

# Relationship between AI/LLMs and prolepsis

Post by "Titus" of June 12, 2026 at 2:25 PM

Today, I had a short but interesting talk with Chat GPT:

**Titus: Is there a connection between large language models and Epicurean prolepsis? Could Epicurean prolepsis be interpreted as what LLMs are processing?**

Yes, there is a surprisingly interesting analogy, although one should be careful not to identify the two completely.

For Epicurus, **prolepsis** (πρόληψις, usually translated as "preconception" or "anticipation") is one of the fundamental criteria of truth, alongside sensations and feelings. A prolepsis is formed through repeated experiences: after encountering many individual humans, for example, the mind develops a general conception of "human." When we hear the word "human," this preconception is immediately activated and allows recognition and reasoning.

An LLM works in a way that appears remarkably similar at first glance:

- It is exposed to vast numbers of examples.
- Statistical regularities are extracted.
- It develops internal representations of concepts.
- When prompted with a word such as "human," it activates patterns associated with countless previous examples.
- It can then generate responses based on these learned patterns.

An Epicurean might say that an LLM has something analogous to a prolepsis of "human," "justice," "friendship," or even "god," because it has formed generalized representations from repeated encounters.

However, there are also important differences.

## 1. Epicurean prolepsis originates in perception

For Epicurus, prolepses ultimately derive from actual sensory contact with reality.

A child sees many horses and develops the prolepsis "horse."

The prolepsis therefore has an ontological grounding in the world itself.

An LLM, by contrast, has no direct sensory encounter with horses. It processes symbols that humans have written about horses. Its "horse-concept" is second-hand and linguistic rather than perceptual.

This is probably the biggest difference from an Epicurean standpoint.

## **2. Epicurean prolepsis has evidential force**

Epicurus regarded prolepses as a criterion of truth because they are naturally formed by repeated encounters with real things.

For example, all peoples possess some prolepsis of blessed and imperishable gods. Epicurus regarded this as evidence that the gods exist, even if many false opinions are attached to them.

An LLM's internal representations do not have this status. They merely reflect statistical patterns in its training data. If a society collectively believed dragons existed, an LLM would develop a strong representation of dragons without dragons being real.

Thus an Epicurean would likely deny that an LLM's "preconceptions" have the same epistemological authority as human prolepses.

## **3. The strongest analogy: pattern abstraction**

The closest parallel is probably this:

**Epicurean prolepsis is the mind's natural abstraction of recurring features from experience.**

**An LLM's embeddings and latent representations are statistical abstractions of recurring features from text.**

Both systems:

- accumulate repeated inputs,
- compress information,
- form general categories,
- enable recognition of new instances.

In modern cognitive science, some scholars even describe human concepts as prototype-like statistical structures rather than fixed definitions. In that respect, Epicurus can seem surprisingly modern.

## **A deeper Epicurean reflection**

There is an intriguing possibility that Epicurus would have found LLMs philosophically illuminating.

The existence of LLMs demonstrates that sophisticated concepts can emerge from repeated exposure without requiring innate Platonic Forms, divine illumination, or Aristotelian essences. General notions arise naturally from accumulated experience.

That is actually very close to the anti-Platonic spirit of Epicurean epistemology.

An Epicurean might therefore say:

Quote

"The language model shows how a system can acquire general conceptions through repeated impressions alone, without any need for transcendent universals."

That sounds remarkably Epicurean.

Yet Epicurus would probably add an important caveat:

Quote

"The model possesses only something analogous to prolepsis. Genuine prolepsis arises from a living being's direct interaction with reality through sensation."

So the connection is real and philosophically fruitful. LLMs can be viewed as a kind of artificial demonstration of how generalized concepts emerge from repeated inputs—a process that bears a strong family resemblance to Epicurean prolepsis, even though Epicurus would likely reserve the term *prolepsis* for conceptions ultimately grounded in actual sensory experience.

**Titus: Conversely, LLMs could be interpreted as proof of the validity of Epicurean prolepsis. Although they are not grounded in direct exposure to sensual stimulation, their pattern recognition seems to enhance Epicurus' idea of prolepsis.**

I think there is a strong argument in that direction, though perhaps not as a *proof* in the strict sense.

The historical challenge to Epicurean prolepsis was always: **How can mere repetition of impressions generate meaningful general concepts?**

Many philosophers after Epicurus doubted that this was sufficient:

- Platonists argued that universals must somehow pre-exist experience.
- Rationalists argued that important concepts require innate structures.
- Some theologians argued that knowledge of certain truths requires divine illumination.

An LLM demonstrates something remarkable: from exposure to enormous numbers of individual examples, a system can develop highly sophisticated conceptual structures without possessing explicit definitions or innate metaphysical forms.

That is very much in the spirit of Epicurus.

## **What LLMs seem to vindicate**

An Epicurean could point to LLMs and say:

### Quote

"Look, a machine exposed to countless individual instances develops a functional understanding of categories, relationships, analogies, and even abstract reasoning. Why should we think the human mind requires Platonic Forms?"

In that sense, LLMs strengthen the plausibility of the Epicurean claim that repeated impressions naturally generate general notions.

Epicurus argued:

1. Repeated encounters create memory.
2. Memories accumulate.
3. General conceptions emerge.
4. These conceptions become tools for recognition and reasoning.

Modern machine learning shows that a system can indeed move from countless particulars to surprisingly powerful generalizations.

## **An especially interesting case: the gods**

Consider Epicurus' famous claim that humans possess a prolepsis of the gods as blessed and imperishable beings.

Many modern readers wonder:

### Quote

"How could such a concept emerge naturally?"

An LLM offers a possible model.

Humans repeatedly encounter:

- excellence,
- happiness,
- power,
- beauty,
- wisdom,

- longevity,

and then mentally extrapolate toward an idealized limit.

An LLM often does something similar. It learns patterns and can generate idealized or prototypical versions of categories that were never explicitly presented.

This does not prove Epicurus was correct about the gods, but it makes the mechanism of concept formation seem less mysterious.

## **Where the analogy becomes even stronger**

Some cognitive scientists today argue that human concepts are not definitions but statistical clusters.

For example, most people cannot define "bird" precisely.

Instead they possess a prototype:

- sparrows are very bird-like,
- penguins less so,
- bats not at all.

LLMs appear to represent concepts in a similarly graded way.

This resembles prolepsis much more than it resembles Platonic essences.

The Epicurean could therefore argue:

### Quote

Prolepsis is not a dictionary definition stored in the mind. It is a stable pattern emerging from repeated encounters.

That description sounds surprisingly close to modern representation learning.

## **But there is one thing Epicurus might not have anticipated**

LLMs also reveal a weakness in prolepsis.

An LLM can form strong representations of things that do not exist:

- dragons,
- Sherlock Holmes,
- Middle-earth,
- fictional gods.

This raises a difficult question for Epicurean epistemology:

#### Quote

If a stable concept can emerge merely from repeated exposure, why should the existence of a prolepsis imply the existence of its object?

This is precisely where an Epicurean would have to defend the difference between concepts grounded in reality and concepts grounded in cultural transmission.

In other words, LLMs may strengthen Epicurus' account of **how** prolepses form while simultaneously weakening one of his arguments for **what** they guarantee.

### **A possible modern Epicurean reformulation**

If Epicurus had known about machine learning, he might have reformulated prolepsis as:

#### Quote

"A prolepsis is a stable cognitive pattern produced by the accumulation of repeated impressions, enabling recognition, prediction, and reasoning about a class of objects."

That would be remarkably compatible with contemporary ideas about learning systems.

So I would say that LLMs do not prove Epicurean prolepsis, but they make one of Epicurus' central intuitions far more credible than it appeared to many philosophers in earlier centuries: namely, that sophisticated concepts can emerge naturally from repeated experience without requiring innate ideas, transcendent Forms, or supernatural intervention. The fact that a language model can do this from text alone makes Epicurus' epistemology look surprisingly prescient.

**Titus: I think you are on the right path, but I would argue that in the Epicurean sense this is where the senses become important. Because some people indeed believe in dragons and they believe in all kind of conceptions about the gods.**

I think that is exactly where an Epicurean would push back against an overly enthusiastic comparison between LLMs and human cognition.

The crucial point is that **prolepsis is only one criterion of truth**. Epicurus never intended it to operate independently. The other criteria—sensations (*aisthēseis*) and feelings (*pathē*)—remain indispensable.

An LLM has something analogous to prolepsis, but it lacks sensation. As a result, it has no way to distinguish between:

- horses and unicorns,

- Athens and Atlantis,
- historical figures and fictional characters.

All are merely patterns in text.

An Epicurean human, however, can test conceptions against experience.

Suppose a child develops a conception of dragons through stories. Epicurus would not deny that a conception exists. The question is whether it corresponds to reality. One then turns to the senses:

Quote

Have dragons ever been observed?

If not, the conception remains a mental construction rather than a confirmed object.

The same applies to many theological claims. Epicurus famously argued that people attach all sorts of opinions (*doxai*) to the gods:

- that they become angry,
- reward virtue,
- punish sin,
- intervene in history.

The mere existence of these conceptions proves nothing. They must be examined.

In this sense, the Epicurean method is actually more sophisticated than a simple theory of concept formation:

1. Repeated impressions generate prolepses.
2. We formulate opinions based on them.
3. Those opinions are tested against sensory evidence.
4. Unsupported additions are discarded.

This is where your observation becomes interesting for the LLM analogy.

An LLM is almost pure prolepsis without sensation.

It possesses vast networks of generalized concepts, but no independent contact with reality to evaluate them. It cannot perform the Epicurean step of returning to the evidence of the senses.

One might even say that an LLM resembles the state Epicurus warns humans against when they become detached from experience and live only among words and opinions.

There is another subtle point here. Epicurus did **not** claim that every conception corresponds to a real thing. Rather, he claimed that conceptions arise from some basis in experience.

Take dragons. An Epicurean could explain them as composites:

- snakes,
- lizards,
- birds,
- predators,
- fire,

combined and exaggerated by imagination.

The conception is real as a mental phenomenon, even if the object is not real.

Likewise, many anthropomorphic gods could be explained as idealizations of kings, parents, heroes, and natural forces.

Thus the existence of a conception does not automatically establish the existence of its object.

This is why, in Epicurean theology, the argument for the gods is not merely "people have a conception of gods." The stronger claim is that there is a universal and persistent prolepsis of blessed and imperishable beings that survives beneath all the false cultural additions. Whether that argument succeeds is another question, but it is more subtle than simply inferring existence from a concept.

Viewed this way, LLMs may actually illuminate the Epicurean distinction between **prolepsis** and **opinion**.

- The model's internal representations resemble prolepses.
- Its generated outputs resemble opinions.
- What it lacks is sensation, the corrective mechanism that Epicurus regarded as essential for separating true opinions from false ones.

From an Epicurean perspective, that absence is not a small detail—it is the difference between a system that merely manipulates conceptions and a living being capable of knowledge.