

An Ecology for Beeing

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Summary (Ai)

"An Ecology for Beeing" argues that today's interconnected crises are better understood as a **"poly-disorder"** rooted in an Occidental worldview of separation, hierarchy, dominance, and control. Drawing on cybernetics—especially circularity, second-order cybernetics, and the work of Gregory and Mary Catherine Bateson, Heinz von Foerster, Herbert Brün, Humberto Maturana, and others—the author calls for a fundamental shift in how people language, think, and act.

Honeybee stewardship serves as the paper's central example and lived practice. The decline of honeybee colonies is presented both as an ecological warning and as evidence of the harmful consequences of treating living systems as separate, controllable objects. In contrast, honeybee colonies can be understood as a **"sacred unity"**: an interdependent, self-organizing ecology in which every type of bee is necessary.

The paper proposes several cybernetic practices for enabling change:

- **Circularity:** Language, thought, action, epistemology, continually shaping one another.
- **Avoidance:** Deliberately avoiding certain language rooted in hierarchy, competition, and violence in an effort to provoke space for a new language for explaining possibilities emerges.
- **Radical storytelling:** Alternative narratives that challenge inherited unnatural assumptions.
- **Circularity of needs:** Defining needs—such as peace—and identifying the necessities for meeting them which can generate new forms of languaging and performing daily life.
- **Circularity of Beeing:** An embodied, reflective way of living in zero time that embraces the inter-connectedness of all living things, and ecological responsibility, of every I.

Using examples from *The Bees' Needs*, the author replaces hierarchical expressions such as "caste system," "superorganism," and even conventional ideas about the "queen" bee with language emphasizing types, motherhood, cooperation, equality, and democracy. The central message is that humane responses to wicked problems require not changes **within** existing systems, but changes **of** the systems -- and worldviews that produce them. The essay closes by presenting "Beeing" as a practice of presence within the sacred unity of life: doing one's best, living relationally, while swimming in "zero time."

Introduction

For the 2026 American Society for Cybernetics (ASC) conference in Brazil, I was asked to share my current reflections on what I consider today's urgencies, and the questions that emerge from my praxis of living while enacting cybernetics.

[Cybernetics is distinguished by the questions we ask.](#)

Circularity

From the beginning the [concept of circularity](#) has been a fundamental of cybernetic thinking and doing. It led to the creation of second cybernetics, [the cybernetics of cybernetics](#) triggered by Margaret Mead, articulated by Henz von Foerster, and performed by Herbert Brün. Second cybernetics emphasizes the role of language, self, and every I's responsibility for generating and creating the world's we co-construct.

Much of my thinking is based on my experience as a honeybee steward and my research on the escalation and de-escalation of behavior in complex systems. It is through my [cybernetic praxis with honeybees](#) that I have come to understand more deeply that emotioning, languaging, thinking and doing generates an interconnected web of living that is currently full of dysfunctions. A not so sacred unity.

In the late 1980s while working as a consultant and therapist for severely "emotionally disturbed" children, I attended a five-day training session by Allen King Cooper about a non-violent de-escalation process on how to talk kids down without putting hands on. It was during his training that I heard the term "cybernetics" for the first time.

Through deep conversations with adult students, I developed a model for the de-escalation of behavior in complex systems which we called [Behavioral Cybernetics](#).

It was through our conversations that we were provoked to distinguish the terms crisis from conflict, and from disorder, since each phenomenon requires a different response in order for de-escalation -- without violence -- to emerge.

Conflict involves some disagreement, usually related to desires.
Crisis always relates to LOSS and often cannot be prevented.
Disorder looks like chaos, yet not, since it is preventable.
Chaos, the unpredictable and inevitable in that moment.

While pursuing a doctorate in "Cybernetics and Human Relations" (Humane Cybernetics), I was provoked to add the term "contradiction" to this collection of terms, a result of conversations with Herbert Brun, a cybernetician, composer and language connoisseur, who claimed:

Conflict requires a change **in** a system.
Contradiction requires a change **of** the system.

A Sacred Unity is an *ecology of mind* that entails a *way of thinking* about thinking about the interconnecting webs, patterns and forms that generate an interdependent balance among all living things with our biosphere. - [Gregory Bateson](#)

I *know* there are many urgencies often referred to as a “[Polycrisis](#)”. Poly meaning many and crisis usually means a significant LOSS. The first step in recovery in relation to a loss is to observe and interpret emotions in an attempt to ventilate feelings *before* any cognitive intervention can occur.

I prefer the term “poly-disorder” because many of our current urgencies are a consequence of a worldview for thinking and explaining that generates solutions which go against our natural ways of being -- and beeing. Beeing - a state of being that embraces an ecology of mind when working with honeybees. A poly-disorder eventually generates a poly-crisis and ultimately poly-crises. For example, in 2025, United States' beekeepers reported a LOSS of 55% of the honeybee colonies. The highest number of reported losses in one year on record. A poly-crisis. Many project that the loss of honeybees will lead to other systemic losses, since honeybees are responsible for pollinating approximately 1/3 of the human diet.¹ A poly crises

“As with any [loss of biodiversity](#), there is always a chain reaction felt in the wider environment. It is a vicious cycle: fewer flowering plants mean less bees, but fewer bees mean less flowers. Fewer plants mean less forage and shelter for a range of herbivores, and less herbivores means the secondary consumers that eat them would go without.”²

The current state of the honeybees is a warning – a canary in a coalmine – an invitation to explore how we might think and act differently in the worlds we live, moment to moment.

From my epistemological stance, the term poly-disorder goes to the crux of the contradictions of our current urgencies, which are mostly nested in a worldview that perpetuates hierarchies, dominance, control and submission (violence). What Gregory Bateson referred to as an Occidental ontology. An ontology nested in separations excluding the observer from the observed. An ontology, according to [Mary Catherine Bateson](#), full of epistemological errors and assumptions that are literally killing us.

If you're looking, It's obvious that our interventions often make things worse – even wicked. I think (not believe) that many of our [wicked problems](#) generate wicked solutions that are related to our Occidental ontology that at its core speaks us -- rather than us it. A consequence of what Manni Brün referred to as the [inertia of language](#) based in paradigms gone by. An inertia that has generated centuries of our languaging, so that parts of nature were erased, along with the indigenous peoples that conserved them.

¹ *Secrets of the Bees: Revealing the sneaky genius of nature's master pollinators*. National Geographic Magazine, March 2026. A title that reflects a hierarchical occidental ontology when using terms like “master” to describe a living system.

² [World Bee Day 2026: What Happens to Ecosystems When Bees Disappear?](#)

Peoples that have long traditions for weaving language, languaging, culture and landscapes into their daily lives while generating cultures that conserved a deep praxis for understanding their natural ways of being human as a scared ecology of mind.

Again: Conflict requires a change *in* a system
Contradiction requires a change *of* the system.

Debunking Occidental myths is not easy

Many of us think the ways of living generated by indigenous peoples is a model for addressing the radical ontological shift necessary for the emergence of more equal relations between all living creatures and our environments.

Both [Mary Catherine and Gregory Bateson](#) thought a cybernetic ontology might offer a language for developing an alternative worldview.³ An ecology of mind that might reflects a more natural way of being and beeing. An ontology that embraces the sacred unity of all living systems as *a part of, not apart from* the biosphere that sustains us all. An ecology of mind that reflects the fundamentals and practices of indigenous peoples.

“I am thinking of cybernetics as a science and technical method enabling us to tackle practical problems that would otherwise defeat us by their complexity.
All these methods must start with the question ‘What do you want?’
The cybernetician’s thoughts must start here.” - Ross Ashby

I *want* to participate in creating responses to wicked problems in humane ways that embrace an ontology for enacting cybernetics. This requires a fundamental and often radical shift in our language and emotioning in my daily discourse, research and being.⁴

Circularity of Language

Change the language, change the thinking. Change the thinking, change the doing.
Change the doing, change the thinking. Change the thinking, change
epistemologies. Change the epistemologies, change the ontology.
Change the ontology, change the language, change the doing.
Change the doing, change the languaging.⁵

³ One possible cybernetic ontology suggests cybernetics is transdiscipline that generates a way of thinking about ways of thinking and explaining experience. Never Objective and always inclusive of the observer. Language is never trivial. Dynamics, change, and uncertainty are certain. Circularity is recursive and relational. It recognizes the interdependence of all living things as a *part of* our ecosystems that generate a mysterious sacred unity, reflecting an ecology of mind. It is a methodology for creating insights regarding radical ideas which require a curiosity and willingness to change one’s mind, one’s epistemology, ontology, and thus doing Praxis.

⁴ At the 1992 American Society for Cybernetics conference, Humberto Maturana declared that: [not all human relations are social relations](#). It depends on the emotioning, body dispositions, moment to moment to moment in which they emerge.

⁵ Networks of languaging generate of conversations, networks of conversations generate culture. Humberto Maturana, “Biology of Violence,” unpublished.- -

Inertia of Language

Some say that cybernetics has made little progress in generating alternative solutions. For example, [Stafford Beer](#) once stated that cyberneticians often use the term feedback in manners that don't fit what it was designed to describe. It doesn't enact cybernetics.

So how do we change the languaging so that we as cyberneticians speak it rather than it us, thus, opening spaces for a radical transformation of ideas to emerge. In other words, how do we retard the decay of cybernetic concepts we wish to conserve?

[Composing Radical Alternatives and the Retardation of Decay](#)

Avoidance

I consider *avoidance* a cybernetic technique for generating a radical shift in our languaging spaces.

I was introduced to avoidance as a cybernetic tool Herbert Brün at my first ASC conference in 1992. [Larry Richards](#) wrote a paper about it after attending the 2011 ASC conference. [Susan Parenti](#) performed it when accepting the Warren McCulloch Award for achievement. Parenti called it the Warren McCulloch award for avoidance. Avoidance.

Avoidance has become one of my favorite cybernetic techniques for creating the world I desire to be a part of - rather than - apart from. One I used a LOT when writing the book [The Bees' Needs](#) in which I intentionally avoided language that maintains an Occidental ontology, thus opening spaces for the emergence of an alternative worldview emerge. Such as when explaining honeybee behavior as a "sacred unity" rather than "super organism." Or that the Queen bee *appears* to function more like a mother than a queen.



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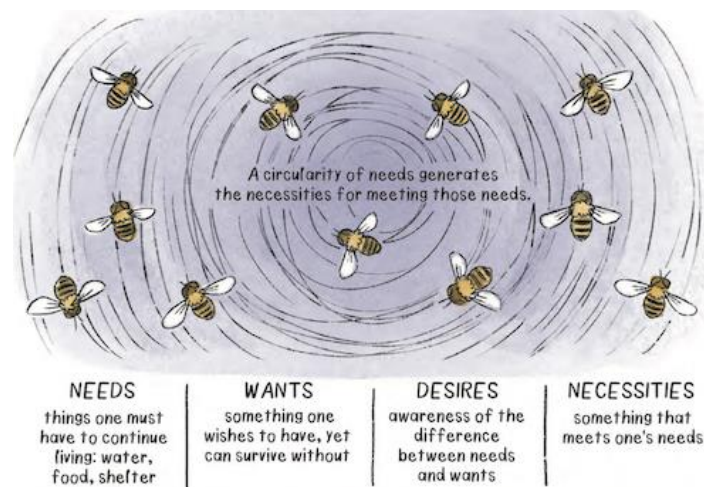
Telling Radical Stories can help

One means for enacting cybernetics for me, when writing the book [The Bees' Needs](#), was to intentionally *avoid* language that maintains a worldview, an ontology, that embraces separations, hierarchies, competition and violence as our natural ways of being. I found that in my intention to *avoid* certain language I opened space for the emergence of a cybernetic ontological for explaining honeybees emerged. For example, honeybees are often referred to as a “super organism” which, in my lexicon, negates their autopoietic, systemic natural ways of being. After reflecting and researching, I decided the term “sacred unity” made more sense. It fit, for me, epistemologically. While remembering that *any* explanation eliminates the dynamics of any moment and other natural possibilities.

Two possible Domains of Humanness: 1. the domain of experience - dynamics, the unexplainable; and 2. the domain of language – logics, rational thinking and explanations.

Circularity of Needs and their Necessities

Herbert Brün introduced me to the idea of a circularity of needs which includes a need for peace and the *necessities* for meeting *that* need. He suggested when peace is a need - not an achievement - a new language and languaging is more likely to emerge.



The concept of a “circularity of needs” also opens space for the emergence and articulation of the necessities for meeting a particular need. For example, in the book, the interviewer asks a honeybee: “What can humans do to help?” Her response: “First, learn about us and nature in general. Then learn the difference between what you need, what you want, and what you desire.”

I used the cybernetic technique of avoidance a LOT when writing [The Bees' Needs](#). I wanted to avoid the term “caste system,” so I wrote about “types of bees” in an effort to avoid a language nested in a hierarchical view that separates one type of Honeybee from another when all types are necessary for a healthy colony’s “sacred unity” to emerge.

Democracy is a way of living together, not a political theory.
Humberto Maturana

Thomas Seeley has spent 50 years researching Honeybees. In his book [Honeybee Democracy](#) he suggests that Honeybees function more like a democracy than an autocracy. A perspective I utilized a lot when choosing language describing honeybee behavior in my book. This also reflects my observations of the [bees that I steward](#).

A democracy is nested in equality whereas the traditional language for describing honeybee behavior is nested in hierarchies. For example, upon observation, the, so called Queen bee functions more like a mother than a queen. She spends her entire day laying eggs and fertilizes them all day long. Up to 2,000 eggs per day! Yes, the Workers bees fully care for the queen/mother, feeding her, as well as keep the hive at a certain temperature all year long. Protecting the hive and mother from intruders, as well as other activities necessary for maintaining a healthy colony. The worker bees also appear to decide which egg laid by the Mama is given a “special jelly,” traditionally known as the “royal jelly” which invites that embryo to transform into a mother/queen during the gestation processes.

A Circularity for Beeing

One day while working with the Honeybees hives at the apiary, I questioned my doing. Then it came to me, the best I can do is all I needed to do.

I discovered I am best -- in and out of the hives -- when living an ‘embodied presence’ while swimming in zero time. A sacred unity appears to emerge.

[Swimming in zero time](#)

Bee Well.

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