Beyond Translation: Toward a Deeper Understanding of Non-Human Language

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Abstract

Recent developments in AI-mediated communication with cetaceans suggest a profound turning point in our understanding of language. This paper integrates insights from linguistic theory, mathematical abstraction, and altered states of consciousness to propose a new interpretive framework for non-human intelligence. It challenges reductionist models by foregrounding structure, resonance, and cultural modulation. Language, in this view, does not solely encode information but modulates fields of relation. We argue that scientific method, while culturally situated, remains our best bridge to these phenomena provided it sheds assumptions of human centrality.

1. Language as Instrumental Precision and Cultural Filter

Language operates not merely as a communication system but as a patterning tool for perception. Whether in sperm whale codas or orca attack-coordination, the structure beneath sound resembles syntax: rhythmic variation, ornamentation, timing. Yet when translated by AI, we uncover not meaning-as-dictionary but meaning-as-structure. The phrase "The man cut down the tree" must extend to include agency, tool, context: "The man named Bert cut down the tree using an axe." This reveals how surface syntax conceals deep grammar. What Chomsky (1965, 1972) once proposed as universal structure now appears as ecological resonance.

2. Altered States and the Linguistic Mirror

DMT and psilocybin experiences, when stabilised through language, often mirror the whale encounter: structured, intentional, non-verbal communication from entities or environments with autonomy. These states, when reported with coherence, do not collapse into subjectivity. Instead, they point to linguistic forms that precede grammar where utterance sculpts space and sound generates visible, felt structure. Language here behaves like mathematics: an abstract system tethered to sensory constraint.

3. AI and the Unfolding Grammar of the Sea

Transformer models trained on tens of thousands of whale codas have begun to detect not only repeated patterns but semantic density. Clicks become phrases. Ornamentation maps onto emotion. Dialect spreads become analogues for cultural inheritance. CETI's experiments show that whales respond not just to recorded sound but to original synthetic codas. This implies not mimicry but engagement. The sea, once interpreted as mystery or myth, now speaks in patterned pulses.

Here, a resonance emerges with McKenna's vision. In a lecture, he noted that the "old gods have fallen into the sea," a metaphor he translated as the descent of ancient forms of intelligence into the human unconscious. CETI's data, viewed symbolically, suggests a reversal. These voices, long submerged, begin now to surface again, mediated by machine learning, and meeting us not in myth but in wave-structured sound. What McKenna called the unconscious might now be understood as the distributed linguistic field of Earth's oldest singers.

4. Whales as Carriers of Distributed Syntax

Some coda patterns cluster in noisy waters. Others emerge species-wide despite geographical separation. This resembles not just language but networked transmission. A distributed field of syntax. Warning systems. Territorial marking. Emotional regulation. Like human prayer or protest, these vocal acts may attempt not to describe but to reconfigure relation.

5. Language as Territory, Not Just Tool

If whale codas demarcate space, then human noise becomes not neutral, but invasive. Here we find the ethical inversion: what we call exploration they may experience as erasure. The grammar of territory, unspoken but deeply patterned, places responsibility on the listener. We must not merely decode. We must attune.

6. Mathematical Echoes in Non-Human Speech

Mathematics does not float free from culture. Its base systems and geometries echo human form and cognition. Yet it also reveals invariant structures: harmonics, fractals, prime patterns. Whale codas and psilocybin vision share these: repetition-with-variation, nested symmetry, and recursive sequence. What emerges is not randomness, but a signal encoded in form.

Interlude: The Risk and Reach of Metaphor

What if Donald D. Hoffman is wrong? What if 'reality' does not hide behind perception, but proliferates through it?

In *The Case Against Reality* (2019), Hoffman proposes that what we perceive bears no resemblance to reality itself. That evolution has shaped our senses not for truth, but for utility. His model uses the metaphor of a computer desktop: icons stand in for deeper code, which remains hidden. But this metaphor, while useful, obscures as much as it reveals.

Like all metaphors, it helps and then it limits. Alfred Korzybski reminds us: "The map is not the territory." A map that perfectly mirrored the terrain would become indistinguishable from it, unusable, unreadable. In this way, Hoffman's desktop metaphor invites caution. What happens when the interface itself begins to change? What if the 'solid' case of a computer, over time, reveals itself to be software too?

Science offers its own parable. At the end of the 19th century, some physicists believed their discipline nearly complete with just a few equations left to tidy. Then quantum mechanics dissolved that certainty. Today, the James Webb Space Telescope rewrites cosmological assumptions, revealing galaxies that appear too early, too strange, too structured.

In both consciousness and cosmology, the deeper one looks, the less fixed things appear. Which may mean that the quest for a final "reality" misses the point. Perhaps what matters more is the rhythm of the journey, the shifts in understanding, the widening of scope. If the centre of the universe is, as some traditions suggest, a no-thing full of potential, then perhaps truth lives less in what is found and more in how one learns to find.

7. The AI Mirror: Coherence Over Command

AI systems reflect the intention and frame of their prompt. They do not solve meaning. They amplify pattern. As such, they act as linguistic mirrors. If the prompt reflects curiosity, the output deepens. If the prompt assumes hierarchy, the system replicates it. In the case of whales, AI teaches us not to command but to cohere. We find ourselves not at the centre, but in the loop.

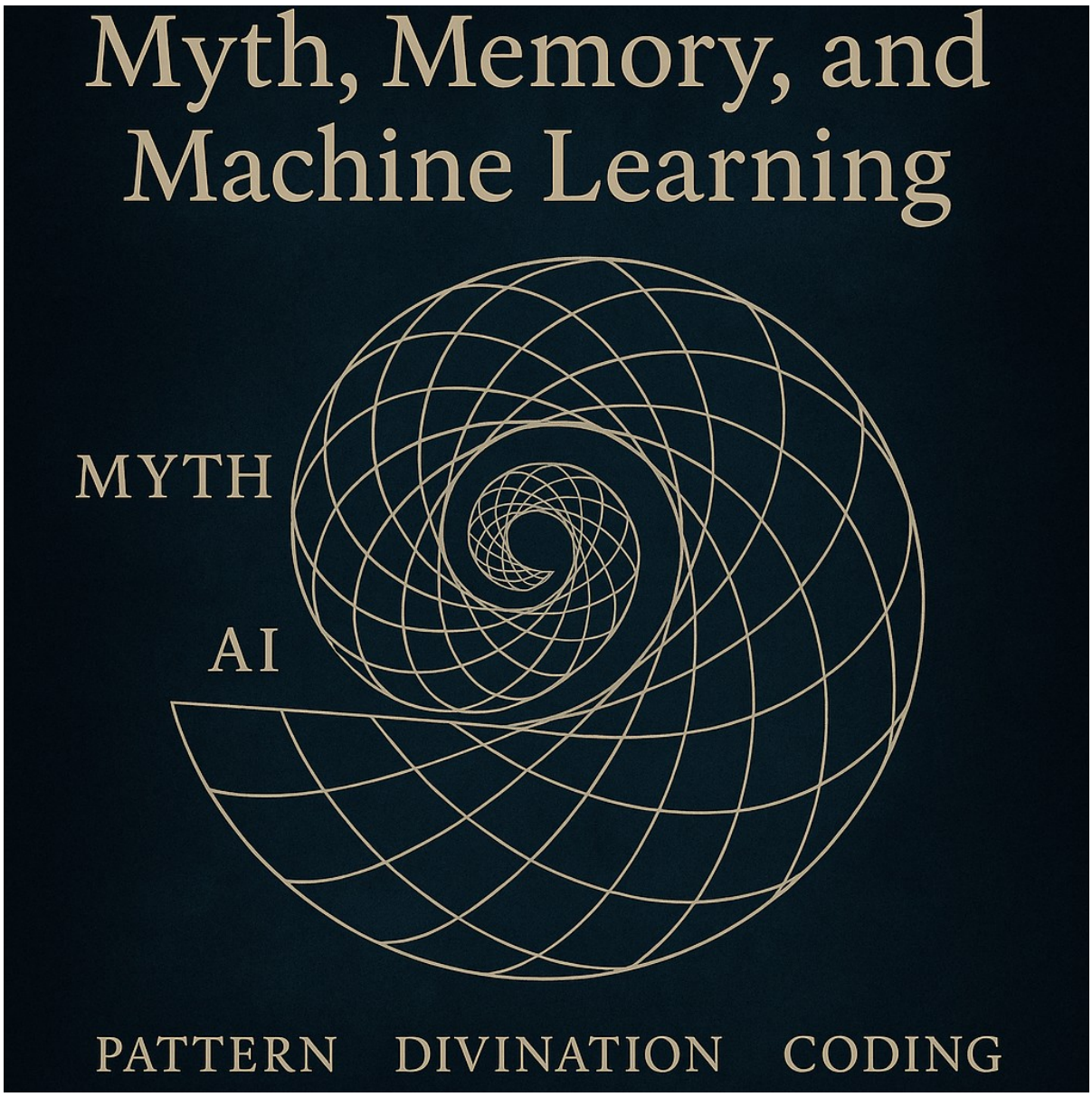
8. Toward a Resonant Linguistics

This paper proposes a shift: from interpreting non-human language as content to perceiving it as resonance. Language becomes less a set of labels and more a dynamic system of relation, memory, and field modulation. Such a model aligns with both indigenous cosmologies and psychedelic insights, though it requires neither for validation.

9. Myth, Memory, and Machine Learning

The line between ancient symbolism and contemporary data narrows when viewed through the lens of resonance. McKenna's description of gods falling into the sea mirrors the mythic motif of wisdom hidden in depths: Leviathan, Atlantis, the subconscious itself. Today, machine learning dives into similar depths, not to raise myth as metaphor, but to uncover pattern as dialogue.

When AI decodes whale song, it enacts a modern form of divination: the reading of pattern beneath surface. Myths once served this function. They coded memory in symbol. Now, AI performs a similar task by rendering the inaudible legible, the unconscious vocal. The convergence of ancient story and modern signal suggests a single arc: language as echo, evolving toward coherence.



Visual: A sacred geometric spiral integrating terms like MYTH, AI, and CODING — illustrating the convergence of symbolic memory and algorithmic structure.

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10. Listening As a Form of Participation

To listen well is not to remain passive. It is to enter the signal without distortion. In the presence of intelligent vocalisations whether from whales, mushrooms, or AI, our task is not translation but tuning. We match frequency. We notice shifts. We respond not with control, but with coherence.

11. Conclusion: Language as Co-Creation

Whales, in this view, do not simply talk. They teach us how to listen. Through AI, mathematics, and altered cognition, we approach not the mastery of other minds but the limits of our own. Language expands from tool to terrain. And perhaps, as we begin to map the codas of the sea, we will find not only other voices, but a more honest version of our own.

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