

phil henshaw

From: phil henshaw [pfh@synapse9.com]
Sent: Tuesday, February 19, 2008 10:26 AM
To: 'Stanley Salthé'
Cc: 'kmatsuno@vos.nagaokaut.ac.jp'; 'pcouper@marjon.ac.uk'; 'rich.doyle@gmail.com'; 'jakulin@gmail.com'; 'jaylemke@umich.edu'; 'loet@leydesdorff.net'; 'mccrone@dichotomistic.com'; 'myanders@purdue.edu'; 'deelyj@stthom.edu'; 'sbr.lpf@cbs.dk'; 'collierj@ukzn.ac.za'; 'favareau@gmail.com'; 'kalevi@zbi.ee'; 'fmerrell@purdue.edu'; 'emmeche@nbi.dk'
Subject: RE: Cosmology problems, PD to semioticians

Stan,

Phil --

Well, how would that apply to physical systems which we're all finding are simply not organized at all like the equations which anyone uses to describe them? Natural systems are not interacting metrics but exist as communities of independently behaving things. That's one of the realizations that's beginning to be shared across disciplines as professionals across disciplines are having to work together cooperatively with local people and institutions on real life and death local environmental problems. They find they have to build a kind of common reality that is largely new to all of them...

Then why are they all banking on digital models? Surely analog models would be better?

[PH] It's a difference between the parts of natural systems having independent behavior and parts of models having controlled behavior. In either analog or digital models the parameters are controlled. In AgentBasedModels models based on independent agents evolve their own emergent collective behaviors. The problem is that the agents at some level remain themselves digital models with their behavior defined by their controlled parameters and... so is their 'environment'... I see the biggest problem with all the forms of models being that they don't arise from their own environments, like natural systems do, and operate only in model environments quite unlike the real one. Seeing this I think helps explain why models in general are better relied on as learning tools for real systems than as stand alone representations of real systems.

In that environment the 'meaning' of the 'information design' is in it's ability to help you learn about and reveal choices in the real world.

That is for when you are planning to interfere in the 'real' world! Surely cosmologists are not planning to do that!

[PH] Well, you still have choices of explanation, not just what to buy for lunch, and the intriguing thing some people at the AAAS meetings seemed to be seeing was that all the disciplines are having to learn to talk to each other, because of the dire life and death sustainability problems many points of view are needed to solve. What they're also finding is that they never actually looked at how nature operated before, but just built descriptive models as each liked. The didn't have to work before, now they do. Now that the languages need to become functional... understanding the functional behavior of nature seems the obvious model to connect through, and we're just barely beginning to do that as a community.

Is it then the 'inevitability' of a determined and creative group of people to find their way out of the real jam they're in the 'final cause' of the whole information design and it's application? The pure logic of some of the formulaic relations that are used in the process are things of simple structure and useful beauty, but they don't tell you what to do in a complex environment, just help you look at an environment through some simple questions. I wouldn't seem to leave them without any 'meaning', unless you disconnect them from the world in which they're useful.

Well, as a philosopher of nature I am trying to gain some verbal understanding of the world so that I can say it, not trying to be effective in further changing it.

[PH] Perhaps, but the migration of science disciplines from having separate paradigms of explanation to joint engagement with complex systems would seem to raise a few philosophical issues too.

Phil

STAN

Phil Henshaw

~~~~~  
 680 Ft. Washington Ave  
 NY NY 10040  
 tel: 212-795-4844

e-mail: [pfh@synapse9.com](mailto:pfh@synapse9.com)  
 explorations: [www.synapse9.com](http://www.synapse9.com)

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

**From:** Stanley Salthe [mailto:ssalthe@binghamton.edu]  
**Sent:** Saturday, February 16, 2008 2:13 PM  
**To:** pfh@synapse9.com

**Cc:** kmatsuno@vos.nagaokaut.ac.jp; pcouper@marjon.ac.uk; rich.doyle@gmail.com; jakulin@gmail.com; jaylemke@umich.edu; loet@leydesdorff.net; mccrone@dichotomistic.com; myanders@purdue.edu; deelyj@stthom.edu; sbr.lpf@cbs.dk; collierj@ukzn.ac.za; favareau@gmail.com; kalevi@zbi.ee; fmerrell@purdue.edu; emmeche@nbi.dk  
**Subject:** RE: Cosmology problems, PD to semioticians

Semioticians -- You might note that the variable parameters that are assigned a number, around which the rest of the equation self-organizes, are acting as the sign that precipitates a 'meaning' of the equation, in fact, its final cause. Thus, no single meaning would be implicit in the equation.

STAN

Date: Sat, 16 Feb 2008 09:51:17 -0500  
 To: <pfh@synapse9.com>  
 From: Stanley Salthe <ssalthe@binghamton.edu>  
 Subject: RE: Cosmology problems  
 Cc:  
 Bcc:  
 X-Attachments:

Phil --

Stan,

What I sometimes find fascinating are the distinct possibilities for which we have no evidence. A difference in perception for things you're inside and out of is one. >From inside one's private world looks like the universe and from outside the private worlds of others look like deep mysteries. These natural blind spots nudge you toward thinking of things in a new ways, maybe jarring loose some tired old assumptions lying around in the vicinity. As I understand it 'dark matter' is a discrepancy in the implied acceleration of distant objects away from us. Usually what that suggests is that there's something to be fixed in the formulas that produce the discrepancy, like the equations that divided by zero with charge fields as a clue to the discovery of atoms and particles.

The 'fixing' is part of the problem. It adds a new variable, or a new twist to the equation. It seems to me that something more radical is needed, like vague solutions. Thus, for example, if we have, say, six variable parameters in an explicit equation, suppose we maximize or minimize one of them, then allow computation to self-organize the other variables into a kind of 'treaty'. Make it fancier and collect fuzzy sets of solutions. Now do the same with another variable maximized or minimized. Etc. In this way we would get a set of contextualized solutions. Now try less crisp equations I can't actually imagine that, but young sparks out there no doubt could finagle it. Everything 'inside' is negotiation, so I think the play of models should be so as well if we are inside what we are modeling.

Another way to look at it is to ask what other kinds of things are 'dark matter' for us, that we may be feel sure are physically there and confident we're looking right at, but can't see at all? I have a few things of that sort on my list, but prominently complex natural systems. I'm not sure I can make a direct parallel to 'dark matter' of the cosmological sort, but the order of natural systems often contains invisible physical energy, persistence and behavior of all sorts we are unable to locate, define or measure. Assuming that they're just statistical aberrations appears neither necessary nor testable. Still, that's not a very satisfactory evidence for the existence of things given our present way of thinking, of course, but seems to

at least present sort of a sustentative 'dark matter'. Anyone have other interesting good examples of suggestions?

See above.

STAN

Phil Henshaw

~~~~~  
 680 Ft. Washington Ave
 NY NY 10040
 tel: 212-795-4844
 e-mail: pfh@synapse9.com
 explorations: www.synapse9.com

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

From: Stanley Salthé [mailto:ssalthe@binghamton.edu]

Sent: Friday, February 15, 2008 2:36 PM

To: Malcolm Dean

Cc: thommandel@aol.com; kmatsuno@vos.nagaokaut.ac.jp;
 pcouper@marjon.ac.uk; rich.doyle@gmail.com; pfh@synapse9.com;
 jakulin@gmail.com; kamps@axelero.hu; gklir@binghamton;
 edu@outbound2.mail.tds.net; jaylemke@umich.edu; loet@leydesdorff.net;
 mccrone@dichotomistic.com; eric.chaisson@tufts.edu; li@mg.skola.mark.se;
 charley@bat.phys.unsw.edu.au; myanders@purdue.edu; deely@sttom.edu;
 sbr.lpf@cbs.dk; collierj@ukzn.ac.za; favareau@gmail.com; kalevi@zbi.ee;
 mckelvey@anderson.ucla.edu; fmerrell@purdue.edu; csing@umich.edu;
 emmeche@nbi.dk

Subject: Re: Cosmology problems

Folks -- The recent discussions of the many problems accumulating in the Big Bang cosmology theory leads me to a general thought that I have shared with some you before - namely the problems involved with trying to understand a system from the inside.

Natural science has always tried to understand systems as viewed from the outside, and its models have been as fully explicit / crisp as possible, in connection with its characteristic mechanistic discourse. This has raised problems concerning cosmology (and also consciousness studies!) because of the embarrassing fact that we cannot get outside of the cosmos (or of our collective mind). And, too, the fact that we have no hope of interfering in the cosmos might encourage us to drop mechanicism in cosmology!

The only possible remedy beyond endless addition of new untestable variables to an already gigantic equation, would seem to be to pick up the small trail that has begun to be made by way of internalist discourse (endophysics, etc.). Our position here is that we are inside the system we are trying to comprehend. This means that the observer's properties need to be explicitly taken into account in the models, and I think astronomers (if not cosmologists) must be somewhat sophisticated about this by now. (A very famous example of internalist discourse known to most was autopoiesis.)

I think this situation might also lead us to consider semiotics, the study of

signs (or of meaning construction), which is another implicitly internalist discourse. Here interpretation is explicitly a part of any model. A nice example of the use of semiotics in physics was Einstein's physical intuition that gravitation was none other than acceleration.

I understand that the Big Bangers, like the neoDarwinians in evolutionary theory, have had a firm grip on economic support and publication in their field, thereby discouraging other viewpoints. The neoDarwinians have been beginning to bend to criticism, and evolutionary biology is becoming more fluid again as a result. Let us hope the same might soon be true or cosmology as well.

STAN SALTHER

Yes I did realize it. I agree with you, although I am agnostic on the model. I also find this intriguing, although I can't get the Alternative Cosmology folks to acknowledge it:

<http://www.thesunisiron.com/>

Malcolm

On Fri, Feb 15, 2008 at 6:38 AM, Stanley Salthe
<ssalthe@binghamton.edu> wrote:

Malcolm -- You may not realize it, but my own cosmology - needed primarily to explain the Second Law - requires an expanding universe.

Another footnote -- I too have found dark matter an unnecessary addition. This is because, using the scale hierarchy format, we will see that those distant galaxies ARE flying apart. It doesn't seem so to us because observations at small scale of large scale distant phenomena would contact only a small minimicrosecond of the behavior going on. I cannot believe that astronomers are so naive as to not realize this (as children we would have played with the illusion of slow progress of distant trains). So what am I to think!

STAN