

Michael,

Thanks for your thorough written review of the Analytical Activism manuscript. Here's what I've done with your major suggestions and questions:

On page 12 I wrote "the sustainability problem is really a process efficiency problem." You commented: "Shouldn't this be 'a process effectiveness problem'? Effectiveness refers to human outcomes, rather than mechanistic process efficiency." – Good point. I have added that 'process efficiency is defined as the ratio of input to desired output.' If a problem solver has chosen the correct goal, then the process output is the solution. If they are unable to solve the problem then the strategic cause is low process efficiency. This approach means we don't need the usual distinction between efficiency and effectiveness, which in earlier writing I used to make. It is extremely important to be able to measure process efficiency and think in terms of improving it until it's high enough to solve a problem. Thanks.

On page 24 you suggested removal of "No one knows the answer to that question yet." I agree and have removed it.

On page 62 I wrote "In ten to twenty years the urban decay problem, which had been the country's second biggest postwar problem (after the Cold War), was solved." You asked "How can you say the urban decay problem is solved with so much blight in so many American cities?" – You are right. It has only moved from crisis back to problem. But it has notably improved. I've changed the sentence to read "In ten to twenty years the urban decay crisis, which had been the country's second biggest postwar problem (after the Cold War), was largely solved."

You had a question related to the Assessment of Process Maturity chapter: "So 'belief' can really affect the 'high percentage of agents' factor. How can we leverage the faith (belief) in religious traditions which may either strongly resist or strongly support a particular solution, depending not on logic but rather their own ideological basis, such as the religious right that you mention?" – I don't know and have never analyzed this. My analysis has been process driven. This has led to quite a bit of analysis of the corporate life form, because they are so dominant. If religion was dominant I and others would have analyzed your question by now. Religion may seem dominant in some

countries, but in the industrialized ones, even the US, the corporate omniplex has at least 100 times as much influence on elections and legislation.

In the same chapter, you had a question about key process element 4, If that fails, exhort and inspire the people to support the proper practices. I gave it a weight of zero. You asked "Could the weight factor of zero actually be negative, since doing this actually hurts future efforts at Analytical Activism because, as you point out, intellectuals are less willing to consider new ideas once classic activists have exhorted them?" – Yes, in some cases. But to keep the book as simple and short as possible, I didn't go into this with the weightings. The use of zero is a simplification. Your question indicates you are starting to deeply understand the book's message. Congratulations!

I wrote "It's as if the entire movement, like a herd of lemmings, decided *en masse* to rush forward with the same process that does NOT fit the problem, and jump off the cliff together." You pointed out lemmings don't do this. It's a myth. So I've changed it to "like a stampeding herd of buffalo."

In the assessment of the Club of Rome, I quoted one of their internal documents as saying "It is, in fact, simply a broader statement of the original focal concern of 'Limits': the moral platform that enables humanity to choose between narrowly-defined, selfish, competitive-market profits on the one side, and the mutuality and cooperative endeavor needed to live together on a finite planet on the other." You wrote "This is interesting. I'd like to probe into your/their conception of a moral platform as it relates to Analytical Activism. – To me a moral platform is critical for an individual's maturity. But when it comes to social problems, moral platforms become part of the tussle of Classic Activism, which depends on emotional and logical arguments to win the day. Classic activists, just like politicians, invoke all sorts of moral arguments as to why you should support their position or not support someone else's."

So far my analysis has not found it necessary to explore moral memplexes, because they do not appear to be the location of low or high leverage points. So overall, I don't have that much to say about morality. This of course could change, if further analysis (as a team starts to do this) shows that morality needs investigating. But it is a complex, messy part of the human system that I hope we can avoid. I'm relieved that so far the analysis has trod simpler, less entangling areas.

Also in the assessment on the Club of Rome, I wrote "Limits to Growth performed the first step by identifying the problem. And then, because it had no real process, the Club dashed right into step 4, implementing lots of solutions that intuitively looked like they would work. They did not, except on easy problems where change resistance was small." You highlighted this and said "Right here I became convinced that you were sailing in the right direction. Your arguments are solid and persuasive, and I'm only on page 101."
– This is useful feedback. It helps me to know what how effective the book is, and what it takes to convert people to a better way. It takes a lot, but it's cool to see that for you all it took is a simple, well documented logical argument.

In the assessment of the Natural Step I wrote "Item 4 (human needs are met word wide) is also flawed. This mixes environmental sustainability with social do-goodism. The goal of item 4 is to meet the "needs" of everyone. What exactly are these needs? How can they be agreed upon for 6.5 billion people? What if these needs are constantly changing? What about the fact that there has never been a society that met all its members "needs," even before the sustainability problem appeared? The Natural Step has fallen into the trap of mixing environmental and social sustainability. The two must be separated so that the first can receive higher priority." You asked "Not sure about this hypothesis. Have you tested it? Could it be possible that social do-goodism may be the driving force behind the 'more important' sustainability challenge?"

This is controversial but easily defended. Imagine ten people locked in a room. Which is more important, the total amount of food they are supplied with, or how the distribute it? It is the first, which is endangered if environmental collapse occurs. How the food is distributed relates to social sustainability, and is irrelevant if there is not enough food, because then there is no possible satisfactory way to distribute it. The point is that those saying 'human needs must me met' would say that BOTH are equally important. This is fallacious. There are infinite variations on this theme.

This is all about the concept of problem priority.

A general comment you made: "At some point we need to discuss the 'leap of faith' involved, both in a purely scientific, systems manner, as well as the social side of change resistance. What this could mean is leveraging the latent,

potential energy I assume exists in faith-based organizations.” – Yes, let’s discuss this. But I wouldn’t expect too much, as already explained. But we might be able to open up the omniplex of humanism to scrutiny, and try to make that grow in strength. This will happen as (and if) the race to the top goes dominant. But what if we could find a leverage point in the omniplex that caused its own strength to somehow increase?

In the assessment of the Nature Conservancy I wrote “Their literature is strewn with this sort of thing, which the field of **eco-marketing**: selling the public on the need to protect nature. They could probably not do without eco-marketing, even though most of it is purely an emotional argument, one that those who are objectively sold on sustainability do not require.” You asked “So, do you believe the high leverage ‘social agents’ of change will be convinced by objective arguments, as opposed to emotional ones? Assuming they are not actively opposing Analytical Activism, how will they be convinced?”

Good question. Objective arguments are just another form of Classic Activism. They work when change resistance is low, sometimes work when it’s medium, and fail when it’s high.

From what I’ve found in the structural analysis of forces involving social agents, the word “convinced” is not productive. Better is memetic infection. This allows much deeper understanding of how agent behavior can be changed reliably. But by the time you finished the book, you may have seen this too.

Still in the Nature Conservancy assessment, you highlighted “Change resistance is present. People, businesses, and governments do not like to practice ecosystem conservation. TNC and many other organizations have had to wage a long, expensive battle to get as far as they have. Why is such strong change resistance present? If the details of that were known, they would go a long way to helping TNC better achieve its mission.” and commented “KEY POINT”. – Yes. The Analytical Activism book drives home this point again and again. I hope we can find a succinct way to express this key point, so that millions of activists can grasp it in a hurry.

In the assessment of the UNEP I wrote “The net result is the UN is inherently incapable of giving the environmental sustainability problem the priority it needs to be solved in time.” You commented “This is truly alarming, since the

UNEP embodies international opinion (though arguably only the most influential nations) and should be able to muster the political will to lead us into the Transition to the Age of Sustainability.” – Yes. I too was alarmed when I wrote that. The assessment was filled with such discoveries. That the UNEP also scored so low (169 out of 10,000) is a shocking indication of how badly the world is failing at solving the sustainability problem. If I didn’t have the logical optimism that a process that fits the problem has give me, plus some of the hypotheses like the Dueling Loops, I’d be terribly depressed.

In the chapter on Finding the System’s Low and High Leverage Points, you highlighted “Equally, it is why, before they can hope to communicate fully, one group or the other must experience the conversion that we have been calling a *paradigm shift*. Just because it is a transition between incommensurables, the transition between competing paradigms cannot be made a step at a time, forced by logic and neutral experience. Like the gestalt switch, *it must occur all at once (though not necessarily in an instant) or not at all.*” and commented “In other words, this is the theoretical basis for the precipitating event.” – Nice observation. I hadn’t thought of that, so I’ve added a short paragraph after the highlighted one that says “The last sentence above tends to support our strategy of the precipitating event, ‘which must occur all at once.’ This really means in a short time, so as to exert a concentrated sudden force on the system.” Thanks!

In the same chapter I wrote “The Corporate Proxy Movement Machine exploits a single main loop: The Race to the Bottom among Politicians. This is done by pushing on the high leverage point of falsehood and favoritism.” You asked “Is the machine really exploiting a single main loop?” – Great question. So far what I see is they are exploiting one key main loop, and they are using many minor loops to do it. These other loops are described in The Battle for Niche Succession chapter in the Dueling Loops book. But as this project moves along, maybe we will find more “main” loops the machine is exploiting.

In the chapter on Solution Convergence I wrote “There is already considerable proof that Classic Activism is not working. Therefore there must be a better way. But that better way is seen as scary, unknown, and risky. Conventional wisdom says to stick with the tried and true low risk method of Classic Activism.” You asked “Can I assume this is the crux of change resistance within the environmental movement?” – No. This is paradigm change resistance, dealt

with at length in Kuhn's *The Structure of Scientific Revolutions*. Paradigm change is much bigger than conventional wisdom, which can change with the wind. The fact that it does not in this case indicates that it's not really just a case of sticking with conventional wisdom.

In the same chapter I wrote "Change, especially urgent complex change, requires coordination and central leadership to move it forward successfully. Without a guiding coalition, large change efforts usually fail." You commented "I would like to read more about this particular aspect of complex change management. What books or articles would you recommend?" – Try "The Essentials of Managing Change and Transition," by the Harvard Business School Press, 2005. The chapter on Eight Steps to Change is about John Kotter's 8 step change process. This is widely referenced. The 8 steps are:

1. Establish a sense of urgency.
2. Create a powerful guiding coalition.
3. Develop a compelling vision.
4. Communicate the vision.
5. Remove obstacles to acting on the vision.
6. Generate short term wins.
7. Consolidate gains and push for more change.
8. Anchor new approaches in the company's culture.

However, this is the academic viewpoint. I'd grade it a C. It's good for getting started. For more advanced approaches, there is no substitute for reading a wide variety of books on how great companies changed themselves. There are also business books on change, like "Leading Strategic Change: Breaking through the brain barrier. By Black and Gregersen, 2003. This is not that advanced. I'd give it a C+. Better is to glean out what you need to know about change mgt from recent classics like "Competitive Advantage: Creating and sustaining superior performance," by Michael Porter, 1985. This gets a B. Another B in "The Wisdom of Teams: Creating the high performance organization," by Katzenbach and Smith, 1993.

The only book on advanced mgt and change that I'd give an A is "The Elegant Solution." But you have to extract the change mgt part yourself. There must be other good books out there.

In the chapter on Implementing the Model and the Map, there is The Two Modes Strategy Map. You suggested "This is very clear. You might consider emphasizing this map in part one, to allow for better previewing of the more sophisticated version later on." – Good suggestion. I've put an exact copy of the map at the beginning of part one, with a very easy to read description. This added a page to the manuscript. Thanks!

About run 17 in the chapter on the Dueling Loops, you said "So, are you saying that by increasing the amount and frequency of the lies, a portion of the degenerates get "caught" and thus deflects attention away from the systemic corruption, thus preserving a higher dominance? If so, perhaps you could develop this counterintuitive logic and explain more clearly the exact reasons this is a winning strategy for degenerates." – It works because more get caught, not because it deflects attention from anything. That is just standard deception.

I've added a paragraph to the end of the description of run 17 which says "Another way to explain this is that by increasing the size and/or frequency of lies, the degenerates get "caught" more often. This results in fewer degenerates and hence more rationalists. The beauty of the strategy is it results in just enough rationalists, 40%, to avoid triggering the critical point reaction than would occur if percent rationalists dipped below 35%. If this occurred, after a 5 year delay Ability to Detect Deception would suddenly spike upward, due to a mass reaction to too much corruption, and we would see the cyclic behavior of run 16."

Does this sufficiently explain things? It is a strategy well worth explaining, it is so clever and such a good example of system complexity and the need to use powerful tools like system dynamics.

In the same chapter I wrote "The case can even be made that as percent degenerates approaches zero, a multiplier effect is at work. These last few percent are the desperate, hard core degenerates, which includes the smartest of the lot." You asked "The 'smartest of the lot' will be the ones with the most to lose personally?" – I don't know. Rereading the second sentence, I can see this is an unexplained claim. So I've changed the sentence to read "These last few percent are the desperate, hard core degenerates, which usually includes the smartest of the lot due to the way degenerate leaders tend to hold out until the bitter end, like Hitler." But this is speculation. :-)

In the chapter on Proper Coupling I wrote "As a society matures it gradually improves the rule set it uses to run itself." You commented "I question this generalization of a 'maturing society' on the basis that it implies a unilineal model model of cultural evolution, which was advocated by the progressive movement of the 19th century but is largely rejected by modern cultural anthropologists. See the entry in Wikipedia on unilineal evolution." – Thanks. I was using the word "mature" in the sense that the rule set get better in the sense that it satisfies a society's needs better. But to avoid quibbles I've changed the word to "evolves," which has a neutral connotation.

By the way, I looked at the entry on Unilineal Evolution. I agree with the basic idea, as I understand it. But the entry is not that well written. There is too much academic baggage and not enough essence. I couldn't really understand the real points, except the summary in the first paragraph. I hope my writing doesn't become like it!

Further down I wrote "Common property rights are a logical evolutionary progression of private property rights." You commented "Your assumption of 'evolutionary progression' is likely to receive a very strong challenge by cultural anthropologists." – Fine with me. All I have to do is point them to a large amount of business literature that implores business managers to evolve their systems in the direction that gives them the greatest competitive advantage.

I expect that what is happening here is the academics are splitting hairs again. To me "evolutionary progression" is just that, in the raw Darwinian sense of the three steps of the evolutionary algorithm. But to a cultural anthropologist it probably means "moving in a better direction to a higher and higher ideal." This is not what I've said. Thanks for pointing this out.

In the same chapter I wrote "Note that a common property owner owns the health of the river, not the river itself." You commented that "This is very compelling... 'owns the health of the river.'" – Good. I've had trouble explaining this fine point to others, including the Hatchies. The concept of what an Environmental Property Right is exactly is not easy to explain, because it is such a new abstraction.

In the same chapter I wrote "The regulatory body administering Environmental Property Rights will reward property owners for wise stewardship." You asked "How can we avoid the same over-bureaucratization that plagues us today? And what about the tendency towards corruption and inefficiency in modern

bureaucracies?" – I have no idea at the tactical level. But if solution elements like politician Decision Ratings push successfully on the high leverage point of Quality of Decision Making, then the system will automatically avoid bureaucratization, because that is now in politician's best interests. There will be management problems. But they should not be huge, like they are today.

A little further down I wrote "All environmental property owners are responsible for moving their property to the safe zone as fast as is reasonably possible and keeping it there indefinitely. Those failing to do this will lose their claim, and the property will revert back to being an unclaimed environmental property." You commented "I agree in theory, but believe this is going to be tough to implement and regulate." – If we implement this approach, it will have its growing pains. But the concept is so close to private property rights that it will soon be managed just as well. This is especially true when you realize that it will be in the best interests of the New Dominant Life Form for it to be well managed. This is due to the attractive business model aspect of the Proper Coupling Package.

About the chapter on Proper Coupling, you wrote about the global ecocide model, "It's still not clear to me how this model works. Can you find a good analogy and/or extended metaphor to relate it to and make it more concrete?" – Have you read the chapter twice? If so, where exactly did I lose you? What are you able to pick up and what not able?

About fees you wrote "Higher food prices could be a source of major social resistance. While decreasing food demand and intake would likely benefit many overweight Americans today, any sustained pressure to drop below minimum caloric needs would likely trigger a massive negative response to the 'fee' idea." – This is just another part of the problem to solve. Speculating a little, I suspect that fees will not be applied directly to consumer goods and food, but rather closer to extraction of natural resources and pollution. The fees would take effect gradually, to minimize system shock. Their effect on food would be somewhere like a 50% increase in sales tax, which I don't think will have a drastic impact. The impact will be higher on industry, where the real squawking is likely. But if the concept of the attractive business model works, this will be self-controlling.

I wrote "Finally, on top of that is added concern for the future via pending fees. It's a sort of irresistible triple whammy." You asked "How do you think the New Dominant Life Form will actively resist this 'triple whammy' imposition? In other words, what sort of counter-strategies would you expect?" – Good question. I don't know and haven't thought about it. I suspect that further analysis will explore this sort of thing. But again, if the HLP is correct and the attractiveness aspect of the business model works, there is not going to be any pushback. It will be more like "How soon can we get this going?"

I wrote "Worldism is global cooperation on global problems and opportunities, which is necessary to make and enforce the decisions necessary for a uniform global implementation of Environmental Property Rights. It is the next evolutionary step after nationalism." You suggested changing this to "the next logical step after a nation recognizes that global sustainability supersedes national self-interest." – The choice of the word "evolutionary" is deliberate. Social control models are evolving from small to large. Your suggestion is an explanation for why this will occur. It's useful, so I've extended the sentence with "It is the next evolutionary step after nationalism, as nations begin recognizing one by one that many issues like global environmental sustainability supersede national self-interest."

About the chapter on Solution Factories, you said "Your Edison analogy is very effective. Think about other sections which may feature fewer analogies and see if you can incorporate more examples or extended metaphors, to increase AA conceptual accessibility and receptivity. For example, for the New Dominant Life Form, I think of a Giant Octopus patrolling the murky depths..." – A good suggestion. However, I'm now so busy with higher priorities that the AA book is going to have to pretty much exist as it is. You and others may be able to make these improvements. About all I expect to change would be due to a publisher's suggestions, an analysis by the team to make it a better precipitating event, or blockbuster additions like experimental results.

About the use of "infectivity" throughout the book and models, you wrote "The idea (language, really) of memes 'infecting' new minds may discourage potential contributors from embracing Analytical Activism." – Yes, you've mentioned this several times. But the use of "infectivity" may encourage others, because it is so apt. This word and the concept of infectivity lies at the heart of memes, where it has a neutral connotation, not a negative one. The

AA book is not for the masses, but for the educated forward thinkers who can think deeper than popular connotations. Other books and articles can be written for various layman audiences, and these can use other words. But thanks, this is something to be aware of.

In the same chapter, I wrote "Notice how there is no separate implementation step in the work flow. This is because the solution memes and meme carriers are designed to be *self-implementing*. For example, if a new meme and its carriers are well designed and released at the appropriate time, the meme will infect enough new minds and be well received by the system. Conversely, if it is not well designed, it will fail, and no amount of tactical brilliance by implementers will make a significant long term difference. *Successful implementation is thus an emergent property of the process*. The absence of an explicit implementation step in the work flow is one of many large differences between solution factories and present environmental NGOs."

You commented "This seems very significant and though abstract, would move the NGO's away from the command and control implementation scheme?" – Wow, never thought of that. I've added a paragraph explaining "A self-implementing solution approach will move environmental organizations of all kinds away from their present preference for command and control solutions, and toward solutions with inherent high ability to self-adapt and solve the many tricky aspects of the sustainability problem." This paragraph has an endnote saying "A special thanks to Michael Hollcraft for pointing out this command and control preference and its elimination by self-implementing solutions."

Also in the Solution Factory chapter, I wrote "An interesting exception, which we will discuss later, is how think tanks after the Powell Memo achieved the near miraculous ability to produce self-implementing meme carriers. This is done by "graduating" think tank staff into governmental power structures. Once there, they can self-implement because they are now in power." You commented "So, you're saying that the neocon think tanks coupled their intelligent agents directly to the prevailing power structure: government, such as the EPA. Are they also in control of environmental orgs as well?" – They've tried, but I haven't heard of any successful takeovers or significant infiltrations. But by creating fake env orgs, they have done the equivalent. The only drawback is the fakes are not as effective, because they are so obviously controlled by corporate interests.

About think tanks, you wrote "What is interesting to me is that think tanks do not seem to have solved many (if any) of the world's complex social system problems." – They have actually done pretty well. The Brookings Institution has made so much incremental progress to improving the US social control model (the government) that in my opinion it saved it from many model crises. The Rand Corporation and other think tanks solved the cold war problem through the use of game theory, and prevented a World War III. The conservative think tanks have solved a large social problem: how to take over the US govt, though this problem is probably not in your list. :-)

In the chapter on What Can I Do Tomorrow Morning, I wrote "There are many more. Do a web search on "common fallacies." Study them, master the top ten, and use that knowledge to inoculate yourself and others against false memes." You commented "This in perhaps the best use of the viral infection memetic metaphor. Could you use it only for those references which relate to false memes, which can easily be viewed as a social illness?" – A good suggestion. But it can also introduce confusion, because we now have two words for one basic thing. I've erred on the side of simplicity. But maybe a good editor can fix this sort of thing. Also, what do you do if the rationalist's analysis shows that a small dose of false memes in the way to go? They are a good thing, but they are false. This would really confuse readers. A popular example of this is emotional arguments for good causes. They are fallacious, but the goal is a good thing.

I wrote "2. Purchase products that have fees reflected in their price, until all products do." You asked "Are there currently any products which include fees? If so, please list them. If not, think about whether this is something a concerned citizen can actually do tomorrow." – There are many products with eco taxes around the world, but I don't think there are any cases of fees and buys yet, except in a very indirect sense where the fee income goes into a large fund for env work in general. On your last point, I've added this paragraph to just before If You Are a Concerned Citizen: "While these are all tasks you can start tomorrow morning, none of them can be finished in a day. This is to be expected, because there is no such thing as an easy simple solution to a difficult complex problem."

Some quoted material said "Example: the QWERTY layout of typewriter

keyboards." You asked "How does the QWERTY example illustrate your point here?" - I've extended the endnote to say "The explanation of the Success to the Successful archetype is from www.thesystemsthinker.com/tstglossary.html. The QWERTY typewriter layout won the race because it was first to market. Another example is the Windows operating system. A more subtle example is the way the English language is becoming the global standard for inter-culture communication."

Thanks also for the 50 some typos and wording problems you pointed out. Hopefully they are now fixed.

Regarding your "Speaking of loose threads, did you have a chance to think about your use of Forrester's urban decay crisis analogy on page 9 of the Dueling Loops? As we discussed briefly, I doubt anyone living in an American ghetto or a blighted area would agree that the problem is "largely solved". In actuality, the ugly fact is that the urban decay problem has been solved only intellectually, a distinction I assume very few of your readers will make. In my view, only the structural aspect of the problem was identified—the social change resistance to resolving the current physical reality of urban decay remains." - I've changed the wording to be that the "crisis" has been "largely resolved." The problem remains, but the crisis is gone.

Thanks so much for this feedback,

Jack