

Perspective Ontology and Dimensional Logic

An epistemological foundation

Abstract

The present work develops an ontological foundation for dimensional logic (Stegemann, 2025a) that goes beyond its formal architecture. The starting point is a critique of Kant's concept of the thing-in-itself, which is rejected as a substance-realistic stage metaphor. In its place is a perspectival entity ontology: each entity constitutes its world through its own structural properties; there is no reality transcendent beyond these constitutional achievements. This position is shown as an epistemic-ontological circle, which is not considered an error in thinking, but a constitutive feature of finite existence. Against this background, dimensional logic appears as a species-specific coordinate system of human world order, a system that explicitly formalizes its own perspectivity as a fourth dimension and is thus more consistent than systems that make a species-neutral claim to universality without naming their own point of view. The article situates this position in relation to Kant, Leibniz, Nietzsche, Uexküll, Maturana/Varela, Whitehead and Heidegger and elaborates on both kinship and decisive differences.

Keywords: Dimensional logic, perspectival ontology, thing-in-itself, epistemology, perspectival stage model, panrelationalism, circular structure, executive circles, species-specific cognition

1. Introduction: The Crisis of Thing-in-Itself Thinking

There is a stubborn intuition in philosophy that asserts itself despite all criticism: that behind what we perceive and think there is a reality that exists independently of us and to which our knowledge corresponds more or less adequately. Immanuel Kant condensed this intuition into a systematic concept in his Critique of Pure Reason (1781/1787), the thing in itself. What was intended as a critical turn against pre-critical dogmatism has produced a peculiar figure: a world behind the world, epistemologically necessary, but completely empty in terms of content.

The present work takes this figure as the starting point for a fundamental critique. It does not aim to refute Kant, but to expose the course that makes the thing in itself necessary in the first place, and to show that an alternative course is possible, one that does not reject the thing in itself in order to fall into naïve realism or subjectivism, but because it proves the stage metaphor on which it is based to be ontologically inadequate.

This alternative course is the perspective entity ontology. Its core idea is that each entity constitutes its world through its own properties and relations. There is no world behind the curtain of appearances, not because there is no reality, but because the metaphor of the curtain itself carries a substantial-realist presupposition that must be rejected. What does exist are entities in their respective world constitutions: neuronal, photonic, chemical, gravitational.

Dimensional logic (Stegemann, 2025a) is the formal correlate of this ontological position. It is not a universal system with a claim to cross-species validity, but a species-specific coordinate system of human world order, one that explicitly carries its own situatedness as a fourth dimension. As will be shown below, this self-positioning is where its epistemic added value lies.

2. Kant's legacy and its limits

2.1 The Structure of Transcendental Idealism

Kant's Copernican turn consists in reformulating the question of cognition: not how our faculty of cognition is governed by objects, but how objects are governed by our faculty of cognition (KrV B XVI). Space and time are not characteristics of a world independent of us, but forms of our perception; the categories of understanding, causality, substance, quantity, are not read from experience, but are brought to them.

The result is a strict dichotomy: phenomena on the one hand, things in themselves (noumena) on the other. The world of phenomena is ordered, causally structured, scientifically accessible, because we ourselves bring this order into it. The world of things in itself is completely separated from it: neither spatially nor temporally nor causally structured, in principle unrecognizable, but necessarily postulated as the transcendent ground of appearances.

This architecture has an undeniable strength: it makes possible at the same time a critique of knowledge (we only know appearances) and ontological realism (there is a reality independent of us). Kant can meet Hume without falling into skepticism, and he can meet Berkeley without falling back into uncritical realism.

2.2 The Affection Problem as a Structural Crack

Strength has its price. Jacobi (1787) already named it: "Without the presupposition [of things in themselves] I cannot enter into the system, with this presupposition I cannot remain in it." The so-called problem of affection shows that Kant needs things in themselves as the cause of our phenomena, for otherwise where would the manifold of intuition come from, which is only ordered by our forms of cognition? But causality, according to Kant itself, is a category that applies only in the realm of phenomena. He who asserts the things in themselves as the causes of phenomena applies a category which he has just declared to be inapplicable.

This problem is not a rendering error that a smarter wording could fix. It is a structural crack in Kantian architecture itself. Kant needs the thing-in-itself as the real ground of phenomena (otherwise his empirical realism would be empty) and in principle cannot say anything substantive about this ground, not even that it exists, without applying the categories he wants to block for it.

2.3 The Thing in Itself as a Stage Metaphor

Behind the problem of affection is a deeper ontological preliminary decision that is rarely made explicit: the idea of a "real stage" on which things stand in themselves, while appearances are, as it were, the backdrop that we hang in front of them. This stage metaphor presupposes that there is a

world as a finished object order, that is more or less accessible to knowing entities, and that our cognitive achievement consists in grasping or missing this given order.

It is precisely this premise that the perspective entity ontology rejects. Not because it considers a given world to be impossible, but because the question of such a world is empty beyond all constitutional achievements. What there is to recognize are always entities in their respective world constitution, and this constitution ontologically exhausts what is relevant.

3. Perspective Entity Ontology: Basics

3.1 The core thesis

The perspective entity ontology can be summarized in a basic thesis: Every entity understands the world from its relationship to it, constituted by the properties of the entity. There is no "apprehension" without a specific apprehension of, and this apprehension is always formed by the structure of the apprehensive entity. A neural system understands neuronally; a photon, if you will, photonic; a chemical reaction system.

"Grasping" here is not a psychological term that is limited to conscious cognition. It refers to the general ontological fact that each entity constitutes a world-for-it: a section and structure of relations formed by its own properties. In this sense, the understanding of the photon is ontologically equivalent to the understanding of the neuronal system, not in the sense of consciousness or intentionality, but in the sense of an entity-specific world constitution.

From panpsychist positions, such as those advocated by Strawson (2006) or Goff (2019), the perspective entity ontology is separated by a fundamental difference. Panpsychism presupposes experience or proto-phenomenal properties as intrinsic features of all matter in order to be able to explain the emergence of consciousness without having to derive it from nothing. Perspective entity ontology does not claim such a thing. The "world-for-itself" of the photon is not a graduated form of experience, but a purely structural-relational constitutive achievement: the photon is what it is in relation to the electromagnetic, gravitational and quantum statistical fields with which it enters into relation. There is no experience here, no proto-qualia, no inner glow. The ontologization of world constitution in non-living entities is therefore not a generalization of consciousness to all matter, but the consistent rejection of a special position of experience as an ontological basic category. D_1 — the level of phenomenal experience — is in dimensional logic an excellent, emergent stage of neural organization, not a universal substrate of all entities. It is precisely this difference that makes it possible to attribute a world-for-itself to the photon without attributing experience to it.

3.2 The elimination of the curtain

When each entity constitutes its world-for-it, there is no knowledge-transcendent world behind the curtain of appearances. This does not mean that there is no reality, on the contrary. It means that reality is not one, but many: each the world-for-this entity. The photonic world is real; the neural world is real; they are not appearances of an underlying "actual" world, but genuine ontological unfoldments of different entity perspectives.

Kant tried to save reality with the thing in itself by moving it beyond the limit of knowledge. The perspective entity ontology saves reality by multiplying it. There is no less reality without the thing in itself, there is more, namely as many unfoldments of reality as there are entity types.

3.3 Ontology and epistemology as a unit

Another consequence of this position is the merging of ontology and epistemology. In the Kantian tradition, epistemology is the study of the conditions of possible knowledge, ontology the study of being. Kant keeps the two separate: the ontology of the thing-in-itself is separated from the epistemology of appearances.

In perspective entity ontology, both coincide: how an entity constitutes the world is at the same time as it is. The structure of knowledge is the structure of being, not in the sense of an idealistic identity thinking that dissolves being into thinking, but in the sense of a constitutive unity of being and access to the world. The neuronal cognitive structure is not a window on a world independent of it; it is the way the world is for us.

4. The Circle as a Basic Ontological Structure

4.1 Compasses as a constitutive feature

An obvious objection to the perspective entity ontology is that it is itself a statement about all entities, i.e. a claim to universality that is incompatible with its own premises. Anyone who says that "every entity constitutes its world through its properties" formulates this from a certain entity perspective, the neuronal, species-specific, culturally situated, and yet claims to say something about all entities.

This objection strikes at a real tension, which does not have to be resolved by contradiction, but by explicit recognition of the circular structure. The circle is: We formulate a statement about all entities with the means that we are as a specific entity. This circle is not a logical error, but the ontological basic structure of finite existence in general. It cannot be circumvented, every attempt to circumvent it is carried out anew, because the attempt to circumvent it is also made with the means of one's own entity structure.

The decisive turn is not to treat the circle as a defect that needs to be remedied, but to name it for what it is: the condition of the possibility of existence and knowledge for finite entities in general. In this way, circularity becomes an ontological virtue, not an epistemological burden.

4.2 Biological and Ontological Circle Structure

This insight finds its strongest support in the theory of autopoiesis (Maturana & Varela, 1980). A living system produces the components that constitute it recursively out of itself. The boundary between system and environment is not predetermined, but is created and maintained by the system itself. Here, the circle is not a figure of thought, but a biological fact: life is the unity of production and the condition of production.

Perspective entity ontology generalizes this insight. Not only living systems, but all entities constitute their world-for-them through recursive self-referentiality: they are what they are in relation to what they relate to, and this relationship in turn constitutes what they are. The circular structure is not limited to biology, even though being alive is its most pronounced form.

The fact that we come into the world and go again, as the starting point of these reflections formulates, is the most elementary manifestation of this circle: we arise from world processes, constitute a world-for-us for the duration of our existence, and fall back into those world processes from which we emerged. Ontologically and epistemically, this cycle is the same.

4.3 Gödel and self-positioning

A formal analogy illuminates the structure of this position. Gödel's incompleteness theorem (1931) shows that a sufficiently powerful formal system contains statements that it cannot prove itself: it cannot internally secure its own completeness. The system cannot fully grasp itself from the inside, the view of one's own foundation always requires a richer meta-framework.

The perspective entity ontology is the constructive counterpart to this negative insight. It does not solve the problem by claiming to be complete, but by explicitly stating the point of view. The neuronal situatedness of dimensional logic is not a Gödelian defect, but its honest self-positioning. A frame of reference in the theory of relativity is not wrong because it is perspectival, it is complete as soon as it is given as a frame of reference. Dimensional logic is complete, not in the sense of seclusion, but in the sense of transparency about one's own situatedness.

4.4 The Executive Circle: Perspectivity of Philosophical Speech Itself

The three circular structures identified so far — the biological circle of autopoiesis, the epistemic-ontological circle of perspective constitution, and Gödel's self-referentiality of formal systems — have a common structural feature: they all describe a circularity that cannot escape the system it embodies from the outside. However, there is a fourth circle that lies at the level of the philosophical discourse itself and that has particular methodological relevance for the perspective entity ontology: the executive circle.

The executive circle refers to the fact that every philosophical statement about the structure of the world is itself a consummation within this structure. When the present text speaks of "entities", it momentarily sets an ontology — it needs the term in order to be able to point to what it is all about. If, in the next step, he turns to the constitutional relation or the execution, this momentary setting dissolves again. Language cannot emerge from itself: in the execution of the saying, it creates an ontology that brings it back into flow in further thought. This is not a defect in presentation that can be remedied by more precise formulations — it is the condition of philosophical speech in general.

In this context, structural realism is an instructive example of what happens when execution freezes into a construct. He appears with the claim to overcome substance realism: it is not things, but structures that are actually real; Relations take precedence over relata. This is a real step forward compared to naïve concepts of substance. But at the same time, the structure itself is elevated to the new ontological foundation — as that which exists permanently and independently of the execution of description. The flow, in which structures first appear as structures, disappears behind the construct. The fixation has merely changed its object: no longer substance, but structure — but the gesture of fixation itself remains the same. The prison circle makes visible that this step is not only

incomplete, but also conceals its own condition: "Structure" is also a narrative grip that is set in prison and that shows its limits as soon as one asks in which prison it itself appears.

This insight has a direct consequence for the handling of the term "entity" in perspective entity ontology. When the previous section or section 6.6 speaks of the "ontological reality of entities", this is not a substantial-realist claim — it is a narrative grip that works for the duration of its use, and whose limits become apparent as soon as one looks at the constitutional structure itself. The term "entity" is necessary in order to be able to name the starting point of the constitutional achievement; however, it is not intended to designate a substrate that exists independently of this service. It is, to borrow an expression from Vaihinger, a necessary fiction of execution — a concept that must be held for as long as it is needed, and that can be let go as soon as attention falls on the prison itself.

Thus, the perspective entity ontology differs from two obvious misunderstandings at the same time. In contrast to substance realism, it does not claim that entities exist as ready-made facts that only enter into relations in the second step. In the face of a consistent idealism of dissolution that suspends any concept of substance, it maintains that the circle of execution itself does not take place in the void: the constitutional relations presuppose poles that constitute each other — not as substrates, but as nodes of execution. The three circles — the biological, the epistemic-ontological and the discursive executive circle — are thus manifestations of a single basic structure on different levels: the impossibility of stepping out of one's own constitutional achievement and the possibility of making this explicit.

5. Intersubjectivity as a species-specific perspective

5.1 The temptation of intersubjectivism

A recurring strategy in philosophy is to use intersubjectivity as a way out of the problem of perspective. Wittgenstein (1953) shows that private languages are incoherent: meaning is constituted in language games that presuppose shared practices. Habermas (1981) develops a theory of communicative reason in which claims to validity become universalizable through discursive redemption. Apel (1973) constructs a transcendental pragmatics that finds an Archimedean basis for claims to validity in the ideal communicative community.

What all these approaches have in common is that they treat intersubjectivity as overcoming perspectivity: what is intersubjectively valid applies, if not absolutely, then at least beyond the individual perspective. Language, shared practice, discourse become instances that transcend the individual circle.

5.2 Intersubjectivity in the fourth dimension

Perspective entity ontology denies this elevation of intersubjectivity to an Archimedean instance. Intersubjectivity is itself a perspectival achievement, culture-specific, species-specific, structurally bound to the properties of the interacting entities. What we call human language is collective neurology: a species-specific coordination of world constitutions based on the common biological structure of the neural system. It transcends the individual perspective, but it does not transcend the species-specific one.

In the terminology of dimensional logic (Stegemann, 2025a), intersubjectivity thus falls into the fourth dimension D_4 : the level of paradigmatic, cultural and institutional embeddedness. D_4 does not mark the exit from perspective, but its collective condensation. Human intersubjectivity is the highest attainable level of the world order for us, but it is the highest attainable level for us, not for all entities.

Bee language is intersubjective, species-specific, based on specific modes of perception, complete within these modalities. Human language is intersubjective, based on neural structure and cultural tradition, complete for us. None of these intersubjectivities is the other, and none is higher in a species-neutral hierarchy.

5.3 Habermas and Apel: The overlooked species-specific basis

Habermas' transcendental-pragmatic claims to validity, truth, correctness, truthfulness, presuppose an ideal community of communication in which all rational beings can participate in principle. What appears to be a claim to inclusion (all rational beings, not just humans) conceals a species-specific basic assumption: that the relevant communication community consists of living beings with a certain form of rationality that is sufficiently similar to that of humans.

The question of whether a photon or a bee can participate in this community is not absurd, it reveals that the supposedly universal communication community is constructed species-specific from the outset. Perspective entity ontology makes this implicit constraint explicit and carries it openly into D_4 .

6. Relationships and differences

6.1 Leibniz: Perspectivity without Archimedean authority

Leibniz's *Monadologie* (1714) is the historically closest precursor of perspective entity ontology. Each monad reflects the entire world from its respective perspective, perspectivity here is not a lack of knowledge, but the positive substance of the entity. Each monad is a complete world perspective that is different from all others and yet corresponds with all others.

However, the difference to perspective entity ontology is fundamental. For Leibniz, God as an aperspectival instance guarantees the pre-established harmony between the monads: the perspectives do not coordinate through genuine interaction, but through divine predestination of their correspondence. God is the Archimedean authority that closes the circle of monadic perspectives from the outside (Leibniz, 1714, §§ 78-81).

The perspective entity ontology excludes this Archimedean instance. There is no outside of perspectives that coordinates them. Entities do not meet on a neutral stage of divine predestination, but in genuine interactions that are themselves constituted in perspective. What we call collision, reaction or interaction is always an encounter that is constituted by the entities involved in each case.

6.2 Nietzsche: Perspectivism without the Concept of the Subject

Nietzsche formulates perspectivism as an epistemological and ontological basic position: "There is only one perspectival seeing, only one perspectival 'cognition'" (Nietzsche, 1887, III, §12). Not only cognition, but being itself is structured in perspective; each unit of force constitutes the world out of its specific position of power.

The relationship with the perspective entity ontology is evident. The important difference, however, lies in the concept of the subject. Nietzsche tends to dissolve the concept of the subject as fiction, there are no entities, only power relations, interpretations, processes. Perspective entity ontology, on the other hand, adheres to entities as ontologically real constitutional points. Entities are not mere nodes of interpretation in a force field, but genuine constitutional centers with specific properties, even if these properties are themselves relationally constituted.

6.3 Uexküll: Environmental Theory as a Biological Forerunner

Jakob von Uexküll's Environmental Theory (1909, 1934) is the biological equivalent of perspective entity ontology. Every animal has its specific environment, constituted by its receptive organs and its effectors: the tick perceives heat, butyric acid and hair texture, which is its complete world, not a deficient section of a richer reality. Uexküll shows that the talk of a cross-species "objective" world is an abstraction that ignores the actual biological constitutions of the world.

The perspective entity ontology generalizes Uexküll's finding beyond biology: What is true for the tick also applies to the photon, the electron, the galaxy cluster, each entity has its specific "environment", constituted by its properties and relations. "Environment" in Uexküll's sense is not biologically limited, but ontologically general.

6.4 Whitehead: Internal Relations and the Difference of the Circular Structure

Whitehead's Process Philosophy (1929) shares with perspective entity ontology the basic idea that entities are not finished things, but constitutional processes. Each "actual entity" prehends the world from its specific location, physically and mentally, from quantum events to galaxies.

The important difference concerns the symmetry of the relations. In Whitehead, relations are asymmetric: B prehends A, but A does notprehend B retroactively. The relations are internal for B (constitutive for B), but external for A (A is not constituted by B). This asymmetry ensures the directionality of the process (Whitehead, 1929, Part II).

Perspective entity ontology, on the other hand, relies on a more symmetrical constitutional structure: entities constitute and are constituted. The circle is not the exception, but the rule, each entity is constituted by its relations, and these relations are themselves an expression of the properties of the entities involved.

6.5 Heidegger: Being in the world without the privilege of existence

Heidegger's concept of being-in-the-world (1927) hits an essential intuition of the perspectival entity ontology: Dasein does not enter the world from the outside, is not initially an inner subject that then

refers to external objects, but is always already in a world that does not regard it as an external observer, but in which it lives and acts.

Perspective entity ontology shares this critique of the subject-object schema, but denies the privilege of existence that characterizes Heidegger's analysis. For Heidegger, the constitution of the world is a specifically existential achievement, bound to the existential structure of Dasein, the question of being is actually only accessible to Dasein. Other entities are "worldless" (the beast) or "worldless" (the stone).

The perspective entity ontology contests this hierarchy. There is no worldless entity, each entity has its world-for-it, constituted by its characteristics. The stone is not worldless; he has his "world" of gravitational, electromagnetic and nuclear power relations. This world cannot be experienced by us, but that does not make it non-existent.

6.6 Radical Constructivism: Agnosticism versus Entity Ontology

Ernst von Glasersfeld's radical constructivism (1995) shares with the perspective entity ontology the basic conviction that knowledge is not a depiction of an independent reality. According to Glasersfeld, knowledge can only be "viable" — functional in relation to experience — not true in the sense of a correspondence with the outside world. Radical constructivism deliberately remains agnostic with regard to ontology: it makes no statement about what exists beyond the cognitive construction or whether this question makes sense at all.

Perspective entity ontology takes a different approach here. It does not limit itself to an epistemological diagnosis of cognitive constructiveness, but ascribes an ontological reality to the entities. The stone is real; its gravitational and electromagnetic relations are real; what is missing is not reality, but the species-neutral stage behind it. Thus, this position is constructivist in its attitude of cognition, but realistic in its ontology — a combination that radical constructivism systematically avoids, but which is indispensable for dimensional logic: for entities that constitute formally different worlds must be assumed to be ontologically real in order not to fall back into an epistemological idealistic attempt at dissolution that eliminates the very substrate to be explained.

7. Dimensional logic as a formal correlate

7.1 From ontological findings to formal structure

The perspective entity ontology has an immediate formal consequence: a logic that describes human world order must make the epistemic levels of this world order explicit. It cannot pretend that it operates on a species-neutral, perspective-free level. This is exactly what dimensional logic does (Stegemann, 2025a).

The four dimensions D_1 to D_4 are not arbitrarily chosen, but reflect the ontologically excellent levels of human world constitution:

D_1 captures the immediate perception of difference, the phenomenal experience that precedes the propositional structure. This dimension corresponds to the narrowest layer of the entity perspective: direct contact with the world, unadulterated by conceptual order.

D₂ is the level of classical logic and formal structure, the understanding through concepts, relations, derivations. This is where classical predicate logic has been operating since Frege (1879). It is the most productive level of scientific knowledge, but also the level at which it is most often forgotten that it is one of four.

D₃ adds reflexive metacognition: thinking about one's own thinking, the theory of mind, the mutual modeling of perspectives. Here, the perspectivity of knowledge itself becomes the object.

D₄ integrates the contextual-paradigmatic embeddedness: the historical, cultural, institutional situatedness of all cognitive processes. Here it becomes visible what operates in D₁ to D₃ as a self-evident background. And here, in the terminology of the perspectival entity ontology, also lies intersubjectivity: as a species-specific collective perspective that expands the individual circle but does not transcend it.

In order to describe the dimensional structure not only taxonomically, an example is sketched that marks the transition from D₁ to D₂. Pain first appears in D₁: as an immediate phenomenal experience for which there is no propositional equivalent. The step after D₂ consists in the introduction of the predicate "nociceptor activation(x, t)": a systematic description in neuronal function terms that can be verified by third parties. This transition is not a loss of precision, but a dimensional transition — formally marked by a transition operator T₁₂, which records what information is retained (temporal index, localizability, functional causal role) and which the transition does not transfer: the phenomenal quality itself, the "how it feels". A dimensional error would exist if the D₂ predicate were treated as a complete description of the D₁ phenomenon. Dimensional logic formalizes this distinction precisely; for the complete architecture of the transition operators, please refer to Stegemann (2025a).

7.2 The fourth dimension as a relativistic meta-level

The analogy to the theory of relativity is instructive for the understanding of D₄. Einstein has shown that physical laws do not apply absolutely, but must be formulated relative to reference frames, and that the Lorentz transformation describes invariant quantities that are conserved across reference frame changes. Relativity does not mean arbitrariness, but explicit specification of the frame of reference as a condition of physical statements.

D₄ of dimensional logic is the level at which the frame of reference of human world order is made explicit. A statement in D₄ is no less binding than a statement in D₂, it is more complete because it carries its own situatedness with it. Just as a physical law is more complete if it explicitly states its scope (low velocities, macroscopic scale, etc.), a logical statement is more complete if it shows the epistemic dimension in which it operates.

Dimensional logic thus makes explicit what classical logic implicitly presupposes: namely, that its statements operate on D₂, with the claim to apply to all sufficiently similar cognitive systems. This claim is legitimate, but it is species-specific, not universal. D₄ marks this species-specificity as a formal element, not as an exception.

7.3 Category Errors as Dimension Violations

One of the most precise contributions of dimensional logic to philosophical analysis is the formal treatment of category errors (Ryle, 1949). A category error occurs when terms or statements are

transferred from one dimension to another without reflection, for example, when phenomenal terms (D_1) such as pain or redness are equated with systematic terms (D_2) such as neuron fires without formally marking the transition.

From the perspective of perspective entity ontology, such errors are not only logically inadmissible, but ontologically misguided: they treat the world as if there were a single level of description on which all phenomena find their appropriate place. Dimensional logic formally refutes this: Different modes of validity are not reducible to each other, but require explicit transition operators that quantify the loss or gain of information during the level transition.

This insight has consequences far beyond logic. From this perspective, the so-called hard problem of consciousness (Chalmers, 1995) is not a metaphysical puzzle, but a systematic dimensional error: the question of how subjective experience (D_1) arises from neuronal processes (D_2) presupposes that these two levels belong to a common level of description on which they must be causally connected. The dimensional logic shows that this is an inadmissible transfer, not a solution to the problem, but its solution by correct dimension marking.

8. Stage realism and panrelationalism

8.1 Two levels of description, no contradiction

Perspective entity ontology works with a perspective stage model and is at the same time panrelational — but on different levels of description, not as competing theses.

At the level of D_2 , the model operates with a level structure: The levels D_1 to D_4 are irreducible to each other and each has genuine descriptive relevance. D_1 experience is not the same as D_2 systematics; D_3 reflexivity is not the same as D_4 contextualization. Within this framework, the grading is binding — but only because it appears to be so on this level of description. It is a perspective step-by-step model, not a discovery of a graded world.

Viewed from D_4 , what becomes visible is what remains invisible on D_2 : that the step structure itself is a species-specific construct — perspectively situated, neuronally generated, not privileged over other possible orders. The decision to divide the constitution of the world into four epistemic dimensions is not a depiction of a species-neutral order, but an achievement of neuronal world order, which is recognizable as such on D_4 . Anyone who fixes the step-by-step model as ontologically final beyond this insight performs the same fixation gesture against which the entire argument of the perspective entity ontology is directed: he freezes the execution.

This is not an inconsistency, but a level distinction that knows precise analogous structures in other areas. Within Euclidean geometry, the theorems of Pythagoras and Euclid are fully binding — and yet Euclidean geometry is one possible among several whose validity depends on the axiomatic basis chosen. Within the system, the perspective stage model applies; panrelationalism applies to the system as a whole.

8.2 The Invariance Question

In the theory of relativity, the decisive achievement is not the relativization of measurement results, but the identification of invariant quantities: speed of light, proper time, four-momentum, quantities

that are preserved despite a change of reference system. The Lorentz transformation is the formal instrument that makes these invariances calculable.

What are the invariants of perspective entity ontology? What remains when you switch from the neural perspective to the photonic perspective, if such a change were even possible?

The answer is: the circular structure itself. What all entity perspectives have in common, and what we as a species-specific entity cannot verify from the outside, but can identify as the most coherent ordering principle, is the structure of the perspectival constitution as such: that each entity constitutes a world-for-it, through its properties, in a circle of self-referentiality. This structure description is our neuronal projection onto all entities, but it is the projection that is least anthropomorphic, because it explicitly includes the otherness of other entity perspectives (the photonic is "not understandable at all" for us).

This identification is not itself an aperspectival discovery. It is the most coherent projection that a neural system can make on the overall horizon of its experience — and the system knows this. Thus, the circular structure as an invariant has the status of a necessary ordering principle in the sense of *Vaihinger's as-if philosophy* (1911): not a statement that could be verified from the outside, but one that must be made so that the system can speak coherently about itself and about other entities. Coherence is its only but sufficient proof — and the fact that every attempt to contest the circular structure performatively carries out the same structure does not give it certainty, but inevitability.

8.3 Regulated hypothesis instead of universality claim

The perspective entity ontology does not claim aperspectival validity. The statement "every entity constitutes its world through its properties" is a regulated hypothesis in the sense of *Carnap* (1950): an ordering principle that we bring to experience because it gives the most coherent picture, not because we have verified it from the outside. This dissolves the last trace of a concealed claim to universality.

This is the precise point at which the perspective entity ontology is more consistent than *Kant*: *Kant* asserts the universal validity of his forms of cognition for all rational beings, without naming the species-specific basis of this assertion. The perspective entity ontology explicitly marks one's own species-specificity, not as an admission of weakness, but as epistemic honesty.

9. Conclusion: Self-positioning as an epistemic virtue

The history of philosophy knows many systems that make claims to universality without stating one's own point of view. *Kant's* transcendental subjectivity claims to describe the conditions of possible experience for all rational beings, without asking whether the structure of this subjectivity could be species-specific. *Habermas's* communicative reason claims Archimedean validity for a community that is tailored to human standards from the outset. Even *Whitehead's* process philosophy, which dissolves everything into constitutional processes, presupposes a process structure that is supposed to apply universally.

The perspective entity ontology counters these claims with a different epistemic attitude: explicit self-positioning. We formulate a logic of the human world order; this logic operates neurally, culturally,

linguistically situated; it claims obligation for us, not for all entities; and it explicitly enters this situatedness as a fourth dimension into its formal system.

This self-positioning is not a capitulation to relativism. It is the opposite: the most precise form of objectivity possible for finite entities. Objectivity does not mean not having a point of view; it means to fully state one's point of view. A frame of reference that states its point of view is more objective than one that pretends to have none.

Dimensional logic (Stegemann, 2025a) is the formal implementation of this epistemic attitude. It preserves the strengths of classical logic within D_2 , expands them with reflexive and contextual dimensions, and marks the limit of its own species-specific validity in D_4 . Thus, it is not only a contribution to formal logic, but, in the light of the present foundation, an expression of a consistently perspectival ontology that resolves Kant's problem of affectation, restores the implicit species-specificity of the intersubjectivists, and demonstrates the universalists' concealed self-positioning.

A species-specific coordinate system with explicitly marked boundaries is no weaker than a system that pretends to have none. It's the only one that's honest.

Bibliography

- Apel, K.-O. (1973). *Transformation of Philosophy* (2 vols.). Frankfurt am Main: Suhrkamp.
- Carnap, R. (1950). Empiricism, semantics, and ontology. *Revue Internationale de Philosophie*, 4(11), 20–40.
- Chalmers, D. J. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2(3), 200–219.
- Foucault, M. (1969). *L'archéologie du savoir*. Paris: Gallimard. [Eng.: *Archaeology of Knowledge*. Frankfurt am Main: Suhrkamp, 1973.]
- Frege, G. (1879). *Begriffsschrift*. Halle: Nebert.
- Gödel, K. (1931). On formally undecidable sentences of the Principia Mathematica and related systems I. *Monatshefte für Mathematik und Physik*, 38, 173–198.
- Habermas, J. (1981). *Theorie des kommunikativen Handelns* (2 vols.). Frankfurt am Main: Suhrkamp.

- Heidegger, M. (1927). Being and Time. Halle: Niemeyer. [Tübingen: Niemeyer, 17th ed. 1993.]
- Jacobi, F. H. (1787). David Hume on faith, or idealism and realism. Breslau: Löwe.
- Kant, I. (1781/1787). Critique of Pure Reason. Riga: Hartknoch. [Quoted from: Academy Edition, Vol. III/IV.]
- Kuhn, T. S. (1962). The Structure of Scientific Revolutions. Chicago: University of Chicago Press. [Dt.: Die Struktur wissenschaftlicher Revolutionen. Frankfurt am Main: Suhrkamp, 1967.]
- Leibniz, G. W. (1714). Monadology. [German translation in: Philosophische Werke, vol. II. Hamburg: Meiner, 1996.]
- Maturana, H. R., & Varela, F. J. (1980). Autopoiesis and Cognition: The Realization of the Living. Dordrecht: Reidel.
- Nietzsche, F. (1887). Zur Genealogie der Moral. Leipzig: Naumann. [Quoted from: Kritische Studienausgabe, vol. 5. Munich: DTV/de Gruyter, 1988.]
- Ryle, G. (1949). The Concept of Mind. London: Hutchinson. [Eng.: The Concept of Spirit. Stuttgart: Reclam, 1969.]
- Glasersfeld, E. v. (1995). Radical Constructivism: A Way of Knowing and Learning. London: Falmer Press.
- Goff, P. (2019). Galileo's Error: Foundations for a New Science of Mind. New York: Pantheon Books.
- Strawson, G. (2006). Realistic monism: Why physicalism entails panpsychism. Journal of Consciousness Studies, 13(10–11), 3–31.
- Vaihinger, H. (1911). The philosophy of as if. Berlin: Reuther & Reichard.

- Stegemann, W. (2026). Dimensional Logic as a Formal Inference System. Zenodo Preprint. <https://doi.org/10.5281/zenodo.18201447>
- Stegemann, W. (2025). Dimensional Logic - Basics, Structure and Applications. Zenodo Preprint. <https://doi.org/10.5281/zenodo.15511379>
- Uexküll, J. v. (1909). Environment and Inner World of Animals. Berlin: Springer.
- Uexküll, J. v. (1934). Wanderings through the environments of animals and humans. Berlin: Springer. [Repr. Frankfurt am Main: Fischer, 1970.]
- Whitehead, A. N. (1929). Process and Reality: An Essay in Cosmology. New York: Macmillan. [Eng.: Prozeß und Realität. Frankfurt am Main: Suhrkamp, 1979.]
- Wittgenstein, L. (1953). Philosophical Investigations. Oxford: Blackwell. [Eng.: Philosophische Untersuchungen. Frankfurt am Main: Suhrkamp, 1971.]