

## **FRAMING A SYSTEM**

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### **ABSTRACT**

Boundaries of a system are largely determined by human perception. To an extent this occurs arbitrarily, but to an extent it is a response to changing environmental conditions. Given this dynamic, the way a system is framed in terms of its boundaries affects human action on a global scale. Understanding this framing can empower the human agent and enable a recontextualization of human potential such that our planetary system is approached and maintained in an ecologically equitable and sustainable fashion. This paper outlines how such framing relates to different scales of human civilization and what some of the important practical distinctions are related to such an act of framing. Keywords: transcend, contain, interact, scope, scale, dynamic, connections, perception, action, control, assimilate, unit, node, vector, nexus, system, worldview, unknown Rubric: institution – nation – planet – civilization – solar system

Perception as a human phenomena is powered by nodes and vectors, units and connections, or a nexus of our reality. Perception as a human phenomena follows a vector until it terminates at a node, and then expands to incorporate the node into prior understanding. Perception as a human phenomena can follow connections and progressively expand a map populated with units or nodes until the potential connectivity begins to diminish. The nexus of our reality is created by assimilating more and more nodes until a maximum scale is reached. Once a maximum scale is reached, whether it be a local maximum or a global maximum, the nexus becomes a system that functions discretely as a dynamic entity within which a human can take action. This system determines the parameters of our control, and becomes a frame of reference for action within a specific context. As we expand our frame of reference, we interact with systems either as singular units, or as second-level expressions where systems exist within systems and can be further combined and assimilated into an even broader map of reality to comprise a worldview. The particular context that we perceive as a final maximum, once a global maximum is reached, establishes parameters for a more globalized type of action. This paper explores how a global maximum can vary in terms of perception; it explores how systems can grant special insight or simply envelope organisms, and what these processes do as conductors of more practical considerations within our nations, planet, and solar system.

In discussions related to environmental concerns, there are contrasting methods for approaching a particular concern properly that are determined by how perception of relevant actors, their nexus, and whatever systems are relevant interact dynamically to form a timescale and spatial parameters. Perception of our planet as an ecological system that encompasses human civilization as a complimentary system is generally ascribed to Gaia Theory. In this view, humans expand their nexus until a global maximum is

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reached, i.e. the planetary system. Our planet is construed as a single, discretely identifiable, and comprehensible entity. Thus, a unifying feature is understanding Gaia as *one thing*. From there, I document variation in determining the “inner nature” or essential operating patterns of our planetary system, and variation in perception of our practical and ethical constructions in relation to this system. According to Peter Ward, features that diverge are the fundamental connection between this understanding of Gaia as *one thing* and the organisms that are surrounded by the processes of our planet. The main question for these diverging features: to what extent are the processes inherent in the planet as a system supportive of organic life? Responses range from a planetary system that is a living entity itself, to a planetary system that improves the conditions for life within the boundaries of its system, to a planetary system that may not improve the conditions for life but certainly regulates them to maintain the boundaries of its system (Ward, 2009, XVIII). Generally, these responses share in common that there are some processes within Gaia that function as negative feedback loops, where the environment changes its structure and own processes to respond to primary changes in the environment in such a way that the primary change is counter-balanced. Theoretically, these counter-balancing measures support life.

Regardless of whether our planetary system is a living organism, improves conditions for life, or regulates conditions for life, these responses create the impression that *observing the particular activity* of our planet is sufficient to understand the essential operating patterns and determine an actionable agenda. I contend that more important than this style of observation is accounting for the dramatic shifts in perception that occur as a function of observing the particular patterns. Observing the natural environment gives us a system that is sometimes prone to positive feedback loops and sometimes prone to negative feedback loops, sometimes improves the conditions for life and sometimes destroys life. Merely observing these fluctuations as the operating patterns of Gaia encourages a passive stance. Here perception as a human phenomena is beholden to a system functioning that transcends the personal power of a human actor. This means that the environment’s processes define the parameters for success on life, and are comprised of counter-balancing measures regardless of our actions and the trajectory of our current civilization as a system on our planet.

In contrast to Gaia Theory, the Medea Hypothesis proposes that life is inherently self-destructive. This means that our planet does not improve or regulate planetary conditions to support life through counter-balancing measures, but actually responds to destructive human action through positive feedback loops. These positive feedback loops stand to create an inhospitable climate that could potentially destroy life on our planet as has happened in the past. Because our planetary system is perceived as potentially destructive to human life, the actors within that system are compelled to transcend the boundary conditions of that system as larger than civilization, and reverse the construction of these systems in relation to each other. By recomprising our nexuses of human agency in relation to institutions, nations, and our solar system, civilization as a system becomes larger than our planetary system. The animating question now becomes: do we have control over our environment?

Thus, we can see how perception of civilization as a system that transcends the planetary system places control in the hands of human beings. The concept of a human actor gains prominence and liberates human beings to pursue an innovative set of vectors

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and nodes, construct a new nexus, and pursue a system of thought that encapsulates the solar system and beyond as the frame of reference in which civilization operates. Thus, assessing existential risk (of which environmental destruction from climate change is an example) creates a unique and powerful mindset. By incorporating factors that impact the planet as a whole and that pose a threat to the existence of the entire species rather than to any subset of the species, an expansion in one's frame of reference occurs that is forced by this transition. The human actor is *required* to view the planetary system as something that can be contained within human civilization as a larger system, or somehow survive using a broken map of reality. Presuming successful expansion, this can be empowering and can dramatically enhance human agency in regard to the global maximum of systemic understanding.

As is evident from the Medea hypothesis, however, there is a danger in expansion of a reality map to transcend the planetary system. One key feature of industrial civilization has been the progressive expansion of technological capability, population, and economic success. Unless this expansion of the focal reality map is tempered in some unique way in a fashion that changes the underlying vector of expansion in human civilization, the dramatic consumption of resources as used by this scale of civilization contributes endlessly to the issue of climate and environmental destruction. There is a pressing need to *recontextualize* expansion, and decouple economic expansion and expansion of our population from expansion of our worldview and solution set. Geoengineering indeed could represent a possible solution to climate change as an existential risk, and yet concerns relevant to this solution not only arise from the particular way geoengineering solutions are pursued, but also from what is ignored generally speaking in their pursuit.

In order to properly recontextualize growth and ensure a solution set creates a new precedent, a perception of human actors as powerful enough to exercise control over our planetary system is vital and should be retained from the perspectival shift that existential risk reduction as a mindset engenders in human populations. However, it is imperative to avoid a sense of privilege that accompanies being "special" or superior to the planetary system as an organic, holistically functioning entity, or simply superior to the constituents of our planetary system. From the perspective of deep ecology, "all organisms are equal: Human beings have no greater value than any other creature, for we are just ordinary citizens in the biotic community, with no more rights than amoebae or bacteria" (Ward, 2009, 135). This means there is a sharp distinction between a viewpoint that maintains a human actor as a *powerful* species on earth and a human actor as a *valuable* species on earth in comparison to every other species. A perception that proceeds from existential risk reduction of climate change embraces the *power* of human agency because we are undoubtedly in control and to dismiss this notion would be to shirk some of the more fundamental responsibilities of our lives on earth and dismiss the keys to our own survival. To equate this sense of power with *value*, however, creates a nexus of our perspective synonymous with privilege, special rights, and exemption that becomes self-destructive for human actors as a species. Thus, we need to retain a sense of control from the expansion and empowerment of pursuing existential risk reduction, but recontextualize our own activity as immersed in a planetary system.

This requires a redefinition of Gaia that refocuses the principle features from *activity* that creates a *passive observer* to a process that engages the human actor in a

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framework of comparative value. Human actors are in control by virtue of our own activity at a system-level greater than that of the planets. In terms of value, however, we are components of an interconnected ecosystem on a planetary scale or even beyond given gravitational waves and quantum entanglement. There is intrinsic value to a planetary system created by its capacity to cohere the parameters that sustain life into a functioning whole. A civilization system may be larger, but size and impact do not create superiority. And perception of our planet as intrinsically vital creates a rebalancing of ecological concerns with the expansion-based arc of our civilization as a system. Independent of responses from the environment as positive feedback loops, then, we can pursue a more sustainable civilization-construction by absorbing into our worldviews our planetary system as intrinsically valuable and understanding our own participation in this system as vital despite apparent differences in size, scale, or scope. Understanding a shared process of human agency from an ecological perspective creates a system that allows us to transcend the boundaries of a planetary system. It retains our capacity for practical action simultaneously. Sharing the process means that human actors can pursue practical concerns and disregard any inflated valuation of our presence within our planetary system. It reveals that there is a geo-political layer that sometimes operates as an intermediary between our ecological sensitivity and any supra-planetary concerns. It can thus serve as a focal point of human action. Our recontextualized present addresses environmental destruction through practical considerations, but *only as* framed by existential risk reduction as demanding comprehension of overlapping systems. This is the only way to wrangle the magnitude of our decision-making and proceed with proper caution.

This context can portray how system functions in the United States can modify our planetary system, which enables both integration ecologically and continued expansion. Countries around the world are experiencing a decrease in population growth once past a certain stage of development (Neumayer & Van Alstine). These countries have been shown to increase ecological sensitivity: equivalence with other species and increased understanding of the planetary system as an interconnected ecosystemic entity. The environmental Kuznets curve is sometimes communicated as a deterministic trend of human development on the scale of nations. Human agency, however, is a major variable in defining our capacity to comprehend the micro-solution set to planetary concerns that supports a trend with a deterministic component. This trend may remain contested unless action is taken to divest from fossil fuels and eliminate their subsidization, enable and increase technological transparency and transfer between nations, and implement cradle-to-cradle design parameters on the scale of global economies. Therefore, these foundations are an underlying vector upon which geoengineering our climate can be pursued.

## REFERENCES

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