**Some notes re: how language formed to connect mind and nature.** By J L Henshaw

# General idea

The the proto indo-european language seems to have been composed of the very useful terms invented in regional language and then spread to others, many that became he roots, prefixes, and suffixes later combined as by the early Romans, to \*refer\* to the useful complex experiences and designs of life.

Those still seem healthy in current usage, while modern expressions using them often simply disard their meanings for subjecective styalistic expression. The antidote may be to ask what an unclearly used word refers to.

# Excerpts from recent papers

## 2023 10 Henshaw, J. L. – [Emergent Growth of System Self-Organization & Self-Control: Contextual system design, steering, and transformation](https://synapse9.com/pub/2023_sys-SelfOrg%26SelfControl.pdf). (Author copy) Systems Research and Behavioral Science. Cornell physics preprint archive: <https://arxiv.org/abs/2305.09837>

### Introduction p 1

hroughout our evolution, we learned from what was observable about the systems that mattered to us. We found languages to connect our meanings with what we noticed, saw, felt, and heard (Henshaw 2022a). Growth gave us both our own lives and the wealth of nature, our good relationships, societies, and even the great conflicts and crises that beset us, all by continuities of cumulative design for building internal structures by capturing external resources observable from the outside but internally self-referential and so rather hidden from view. Ways of understanding these coupled external/external structures to make some sense of them are in the author’s earlier writings (Henshaw 1985, 1995, 1999, 2007, 2010, 2018, 2019, 2021, 2022) and, of course, also in everyone’s successful experience of living with them. Here the focus is on studying the natural designs produced by growth in context, keeping the requirements for energy continuity and conservation in mind.

## 2022 07 Henshaw, J. L. – [Holistic Natural Systems - Design & Steering](https://synapse9.com/_ISSS-22/HNS1-MS-Design%26Steering.pdf)**[:](https://synapse9.com/_ISSS-22/HNS1-MS-Design%26Steering.pdf)** [Guiding New Science for Transformation](https://synapse9.com/_ISSS-22/HNS1-MS-Design%26Steering.pdf). accepted for: *Journal of the International Society for the Systems Sciences* July 2022. For presentation Jul 9

### Introduction p4

The natural systems approach

That posture is what we take here, not only because natural systems are complex in so many ways and engage with others. It is also because so many seem more controlled from inside than out, like people and the weather. Each identifiable individual also seems to emerge from within the larger whole too. So it is impractical and likely misleading to devise “controlled experiments.” So finding what one *can* know requires extra clarity in observation and language. There is some precedent for this as a scientific method (Boulding, 1953, Goethe, 1996). Here we focus on reading the evolution of emerging system designs associated with their growth, as is what ultimately seems to power natural systems.

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Here we also start by recognizing that long ago, humans developed language as their first systems science. It was our way of recording important patterns, relationships, situations, experiences, identities, etc., and attaching our feelings and other meanings to share. A pair of the earliest now common words from the dawn of language are mother[[1]](#footnote-1) and father.[[2]](#footnote-2) They name roles in a family and society and identify the radical (at the time) new social unit and organization of the nuclear family. When that occurred is unclear, as it may have been before there were words for it. That two-syllable pair, *mo-ther,* and *fa-ther,* seem present in nearly every ancient language, though, along with the related *ma-ma* and *pa-pa*. There is a dispute about whether these nearly universal terms are shared from one language to another or come from the earliest sounds infants naturally make, which they do seem to.

## 2021 10 Henshaw, J. L. – [Understanding Nature’s Purpose in Starting all New Lives with Compound Growth: New Science for Individual Systems](https://synapse9.com/pub/2022_NewSysSci-IndividSys.pdf) Journal of the International Society for the Systems Sciences July 2021. + [Supplemental Topics](https://synapse9.com/_ISSS-21/ISSSJul11NewSci-IndividSys-supl.pdf), [Jul 11 Slide Set](https://synapse9.com/_ISSS-21/ISSSJul11NewSci-IndividSys-slides.pdf), and [Oct 2 Slide Set](https://synapse9.com/_ISSS-21/ISSSOct2NatGrowthConcept%26Process.pdf) with Videos of [Jul 11 Talk](https://www.youtube.com/watch?v=cH7RSXHLFUU), and [Oct 2 Talk](https://www.youtube.com/watch?v=0plSWMjnTHQ)

### From 3.1 Learning Nature’s Creative Process – p9

Common language terms are another source of information on meaningful experiences and attached contextual relationships as warm data. To retrieve some of it, one can think through the varied usage of any term to search through its associations. Take words like “book” or “breeze.” If you think of their uses, a rich variety of natural experiences and relationships comes to mind. Thinking about words that way helps one unpack the deep meanings of the cultural experiences we associate with our words and then the real meaning of terms for what is happening around us.

We also need the association of natural language with natural experiences for a special task. That is to help us distinguish things defined by nature from the perceptions of the world we define for ourselves. Just asking how what else you might learn about things helps with that. However, to use a potentially unscientific data source scientifically, we need a technique for testing our observations in exploratory ways to see what we can trust. There is more on that in §4.2

### From 5.2 Using Natural language

Natural language is a particularly rich source of meanings people have found for natural experiences throughout the ages, making it a great source of information on relationships. Of course, it is not always neutral but still an excellent source of warm data on many subjects. 22 Common old terms like “journey” and “home” tend to have especially rich associations. What helps bring them out is thinking of all the many variations of their use. Words that are easy to connect with root experiences are common words like cold, stick, fruit, wave. Other terms like confusion, congestion, practice, and anticipation also raise emotional reactions linked to common experience, exposing the taproot meanings if you look for them. Reconnecting with those root associations can clarify both basic issues addressed and help identify cultural meanings that have been added (Henshaw 2015). Fortunately, most natural language terms were coined to recall important natural events and experiences and retain those root associations. It makes language a rather faithful recording of what people found worth referring to, a kind of map of life one might learn to read. Because growth processes seem self-similar on every time and spatial scale, the meanings of familiar ones might expose meanings that apply to others, too, like how noticing that air currents develop by growth led to this general study.

## 2018 Henshaw, J. L. – [Systems-thinking for Systems-making: Joining systems thought and action](https://rdcu.be/LdlR). in Systemic Practice and Action Research, 32(1), 63-91, DOI: 10.1007/s11213-018-9450-2, [Author's PDF](http://synapse9.com/pub/2018_SysThinkingForSysMaking.pdf)

### From “**Rosen’s Model of the Sciences**” p 67

The theoretical biologist Robert Rosen (1991) developed a very useful model for understanding how science works, portraying science as studying patterns of nature to translate into formal scientific language. In Figure 1 Rosen’s original diagram is at the bottom right, showing the “formal system” as involved in “encoding” natural patterns and then “decoding” the formal language into physical effects again, as a general model of ST for SM for the sciences.

In Figure 1, I’m also suggesting how the model can be generalized to include “other cultures” too, each developing its separate language for working with nature and its methods of ST for SM. Type A is for sciences like physics and other theory centered cultures. Type B is for cultures that develop around accumulated experience and improvised practices, like anthropology or archeology, architecture and other professional cultures as well as the societal cultures. Cultures that develop their separate languages for nature this way find themselves with no ready way to communicate, of course, making each its own ‘silo’ and different paradigm for relating to nature.

## 2015 Henshaw, J. L. – Guiding Patterns of Naturally Occurring Design: Elements. [PURPLSOC 2015 proceedings](http://www.purplsoc.org/wp-content/uploads/2016/11/PURPLSOC_book2.pdf), July 3-5 2015 Krems, Austria. ISBN 9-646-73066; online [2019 Edit PDF](https://synapse9.com/pub/2019Henshaw-GuidingPatterns%27Elements%27.pdf), [Reference Directory](http://synapse9.com/_PLref/)

### From: 4. Repositories for Natural Patterns

#### 4.1 Cultures as Stores of Natural Patterns - p26

#### 4.2 Natural Language as a Store of Patterns – p27

If you think about where natural language came from, it becomes obvious that what words are for is connection our cultural meanings with the natural design patterns of the world we live in. Nouns, verbs and adjectives may have many related meanings, but generally as aspects of the natural design patterns we use them to refer to. We only need to explore their “contexts”, “problems”, and the “forces” their meanings bring into balance, to represent a “whole solution” for, to expand their familiar pattern language format for defining versatile whole patterns of design. It take searching for how to do it at first, of course, we start from being accustomed to using words for the intuitive meanings that come to us automatically, not thought of as conveying a balance of natural forces in an environment.

## 2015 Henshaw, J. L. – [Guiding Patterns of Naturally Occurring Design, Mining Living Quality](http://hillside.net/plop/2015/papers/proceedings/papers/henshaw.pdf), PLoP 2015 proceedings. Oct 22-25 Pittsburgh. ISBN: 978-1-941652-03-9 [2019 Edit PDF](https://synapse9.com/pub/2019Henshaw-GuidingPatterns%27MiningLivingQuality%27.pdf), [Reference Directory](http://synapse9.com/_PLref/)

### From: 5.4 Natural Language p28

Perhaps our deepest and richest repository of natural design patterns, is our own natural language. Words refer to the things of life we engage with and talk about. Our cultural associations with the words originated from those life experiences, our common words having extremely ancient roots, carried forward for thousands of years. Their meanings are continually being refreshed with new experience too. Our common words very often actually directly name the recurrent natural patterns of relationships we thought were important enough to name and attach our values to, and with the impact of words like “storm” or “mine” or “heavy”. So our great familiarity with language is at the same time a great familiarity with our ancient experiences. By both naming the thing and conveying the associated values, the package of understanding of the world that comes with words can also be mined for more of the particulars of the natural patterns of relationships referred to as what we experience, a repository of designs one already knows a good bit about.

Modern people seem to have less need for understanding where the meanings of our words might have come from, of course. Our world is changing again, and requiring us to rapidly expand our understanding of how to relate to nature again, after a long period when it might have seemed we were increasingly in control. So the way language refers back to its roots in recurrent natural patterns of design will likely find fresh new use for us. It’ll enable us to become more knowledgeable designers, and be more aware of the important differences in relationships that give a world the living quality our work and designs both need.

# Youtube talks

## [Blindness To Systems That Matter](https://www.youtube.com/watch?v=yG7YAFcE3So&t=27s) – 52 views, 30 min

Where some collective misunderstandings developed

## [What Observation Naturally Cannot See](https://www.youtube.com/watch?v=8OXkM-PoA0w&t=6s) ― 51 views, 77 min

## [the Natural Growth Path - a plan to change plans](https://www.youtube.com/watch?v=lmoHmg_wNP4&t=1520s) ―103 views, [54 min](https://www.youtube.com/watch?v=cJztmUSUwnw&t=33s)

## [The Surprising Design & Steering of Whole Systems](https://www.youtube.com/watch?v=cJztmUSUwnw&t=33s) ―34 views, [47 min](https://www.youtube.com/watch?v=Xd3aLWMztR0&t=1s)

## [Language as a knowledge tree for systems \*in context\*](https://www.youtube.com/watch?v=Xd3aLWMztR0&t=1s) ― 120 views, 42 min

# Mentions on Reading Nature’s signals (research site)

* Below are links to mentions of “Language,” 1st page of10 reserch notes using search term <https://synapse9.com/signals/?s=Language>

## [At Purplsoc, Then At Plop: Pattern Language For Object-Oriented Science](https://synapse9.com/signals/pattern-language-for-object-oriented-science-at-purplsoc/)

The distinct possibility is that, for the first time: Science might soon be able to study all the objects of nature, in their innate form not just the models we make based on what data is available. In-depth Pattern Language Research “Guiding patterns of naturally occurring design” 1) For PURPLSOC 2015: on “Elements” (final for publication) … [Continue reading at PURPLSOC, then at PLoP: Pattern Language for Object-Oriented Science→](https://synapse9.com/signals/pattern-language-for-object-oriented-science-at-purplsoc/)

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## [SO WHAT’S PATTERN LANGUAGE? MINING DESIGN PATTERNS FROM NATURE.](https://synapse9.com/signals/whats-pattern-language/)

[MAY 6, 2015](https://synapse9.com/signals/whats-pattern-language/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/whats-pattern-language/#respond)

This is a good introductory description, excerpted from an email, w/ a little edit. The abstract and link are for a paper on “Guiding Patterns of Natural Design:Mining Living Quality” for an upcoming Pattern Language of Programming conference. Oh, it’s sort of magic.. the hope of course: is that this emergence of a sound new … [Continue reading So What’s Pattern Language? Mining design patterns from nature.→](https://synapse9.com/signals/whats-pattern-language/)

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## [NATURAL PATTERN LANGUAGES](https://synapse9.com/signals/natural-pattern-languages/)

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key organizational elements for the working relationships of complex systems ideas of complex relationships that fit the reality We care because of the new bridge it creates between human ideas and the working organization of complex working systems we make, use and need to respond to of all kinds, an emerging broad advance in understanding complex system organization design. The idea of pattern language, invented by Christopher … [Continue reading Natural Pattern Languages→](https://synapse9.com/signals/natural-pattern-languages/)

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## [CAN SCIENCE LEARN TO READ “PATTERN LANGUAGE”…?](https://synapse9.com/signals/can-science-learn-to-read-pattern-languages/)

[NOVEMBER 16, 2014](https://synapse9.com/signals/can-science-learn-to-read-pattern-languages/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/can-science-learn-to-read-pattern-languages/#respond)

This post is a section of my report titled “Approaching 30 days from the 40th Anniversary” on attending the quite exciting 2012 40th Anniversary meeting on the Meadows and Randers authored Club of Rome “Limits to Growth” study. The excerpt is on the deep reasons why the science, as solid as it still seems … [Continue reading Can science learn to read “pattern language”…?→](https://synapse9.com/signals/can-science-learn-to-read-pattern-languages/)

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## [CONNECTING SOCIAL LANGUAGE TO NATURE’S PROCESS LANGUAGE](https://synapse9.com/signals/connecting-social-language-to-natures-process-language/)

[FEBRUARY 6, 2013](https://synapse9.com/signals/connecting-social-language-to-natures-process-language/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/connecting-social-language-to-natures-process-language/#respond)

Helene and Steven had raised the need to include finance in the narrative of “the commons” and Myra had said about my reply “Jessie, This is your clearest writing by far on the new financial commons. ” … so I hope it’s of use here. (The discussion was part of a follow-up to a CAUN … [Continue reading connecting social language to nature’s process language→](https://synapse9.com/signals/connecting-social-language-to-natures-process-language/)

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## [MINING CELLS OF NATURAL LANGUAGE (FOR SEMANTIC ONTOLOGY)](https://synapse9.com/signals/natural-language-ontology/)

[AUGUST 23, 2012](https://synapse9.com/signals/natural-language-ontology/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/natural-language-ontology/#respond)

This is a brief but relevant comment, from my Systems Thinking World discussions, points out a way the efforts by Goggle and others, to mine “meaning” from of the massive quantities of semantic data now available, is missing a golden opportunity. There are a variety of ways to use the natural structures of languages as … [Continue reading Mining cells of natural language (for semantic ontology)→](https://synapse9.com/signals/natural-language-ontology/)

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## [KEYS FOR READING THE WORLD SYSTEMS CRISIS](https://synapse9.com/signals/keys-for-reading-the-world-systems-crisis/)

[MARCH 31, 2023](https://synapse9.com/signals/keys-for-reading-the-world-systems-crisis/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/keys-for-reading-the-world-systems-crisis/#respond)

It seems extraordinary that given 50 years of rapidly rising signs of deep trouble for humanity’s assumptions about life, we seem to be reinforcing our efforts to make them work, when they are clearly not. That’s absolutely the wrong thing to do. Einstein is often quoted saying “No problem can be solved from the same … [Continue reading Keys for reading the world systems crisis→](https://synapse9.com/signals/keys-for-reading-the-world-systems-crisis/)

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## [NOTE TO REGENPOLLINATION](https://synapse9.com/signals/note-to-regenpollination/)

[SEPTEMBER 21, 2022](https://synapse9.com/signals/note-to-regenpollination/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/note-to-regenpollination/#respond)

ALERT – ambitious regeneration … faces rapid global decline! Lauren, I’ve been active in the movements for decades but have been unsuccessful in pointing out how we should address the symptoms AND the causes of rapid global sustainability decline. That has not been happening at all, though. While trying to heal the world, the UN, … [Continue reading Note to RegenPollination→](https://synapse9.com/signals/note-to-regenpollination/)

[**OUR WORLD PREDICAMENT**](https://synapse9.com/signals/tag/our-world-predicament/)[**THE WEAK POINT IN THE SYSTEM**](https://synapse9.com/signals/tag/the-weak-point-in-the-system/)

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## [WHO IS IT THAT IS REALLY FEELING THE PAIN?](https://synapse9.com/signals/who-is-really-feeling-the-pain/)

[JUNE 19, 2022](https://synapse9.com/signals/who-is-really-feeling-the-pain/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [LEAVE A COMMENT](https://synapse9.com/signals/who-is-really-feeling-the-pain/#respond)

Here’s an interesting one… in two charts. It may be the backstory to the imminent we all feel, that there seems to be a hidden center of pain being felt in some communities. One chart is of the rapidly increasing use of some very common terms for personal despair, measured by their frequency in English … [Continue reading Who IS it that is really feeling the pain?→](https://synapse9.com/signals/who-is-really-feeling-the-pain/)

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## [A GUIDE TO NATURE’S GROWTH CRISIS THRUTOPIA!](https://synapse9.com/signals/useful-guide-to-natures-main-crisis-thrutopia/)

[MAY 4, 2022](https://synapse9.com/signals/useful-guide-to-natures-main-crisis-thrutopia/) [MOTHERNATURE](https://synapse9.com/signals/author/mothernature/) [2 COMMENTS](https://synapse9.com/signals/useful-guide-to-natures-main-crisis-thrutopia/#comments)

Nature has one primary strategy for carrying emerging new systems through a whole system growth crisis such as our civilization faces at present. A growth crisis comes naturally for every growth system, as growth starts as a fixed design for multiplying the new system’s power runs into trouble.

1. Mother https://www.etymonline.com/search?q=mother [↑](#footnote-ref-1)
2. https://www.etymonline.com/search?q=father [↑](#footnote-ref-2)