghamton.edu>
Subject: Re: [downslope_strategies] maximum entropy production principle
To: downslope_strategies@yahoogroups.ca
Cc: amerikalistan@mg.skola.mark.se, malcolmdean@gmail.com
Date: Tuesday, October 21, 2008, 10:38 PM

Re: [downslope_strategies] maximum entropy production prin

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

Maybe it's hard for people to grasp because it's simplistic neuron-twisting triple-think. Human experience cannot be reduced to physics, and the physics of natural systems is still far beyond our ken.

Adam

--- On **Tue, 10/21/08, Steve Kurtz <*kurtzs@ncf.ca*>** wrote:
From: Steve Kurtz <kurtzs@ncf.ca>
Subject: [downslope_strategies] maximum entropy production principle
To:
Date: Tuesday, October 21, 2008, 5:52 PM

Re: [o2mailinglist] Transport and logistics informaton Why is it so hard for people to grasp this?

Steve

-------- Original Message --------

Subject: Re: [o2mailinglist] Transport and logistics informaton Date: Tue, 21 Oct 2008 15:36:37 -0400 From: Stanley Salthe <ssalthe@binghamton.edu> To: Jeremy Faludi <jer@faludidesign.com> CC: amerikalistan@mg.skola.mark.se, igor.matutinovic@gfk.hr, rswenson@philosphyofscience.org, arto.annila@helsinki.fi References: <8844025-1463792126-1223940559@boing.topica.com> <CCE6DD26-071A-494D-AFE8-E19A65A98075@skil.org> <a06240801c51baf780b62@[192.168.0.2]> <000f01c92ef8$24cad710$6e608530$@com> <BAY106-W9B4AE396F0778A374F896A32C0@phx.gbl> <59C0F79F-4E97-45AC-922C-BEAF0F1F0CA9@gmail.com>

Re: [o2mailinglist] Transport and logistics informaton

Jeremy -- This is most interesting, and corroborates what I have felt to be the case. I would like to make note of a viewpoint from which to view these data which makes more 'sense' of them. I refer to the 'maximum, entropy production principle' (MEP) which is in the process of being constructed now. From this perspective energy efficiency is NOT the criterion in human affairs. Rather it is' how fast can we reduce energy gradients?'. It has been demonstrated that several kinds of natural systems, from tornadoes to ecosystems, and including organisms like you and me, behave in ways that reduce the energy gradients they are tapping for work as fast as possible. This viewpoint has also received precise physical justification. So, my point would be that our economies are probably driven by this same principle. Why should this be, you ask? It can be argued that this comes about because the universe (via the Big Bang) is very far from thermodynamic equilibrium, and all systems within it are entrained by it (as a final cause) to work toward the end of universal equilibration. This entrainment could certainly be consciously opposed by determined lack of action, as in quietism, meditation, contemplation, etc., but any system that tries to live by such an ideal will shortly be run over by another that is working as hard as possible. Faster work is less

energy efficient, as is work at rates below the most efficient set point. So, my point, summing up, is the you will not find, or construct, an economy based on efficiency. Striving and competition are watchwords!

STAN

I am searching for information in relation to fuel consumption per kilograms of goods via road, air and sea transportation, national and global to complete my honours thesis on sustainable design.

Pulling numbers from SimaPro LCA software using the EcoIndicator99 system (which measures total impacts, not just fuel use, though it's weighted heavily), here are average impacts of different modes (taking all their specific instances & averaging them together by mode):

absolute score (mpts) relative score
Boat 0.003245141 1 Road
0.03286978 10.1289232 Rail
0.003217614 0.991517453 Air
0.062230201 19.1764269

So, boat and rail are about the same, trucking is about 10x that, and air is about 20x boat/train.

Alternatively, some analysis done by a friend of a friend (which I can't vouch for, because I don't know him or his credentials) attached below.
Enjoy.

---Jer

Jeremy Faludi

Green Design Strategy & Analysis:
http://www.faludidesign.com