

# Re: Minimization principal for evolution

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"g" <gillawton@xxxxxxxxxxxxxxxx>

My main point is that you can have a single universal objective function, as long as you make it a function of both an internal (endogenous) state space and an external (exogenous) parameter space. In fact, such viewpoints are not restricted to biology. Similar thinking appears in algorithmic approaches to optimization – for example in the idea of simulated annealing.

PiP,  
As ALWAYS, I enjoy your views. I think you and I agree that there is –

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within reach of mathematics concepts — a statistical model for

handling

anything and everything..

JE:–  
Except of course STATISTICS itself (as Godel would have explained).

John,

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I really enjoy watching your arguments sometimes, but do not engage with you in them very often or for very long for the simple reason that to do so requires a greater investment in energy directed at "a communications game," as it were, than I am willing to abandon other interests and pursuits to focus upon and work at, so long as you seek to steer monolaterally. This is by no means a criticism of you. In fact you impress me that you probably have an IQ in the upper nosebleed range; and that both fascinates me and frustrates me — not because I could not answer your steering questions and play the game on your terms, but because doing so would require more energy and time than I am willing to divert away from my own where-I-am's and where-I'm-motivated-to-go's du jour.

JE:–

Gil,

The last time I was tested for IQ (at the beginning of secondary school) I had a score of just 95 so I was shunted off to complete non academic (tradesmen) studies. Most of what I remember of that IQ test consisted of really silly hypothetical questions designed to test culturally bound \_deductive\_ (not inductive), skills. To this day I have nothing but contempt for the gross misuse of IQ tests within the education system both in the past and to this very day. As I have previously argued, IQ has never been \_standardized\_ so the common use of it remains absurd. I know quite a few people with a mensa type IQ. None of them appear to have what I would term good inductive skills. What I call intelligence is based on the (inductive) ability to be able to separate the few salient facts from the veritable mountains of non salient facts that a large number of entirely unconnected specialists produce in order to facilitate valid theories of nature. This generalist skill requires maintaining a 100% self consistent arguments, i.e. absolutely no contradictions are ever allowed including the (common) use of absolute self contradictions because they always end up producing Epimenides paradox. Today's orgy of ambiguity is just a Post Modern cop out by specialists who cannot think inductively with any rigor.

And I sense that some of the very brightest posters to sbe actually admire your skills at steering and "gaming" an exchange of ideas as much as I do but, like me, do not want to abandon other thoughts and pursuits to engage yours exclusively.

JE:–

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Science is a very strict methodology requiring testable theories of nature that can be judged by nature itself, i.e. nature is and remains the only valid authority that science can have. My intention is always to steer discussion to remain within this methodology because almost all the time, people wish to steer discussion outside of it. This appears to be because working within the methodology is too hard and/or too dangerous re: the preservation of status and power within a monopolistic system (government funded science).

That friendly and sincerely complimentary disclosure having been made, I would like to share some thoughts with you from time to time precisely BECAUSE you are so clever, without bogging down in philosophical vortexing toward the ultimately inevitable paradoxes and dilemmas which CAN BE spun off from any line of reasoning — vis a vis my former disclosure that my view of philosophy is that it expands one's thinking healthily and productively by being an open-ended study, but has the OPPOSITE effect upon the intellect if one goes down a single philosophical school of thought cul de sac, and gets STUCK there, as many sophomoric thinkers do.

JE:—

Our sad history is littered with injustice produced by irrefutable claims. The epistemology of science, without exception, does not allow irrefutable claims as to what reality is supposed to be (valid theories of science) where this includes common irrefutable simplified/oversimplified models of entirely refutable theories, misused to replace the theory they were simplified/oversimplified from e.g. Hamilton's Rule (a detailed example that I present here). That is all. Please explain to readers as to why you argue that irrefutable statements about what nature is should be allowed as scientific when nature (the only authority that science can have) cannot possibly judge them BECAUSE they remain irrefutable?

(Incidentally, when I worked with Dr. H. Newsom, entomologist with the L.S.U Ag. Extension Div., during summers when I was in high school, one of his many studies was on the impact of thrips on cotton production. And the way thrip population densities were sampled was by use of a substance called "tanglefoot." We would smear tanglefoot on 6" X 6" squares, mount those on a sticks and shove these into the ground at grid vertices, and at scheduled times would take them down, count the thrips on each and log by locations. This had to be done in conjunction with the timings of crop

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spraying and dustings, field testing new experimental pesticides, so the samplings had to be done in several areas, and compared in such a way as to offset the other variables and extract, as it were, the "signal from the noise" created by other variables.

JE:–

Yes, this is a basic sampling technique based on statistics. What it allows you to do is make the refutable claim that you have made a documented observation of nature, i.e. an empirical observation. However the inductive use of this fact as salient remains outside of statistics.

(In this sense, "noise" may be defined in the same manner that "weeds" are:  
as something that occurs where it is not wanted in a given place at a given time because it is not significant to the purpose at hand and which requires being removed or, if it cannot efficiently be removed, then evaluated in such a way that its impact can be ruled out, or cancelled out, in process of arriving at a meaningful statistical analysis of the "signal" under focus.

JE:–

This is why random processes are entirely separated from nonrandom processes within the sciences. Statistics is employed to separate them. Random processes are just "weeds" that have to be discarded. This is why I argue that Dr Moran's redefinition of sampling error to become "random evolution" and not remain as "random temporal variation" allows just an irrefutable weed of "random evolution" to destroy the scientific credibility of evolutionary theory as a product of the ONLY non random process that we have: evolution via non random Darwinian selection. As I have previously and very carefully explained (without any rebuttal being provided here by anyone), Dr Moran is simply repeating the mistake of the discredited mutationists. Their new toy was Muller's random mutation process which was massively misused within the eugenics movement that it spawned. Today's new toy is a more detailed knowledge as to what genes are and the random way in which sampling error acts. This valuable new knowledge does NOT mean that the old rule that selection can only operate on the phenotype and not the genotype can now be discarded. This is because all heritable phenotypes remain epistatically (non additively) coded for as Waddington proved time and time again. However Waddington's attempted amendment of Haldane's outdated bi-nomial population genetics distribution of two alleles at one locus fell on reductive stony ground. The human genome is too small to allow epistatic information to remain deleted as "inherited" but not "heritable" and thus "selectable" (Fisher). The tiny size of the human genome and the insignificant number of genes that are different within the human species

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(only about 1500) and between the human species e.g. chimps or even just worms made a mockery of Haldane's supposed Dilemma. To my knowledge no professional here has ever admitted to the falsity of Haldane's Dilemma or attempted to correct the false assumptions that Haldane had to make in order to produce it. This includes Prof. Felsenstein who here, represents an authority on Haldane's Dilemma. Felsenstein's extended debate with W. ReMine (who wrote a book on this subject) never included any admittance by Felsenstein that the assumptions that Haldane had employed to produce such an utterly false dilemma were indeed, false. Yet exactly the same false assumptions underpin Haldane's basic population genetics equations (which Waddington tried but failed to correct) which in turn, underpin all of population genetics which entirely dominates evolutionary theory today. Their error was and remains: the deletion of almost all epistatic information as non heritable within just a simplified/oversimplified model that was misused to replace the theory it was simplified/oversimplified from. I find it ironic that Waddington was Felsenstein's professor at Edinburgh.

Moran's repeat of the mutationist error could have easily been avoided if Moran et al had restricted themselves to providing refutable theories of nature (as Popper correctly argued that they must). Moran et al have misrepresented what evolutionary theory is, yet they continue to represent evolutionary theory to the general public.

Dr. Newsom had us plant a control crop which was given no growth enhancers and no poisons, but the control area was so poor in production and so "eaten up" by insects that to the point that -- had a farmer raised it, he would not have 'picked' the cotton, but would have plowed it under and been done with it.)

I mention the "tanglefoot" and the "noise" definition not because you are not already familiar with them, but to make a couple of points: namely to suggest the metaphor that each philosophical cul de sac, is enticing to those too casual and too sophomoric and, at the end of each, is something akin to tanglefoot.

JE:–

T think that you mistake statistics for philosophy.

Hence, analogically, it can be said that in one's dabbling, he might best be advised to look down each cul de sac, and upon seeing it is a dead end, move on. For an uninitiated student who thinks he has everything all figured

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out, because he has just read one philosopher's ideas and is still breathlessly enamored by them, one does well to point to a few paradoxes that lie at the dead ends, as an antidote.

JE:–

Yes, but the epistemology of science relies on empirical testing against nature to separate the sheep from the goats. Can you point out any paradoxes that exist here?

snip for brevity<

Now... all that having been disclosed... I would like to share a few thoughts with you now and then, without getting tanglefooted into an interminably circular steering contest. If it becomes that, you win, by default, because I shall give you the game rather than give up the time and energy it would require.

JE:–

Very \_clearly\_, I do not "win" anything but science does. I generate no income, status or position from what I write. I will not accept irrefutable mush as science simply because the scientific method will not accept it for just obvious reasons.

snip<

What I am saying is that experience (which includes the kind of serious, disciplined, honest, open–minded, creative observing and rationalizing we call "science") does not lend itself to dealing neatly to being treated by rigorous postulational thinking exclusively, for reasons having to do with the limitations of our ability to witness everything, from every angle, applying every possible interpretative organization of it, and for all purposes.

JE:–

Either you generate theories of nature that can be tested by nature as your only authority or you cannot. That is all.

But, to the chase now..., I had been enamored, for about four decades with the importance of rigorous postulational thinking and, although I had

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attributed many of the woes of mankind to our failure to avail ourselves of  
it, I had become decreasingly convinced of that, and increasingly aware that  
much of mankind's experience DOES NOT LEND itself to rigorous  
postulational treatment.

JE:–

My argument was and remains: if you know that then it MUST refute that it is true otherwise you become hopelessly lost within Epimenides paradox. Only if you did not know that can it even be verified. At all times what you propose remains irrefutable.

And the more I thought of that, the more I realized that there are good and abundant reasons why we SHOULD NOT expect ourselves to be any more rational than experience ITSELF would enable us to put it to the task of making complete, logically consistent closure.

JE:–

Then you may end up burning witches all over again because history is doomed to repeat itself.

snip<

1. I believe it is safe to say that none of us humans has omniscience. That is, we cannot be everywhere at every instant witnessing and rationalizing everything at all times with our senses;

JE:–

Yes, this is why only refutable propositions of nature can be allowed within the sciences. Irrefutable propositions are the dictates of humans blessed with "omniscience". Note: there are rather a LOT of them...

2. Even if we were omniscient, our sensory detection and sensory interpretation mechanism are limited and fallible.

JE:–

Yes but if we were "omniscient" we would know that exactly and be able to

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100% correct for it.

We discern only narrow bands of signals among the signals given off (only a small portion of the electro-magnetic spectrum, only sounds within certain ranges ...etc.) (Note: I suspect that if we were NOT limited in our ability to see, hear, smell ...etc., and could see all the electromagnetic frequencies, hear all sounds, etc. we would be barraged with so many signals, the sensory clamor bombarding us would interfere with rational processing of any of it;

JE:–

Yes, we have an inherited ability to receive sensory inputs. However what sense we make of them is NOT inherited. This sense requires INDUCTIVE intelligence, i.e. theory building. This ranges in quality from things like irrefutable aboriginal mythologies that are metaphorical type beliefs (which lose their value when taken on face value) to hard science: e.g. refutable Newtonian Mechanics and Darwinian evolution by natural selection which MUST be taken on face value.

3. Experience is for the most part by far indirect (even when we "are there" to witness the things we loosely think of as "first hand," due to the fact we do not experience a thing, itself, but repercussions of its being and doing;

JE:–

Yes we only receive delayed sensory inputs. Why does this matter?

But here I will stop for now. There is much too much more to say, and much too little time or space.

I appreciate having someone to even broach these things to, because they go much farther off into analysis of variables involved in human reason and argumentation than most people care to venture... and here I have not even yet scratched the surface.

Let me say, however, that these things are, I believe quite robustly, VERY IMPORTANT TO THE KINDS OF THINKING AND REASONING OF SCIENCE GENERALLY AND BIO-EVO IN PARTICULAR.

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snip<

Those who fancy themselves to be rigorous thinkers are the easiest to befuddle by tossing a few paradoxes and dilemmas at them.

JE:–

I do not agree re: the epistemology of the sciences. Either all valid theories that are offered as to what nature is supposed to be within the sciences are testable by just the authority of nature itself or they are NOT. Either all contending theories that are to be tested become tested in a non biased orderly (efficient) way or they are NOT. Occam's Razor provides the order in which they must be tested to maximize efficiency: simple first, complex LAST. Bias can only be eliminated by allowing competition between contending theories which can only exist within a free society.

Regards,

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