The point of view of the ignorant

by Michael Striem

A consciousness moment

With a slight fever and unpleasant coughs, I find myself conscious of a bizarre feeling. On one side an amazing YouTube lecture describes the findings of the James web telescope: There are more galaxies, and bigger than previously known, at the beginning of the universe. On the other side I listened very carefully to YouTube programs about the origin of consciousness and its connection to quantum mechanics, the collapse of the wave function and issues of information. These extreme realms of knowledge are just too complex for me to fully grasp and comprehend. *[I feel that this might be a good place to introduce a personal note regarding awareness of the complete scene. We should not take for granted that body condition, and physical postures have no relationship with the context. A complete view of me when writing these words is exactly why machines will never have the same type of consciousness and self-awareness as humans. They will not have that pinching feeling of nostalgia when the notes of a symphony are played in my hearing aid devices, and the taste of the honey lemon Jinjer tea, with the stickiness of the honey on the lips.]*

This was just another moment of self-awareness, in which I realized a fundamental idea "solving" the puzzling question on the origin an evolution of consciousness.

As an ignorant I found myself dismissing the details regarding the way consciousness has emerged. I saw very clearly how building blocks of consciousness were present in the beginning of life on earth, and how it grew and developed into the most complex and beautiful part of our lives.

Similar to the way atoms did their chemical reactions amongst themselves with the help of energy; to create life, they helped a primitive single cell to become sensitive to the environment.

The building blocks of awareness and the elements of consciousness were there as well. I do not know if they had any influence on the process, if they were there before or not, this does not really mean anything now. The joy of the cell making a right move, and the pain of making something wrong, guided evolution from the very beginning.

Now, the biggest question to me was how this information of the experiences got “saved" for the rest of time onwards. There were no brains with micro tubules to record the data. The instincts of organisms grew into their basic structure, in the form of energetic efficiency. The happy organisms just succeeded in evolution more than the unhappy ones. They reproduced faster and better than the unhappy ones. This is how the information became recorded.

These single-cell organisms had the most basic building blocks of consciousness, being able to feel and respond wisely to their surroundings, sugar, light, heat. It does not mean that they were self-aware. They were maybe, at least to a small moment and a very limited feeling. The universe became aware. It had this joy of becoming more efficient. Evolution started with its joy and pain as guiding tool to "know" the direction.

When I take advantage (could be a disadvantage) of being ***an ignorant***, a non-professional geologist, biologist, neuroscientist, philosopher, I choose to have the liberty to disregard some information and emphasize other details, in order to align with my vision, intuition, general concept of the issue. This could easily bring me away of being correct, or scientifically consistent.

> This aligns with Spinoza's determinism: *ignorance equates to incomplete ideas, fostering error and dependency. The wise emulate the "free man" by shunning such influences to pursue intellectual love of God*.
>
> The phrase "the point of view of the ignorant" appears to reference a specific proposition in Baruch Spinoza's Ethics, Part IV (On Human Bondage, or the Strength of the Emotions). IVP70 advises the free individual to avoid the favors of the ignorant, as their perspective stems from inadequate understanding and can lead to bondage rather than true freedom. Spinoza structures Ethics with numbered definitions, axioms, propositions, and proofs. Part IV focuses on human emotions and virtue, where the "ignorant" lack adequate knowledge of causes and act from passion, not reason. Their viewpoint distorts reality, making interactions risky for the rational person.

I am here to pursue intellectual love of nature (the universe).

My intuition tends to imagine that early consciousness maybe emerged as a basic survival mechanism, distinguishing ‘safe’ from ‘dangerous’ conditions and favoring ‘flourishing’ over ‘hardship’. This primal awareness could drive adaptive cellular responses, potentially leading to polarized structures that establish functional directionality. Such polarization aligns with evolutionary pressures shaping simple organisms toward organized behavior.

Core Idea

Simple awareness in early life forms prioritizes survival by sensing environmental gradients, like nutrient-rich versus toxic zones. This binary detection: safe versus dangerous, prompts directed movement or growth, mirroring how cells today polarize to migrate or divide effectively. Over time, this creates a "direction" in development, from isotropic cells to asymmetric ones with distinct fronts and rears.

Disclaimer: These reflections on life and evolution were shaped through conversations between human intuition and machine intelligence. ChatGPT and Perplexity served as a companion in organizing thoughts, illuminating connections, and identifying relevant scholarly paths. The vision, meaning, and philosophical direction remain entirely mine (M.S.), while the clarity of expression owes much to this unique and joyful collaboration. **Please help me correct mistakes, which human and machines do.**

Cellular Polarization

Cell polarity involves spatial differences in structure and function, often triggered by external cues like chemical gradients. In migrating cells, actin polymerization extends the leading edge toward favorable conditions (flourishing), while the rear contracts, enabling purposeful motion. This mirrors the proposed early awareness: hardship repels, safety attracts, polarizing the cell and setting a developmental vector.

Evolutionary Link

In primordial conditions, such mechanisms would confer advantages, like chemotaxis in bacteria toward food or away from toxins. Polarized structures, such as in multicellular aggregates, emerge from collective sensing, fostering tissue-level directionality. This progression from simple binary awareness to complex consciousness reflects graded evolution, where survival cues bootstrapping higher integration.

Neighbor Recognition

The next evolutionary step after basic environmental awareness involves detecting cells evaluating adjacent neighbors, deciding if they signal cooperation (positive) or competition/threat (negative). This recognition fosters multicellularity by enabling selective adhesion or rejection, building on polarized structures for directed interactions. Such binary decisions, ally versus foe, would refine survival strategies, promoting aggregates that flourish together.

Primitive cells use surface molecules like cadherins or lectins to identify compatible neighbors through specific binding, distinguishing self from non-self. Positive matches trigger adhesion for colony formation, while negative ones, prompt repulsion, or toxicity release, as seen in bacterial contact-dependent inhibition. This mechanism requires membrane receptors to sense proximity and molecular complementarity, extending the safe/dangerous binary to social contexts.

Decision Framework

The evaluation hinges on outcomes: positive interactions boost shared resources (nutrient pooling, division of labor), while negative ones defend against exploitation (e.g., toxin deployment). Polarized cells orient their leading edge toward beneficial neighbors, reinforcing directionality in multicellular assemblies. Evolution favors cells that accurately classify neighbors, transitioning from solitary survival to cooperative flourishing.

Disclaimer: These reflections on life and evolution were shaped through conversations between human intuition and machine intelligence. ChatGPT and Perplexity served as a companion in organizing thoughts, illuminating connections, and identifying relevant scholarly paths. The vision, meaning, and philosophical direction remain entirely mine (M.S.), while the clarity of expression owes much to this unique and joyful collaboration. **Please help me correct mistakes, which human and machines do.**

Evolutionary Impact

In early Earth conditions, this step bridges unicellular polarity to tissue-like organization, as in sponge cell aggregation where species-specific recognition prevents mismatched fusion. Repeated positive decisions create stable clusters with emergent properties, like collective chemotaxis. Negative decisions maintain boundaries, preventing overgrowth by harmful invaders and driving diversification.

Pre-Existing Blocks

Basic modules like safe/dangerous sensing parallel hydrogen's ubiquity, inherent in lipid vesicles or RNA-world catalysts that polarize spontaneously via gradients. These "light elements" persist until geochemical shifts, rising oxygen or mineral surfaces, enable multicellular "fusion," without requiring new invention. Conversation history supports this: polarized cells as H-like solitude preceding neighbor bonds.

Reactive Emergence

Need-based creation mirrors transuranic elements synthesized in labs or supernovae, where hardship (toxins, competition) selects for novel recognition proteins post-hoc. Oxygen-like neighbor evaluation arises from scarcity, refining binary awareness into cooperative "alloys." This fits prior steps: flourishing aggregates demand anti-parasite defenses, bootstrapping complexity.

The spectrum

There is an almost infinite spectrum of all types of building blocks of consciousness. our inability to witness and observe them, could be overcome by AI correlating common types of organisms with communication systems such as our senses but taking into consideration new methods / types of relationships among individuals and social / nests / schools of organisms.

The vast spectrum of consciousness building blocks spans from basic sensory discriminations to complex social integrations, defying simple categorization yet mappable through AI pattern recognition. By correlating organism types with their communication modalities, beyond human senses to include pheromonal signals in ant nests or bioelectric cues in fish schools, AI reveals hidden relational architectures. This approach accounts for novel interactions in collectives, illuminating evolutionary paths we cannot directly observe.

AI Correlation Role

AI excels at parsing big data from genomics, ethology, and signaling studies to cluster species by shared "blocks" like quorum sensing in bacteria or empathy precursors in

corvids. It identifies gradients: solitary polarity in amoebae links to binary neighbor decisions in slime molds, scaling to school-wide threat propagation in herring via lateral line vibrations. Unseen types emerge when AI models novel bonds, such as fungal mycorrhizal networks exchanging nutrients as "positive" consciousness analogs.

Spectrum Challenges

The "infinite" diversity arises because blocks recombine contextually, e.g., chemical gradients in prokaryotes evolve into visual hierarchies in primates, eluding human observation due to scale and extinction of intermediates. AI mitigates this by simulating phylogenies, weighting social/nest dynamics (e.g., bee dances as proto awareness) against abiotic baselines. Conversation history aligns: H-O metaphors extend to alloy-like hybrids in eusocial insects.

Huge data resources needed to correlate senses with social structures.

Correlating senses with social structures requires diverse, high-dimensional datasets that capture sensory inputs, behavioral outputs, and network dynamics across species. Key sources integrate ethological observations with multi-modal recordings to reveal how perception shapes collectives like nests or schools. AI can then model these links, accounting for novel interactions as discussed in prior exchanges on consciousness blocks.

Sensory Data Sources

Genomic and neuroanatomical databases provide baselines for sensory capabilities, such as olfactory receptor genes in ants or lateral line organs in fish. Electrophysiological recordings from free-moving animals quantify signal processing during interactions, while sensory ethograms, detailed logs of stimuli-response pairs, map raw inputs like pheromones or vibrations to decisions. Optogenetic or calcium imaging datasets link neural firing in sensory cortices to social behaviors, revealing polarity-like gradients in group responses.

Social Structure Data

Social network analyses draw from longitudinal tracking data: GPS collars on primates, RFID-tagged insects in colonies, or video footage of fish schools to construct interaction graphs (adjacency matrices of proximity, grooming, or aggression). Quorum-sensing assays in microbes and hormone profiles (e.g., oxytocin in bonding) quantify collective states, while ethograms score hierarchy or synchrony metrics. These expose how neighbor recognition scales to nest-level "awareness."

Integrated Multi-Modal Sources

- Video and Audio Archives: Public repositories like Animal Behavior Datasets (e.g., MouseLight, BeeGraph) sync sensory cues with social graphs via pose estimation AI.
- Omics Layers: Single-cell RNA-seq from social brains correlates gene expression for senses (e.g., vomeronasal receptors) with bonding pathways.
- Cross-Species Platforms: iDiv or MoveBank aggregate movement data with environmental sensors, enabling AI to infer unseen relations like bioelectric signaling in aggregates.
- Simulation Outputs: Agent-based models trained on empirical data predict novel blocks, bridging primordial polarity to eusocial complexity.

Analysis Considerations.

Fuse sources via multi-omics pipelines, using graph neural networks to weigh sensory modalities against social metrics (e.g., centrality in schools). Account for observer bias by prioritizing naturalistic stimuli over lab isolates, aligning with the periodic table metaphor of emergent combinations.

Pre-Existing Blocks

Basic modules like safe/dangerous sensing parallel hydrogen's ubiquity, inherent in lipid vesicles or RNA-world catalysts that polarize spontaneously via gradients. These "light elements" persist until geochemical shifts—rising oxygen or mineral surfaces—enable multicellular "fusion," without requiring new invention. Conversation history supports this: polarized cells as H-like solitude preceding neighbor bonds.

Reactive Emergence

Need-based creation mirrors transuranic elements synthesized in labs or supernovae, where hardship (toxins, competition) selects for novel recognition proteins post-hoc. Oxygen-like neighbor evaluation arises from scarcity, refining binary awareness into cooperative "alloys." This fits prior steps: flourishing aggregates demand anti-parasite defenses, bootstrapping complexity.

Citations:

[1] The Building Blocks of Consciousness https://arxiv.org/html/2405.06075v1

[2] How Did Consciousness Evolve? An Illustrated Guide https://thereader.mitpress.mit.edu/how-did-consciousness-evolve-an-illustrated-guide/

[3] The Evolution of Consciousness & Subjectivity ... https://philpapers.org/archive/WILTOO-34.pdf

[4] Building Blocks for the Development of a Self-Consistent ... https://pmc.ncbi.nlm.nih.gov/articles/PMC8505726/

[5] A way to visualize consciousness as a fundamental force of ... https://www.reddit.com/r/consciousness/comments/1bkqb9l/a_way_to_visualize_consciousness_as_a_fundamental/

[6] The evolutionary functions of consciousness https://royalsocietypublishing.org/rstb/article/380/1939/20240299/235164/The-evolutionary-functions-of-consciousnessThe

[7] Building Blocks for the Development of a Self-Consistent ... https://www.frontiersin.org/journals/human-neuroscience/articles/10.3389/fnhum.2021.723415/full

[8] Universal consciousness as foundational field: A theoretical ... https://pubs.aip.org/aip/adv/article/15/11/115319/3372193/Universal-consciousness-as-foundational-field-A

[9] Great Mysteries of Physics 5: Great Mysteries of Physics 5: will we ever have a fundamental theory of life and consciousness? https://theconversation.com/great-mysteries-of-physics-5-will-we-ever-have-a-fundamental-theory-of-life-and-consciousness-203127