

PSE as a Universal Principle of Wholeness: *A Systemic and Transcendental Inquiry*

Abstract. This essay advances the thesis that the Principle of Systematic Exclusion (PSE) constitutes a fundamental ontological condition for the emergence of form and a structured 'world'. Rather than interpreting exclusion as a derivative or secondary effect of natural system formation, we argue that PSE is the creative mechanism by which distinction, persistence, and coherence arise. Drawing on systems theory (Luhmann), formal logic (Spencer-Brown), evolutionary biology (Maturana, Varela, Hoffman), thermodynamics (Prigogine), and transcendental philosophy (Kant), we demonstrate that exclusion is operative at *every level* where order appears. Furthermore, we introduce the concept of the holo-Script — a historically contingent, self-referential model through which human beings render reality intelligible — creating their *world*. The holo-Script does not reflect *reality as such (out there)*, but constitutes a navigable world through active selection and systemic filtration. Ultimately, we contend that PSE underlies not only empirical (concrete) systems.

Keywords. Principle of Systematic Exclusion (PSE), wholeness, holism, systems ontology, holo-Script, ratio-linguistic frame, operational closure, cognitive filtration, noumenon, epistemic structure, form and boundary, evolutionary interface theory, metaphysics

I. Introduction: *Structure through Exclusion*

What does it mean for something to exist as a *form*? This essay explores the idea that *any* structured entity—be it a thought, an organism, or a universe—comes into being only by actively excluding *that which it is not*. We call this the *Principle of Systematic Exclusion* (PSE). Rather than treating exclusion as a byproduct of structural development, we consider it the creative mechanism behind all coherence, relevance, and persistent development.

This principle is not limited to concrete systems, logic or language; it manifests in systems theory, evolutionary biology, thermodynamics, and even metaphysics. Our central thesis is that PSE should be understood as a *universal* condition for the development of structure. And applicable even in domains beyond empirical reality, such as Kant's noumenon, speculative cognitive ontologies, etc.

A. Systems and Boundaries: The Logic of Distinction

In Niklas Luhmann's systems theory, a system exists by drawing a distinction between itself and its environment. This boundary is not peripheral but constitutive: without it, the system dissolves. Operational closure, not openness, defines system identity. The boundary is continuously reproduced by the system's own operations—what is not re-entered is systematically *excluded* [4].

This marks the first articulation of PSE in systems thinking: structure is not inclusive by nature but exclusionary. It is precisely this logic that allows a system to persist as a coherent unity.

B. Distinction as the Root of Form: *Spencer-Brown*

In *Laws of Form*, George Spencer-Brown formalizes this insight: form begins with a distinction. He states that *a universe comes into being when a space is severed or taken apart* [7]. The act of drawing a boundary is not only descriptive—it is generative. Without distinction, there is no observation, no differentiation, no *world*.

PSE appears here in its most fundamental role: not as elimination of content, but as a *precondition* for the emergence of form.

C. Biological Coupling and the Enacted World

Humberto Maturana and Francisco Varela's theory of *autopoiesis* shows how living systems persist through *structural coupling*—ongoing interaction with an environment shaped by the organism's own structural constraints [5]. Not all environmental input matters: only what is compatible with the organism's structure is 'registered'.

Thus, PSE acts biologically. The organism maintains its organization by ignoring or excluding perturbations that are irrelevant. Experience is not passive registration but active filtration.

D. Evolutionary Logic: Hoffman's *Fitness beats Truth*

Donald Hoffman's evolutionary interface theory -ITP- [1] offers a mathematical generalization of PSE. His simulations demonstrate that organisms do not evolve to see the world truthfully, but *to act effectively*. What appears is not what is, but what promotes survival. An organism that sees *all* of reality would not survive. "*This is the pitiless logic of natural selection .. it's all about fitness*" (1, p.25).

"Perceiving truth would drive our species extinct." (1, p.xiii)

Thus, PSE becomes an evolutionary necessity: the organism excludes vast swaths of reality to focus on fitness-relevant cues. What persists—what is selected—is precisely what excludes what does not contribute to continuation.

E. Thermodynamics and Dissipative Order

Ilya Prigogine's work on dissipative structures shows that *order* emerges in systems far from equilibrium by expelling entropy [6]. In thermodynamic terms, stability is achieved by *excluding* unstable states. Without a mechanism of selection and elimination, no complex order would persist. Structure is made possible *at the cost of entropy*.

PSE here operates as a physical filtration principle: only configurations that *manage* entropy -i.e. dissipating structures- survive.

F. Kant's Boundary of Experience

Kant argues that we only have access to phenomena—the appearances shaped by our cognitive faculties [2]. The noumenon marks the limit of possible experience, not an object we could grasp. This “boundary of thought” is a structural exclusion, not a simple lack of knowledge.

"The concept of a noumenon is .. a limiting concept." (Kant, CPR, B310)

Kant's transcendental turn aligns with PSE: experience is structured by what must be left out. The world-for-us is shaped by active, necessary exclusion.

A contemporary elaboration of this insight can be found in the work of *Bernardo Kastrup* [3] and *Donald Hoffman* [1], both of whom argue in line with Kant that reality-as-experienced arises from a process of structured omission or representational filtering.

As an educator, I have sought to *reframe* this often difficult-to-grasp insights in more accessible terms. To that end, I propose the following model: the *holo-Script*. I chose the term *holo-Script* to suggest both its comprehensive scope (*holo-*) and its enacted, symbolic nature (*-script*). A *ratio-linguistic frame*. It is meant to serve as a conceptual interface through which the process of exclusion gives rise to an intelligible, livable world.

II. The Holo-Script: A *Philosophical Model*

Motto: “*De wereld is de werkelijkheid niet.*” – Jan Mankes (1889–1930)

The elaboration above points the way toward a conceptual model that can serve as an interface for integrating the phenomenon of exclusion into a more comprehensive theoretical framework..

The model refers to the full structure through which humans interpret, model, and organize what presents itself to them. It is not *Reality* itself—the unfathomable, amorphous, noumenal substrate of existence—but rather a self-generated, human-scaled *world*: intelligible, ordered, communicable. A scaffold of signs, logic, narratives, categories, metaphors, and models that, together, form a coherent *map*. This map is what we often colloquially call “reality”, yet it remains fundamentally distinct from the *territory* it tries to represent (i.e. capital R-reality).

This distinction is crucial. The holo-Script is self-referential: it both arises from, and subsequently shapes the way we perceive the world. Every attempt to explain or model the world we live in relies on the very constructs—language, reason, time, identity—that the holo-Script already generates and provides. In this sense, the holo-Script is a tautological framework: it validates itself through its own internal coherence and utility, not through direct correspondence with an unknowable *external* truth (*'out there'*).

This is the world we live in, act upon, and share with others. It emerges through language, logic, cultural systems, and perceptual frames. It is the stage upon which life unfolds—but crucially, it is a *scripted* world, a rendered *interface*.

To make the territory—i.e. Reality—intelligible, humans impose patterns upon it—distinctions, metrics, boundaries. This is the essence of the holo-Script: a meta-raster, a structuring apparatus that overlays Reality in order to project a meaningful world from it.

Alan Watts offers a compelling metaphor. Picture a Rorschach inkblot: a chaotic, patternless shape [8]. By itself, it resists interpretation. Now imagine placing a grid over the blot—a coordinate system by which shapes and positions can be referenced. This grid does not exist in the inkblot; it is projected onto it *by the observer*. Yet without the grid, no systematic description would be possible. The grid creates the possibility of *meaning*. This is exactly what the holo-Script does: it imposes structure—*order*—upon chaos, and in doing so, generates a world we can live in, reason about, and predict.

As such, the grid does not reveal the reality of the inkblot; it constructs a way of speaking about it. The same is true for the holo-Script: it allows us to navigate and describe, not because it captures Reality, but because it provides an internally coherent mapping within our world. This means the holo-Script is inherently self-referential. It arises from within the world it constructs. Every attempt to understand or describe Reality must draw on the very categories, metaphors, and logical tools that the holo-Script provides.

This recursive structure imposes a fundamental epistemic limit: no observer can step outside the script to verify its fidelity against Reality itself.

Here, the Principle of Systematic Exclusion (PSE) becomes operative: *any* system that aims to describe the totality of *what is* must—by necessity—exclude its own conditions of possibility. The holo-Script can never encompass Reality, because its instruments of description are themselves

within the system—a truth echoed in Wittgenstein's Ladder [9], Gödel's incompleteness theorems, and in Heisenberg's principle that no act of measurement leaves the measured untouched.

As such, the holo-Script cannot model the unstructured substrate from which it emerges completely, because doing so would require a *meta-script*—which would, itself, fall back into the same trap of internal reference.

From a Kantian perspective, the holo-Script functions like the a priori categories of the understanding: *time*, *space*, *causality*. These do *not* reside in Reality but in the human faculty of cognition. But unlike Kant's fixed categories, the holo-Script is historically contingent. It *evolves* under cultural pressure, ecological necessity, and technological change.

Donald Hoffman's *fitness-over-truth* principle confirms this: we evolve perceptual systems not to reflect Reality -i.e. Nature-, but to survive within our world.

So the holo-Script is not an illusion—it is a functional fiction. It creates coherence, but always by way of exclusion. What it leaves out may be more important than what it includes. The Real—that which lies beyond all scripting—remains silent, undefined, unnameable, and yet profoundly directive.

Like a *dashboard in a cockpit* [3], or a *VR headset tuned to survival rather than truth* [ITP, 1], the holo-Script offers navigation—not revelation. Like a *strange* attractor [6], it draws the script's evolution toward certain contours without ever being fully representable within it.

In short, the holo-Script builds a *world*. But that world is not Reality (Mankes). It is a model: compelling, coherent—and necessarily incomplete. The script without which no coherent world could ever arise.

III. Conclusion: *Exclusion as Ontological Foundation*

From logic and language to biology, physics, and metaphysics, the same structure recurs: *nothing exists as a coherent form without exclusion*.

PSE is not a marginal idea. Across epistemic, biological, and metaphysical domains, PSE emerges as the silent precondition for intelligibility, coherence, and persistence across all levels of organization.

Exclusion gives rise to *boundaries*; boundaries define *form*; form enables the *scripting* of a coherent world. Without this structuring process, no world could appear. Only undifferentiated *chaos*.

We conclude that:

- Distinction is the root of form;
- Exclusion is the mechanism of persistence;
- PSE is a universal condition for structure, cognition, and metaphysical intelligibility.

Without exclusion, there is no boundary.

Without boundary, no form.

Without form, no script.

And, without script, *no world*—only *chaos*: the *undifferentiated* fullness of being, overwhelming & unspeakable, as it may have once appeared to the *pre-rational* mind.

HChJ Stolting, March 2025

Postscript: [*What We Leave Out \(my ambition; what I want to share\)*](#)

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