An Invitation to Creative Reflection

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A review of *Small Arcs of Larger Circles: Framing Through Other Patterns* by Nora Bateson.
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This is a book for the adventuresome, prepared to travel, relying on their own resources.

It is a little book, but it is dense conceptually. The chapters are both independent Arcs and parts of the whole, which indeed does circle around. If I were to name an orientation for this circling, it would be something like a desire for a more fluid and dimensional way of doing things such that ethical behavior can more readily be realized in any relationship, including our relation with the biosphere.

The book is realized in various forms ranging from essays, to poems, from conference presentations to personal reflections, including an email to a friend. The style of writing varies, not only between chapters, but often within a chapter. One needs to be nimble to follow the shifts, much like travelling through a highly varied landscape with attention ranging from delight at distant views, concerns about safety of river crossings, to investigations of odd scratches on a tree or delight in a frail flower nestled among rocks. The landscape includes wetlands with floating islands that can be connected through making leaps, or trusting to metaphoric bridges. Sometimes the shift from a solid ground to mid air happens in midsentence; so one must be alert.

The Book as a Work of Art

So how is a reader to navigate this book? If a well laid path is expected throughout, a reader will be frustrated as that is not to be found. Perhaps it is helpful to approach the book as an art form dealing with how we understand our world through a multitude of different cognitive and metacognitive approaches, often in synchrony with each other. In this sense the book is poetic.

By poetic I don't mean only poetry per se, but rather any writing that is not restricted to formulaic logic. Logic ensures that an idea remains valid within a specified domain. However, the systemic network of interconnected ideas from multiple relevant domains is more readily revealed in a less constrained fashion. And this of course doesn't even allude to what I've come to speak of the in-betweens and the glimmers—aspects of an ineffable awareness that matter as much as that which we distinguish and name. I consider poetic writing to enable more things to be connected than the careful linearization that traditional academic writing requires. The ideas expressed in poetic writing are not necessarily less, and indeed may be more relevant and valid than those expressed in explicatory writing.

> Art is un-located, and it un-locates us. We are not exactly sure where the art is. Is the music in the notes? Or the rhythm? Or the musicians? Or the audience? Or the era? ... Where is the art? It is in relationships, and in our

relationship to it. It is in the subjectivity [experience] of the observer, and the subjectivity [experience] of the artist, and the very capacity to explore all the levels of information that those realms unleash" [p. 101]

For example Nora notes that "formal academic style" [p. 46] has a rule that one shouldn't mix metaphors. In fact this is a complaint that a critically inclined reader, particularly one trained in that style, might make of her—that she sometimes mixes metaphors.

> Stone walls of jargon are raised to keep trespassers from mixing metaphors. [p. 46]

Though the quote is aimed at insistence on domain specific meanings for words, I find it also expresses a frustration with limiting complexity by conceding to a rule such as "Don't mix your metaphors!" So what would be the value of using more than one metaphor in the same sentence? Here are some thoughts of mine on the topic. Perhaps one metaphor doesn't suffice, it cannot by itself extend to all the nuances of context that are relevant to the current thought. A metaphor by its nature invites a different context or domain of thinking. Since metaphors only carry some of the form of the original across the domain boundary, the listener is meant to discern which aspect of that form is intended. Thus using metaphors enables us to create wormholes or links between domains, and perhaps more than one metaphor is useful for weaving connections among several domains.

> like wads of wiggling threads, the many social and epistemological narratives have become knotted into an ecology of their own over the course of centuries [p. 132]

Overall, I found it appropriate to approach Nora's book as a work of art. She moves fluidly from "fact" to metaphor, from her observations of regularities in experience to her description of the sense of her experience. This challenges the reader to discern where to walk along a suggested path of logical reasoning, and where to fly freely. I find that I can apply what she writes about art to this book as a whole:

> art is a system of systems, which we enter with our additional systems—our perceptions, our sense, our thoughts and histories, our personal injuries, our educations, our willingness, and maybe our sense of humor [p. 101]

Simplification

A system of systems is inherently complex. Ashby's law notes that the controlling system must have commensurate complexity with the system being controlled. It may be that through the incredible expansion of population and technology we have generated too much complexity for our limited human cognitive abilities. I have noted a general cultural unease with the complexity now available, with a concomitant drift towards various species of simplification. Lissack (2016) is just one of many who have been addressing the dangers of simplification. When we simplify, the result is seemingly solid pieces of something; though in practice simplifications implicitly evoke entailments of personal meaning—which of course vary from person to person. Though we may have different meanings, when a group we are part of affirms that some thing is meaningful, mostly we assume it's the same meaning as our own. Some simplifications, as for example simply nature as Nora shows, are best described as meanings accepted by a prevalent group in our western culture.

> The idea that ideas are fixed or permanent is just an idea … 'Ecology' is often relegated to meaning simply 'nature' and our use of the word 'nature' is haunted by the implication of a human world that is separated from the environment … I am not sure how this happened. [p. 20]

This issue of simplification also pertains to the distinction between art versus science. Naming something as either art or science creates a dialectic, a dialectic that in the modern world diminishes the value of art to mere entertainment. Science may nowadays be reified in part as it is seen as the basis of the technology we have come to depend on. Reifying art in place of science doesn't appear to solve the problem. What I'd prefer is the notion of reclaiming art as a substantive aspect of humanness while accepting science as an art form that some may prefer just as some may prefer poems or sculptures. Science entails creativity. I follow Maturana's (1988) explication of the criteria for a scientific explanation. Science, according to Maturana, has a procedural criterion of validation. Poetic thinking is required to creatively generate a new hypothesis, often through forming links among multiple dimensions or domains. Further, a creative imagination is required to propose the experiment or new
observation that may reveal the validity of the initial hypothesis. Science of course also requires logic, and an engineering type of thinking in order to effectively implement the praxis of observation and manipulation that is required as part of the procedure of validation. Nora also addresses some of these concerns in her chapter "It goes Without Saying" [pages 44–49].

Another form of simplification is counterintuitive. Namely in our desire of dealing with complexity, and the dynamics of systems, we create simulations of systems, or in the conceptual form, simply express them as systems diagrams. These are indeed also simplifications of real systems, and they leave out a lot. Nora complains about systems being perceived as box and arrow models, though she does acknowledge that there may be more to them than their frequently superficial use.

> "People who have devoted themselves to the deeper practice of systems thinking will say this criticism is unfair." (p. 188)

I think systems diagrams are a useful attempt to make sense by finding patterns. The issue with them is taking them seriously. As a past modeler I became very aware of the assumptions I was having to make in order to translate phenomena and limited data into meaningful relationships expressed as quasi-linear or formulaic curvilinear relationships. Furthermore, more than once a simple coding error would generate a totally believable result that people accepted and expounded on until the error itself was revealed. Most people are, however, not participant in the art of modeling, and hence consider these as expert representations of a system. Of course we are able to consider the interactions between multiple hypotheses about local dynamics much better given the requirement to stop arm waving and be explicit; but that does not mean the model represents reality or that it predicts. Models represent our hypotheses, including our hypothesis concerning interactions, and they do not predict; they project the consequences of those hypotheses playing out. Clearly models are highly selective and incomplete, and just as with any simplification, they obscure that which has not been included.

It is the pretense that simple box and arrow diagrams are science, or that they represent the real world, that is the problem. The kind of parts and wholes thinking that these diagrams are based on benefits from generating greater detail in the parts and the relationships, that is, adding richness. However, the greater the number of distinctions of what the parts and their relationships are, the more likely we will have gone amiss, even if only a little bit, in some of them, and in complex systems

small perturbations can lead to large consequences. Our projections, viewed as valid in the short term, may be totally misleading in a longer term. Furthermore, we never do know what the effect of the known unknowns and the unknown unknowns would be to our projections of what may happen. Nonetheless, this is generally also true with what may be expressed as an "intuitive awareness of consequence."

I think that our dependence on language in itself leads us into accepting simplification. Regularities in our encounter with the world enable us to abstract or educt configurations and thus distinguish and name them. Once something is named and we use that name as part of our living, we do not see the generative process that enabled the original eduction of some configuration or thing. Hence we are inclined to ascribe ontological concreteness to the named objects (actions, ideas, etc., as well as tangible items) that have arisen as recursions in consensual coordination (Maturana, 1988; Bunnell, 2016). Given that as children we normally accept the words and ideas that exist in our culture, language tempts us to accept as ontlogically real (Reality) the distinctions and their entailed meanings as propagated in our culture. These solid pieces are further held in place as they become part of the framework of Reality, and in particular when they are all coherent in a culturally accepted framework, or a culturally accepted epistemology.

they are harder to change once they become foundations for other ideas [p. 22]

Furthermore, all distinctions arise in context—situational, historic, and epistemological. It is very difficult to convey a meaning of a distinction that arises in a different epistemology than the one that you are trying to communicate in. For example, in a constructivist, or constitutive epistemological view the concept of values is quite different than in a realist epistemological view. Thus meanings that arise in a view that is dissonant with an accepted ontological reality is foreclosed; unless someone finds it of adequate interest to explore. An interest may be triggered by the dissonances experienced by someone who lives two non-similar language groups or someone whose childhood epistemological frame differs from the cultural one they find themselves in, as Nora describes her experiences.

I think we are caught in a stable, self-conserving cultural configuration (Figure 1.) The distinctions are appropriate to the context, and may remain adequate in the short term, but are unlikely to remain sustainable in a longer term as they inherently result in a severance of relationships.

Figure 1. As distinctions inclusive of named objects, actions, and ideas are accepted in a culture a reinforcing feedback cycle arises through the behavior of people living those distinctions.

Recovery

It would be naïve to assume that all relevant distinctions have already been generated; or that all new

distinctions must be limited to further details or analysis based on prior distinctions. Situations change, and new regularities in our experience may become relevant. Further we retain the cognitive ability to educt or abstract these new configurations and name them. Sometimes we revise the meaning of an existing word, but that has difficulties as people who have not experienced the new configuration, or have not participated in the revision, will assume the prior meaning. Thus we create a neologism. Rather than making a new sound, the accepted praxis is to use Latin or Greek roots.

Some combinations of roots are inspired by prior similar usages, and thus are obvious and inviting. The neologism, sympoiesis has for example been invented in parallel by several people, Phillip Guddemi and myself included, but by each with somewhat different intended entailments and contexts; thus meanings. Rather than participate in this confusion, both Phillip and I have abandoned the word. Another of my attempts at a neologism, namely ontepistany (Bunnell, 2005) generated no response, so I became aware that simply naming something new does not lead to usage, not even within a restricted community. Though that particular neologism was not particularly relevant, it got me thinking that the adoption of a neologism depends on many factors, not the least of which is an intuitive or systemic awareness of the particular configuration that is being named. The hallmark of such a configuration would be a response such as "I know what you mean, I was looking for a way to say that."

Nora prominently uses two neologisms that may evoke such resonance. One, transcontextual [p. 97], which was coined by her father Gregory Bateson in 1969, but which she uses to great effect, is an obvious shift of emphasis based on the word transdisciplinary, so its overt meaning is relatively easy to see, and hence I think it will survive well. The neologism symmathesy [p. 166], which is her own, and to which an entire chapter is devoted, is based on a less familiar Greek root mathesis (to learn), but the notion of learning together probably has a resonance with many and thus I think has a good chance of entering our lexicon. Symmathesy is also a relatively approachable and evocative idea.

Given that neologisms represent ideas, and supposing that ideas are contagious, then more complex ideas probably have a longer incubation time, and thus like any contagion the spread is slow. As for viruses the ideas that reproduce faster, spread faster, and the ones that spread faster can overwhelm the ones that take time to mature. Simple, approachable ideas are likely more contagious, and that may lead further to the issue of simplification. Symmathesy is probably somewhere between the extremes of simple and complex; I will be very interested to listen for it in various contexts.

One concern that comes with a neologism is that any new word is vulnerable to co-option and change in another context which can overwhelm the original meaning. This sort of shift I find has happened with many words in my lifetime; systemic, cybernetic, and autopoiesis are a few examples, and Nora refers to a few others which have likely also gone through such shifts from conception to current meaning:

> I realized I never wanted to hear the terms 'resources,' 'stewardship' and 'sustainable' again. For all the good intentions those endeavors have on their side, they do not describe any relationship I would want to be in. [p. 55]

Neologisms are only one way of introducing cultural shifts. Though less dramatic, more subtle shifts in behavior are perhaps more effective in the long term.

> seemingly inconsequential actions represent a reweaving of the contextual patterns we live within[p. 133]

I have spoken something like this, also metaphorically, as "the manner of walking changes the path that arises and hence the landscape changes." I've known that my statement doesn't fully evoke what I mean, not in itself. It only has the meaning I intend when spoken in the appropriate moment, in the appropriate context of conversations. This moment seems to have the prerequisite of having explored some of the lowlands (premises, and what those may be based on) and foothills (some of the more obvious implications) leading to the idea that "a path arises in the walking." The exploration itself is usually an engagement in recurring conversation over weeks; and it is likely to entail science and art, life experiences and metaphors as well as isophors; hence a multidimensional context. How does the author of a book enable this? The conversation is oddly mostly in the reader's mind, the interest in the book is that it does trigger interesting inner conversations, or perhaps conversations with friends. This clearly relates to Nora's comment:

> In this era of global crisis we often speak of 'paradigm shift' and 'systems change' as necessary prerequisites for the survival of the biosphere and humanity. I am not sure that our attempts at either of those concepts will turn out as we might intend. But there is another possibility. The ingredient I would like to add to the pot is the notion of life as mutual learning contexts. [p. 166]

I could bring a biological analogy to bear namely a mycelial network, which is the underground body of a fungus. This network can be extensive over several hectares and it can link with other plants through their root systems (through mycorrhizal relationships) and hence it forms the links for a complex system. The growth of such a network is slow, and may be easily disregarded if not directly considered. When the fungus fruits, it is only a brief moment in its life, yet this is the easily visible part. So also our ideas may grow slowly and then arise as the fruit of an insight, as if it were coming from nowhere!

To enable the slow growth of adequate complexity, the requisite variety of living in a world that is ecologically and relationally complex, and further complicated through human cultures and technologies … to create space and engagement for this slow growth is a great responsibility. There is so much temptation to give way to urgency, or to retreat to simplification or disconnection. This leads me to consider responsibility, and in the context of this book review, the responsibility of the reader. I will address that notion obliquely.

Responsibility of the Reader
As I read the book I found myself desiring direct conversation with the author, often several times per page. Sometimes a particular turn of phrase made me want to just phone or email her. For example consider the following phrases that happened to catch my eye:
cringe worthy [p. 82]
implicit hope of maintaining the status quo [p. 131]

the alternative to trust is not doubt, but rigid control [p. 200]

Reading the third one, I wanted to ask Nora if for her too it resonates with Heinz von Foerster's notion that "truth is the invention of a liar" (von Foerster & Pörksen, 1999). Our discussion might have entailed my understanding that what we now think of as trust was once the taken for granted background, and the notion, the naming of trust only arises once mistrust has appeared. There is no opposite to trust per se, rather the concept of trust only arises when mistrust has been experienced. In that sense trust is the invention of a cheater or liar, or more likely, of having been cheated or lied to.

This is but one example, there were indeed many moments that I desired conversation, all triggered by something that resonated or did not, but all in an interest of elucidation. However, given practicalities, and my accepted role as book reviewer this desire turned into a conversation with myself via dozens of pages filled in my notebook and later via the transcription and sculpting of ideas for this book review.

> It is woven by you in the way you make linkings and meta-linkings. [p. 16]

Thus, indeed I found myself creating coherences. Reading Nora's book has been mostly an internal conversation, that is a thinking ideas through by writing them. I recall also a comment made by Maturana, once when I questioned why he wrote in his particular style as, in my experience, many people find that hard to read. He answered that "I write for myself." This is not an egotistic approach, rather it is how many of us develop our own understanding, though when this process happens in co-inspiration with others, it is immensely enriched. Ranulph Glanville (2013) described his design process as an idea creep arising from a circular process, or conversation between utterance and perception.

My own experience is similar. When I am first grasping, just barely understanding something, I cannot unravel the gestalt into a coherent flow. I find it easier to write a poem that gathers and weaves the strands without the strict requirement of logic and syntax. From there I often develop ideas by talking with or exchanging emails with friends and colleagues, explaining to students and responding to their gift of questions, and eventually writing a mini-essay without any intent of where it may go. I write that for myself, or visualize the idea as topological relationships, and make sketch after sketch, conversing with the visual in the design process of thinking. As far as I am able to discern, many of us design or develop our ideas by expressing them: in language or other forms including mathematical, diagrammatical, or in movement, sound, image and color.

This composition of coherence and meaning, and the further development of efficacious expressions for an insight, is often a long term process. I mean long term in the sense that it can take months, and years. Thus I perceive Nora's essays in this book as being at various stages in her multiyear, and perhaps multi-decade process. Indeed, the real question is whether ideas should ever be considered finished; namely they evolve within and between us. Therefore we should not judge an idea only by its ripeness, but also by how it fertilizes other ideas in various forms of conversation.

And what thoughts are we fertilizing together? [p. 23]

I ask instead what lines, phrases, flows in your writing are fertilizing my ideas? We may experience this as a co-creation, as if we were creating something together. Yet each experiences their own ideas as triggered by the utterances of the other. And yet more, as we remain in conversation, our view of the other takes on more intricacy and complexity, and in this coherence we do indeed generate a world together.

Concluding Remarks

I do not share the desire to define myself in the stain of the written word. [p. 204]

We may have a retrospective awareness of the early glimmers of thinking among writers and scholars. Not all glimmers mature. Yet they may trigger further thinking in others; so may indeed be a source. This is nearly impossible to ascertain; we are not even sure now where all our ideas come from, as sometimes the trigger doesn't seem to have any direct correspondence to our insights. However, another factor is relevant here, historically. The processes of acknowledgement, and popularity of source, are different than the processes of the flow of understandings. We create heroes of the persons whose thinking has inspired us, and different people lionize different authors. Furthermore, an accumulated collection of writing is also relevant; as it is much easier to follow on further ideas of something you have encountered when there is much more available by that author. This enables deepening, and as for any deepening, we follow a particular path. Furthermore, some ideas become popular and others don't, simply through a series of happenstances.

> Ironically, what I write will speak of who I am. I know I cannot stop the stamp my printed words will make on my identity. I resent that. [p. 205]

I would not worry, this book does have a publication date! We can later speak of any of these ideas as Nora Bateson's early works, and marvel at the glimmers then already presaging her later ideas as we trace backwards to find the path of their evolution. We may be amazed at the prodigal nature of her wisdom, or we may smile at the brave but clumsy form that led to what is yet to come! Or we may pass on to other things.

I will finish my first attempt at a book review with one more quote from Nora, one that resonates with the poem "Integrity" that I wrote some time ago.

Every conversation counts. Everywhere. [p. 127]

Integrity
There are no trivial moments.
Each moment creates openings
and closes other paths
in the landscape of living
There are no trivial moments.

Each moment changes me
so from there on I will become
from that change on.
There are no trivial moments.
I wish to be impeccable
always

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