

# **Entanglement and Emergence in the Neocybernetic Posthuman (Presented at Cultural Typhoon 2016, Tokyo University of the Arts)**

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I would like to talk today about systems, the objects that constitute those systems, and the narratives that emerge from their entanglement. More specifically, I am interested in the ways our human narratives are in a constant state of metamorphosis, contingent upon on how our environments create us, and how we in turn help create our environments. And I would like to give special attention to the roles of objects, which contribute to these narratives. I will first speak about regarding narratives in systemic terms. Then I will introduce neocybernetics to offer a framework for thinking about our own cultural system-narratives. Finally, I will provide a textual example to illustrate entanglement and emergence as it occurs within and between the environments of social, psychic, and technological systems of our cultural environments.

Perhaps it will help to begin by telling a familiar story about how many societies in Modernity, have largely come to see themselves. Neil Badmington writes:

According to Humanism [...] the human being occupies a natural and eternal place at the very center of things, where it is distinguished absolutely from machines, animals, and other inhuman entities; where it shares with all other human beings a unique essence; and where it behaves and believes according to something called “human nature.” In the Humanist account, human beings are exceptional, autonomous, and set above the world that lies at their feet. “Man,” to use the profoundly problematic signifier conventionally found in descriptions of “the human condition,” is the hegemonic measure of all things. (Badmington 2011; 374)

It is not difficult to see, how this kind of thinking has led to various kinds of prejudices, exploitations of the environment, ideas of human entitlement, lack of compassion for nonhumans, and a notion that we are separate, and powerful over, the objects that come into our lives. Instead, I would like to begin to tell a different story, particularly one that goes against the grain of the Humanist narrative.

Consider now this definition by neocybernetician, Bruce Clarke: '[a] system may be any totality composed of interdependent elements. [...] [A] complex **ensemble** unified in such a way that a **process** emerges from, and only from the interdependent interactions of those elements' (Clarke 2011; 214, bolded text not in original). I emphasize the bolded words to draw your attention to the fact that an 'ensemble', narratively speaking, can be a cast of characters, settings, points of view, temporal shifts, or motifs, to name a few, interdependently creating a 'process', or plot trajectory—that is, changes in a story. The interdependence of elements constitutes the network of entanglement. The ongoing process of change, or the story, is the system-narrative's emergence.

I contend, just as we see this processual ensemble unfold as we read a novel, so too do we partake in, and live out the stories of our lives as entangled and emergent. Rhetorician, John Rodden, writes:

We live our lives as stories—or as “narratives,” as the literary scholars prefer to say. Whatever the term, the fact is that a deeper understanding of the subtle dynamics of storytelling and “narratology” can shed valuable light both on literature and on our lives. The fictional stories that become part of our cultural fabric and social mythology both reflect and shape our lives: the plots of novels and the “storied lives” of fictional characters influence our lives (and resemble them too). We have much to learn from closer study of literary narratives. Art not only “entertains,” as Horace observes in *The Art of Poetry*, it also “edifies.” (Rodden 2008; 148-149)

In other words, stories are a form of technology that help construct us, in the way that we construct them.

Andrew Bennett and Nicholas Royle draw five points about what constitutes a narrative:

1. Stories are everywhere.
2. [...] if stories are everywhere, we are also in stories.
3. The telling of a story is always bound up with power, with questions of authority, property and domination.
4. [...] there is always more than one story.
5. Stories always have something to tell us about stories themselves: they always involve self-reflexive and metafictional dimensions. (Bennett and Royle 2009; 54)

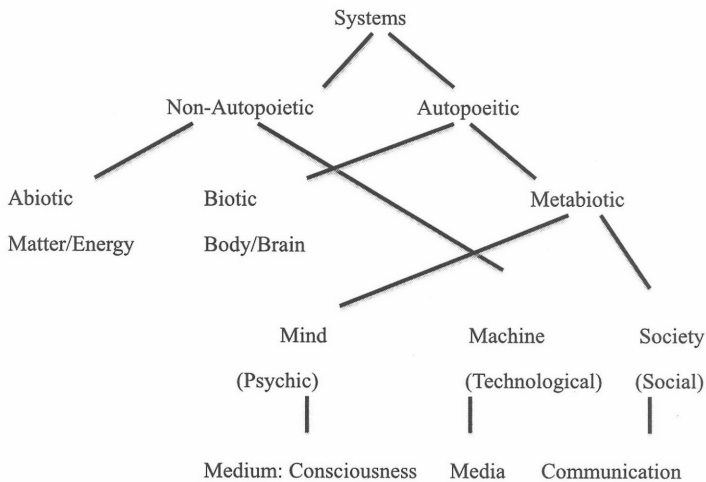
Of particular interest is number five since it offers the conditions for entanglement and emergence. This is because of the paradoxes created by self-reference, which catalyzes new meanings and further paradoxes—the plot trajectories are endless and unpredictable. In the same way that speaking about narratives is to speak about particular systems, so to, speaking about metafiction is to speak about neocybernetics, or self-referential systems.

H. Porter Abbott writes, '[a] reflexive (or self-conscious) [or self-referential] narrative is one that, either by formal or thematic means, calls attention to its condition as a constructed art' (Abbott 2008; 241). In other words, the artifact communicates to the observer the conditions of its construction. By doing so we come to question the boundaries of the artwork, since the self-referential disruptions challenge our preconceived notions of narrative convention.

M.C. Escher's 'Drawing Hands' is an excellent self-referential example that forces us to ask, "What does it mean to say that art is creating itself?" [This image is easily accessible via Internet search.] For this reason we become aware of a certain ensemble of actors in play: not only the creator of the art, notions of what constitutes art, and the observer who co-creates meaning through interpretations of the art, but also the artwork itself, which begins to exhibit

a more active role in the process of meaning creation. In other words, new relations are made apparent, giving agency to what we once thought were passive artifacts awaiting our use. To paraphrase Karen Barad, ‘matter comes to matter’. That is, at the moment of engagement between the social conditions informing the creation of the artifact, the social conditions informing the reading of the artifact, the psychic conditions interpreting the artifact, and the artifact itself that helps makes this ensemble possible, this network becomes a collective of “things-in-phenomena” in a process of becoming—enacting new stories and meanings.

Neocybernetics, or second-order systems theory, offers a way in which we may see our ongoing transformations as interconnected narratives of self-reference with and within our social, psychic, and technological environments. In his book, *Posthuman Metamorphosis: Narrative and Systems*, Bruce Clarke offers a diagram, not unlike the following one:



(See Clarke 2008; 19, for actual diagram)

Clarke distinguishes between autopoietic and non-autopoietic systems. ‘Autopoiesis’ is a term coined by biologists Humberto Maturana and Francisco Varela, which means “self-Production”, in order to define what constitutes a living organism. In short, an

autopoietic system simultaneously is a system that uses its own elements to reproduce those very elements, which constitute the system as a particular thing. We may say then, a tree is autopoietic because it reproduces its own cellular structure, which continually defines its boundaries as a tree in relation to its environment.

But this theory has not been limited to the natural sciences, and has expanded into the world of social systems theory, and forms the cornerstone of neocybernetics. Clarke makes a simplistic distinction between biotic and metabiotic systems. Metabiotic systems constitute what we normally see as “human culture”. These systems exist in their respective virtual mediums: consciousness, media, and communication. Note psychic systems and social systems represent our cognitive and social aspects, respectively. These are the more obvious systems that have contingently emerged from our biotic, or biological selves. Between these two, we have machines, which occupy a distinct location. They are simultaneously autopoietic and non-autopoietic.

A piece of technology, such as a novel, is not a living system, however, it is an element of a larger system of various technologies and artifacts, producing more and more technologies, and *also* serving to mediate *between* psychic and social systems. As Clarke writes, “[technology] seems to possess a phantom autonomy. [...] They are [...] indispensable *intermediaries* for the operational integration of autopoietic minds and societies. As such, in the same way we can say we are both biological and cultural beings, we can also say that we are bio-cultural and technological beings. These metabiotic systems are both entangled with each other and co-emerge together, thus perpetuating themselves as ‘living’ systems.

That is, these systems self-produce themselves by drawing differences from other systems in the environment. No systemic “ensemble” is ever complete as a thing-in-itself, since a system by definition must be smaller than, and distinguishable from its environment in order to be distinguished as a particular system. A system indistinguishable from the environment, is a system in which nothing ever happens (Gilgen 2013; xvi). To borrow from performative theories, a system is simultaneously iterative and subversive: a distinguishable meaning-event creating new meanings. This ongoing cycle of entanglement and emergence

suggests that we are all constructions within constructions, or metafictional if you will, contributing to, and being changed by, the various narratives of our environment, whether human or nonhuman, living or nonliving. Clarke notes: ‘The foregrounding of paradox by narrative embedding, metalepsis, and mise-en-abyme are to postmodern narrative aesthetics [...] what [...] the emergence of systems within systems—are to second-order systems theory [neocybernetics]’ (Clark 2011; 221). In other words, metafictional are the analog representation of metabiotic entanglement and emergence.

Take for example this painting [‘Las Meninas’] by Diego Velazquez.



(Wikimedia Commons)

Here we can notice how meta works of art not only make apparent the entanglement between metabiotic systems, but force us to question our current narrative conventions. This questioning, which arises from the paradoxes of the painting, is what perpetuates our metabiotic co-emergence. Notice, for example the girl in the center, who is looking directly at you. It begs the question, are we observing the art, or is the art observing us? Have we been limiting our understanding of the Psychic system to purely human-centered notions of

cognition and observation? This goes deeper than mere narrative ludics, since in posthuman terms objects too exhibit forms of agency, and so, we must ask what roles do objects play in constructing our everyday lives. This is a question taken up by theorist in Actor-Network Theory, Object-Oriented Ontology, and Performativity theories.

Or notice the artist himself at his painting, also looking at us. Some scholars assert his subject matter is the King and Queen of Spain, as evident by the mirror in the background. But then, wouldn't King Philip IV have to be sitting where you are now? And we don't see the front of his painting, so we must ask, could he be trying to paint us instead?

The painting we are observing is a non-painting. That is, the painting we *should* be seeing has its back to us on the left-hand side. Perhaps then, this is a window of sorts that allows you and the cast of characters to peer at each other across time. I am not suggesting that this is *actually* happening, but this sort of systemic self-reference certainly disrupts our comfortable humanistic notions of space, time, and relations with objects, all of which are complicated by emerging posthuman theories, post-phenomenological approaches, and sciences of complexity like Chaos theory and Quantum mechanics.

What new technologies might be developed inspired by these emerging ideas and systemic interactions, which force us to rethink our sense of scale outside Euclidian and Newtonian parameters? And finally, what sort of mind might we approach our environments with, knowing that technology and society are necessarily entangled with the decisions we make. The point I would like to make here is that objects are necessary contributors to our metabiotic narratives. This happens with all objects we come in contact with, but it is most obvious and extreme in our meta artifacts.

In conclusion, neocybernetics offers a framework in which to view our psychic, social, and technological systems in narrative terms, as well as make use of self-reference to see how we are recursively entangled and co-emergent with our environments. The questions that arise from a neocybernetic understanding of metabiotic systems are akin to those of the meta-arts. Therefore, we should embrace paradox as opportunities to grow and rethink the boundaries of the narratives we are living, and the conventions that bind them, and not get stuck in stories

that propose some sort of fixed narrative structure to who we are.

Admittedly, neocybernetics largely seems to be human-centric. However, it is important to note the necessity for paradox, difference, and the ability of systems to respond to differences in ways that perpetuate the growth of the system. Pramrod K. Nayer (2014) draws the connection between neocybernetics and critical posthumanism: 'Under the influence of [neocybernetics], critical posthumanism is less interested in the great human subject than in the human as (i) a system situated in an environment, and (ii) an instantiation of networks of information [...] and material [...] exchanges between systems and environments' (10). Instead of forcing anthropocentric notions of reality, neocybernetics looks to understand the narrative of interdependence and change, and the influence of diverse ecologies, of which we are merely a part of, not dominant over.

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