# A Symphony Beneath the Bone

## A Braided Creative Nonfiction Essay

In the sterile brightness of the operating room, consciousness pulses gently beneath my gaze. The surgeon makes a precise incision on the patient’s temple. A tool, resembling a paint scraper, separates skin from skull, fibers beneath resisting like Velcro being torn apart. The surgeon’s hand moves steadily, confidently. Beneath his fingers lies a universe of neurons, hidden for now by bone.

The drill whirrs, a sharp mechanical cry echoing through sterile silence. Dust blooms, and with it, a smell permeates the room—formaldehyde mingled with something primal, unsettling. I remember this smell most vividly, imprinting itself permanently on my memory as the surgeon penetrates the skull’s parietal section. The bone yields, opening like a fragile lid over the delicate interior.

Greyish-white dura mater envelopes the darker, pulsing mass beneath—the brain itself. It moves rhythmically, steady, like a quiet heartbeat. Blood vessels stretch across its surface, an intricate network more complex than any human highway system. Beneath this elaborate vascular web lies a clear, undeniable pathology—a large, pale meningioma the size of two golf balls pressing insistently against delicate tissue, tethered stubbornly to the dura.

The patient’s brain pulses visibly, vulnerable and exposed. Inside that pulsating tissue, housed within billions of interconnected neurons quietly firing, exists an entire identity—dreams, memories, fears, motivations—encoded in cells communicating in a silent, ongoing symphony we recognize as consciousness.

Ontology defines a being as the fundamental essence of existence, categorizing reality into neat divisions—mainly particulars and universals, concrete and abstract entities. Particulars are singular, irreplaceable entities, like the patient on the table, her life tangible and unrepeatable. Universals are broader, repeatable qualities like health, pain, identity, or even consciousness itself.

Yet ontology itself falters when we stand in the operating room, witnessing a consciousness laid bare, temporarily suspended but never permanently extinguished. Where does consciousness fall between particular and universal? Is it concrete, grounded in tangible neurons? Or abstract, an intangible essence? These distinctions blur beneath the stark fluorescent lights illuminating human vulnerability in all its profound physical and existential fragility.

Neuroscience attempts to unravel the intricate relationship between the physical organ—the brain—and the intangible experience we call thought, emotion, identity, and perception. In the operating room, I witness neuroscience’s questions enacted in stark, uncompromising detail. How does a physical anomaly, a tumor pressing against delicate neural tissue, alter intangible realms of personality, memory, emotion, and self-awareness?

Neuroscientists understand consciousness as emerging from neuronal interactions. Electrical signals firing in rhythmic patterns produce what we experience as thought and awareness. Electrochemical pulses dispatch neurotransmitters at astonishing speeds, leaping synaptic gaps, transferring information seamlessly. Yet even science’s meticulous precision struggles with subjective experience’s elusive mystery. How do tangible, measurable interactions yield intangible thought?

The neurosurgeon is calm, collected. Ironically, heavy metal music plays quietly from a Bluetooth speaker, creating a surreal backdrop to the meticulous dissection of a human brain. He beckons me closer. Leaning gently towards the cavity of her skull, he directs me methodically through the anatomical regions—frontal lobe, temporal gyri, the insular cortex—as they are delicately navigated.

This open brain pulses softly beneath skilled fingers. The tumor, now fully exposed, appears disturbingly beautiful in its destructive presence. Calmly, the surgeon asks for the cauterizer. He begins detaching the meningioma. The sizzling of burning tissue fills the room, smoky tendrils rising from cauterized vessels. Acrid odor, sharp and nauseating, mixes with the metallic scent of blood and bone dust.

I hold my breath instinctively, but the smell penetrates through masks, gloves, memory.

Ontology classifies reality into substances, properties, relations, and states of affairs. Substance is the brain itself, concrete and tangible. Properties are its grey-pink hue, its soft texture. Relations emerge from neurons linking, communicating continuously to produce states of affairs like consciousness and self-awareness. Standing there, though, the limits of these categories become painfully clear. They fail profoundly to explain how subjective experience arises from mere physical matter.

Consciousness resists ontology’s neat classifications. It defies definitions and encapsulation, spilling over boundaries set by philosophers determined to categorize existence. Consciousness transcends clear lines we draw between matter and thought, biology and identity, substance and essence.

A spinal surgery offered another intimate glimpse into physicality’s intersection with consciousness. Another patient lay face-down, anesthetized and utterly vulnerable. The surgeon meticulously exposed vertebrae, carefully cleaning away damaged bone. Gleaming starkly white beneath bright surgical lamps, the spine’s intricate structure was fully visible. Using specialized metallic instruments, damaged ligaments and bone were cleanly removed, eliminating spinal stenosis—a painful compression narrowing vital nerve pathways.

The patient’s spine lay exposed, stark, gleaming. Electrodes were threaded methodically into muscles and nerves throughout his body, meticulously measuring electrical potentials and nerve function. This intricate living map of nerves, branching delicately from the spinal cord, carried critical signals vital for sensation, movement, perception, and identity.

Witnessing this exposed neural network, sensing its breathtaking fragility, emphasized profoundly the interplay between structure and subjective experience. Damaged vertebrae had disrupted neural signals, triggering profound pain and significant loss of function in the patient’s left leg. Neuroscience had illuminated precisely how these physical changes altered experiences such as pain, sensation, movement. Yet this understanding provided little comfort against the profound subjective agony experienced by the patient before surgery.

Ontology searches endlessly for precise boundaries between mind and matter. Both surgeries—spinal and cranial—blurred such distinctions entirely. If identity and consciousness rely so crucially on neurons and nerves’ physical integrity, is consciousness purely biological, or might it exist independently as ontology’s abstract object, intangible and eternal, merely temporarily housed within fragile tissues?

The neurosurgeon’s hands moved gracefully, precisely. Freed, the tumor rested inertly inside a sterile container. Calmly, he explained that it would be sent to pathology for identification. He meticulously inspected the surgical site, carefully ensuring removal of every trace of cancerous cells. He methodically packed the cavity with surgical compression material, sealed the dura mater, placed a drainage tube, and covered the skull defect temporarily with a titanium plate, gently suturing the skin closed around the drainage apparatus.

Beneath it all, consciousness resumed its hidden rhythms, invisible again beneath skin, metal, and artificial structure—soon to be fully restored by bone. Yet something subtle lingered: the patient’s consciousness would forever bear the mark of physical change.

Neuroscience teaches us that identity is fragile, a delicate symphony played upon neural circuits. Ontology reminds us that identity transcends mere physicality, existing also within intangible realms of ideas, self-awareness, and abstract understanding.

Standing in that operating room, witnessing intimately the delicate structures housing a patient’s consciousness, I was reminded powerfully that understanding consciousness requires embracing ambiguity. Consciousness is simultaneously physical and abstract, universal and particular, concrete yet immeasurably elusive.

Even after leaving the hospital, washing my hands obsessively, the smell of burnt tissue and bone dust lingered—persistent reminders of how closely physicality binds to identity and consciousness. As the operating room’s sterile brightness faded into memory, one profound question remained pulsing gently beneath my awareness:

Are we merely physical beings, neurons firing rhythmically in biochemical harmony, or is consciousness fundamentally something more profound—something ontology valiantly seeks, neuroscience meticulously investigates, yet both continue, ultimately, to struggle to fully define?

The answer remains hidden, gently pulsating beneath our skin, awaiting discovery, stubbornly defying neat categorization, demanding exploration, contemplation, humility.