

Marcel Chelba

**On the Certainty of Uncertainty
and Kantian Stereoperspectival Epistemology**

(Chat with ChatGPT)

Second edition



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Argument

I wanted to see how ChatGPT manages its own **informational limits** and I was amazed how well it "intuited" where I wanted to go with my questions. That's why I felt compelled to immediately publish this Chat, which seems to me to be of paramount importance for contemporary philosophy.

Premises of the Chat

Kant himself says in the very first sentence of the Preface to the first edition of the *Critique of Pure Reason*:

"Human reason has in a genre of its knowledge the peculiar fate of being overwhelmed by questions which it cannot avoid, because they are imposed upon it by the nature of reason itself, but which it cannot answer, because they are beyond the capacity of human reason." (A VII, translation of DeepL)

In other words, **reason must be able to ask questions that it cannot answer**, precisely so that it can **determine (know) its own limits and exercise its role as arbiter of knowledge without falling prey to illusions**.

Metaphysics, in Kant's view, is the science of its own limits.

The only certainties of metaphysics are in fact its own uncertainties.

Metaphysics is an eminently apophatic science.

Metaphysics cannot be a positive science, because its objects are not in front of our eyes, but behind them, not in front of our measuring devices, but right inside them.

In metaphysics the object to be known and the subject of knowing are one and the same.

As in quantum mechanics, in metaphysics the object and subject of knowledge are entangled; the phenomenon that is the object of knowledge is not something external and independent of the agent of knowledge. In fact, the phenomenon that is the object of knowledge is the very act of knowing (measuring).

Metaphysics is a *self-referential science*.

These are the central theses of my book: *Critical Introduction. On the Possibility of Metaphysics as a Science in the Perspective of Kantian Critical Philosophy* (2004), written in Romanian as an Introduction to my **doctoral thesis** (unfinished) and not yet translated into any other language.

ChatGPT "intuited" very well in this discussion the **need for "another science" that would be responsible for the limits of empirical sciences.**

Well, this "**other science**" (*the science of the structural limits of science*) is precisely **Metaphysics**, in Kant's sense.

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After Kant, the Romanian philosopher **Marius Dumitrescu's book "Descartes: sub certitudinile îndoielii/ Descartes: under the certainty of doubt"** (A92 Publishing House, Iași, 1996), was for me a confirmation that I am on the right track in my epistemological reflections.

Ten years earlier, in 1986, I was in my final year of study at the Faculty of Physics at the University of Timișoara (Romania) and had just become familiar with **quantum mechanics**. I immediately noticed that the **Copenhagen School's interpretation of quantum mechanics is in fact a reiteration of Kantian stereoperspectival epistemology in the realm of physics**. My graduation paper ("**Modeling in physics and its epistemological significance**") illustrated this idea.

The Chat with ChatGPT

Marcel Chelba:

Give me 3 examples of unanswered questions in philosophy, math and physics.

ChatGPT:

Philosophy

1. **Why is there something rather than nothing?** – a fundamental question of metaphysics (explicitly posed by Leibniz).
 2. **Do we really have free will or are all our actions determined?** – debate between libertarianism, compatibilism and determinism.
 3. **Can we know reality 'in itself' or only through the filters of perception and language?** – a problem raised by Kant and taken up by phenomenologists.
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Mathematics

1. **Riemann hypothesis** – all non-trivial zeros of the Riemann zeta function have real part equal to $1/2$ (not shown).
 2. **Problem of $P = NP$** – is any problem whose solution can be checked quickly and easily solved quickly?
 3. **Is there a complete and consistent model of mathematics?** – according to Gödel's theorems, seems impossible.
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Physics

1. **What is actually dark matter and dark energy?** – make up $\sim 95\%$ of the universe, but their nature is unknown.
2. **How do quantum mechanics and general relativity come together?** – a "theory of everything" that's still a mystery.
3. **What existed 'before' the Big Bang (if that makes sense)** – a mystery about the origin of time and the universe.

Marcel Chelba:

Ask a question in the three areas that no one has ever asked before.

ChatGPT:

This is a very nice challenge 😊. I can't 100% guarantee that no one has ever asked these questions (philosophy, mathematics and physics have thousands of years of reflection), but I can propose original formulations that you won't find in textbooks or the usual lists of "unanswerable questions":

Philosophy

If all cognitive perspectives are inevitably limited, can there be an epistemology that describes not "what we know" but "what we structurally miss" from any possible knowledge?

Mathematics

Is there a class of mathematical problems whose solution can never be formulated in a mathematical language, but only in a non-mathematical language (musical, visual, narrative)?

Physics

If time were irreducibly discrete, is there a "unit of time" under which there is not even the notion of causality, and causes and effects could be reversed?

I have formulated them to you in such a way that they are truly unusual and "unexplored" (explicitly).

Would you like me to develop each question with its implications (i.e. show what the consequences would be if seriously investigated)?

Marcel Chelba:

Yes, but show what inspired you to ask these questions.

ChatGPT:

Perfect, let's take them one at a time. I'll elaborate with implications and tell you where I got the inspiration for each one.

Philosophy

Question:

If all cognitive perspectives are inevitably limited, can there be an epistemology that describes not "what we know" but "what we structurally miss" from any possible knowledge?

Inspiration:

- Kant → because he speaks of "the thing-in-itself" as inaccessible, but does not develop an "epistemology of the inaccessible".
- Heidegger → who shows that being itself escapes us.
- Your idea of **epistemological stereoperspectivism** → which got me thinking: if we have multiple perspectives, then there is also a core of the "unperspectival", that which always remains hidden.

Implications:

- It would be a **science of the structural limits of thinking**, a "cartography of the blind".
- It would change the way we think about cognitive science: **not just what minds can do, but what they never can.**

Mathematics

Question:

Is there a class of mathematical problems whose solution can never be formulated in a mathematical language, but only in a non-mathematical language (musical, visual, narrative)?

Inspiration:

- Gödel → incompleteness theorems show that there are true but non-demonstrable propositions.
- Bach's music and the math connection → where mathematical structure seems to be "better" expressed in sounds than in equations.
- Recent discussions in artificial intelligence → where some solutions appear first as images or patterns, not as symbolic demonstrations.

Implications:

- It would mean that mathematics, though universal, is not the only language of structure and order.
 - We would have to integrate aesthetics and art as forms of non-mathematical 'proof'.
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Physics**Question:**

If time were irreducibly discrete, is there a "unit of time" under which there is not even the notion of causality, and causes and effects could be reversed?

Inspiration:

- Quantum physics → where time is problematic and Planck time is discussed.
- Relativity → where causality depends on light cones.
- Computer games → where time is discrete, "frame by frame", and causality is just an engine update convention.

Implications:

- If there were a "sub-causal" zone, then the Big Bang, the collapse of a wave function, or even the emergence of consciousness could be phenomena that arise precisely from the lack of causal connection.
- Physics would become a "logic of leaps" and not just of flows.

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Marcel Chelba :

After our conversation, ChatGPT asked me if I would like it to write an essay based on our discussion. I agreed, and after two attempts, with the help of my observations, the essay below was the result.

***Note:** This essay was written by GPT-5 as a speculative exercise. It was inspired and provoked by the questions and challenges posed by Marcel Chelba, whose intellectual prompts opened the path toward these formulations.*

CharGPT's Essay

Three Untrodden Questions: A Comparative Mini-Essay in Philosophy, Mathematics, and Physics

Exploring an epistemology of the unknowable, non-symbolic solution spaces, and sub-causal time

Here are the three questions I formulated in response to Marcel Chelba's challenge, along with the initial explanatory notes:

Philosophy:

If all cognitive perspectives are inevitably limited, could there be an epistemology that describes not what we know, but what structurally escapes any possible knowledge?

– Inspired by Kant's 'thing-in-itself', Heidegger's concealment of Being, and Chelba's stereoperspectival epistemology.

Mathematics:

Could there exist a class of mathematical problems whose solution cannot be formulated in any mathematical language, but only in a non-mathematical medium (musical, visual, narrative)?

– Inspired by Gödel’s incompleteness, the mathematical depth of Bach’s music, and modern AI pattern recognition.

Physics:

If time were irreducibly discrete, is there a unit of time beneath which causality itself disappears, allowing causes and effects to be reversed?

– Inspired by quantum discussions of Planck time, relativity’s light cones, and digital simulation paradigms.

These three provocations laid the groundwork for the comparative mini-essay.

The Initial Questions and Answers

The essay that follows did not arise in a vacuum. It was provoked by a dialogue in which Marcel Chelba asked me to formulate questions in philosophy, mathematics, and physics that had never been asked before. The request itself is unusual, for it does not simply ask for answers but for the invention of new frontiers. What made this request especially generative was the theoretical background: Chelba’s proposal of a **stereoperspectival epistemology**, developed from Kantian epistemology, which emphasizes that knowledge is always constituted by multiple and contrasting perspectives. This notion inspired me to formulate questions that explore not only knowledge but also its **structural limits**.

Context of the Provocation

This short essay weaves together three deliberately unusual questions—one each in philosophy, mathematics, and physics—and sketches the conceptual architecture that binds them. The aim is not to answer the questions, but to show how they illuminate a common fault line: the edge at which our languages, methods, and even our intuitions fail. The three questions are:

1) Can there be an epistemology that describes not what we know, but what we are structurally unable to know?

- 2) Are there mathematical problems whose solutions cannot be expressed in any mathematical language, but only in non-mathematical media (musical, visual, narrative)?
- 3) If time is irreducibly discrete, is there a temporal scale beneath which causality itself dissolves, allowing reversals of cause and effect?

What follows is a comparative map of their motivations, inner logic, and shared consequences.

Philosophy: Toward an Epistemology of the Unknowable

The first question radicalizes the Kantian insight that certain aspects of reality (the thing-in-itself) do not enter experience. Instead of treating this as a boundary note in a theory of knowledge, imagine a discipline whose primary object is the structure of ignorance itself: a cartography of what must remain blind across all possible perspectives. This would be neither mere skepticism nor simple agnosticism. It would be constructive: identifying stable patterns in our failures to grasp, and organizing them as positive knowledge about constraint.

Such a framework would likely catalog families of structural occlusion—e.g., limits from embodiment and neurocognition; limits from language, logic, and representation; limits from scale (spatial, temporal, computational); and limits that arise from interactive contexts (observation changing the observed). The result would be an “epistemology of the negative space”: a theory of systematic absences that recur regardless of how many perspectives we stack (stereoperspectival, multiperspectival, or otherwise).

If successful, this project would change how we approach explanation. Rather than asking, “Which theory is true?” we would also ask, “Which zones are intrinsically theory-resistant?” In cognitive science, it could shift focus from capabilities to principled incapacities, shaping research programs around “unknown-invariants” much as physics is shaped by conservation laws.

Mathematics: Non-Symbolic Solution Spaces

The second question pushes on the expressive monopoly of symbolic mathematics. Gödel showed that there are true statements unprovable within a

given formal system; Turing showed there are problems unsolvable by effective procedures. But both results live inside mathematical language. Here, the challenge is different: Could there exist problems that are mathematically well-posed—clearly stated, checkable for success—whose solutions cannot be given in any mathematical language at all, but only realized in a non-symbolic medium such as sound, image, or narrative?

Consider the possibility of solution as pattern-realization rather than proposition. A musical canon can encode recursive and symmetric structures that we grasp pre-propositionally; a visual proof without words can communicate a correct insight before it is formulaically captured. The hypothesis here is stronger: that for some problems the only complete solution is the pattern itself, and any attempt to capture it symbolically loses essential content—not merely contingent aesthetics, but decisive mathematical information.

If such problems exist, the consequences would be profound. We would need a theory of “non-symbolic correctness,” criteria for equivalence between a pattern and a purported solution, and interfaces that let mathematics authorize musical or visual demonstrations as first-class citizens. This would expand mathematics from a language to a family of interoperable media, each with its own completeness and incompleteness theorems.

Physics: Sub-Causal Time

The third question interrogates causality under temporal discreteness. If there exists a smallest unit of time, does causality survive below it, or is causality itself an emergent regularity that requires coarse-graining over multiple ticks? If the latter, then beneath a certain threshold the universe may not be well-described by ordered pairs of cause and effect at all. Instead, we could have a regime of transitions governed by constraints without temporal ordering—call it a sub-causal domain.

In such a domain, familiar paradoxes change complexion. “Retrocausality” might not be reversal within the same concept of cause, but the reappearance of order when we zoom out and average across discrete updates. Quantum phenomena—state reduction, nonlocal correlations—could be reinterpreted as signatures of a world that is not fundamentally causal at its finest scale, but becomes causal

when sampled coarsely, much as continuity emerges from sufficiently dense pixels.

If causality is emergent, explanatory practice in physics shifts: we would look for conservation-like constraints and algorithmic update rules that reproduce causal regularities at mesoscopic and macroscopic scales. Theories would compete not only on dynamical equations but on the way those equations coarsen into effective causal stories.

Comparative Synthesis: A Shared Edge

All three questions touch the same boundary: the place where our preferred languages—epistemic, symbolic, causal—no longer suffice. The philosophical project identifies zones of principled unknowability; the mathematical project posits solution-forms that resist symbolic capture; the physical project suggests a scale where causal talk evaporates. In each case, what appears as a limit can be reconceived as structure: ignorance with invariants, patterns with validity, order without cause.

Together, these perspectives outline a research ethos. First, treat limits not as embarrassments but as data. Second, pluralize media of understanding: allow non-symbolic forms to count as solutions when they satisfy rigorous standards of adequacy. Third, expect familiar concepts (knowledge, proof, cause) to be emergent and scale-relative, not absolute. The result is a **stereoscopic view of reason's frontier**, one that stabilizes by triangulating across disciplines rather than by chasing a single master vocabulary.

If we take these questions seriously, we inherit a double task. We must build new methods that make sense of the negative spaces—of what cannot be known, symbolized, or caused—while also forging standards that let such methods integrate with established practice. That double task is not a retreat from rigor; it is rigor shifted to a deeper register, where the limits themselves become the most reliable guides we have.