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Keats and the Science of Sensation: A Proto-Neuroscientific Reading of the Romantic Imagination

Dr. Soumendu Kumar Dutta

Secretary to the Vice-Chancellor, Raiganj University, West Bengal, India.
E-mail address: duttasoumendu05@gmail.com

Abstract

This article reads John Keats through the combined lenses of Romantic medicine and proto-neuroscience, arguing that his imagination operates as an embodied cognitive process. Grounded in his medical apprenticeship at Guy's Hospital, Keats's poetry reveals an acute awareness of sensation, pain, and pleasure as physiological events that generate aesthetic insight. Close analyses of *Ode to Psyche*, *Ode on Melancholy*, *Ode to a Nightingale*, and selected letters show how Keats constructs the body as the primary site of imaginative and emotional knowledge. By situating his work within early nineteenth-century debates on vitality, materialism, and the nervous system — and placing his ideas in dialogue with contemporary neuroscience — the article positions Keats as a proto-neuroscientific thinker whose poetics anticipate modern theories of embodied cognition, neuroplasticity, and distributed subjectivity.

Keywords: John Keats; Romantic medicine; proto-neuroscience; embodied cognition; sensation; neuroaesthetics; neuroplasticity.

1. Introduction: Keats, Romanticism, and the Science of Sensation

John Keats (1795–1821) stands at a unique crossroads of Romantic poetry and early nineteenth-century medicine. Celebrated for his "poetry of sensation," Keats transforms sensuous description into an epistemology: for him, perception is the ground of thought, and beauty becomes a truth felt in the nerves. His imagination is therefore not only poetic but physiological—an early intuition of what we now call embodied cognition, the view that mind and body co-create experience.

Keats's medical training at Guy's Hospital immersed him in a culture where science and art were still entwined, and where debates about life, sensation, and consciousness animated both lecture hall and operating theatre. This clinical world—of visible pain, trembling muscles, and the drama of living anatomy—shaped his conviction that knowledge must be "proved upon our pulses." Scholars such as Hermione de Almeida and Nicholas Roe have shown that Keats's exposure to Romantic medicine informed his sensitivity to suffering and his understanding of the body as the site of meaning.

Within the wider Romantic landscape, Keats positions himself between transcendental idealism and mechanical materialism. He neither spiritualizes the body nor reduces it to mechanism; instead, he treats the flesh as the medium of imaginative life. This mirrors the contemporary dispute between vitalists like John Abernethy and materialists such as William Lawrence—debates Keats absorbed and reimagined in poetic terms. His work thus holds together vitality and mortality, celebrating sensation as the basis of cognition.

Seen through this lens, Keats emerges as a proto-neuroscientific thinker. His reflections on consciousness anticipate modern cognitive science, especially theories like Antonio Damasio's "feeling of what happens," where mind arises from the body's sensory states. Keats's imagination similarly organizes sensation into aesthetic and emotional coherence; when he writes that "Beauty is truth, truth beauty," the claim resonates as an embodied rather than purely ideal insight.

This essay develops these ideas in three parts: first, by placing Keats within the medical and philosophical culture of his time; second, by showing how his concept of imagination aligns with contemporary theories of embodied cognition and neuroplasticity; and third, by reading poems such as *Ode to Psyche*, *Ode on Melancholy*, and *Ode to a Nightingale* as dramatizations of cognitive and sensory processes.

Approached through Romantic medicine and cognitive science, Keats's poetry reveals a biological intelligence at its core. His odes pulse with the rhythms of the nervous system, turning sensation into thought and physiology into art. Long before neuroscience mapped creativity, Keats was already exploring the body's imaginative circuitry in verse.

2. Keats the Poet-Physician

When John Keats entered Guy's Hospital in 1815, he stepped into one of Britain's most advanced medical environments, where anatomical precision and the stark realities of suffering shaped daily practice. Under surgeons like Astley Cooper and Henry Cline, he learned to dissect, diagnose, and confront pain with steadiness. This immersion in the "epistemology of the knife" profoundly shaped his imagination: knowledge was acquired through touch, through intimate engagement with nerves, flesh, and the fragile machinery of life.

Keats's surgical training instilled both technical discipline and emotional regulation, and this embodied pedagogy later informed his poetic method. As Nicholas Roe argues, his clinical experience cultivated a disciplined compassion that resonates throughout poems such as *The Eve of St. Agnes* and *Isabella*. Their blend of sensuality and suffering reflects a consciousness that views pain not as mere affliction but as a sharpening of perception—the point where emotion and bodily awareness converge. His notebooks and medical texts, including Lawrence's *Lectures on Physiology*, further exposed him to contemporary theories of the nervous system, helping form his belief that sensation is the pathway to consciousness and poetic insight.

Life at Guy's also familiarized Keats with the extremities of human endurance. Surgery without anesthesia demanded speed, courage, and clarity; wounds and amputations were part of his daily tasks. Rather than hardening him, these encounters refined his sensitivity to the precariousness of life. The paradox of surgery—that one must cut in order to heal—echoes in Keats's aesthetics, where suffering becomes a condition for beauty and transformation. *The Fall of Hyperion*, with its demand that

the poet "feel" the world's wounds with a "disinterested hand," fuses clinical detachment with profound ethical sympathy.

The anatomy theatre and the poet's desk became, for Keats, parallel laboratories. Both required attentiveness, patience, and the courage to confront reality without illusion. Dissection offered a model for poetic inquiry: the careful cutting into experience to uncover its hidden structures. This dual training also nurtured a democratic empathy. In the hospital wards, Keats met patients from all classes, their bodies equalized by illness. This intimacy with human vulnerability shaped his conviction that suffering and beauty belong to everyone.

The hospital likewise exposed him to the intellectual tensions of Romantic physiology, particularly the debate between vitalism and materialism represented by Cooper and Lawrence. Keats absorbed both perspectives, and his poetry oscillates between the sparkle of life and the certainty of decay, refusing to settle for either purely spiritual or purely mechanical explanations. This hybrid stance—empirical yet visionary—sets him apart from other Romantics.

Fundamentally, Keats's medical apprenticeship was not a detour but the ground of his art. The surgeon's discipline taught him to see the world as a living system, where sensation yields knowledge and the body becomes the meeting point of matter and imagination. To read Keats as a poet-physician is to recognize that his poetry emerges from the same source as his clinical training: a reverence for the body's capacity to reveal truth through feeling.

3. Romantic Medicine and Proto-Neuroscience

The early nineteenth century witnessed seismic shifts in medicine and philosophy, as new models of physiology redefined the relationship between body and mind. Romantic-era science—fascinated by electricity, magnetism, and vitality—treated nerves as the very pathways of consciousness. Keats, trained at Guy's Hospital

during this intellectual ferment, absorbed these debates firsthand and translated them into a poetics rooted in sensation.

At Guy's, physiology lectures exposed Keats to the aftermath of Galvani's experiments in "animal electricity," Volta's electrochemical theories, and Erasmus Darwin's vitalism. These ideas challenged dualistic separations of body and soul by proposing that consciousness might emerge from electro-chemical processes. His teacher William Lawrence pushed this further, asserting that the mind was inseparable from the nervous system—a bold materialism that deeply shaped Keats's understanding of imagination as embodied rather than immaterial.

The developing science of nerves permeated Romantic culture broadly. Writers, philosophers, and anatomists alike imagined the "nervous body" as the seat of sensitivity and creativity. Advances by Charles Bell and others—distinguishing motor from sensory nerves and identifying localized brain functions—brought Britain to the threshold of modern neuroscience. Keats encountered these innovations not in abstraction but as the living discourse of London's medical world, and his poetry reflects this scientific aura: its lexicon of aching, melting, tingling, and swooning mirrors the language of neural response.

This context gives new meaning to Keats's insistence on proving philosophy "upon the pulses." For him, thought arises from sensation; imagination is a physiological process rooted in the body's interactions with the world. His famous desire for a "Life of Sensations rather than of Thoughts" is not anti-intellectual but an early articulation of embodied cognition—the idea that mind emerges from the body's sensory activity.

His poetry repeatedly dramatizes this neural logic. Moments of sensory extremity in the odes—"aching pleasure," "drowsy numbness," the tactile richness of *Ode to Psyche*—stage the transformation of bodily feeling into insight. Keats intuitively grasped the overlap of pain and pleasure that modern neuroscience now confirms through studies of shared neural pathways. Suffering becomes, in his work, not mere affliction but a catalyst of perception. His notion of "soul-making"—that intelligence is

shaped through "a World of Pains and troubles"—anticipates neuroplasticity: the mind shaped and strengthened through experience.

The era's competing models of vitality and mechanism also shaped Keats's creative metaphysics. His imagination synthesizes the vitalists' notion of animation with the mechanists' emphasis on material process, treating creativity as an emergent property of the living body. In this way he anticipates later biological theories that view mind as a self-organizing system, responsive and adaptive like a neural network.

Keats's engagement with Romantic medicine thus underpins his entire poetics. The anatomy theatre and the poet's desk become complementary laboratories: both dissect sensation to uncover deeper truths. Rather than escaping the body, Keats shows how the body flowers into imagination. His sensibility prefigures what we now call neuroaesthetics—the study of how brains make beauty. Long before neuroscience existed, Keats was already charting the pathways through which sensation becomes thought, and thought becomes art.

4. The Romantic Imagination as Cognitive Process

Keats's formulation of "Negative Capability" — the capacity to remain "in uncertainties, Mysteries, doubts, without any irritable reaching after fact & reason" — is both an aesthetic credo and an early model of cognition. Anticipating modern theories of cognitive flexibility**,** Keats suggests that creativity arises not from certainty but from sustained openness, a mental tolerance for ambiguity that resists premature resolution.

This epistemology marks a shift from Enlightenment rationalism to a Romantic understanding grounded in embodied sensation**.** For Keats, the imagination does not dominate reality but immerses itself in the sensory field. His intuition aligns with contemporary neuroscience such as Anil Seth's theory of perception as "controlled hallucination": the mind continually negotiates between prediction and sensory input.

Keats's imagination operates similarly as a self-adjusting system, balancing expectation with experience.

His letters repeatedly affirm that imagination is rooted in the body — "like Adam's dream," it becomes truth when verified by sensation. Thus, thought crystallizes out of sensory life; the imagination translates feeling into insight much as the nervous system transforms stimuli into meaning. His desire for "a Life of Sensations rather than of Thoughts" is not anti-intellectual but proposes that cognition originates in refined sensation. The odes dramatize this cognitive process. *Ode to a Nightingale* moves from physiological ache to imaginative flight, revealing how affect becomes artistic vision. Its closing question — "Was it a vision, or a waking dream?" — registers the mind's oscillation between perception and projection, akin to the brain's dynamic interplay of sensory data and internal models.

"Negative Capability" also functions physiologically: a capacity for openness without "irritable" contraction. Keats contrasts this with Coleridge's compulsive pursuit of metaphysical certainty, transforming "irritability" from a medical term into a psychological critique. The poet's equilibrium involves a neural balance between excitation and inhibition — between imaginative reverie and attentive control. Modern neuroscience echoes this: creative insight entails heightened connectivity between the default mode and executive control networks. Keats's "poetical Character," being "everything and nothing," anticipates this neural fluidity.

His most famous axiom — "Beauty is truth, truth beauty" — likewise reads as a cognitive statement: aesthetic pleasure signals a moment when perception and understanding achieve resonance. In *Ode on a Grecian Urn*, this harmonizing of sensory and conceptual experience generates truth as felt coherence, a phenomenon now explored by neuroaesthetics.

This embodied cognition extends to ethics. Negative Capability fosters empathy by suspending the ego and allowing the self to "fill some other Body." Cognitive science later identifies such imaginative transposition in mirror-neuron systems that enable

vicarious feeling. Keats's poetry, as in *Isabella; or, The Pot of Basil*, renders emotion somatically, inviting readers to feel through the body.

In essence, Keats's poetic imagination functions as a cognitive ecology where sensation, emotion, and thought continually transform one another. *To Autumn* exemplifies this synthesis, translating sensory detail into temporal and reflective awareness. Keats thus bridges Romantic poetics and modern cognitive science: for him, poetry and science share a common project — understanding how the mind makes meaning from matter.

5. Close Readings: Poetry of Sensation

Keats's medical training and philosophical commitments converge most fully in his poetry, where sensation becomes the engine of imaginative life. The major odes function as experiments in cognitive embodiment, modeling how the nervous system transforms perception into meaning.

a. *Ode to Psyche*: Building the Mind's Temple

Ode to Psyche inaugurates the 1819 odes by redefining worship as an inward, sensory practice. The opening vision—whether "dreamt to-day" or seen "with awaken'd eyes" (ll. 5–6)—already fuses perception and touch as the poet finds Psyche and Cupid "couch'd side by side / In deepest grass" (ll. 10–11), their "arms embraced, and their pinions too" (l. 17). Imagination emerges through multisensory entanglement rather than detached observation.

Keats's vow to "be thy priest, and build a fane / In some untrodden region of my mind" (ll. 50–51) articulates imagination as physiological architecture. The temple's "branched thoughts" (l. 52) and "wreath'd trellis of a working brain" (l. 63) uncannily anticipate neural networks. As Helen Vendler observes, the poem stages a mental process: imagery ("buds, and bells, and stars without a name" [l. 57]) works like neural pulses. From a proto-cognitive perspective, Keats intuits embodied simulation—the

brain's ability to "rehearse" experience internally. Psyche thus becomes both myth and model: the emblem of an imagination rooted in bodily energy.

b. *Ode on Melancholy*: The Neural Entanglement of Pleasure and Pain

In *Ode on Melancholy*, Keats explores the physiological overlap between sorrow and pleasure. Rejecting oblivion—"No, no, go not to Lethe" (l. 1)—he proposes sensory intensification: to "glut thy sorrow on a morning rose" (l. 15) or on "the rainbow of the salt sand-wave" (l. 16). Melancholy, he insists, "dwells with Beauty—Beauty that must die" (l. 21). Modern neuroscience confirms this intuition: the same affective circuits mediate pleasure and pain.

The poem's rhythms ("burst Joy's grape against his palate fine" [l. 28]) evoke sudden neural surges followed by awareness of transience. Keats frames melancholy as affective volatility rather than deprivation. His exhortation to "feed deep, deep upon her peerless eyes" (l. 20) becomes a manifesto for embodied mindfulness: sensation as the pathway to emotional truth.

c. *Ode to a Nightingale*: Dissociation and Re-embodiment

Ode to a Nightingale dramatizes the passage from sensory overload to imaginative transport. The poem opens with physiological distress: "My heart aches, and a drowsy numbness pains / My sense" (ll. 1–2), "as though of hemlock I had drunk" (l. 3). This threshold resembles dissociation—a withdrawal that precedes imaginative compensation. Deprived of sensation, the mind supplies its own stimuli: "O for a draught of vintage!" (l. 11), "Tasting of Flora and the country green" (l. 13). The "viewless wings of Poesy" (l. 33) become a metaphor for endogenous creativity.

Entering "embalmed darkness" (l. 43), the poet undergoes cross-modal adaptation as hearing and smell intensify. At the poem's height—"Now more than ever seems it rich to die" (l. 55)—selfhood loosens in a moment resembling neurological ego-dissolution. The word "Forlorn!" breaks the trance "like a bell" (l. 69), restoring the "sole self" (l. 72). The final question—"Do I wake or sleep?" (l. 80)—captures the porous boundary between sensory reality and internal simulation.

d. The Letters: The Chameleon Poet and Embodied Empathy

Keats's letters make explicit his poetics of embodiment. "Negative Capability," defined as remaining "in uncertainties, Mysteries, doubts, without any irritable reaching after fact and reason" (Letter to George and Thomas Keats, 21 December 1817), describes a cognitive state of attentional flexibility akin to modern divergent thinking. His claim that "Axioms in philosophy are not axioms until they are proved upon our pulses" (Letter to John Hamilton Reynolds, 3 May 1818) asserts sensation as the grounding of knowledge, aligning with embodied cognition.

The "chameleon poet," who "has no self—it is everything and nothing" and delights equally in imagining "an Iago as an Imogen" (Letter to Richard Woodhouse, 27 October 1818), anticipates theories of mirror neurons: empathy as neural simulation. Shakespeare's genius, for Keats, lies in this capacity to "fill some other body," an imaginative permeability that is both ethical and physiological.

Across the odes and letters, Keats consistently casts imagination as a bodily process: in *Psyche*, the mind becomes a sensory architecture; in *Melancholy*, emotion arises from neural ambivalence; in *Nightingale*, perception oscillates between dissociation and reintegration; and in the letters, empathy emerges as embodied cognition. His poetry thus becomes a form of cognitive inquiry—an anatomy of how consciousness feels from within.

6. Sensation, the Body, and the Poetic Self

Keats conceives the self not as a fixed essence but as a mutable continuum of sensation — a consciousness shaped by the body's ongoing contact with the world. In his letter to Woodhouse, he insists that the poetical character "is not itself — it has no self … A Poet is … the most unpoetical of anything in existence; because he has no Identity — he is continually … filling some other Body" (Keats, Letter to Richard Woodhouse, 27 October 1818). This articulates a radically porous selfhood, defined not by autonomy but by receptivity. Against Enlightenment models of rational, self-

contained identity, Keats imagines consciousness as sensory, affective, and ecological: the self emerges from bodily impressions rather than preceding them.

His letters consistently link cognition to embodiment. To Bailey, he observes that "The Imagination may be compared to Adam's dream — he awoke and found it truth" (Keats, Letter to Benjamin Bailey, 22 November 1817), grounding truth in sensory awakening. To Reynolds, he famously claims that "Axioms in philosophy are not axioms until they are proved upon our pulses" (Keats, Letter to John Hamilton Reynolds, 3 May 1818). The pulse becomes a symbol for the body's role in thinking — the rhythmic basis of perception. Keats thus anticipates modern neurophenomenology, for which consciousness is "enactive," arising through embodied engagement with the world.

His poems dramatize this sensory ontology. In *Ode on a Grecian Urn*, the "still unravish'd bride of quietness" (l.1) becomes a material body that preserves "frozen" vitality. The poet's gaze is tactile, a form of imaginative touch. Likewise, in the odes, sensation leads to self-dissolution: the speaker of *Ode to a Nightingale* merges with birdsong; in *To Autumn*, the voice sinks into the landscape — "Thou hast thy music too" (l.42). This dissolving boundary between perceiver and world anticipates theories of the extended mind, framing consciousness as distributed rather than internal.

Negative Capability crystallizes this sensory epistemology. Instead of seeking certainty, the poet cultivates openness — a willingness to remain in "uncertainties, Mysteries, doubts" and to inhabit other existences. This capacity resembles cognitive flexibility and becomes an ethical form of empathy: the poet "lives in gusto, be it foul or fair, high or low, rich or poor" (Keats, Letter to Richard Woodhouse, 27 October 1818).

Pain, too, shapes Keats's understanding of the embodied self. In *Hyperion (Fragment)*, "Now comes the pain of truth, to whom 'tis pain—" (Canto I) suggests that suffering anchors consciousness in the body and deepens insight. His medical training at Guy's Hospital sharpened this awareness: witnessing suffering taught him to read pain as a form of knowledge and a medium of compassion. Modern affect theorists

similarly view pain as an epistemic event, and Keats anticipates this by making sensation — even in its extremity — the moral center of his poetics.

Essentially, Keats develops an early theory of the embodied mind. Identity is not an interior possession but a relational field shaped by sensation, memory, and environment. Creativity, for the "chameleon poet," is collective and emergent, dissolving authorship in favor of permeability. To imagine is to feel; to feel is to know. In this view, the poet becomes a sensorium — thinking through nerves, dreaming through flesh, and finding in the pulse a measure of truth.

7. The Medical and the Mystical

Keats's identity as both poet and medical student produces a distinctive creative tension in his work, uniting empirical observation with visionary transcendence. At Guy's Hospital he confronted pain, disease, and mortality firsthand — dissecting cadavers, dressing wounds, and witnessing unanesthetized amputations. This intimacy with the body's extremities cultivated both technical precision and emotional intensity. The same hand that wielded the scalpel would later write of "aching Pleasure nigh, / Turning to poison while the bee-mouth sips" (*Ode on Melancholy*, ll.21–22). For Keats, physical suffering becomes the raw material through which imagination rises toward insight.

His medical training sharpened his descriptive acuity. In *Ode to a Nightingale*, the physiological lexicon of "drowsy numbness" and "hemlock" (ll.1–2), or in *Ode on Melancholy* the synesthetic "aching" of nerves, demonstrates his sensitivity to how the body registers extremes. Yet physiology functions not merely as realism but as a gateway to transcendence: the anesthetic imagery of *Nightingale* opens into a mystical merging with the bird's song.

This ascent from pain to vision echoes Romantic notions of the "spiritual body," though Keats grounds his mysticism in empirical truth. As *The Fall of Hyperion* insists, true visionaries "see through the portals of the head and heart" (Canto I, ll.153–154);

knowledge requires passing through bodily ordeal. His mysticism is thus anatomical: spiritual truth emerges through a profound engagement with flesh, not escape from it.

Keats's own illness intensified this synthesis. In September 1820, after his first pulmonary haemorrhage, he diagnosed himself in a letter to Charles Brown with chilling precision: "I know the colour of that blood; it is arterial blood… that blood is my death-warrant" (Letter to Charles Brown, 30 September 1820). His failing body becomes both a clinical object and a metaphysical threshold. Mortality becomes a mode of perception, a lens through which he rereads life, art, and suffering. *To Autumn*, written as his health declined, transforms decay into cyclical renewal — the "soft-dying day" (l.25) embodying the continuity between bodily fragility and natural fecundity.

Romantic medicine's vitalist tradition further shaped Keats's imagination. Influenced by thinkers like Erasmus Darwin and John Hunter, he viewed life as animated by a dynamic force. In *Hyperion*, the Titans' fall and Apollo's awakening dramatize consciousness evolving through pain. Sensation becomes divine energy; matter aspires to spirit. In *Ode to a Nightingale*, the speaker yearns to fly "on the viewless wings of Poesy" (ll.31–33) to the "light-winged Dryad" (l.7), while *To Autumn* merges ripeness and decline into one rhythm. This vitalism foreshadows modern ideas of the brain as electrochemical dynamism — imagination as a current coursing through the organism.

Keats fuses medical realism with mystical vision to form a poetics of transfiguration. Pain becomes revelation; sorrow becomes intensity; the corporeal becomes spiritual. In *The Eve of St. Agnes*, sensuality becomes sanctity, while throughout the odes the body is the medium through which beauty and truth unfold. The same nerves that feel suffering also perceive exaltation; the same mortality that threatens the self gives it meaning. As Denise Gigante observes, Keats's aesthetics merge physiology with transcendence, re-enchanting the flesh through form.

In uniting the surgical and the sacred, Keats creates a visionary empiricism. The anatomy theatre and the temple of the muses become one: spaces where the mysteries

of life are unveiled. His synthesis positions him as both the last great Romantic visionary and an early phenomenologist of embodiment — a poet for whom sensation itself is the threshold of the soul.

8. Critical Implications

Reinterpreting Keats through Romantic medicine and proto-neuroscience reshapes our understanding of him as not merely a lyrical sensualist or metaphysical dreamer but as a thinker deeply engaged with the physiology of perception and the embodied nature of imagination. His poetry and letters reveal a sustained inquiry into how empirical sensation becomes aesthetic insight — an early theorization of cognition in poetic form. This reframing grounds Keats's aesthetics in a materialist epistemology and positions him as a precursor to modern theories of embodied cognition, neural integration, and distributed subjectivity. It also invites a broader revision of Romanticism as a movement that did not flee from science but absorbed and transformed it.

Twentieth-century criticism often treated Keats's medical background as incidental, emphasizing instead his idealist quest for transcendence. A proto-neuroscientific reading restores the body to central importance. His emphasis on sensation becomes a rigorous exploration of how the nervous system produces meaning. "Negative capability" appears not as mystical surrender but as cognitive openness — a brain capable of holding ambiguity while integrating competing sensory streams. Likewise, "What the imagination seizes as Beauty must be truth" (Letter to Benjamin Bailey, 22 Nov. 1817) reads as a phenomenological claim: truth arises from the coherence of embodied experience. Imagination, for Keats, functions as a biocognitive mechanism that transforms raw sensory input into patterned aesthetic insight.

This approach aligns with the contemporary "cognitive turn" in literary studies. Scholars like Alan Richardson and Lisa Zunshine view literature as a medium for modeling mental processes, and within this framework Keats assumes new

significance. The *Ode to a Nightingale* mirrors fluctuations between immersive and reflective mental states — akin to shifts between the brain's "default mode" and "executive control" networks. His syntax enacts these oscillations, allowing readers to experience cognition unfolding. His letters display similar intuitions: "axioms in philosophy are not axioms until they are proved upon our pulses" (Letter to J. H. Reynolds, 3 May 1818) anticipates Damasio's theory of somatic markers, showing that Keats understood thought as inseparable from bodily feeling.

Keats also anticipates embodied cognition, the view that mind arises through the interplay of body, environment, and sensation. His obsession with "pulse," "ache," "taste," and "numbness" demonstrates how cognition permeates the sensorium. Even the "chameleon poet" anticipates neural plasticity: the self that becomes what it perceives resembles the brain's adaptive rewiring through experience. His poetic identity is thus a model of neuroplastic consciousness — flexible, affective, and relational.

Re-situating Keats within the scientific culture of his time forces a revaluation of Romanticism itself. Far from anti-scientific, Romanticism emerges as a laboratory of embodied epistemologies. Poets like Keats, Shelley, and Coleridge transformed physiology, chemistry, and psychology into aesthetic inquiry. Keats's fusion of surgical precision and sensuous empathy produces a neuroaesthetic imagination — one that investigates how the organism translates sensation into art. Romanticism thus appears not as a retreat from reason but as an exploration of cognition through feeling.

This reframing also relocates Keats in intellectual genealogy. He becomes a precursor not only to later poets but to phenomenologists such as Merleau-Ponty, psychoanalytic thinkers like Freud, and cognitive theorists like Damasio. His odes act as phenomenological and cognitive simulations — records of consciousness in motion, where perception, emotion, and imagination intertwine. Poetry becomes a mode of cognitive modeling rather than an object to be explained by science.

Viewing Keats through Romantic medicine and proto-neuroscience transforms him into an anatomist of cognition. His metaphysical aspirations rest on empirical

truth: the body, nerves, and sensorium form the ground of imagination. The Romantic imagination becomes, in his hands, a theory of embodied consciousness — the mind as living matter, adaptive and affective. In bridging the medical and the poetic, Keats anticipates a future in which literature and science collaborate to map human experience. His work invites us to understand imagination itself as a biological faculty, one that, like the nervous system, both perceives and creates the world it inhabits.

9. Conclusion – Keats and the Material Roots of Imagination

When Keats wrote that "axioms in philosophy are not axioms until they are proved upon our pulses" (Letter to J. H. Reynolds, 3 May 1818), he articulated an epistemology grounded in physiology. His imagination sprang not from ethereal transcendence but from a body trained to observe, to touch, and to feel. The dissecting rooms of Guy's Hospital shaped the visionary terrains of *Endymion* and the odes; the medical apprentice became a poet whose art retained the anatomy of empirical inquiry.

This essay has shown how that anatomy manifests in Keats's neural metaphors, his tactile imagery, his cognitively open "Negative Capability," and his transformation of Romantic sensation into a form of embodied cognition. Read alongside Romantic medicine and proto-neuroscience, Keats's imagination emerges as a biological process: the nervous system translating sensation into meaning, emotion into thought.

Keats lived at a moment when anatomy, electricity, and vitalism permeated intellectual culture. Studying under Astley Cooper, he absorbed scientific debates that furnished him with metaphors for creativity itself. The surgeon's precision and the poet's sympathy became intertwined practices of understanding life's hidden structures. Far from rejecting science, Keats exemplifies how Romanticism expanded empirical inquiry into the realms of consciousness and feeling.

Seen through this lens, Keats becomes an early theorist of the mind–body continuum. Long before neuroscience named neural plasticity or embodied cognition,

he imagined a consciousness fluid, adaptive, and porous. His “chameleon poet” and “camelion” imagination prefigure models of cognitive permeability — a mind reshaped by experience and empathy.

The odes enact this physiology of consciousness. In *Nightingale* and *To Autumn*, the self dissolves into sensation, then reassembles in reflection; their movements mimic neural oscillations between immersion and awareness. Perception appears not as passive reception but active synthesis, a truth modern cognitive science affirms.

Recognizing the material roots of Keats’s imagination also clarifies the ethical dimension of his poetics. His commitment to “feeling into” experience constitutes a moral philosophy of empathy, one aligned with the physician’s calling. *The Fall of Hyperion* makes suffering “with a human hand” the test of vision, anticipating an ethics grounded in shared sensory vulnerability — a kind of neural ethics.

Reframing Keats within Romantic medicine restores him to a lineage where physiology and art illuminate each other. His poetry and letters read as field notes from the border between body and mind, anticipating twenty-first-century collaborations between neuroscience, literature, and philosophy. Romanticism itself appears not as a retreat from Enlightenment empiricism but as its evolution: an expansion of scientific inquiry into emotion and imagination.

Ultimately, Keats intuited that sensation and thought, body and spirit, are continuous. His poetry imagines a science of feeling — empirical yet affective, physiological yet visionary. When he wrote that “the imagination may be compared to Adam’s dream — he awoke and found it truth” (Letter to Benjamin Bailey, 22 Nov. 1817), he suggested that truth arises through embodiment: knowledge beginning in the pulse. His lasting achievement lies in mapping the terrain where neuron meets metaphor, where sensation becomes insight. Keats stands as the first great poet of the embodied mind, discovering — between dissecting room and lyric page — what modern neuroscience continues to affirm: that thinking beautifully begins by feeling deeply.

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Author's bio-note

Dr. Soumendu Kumar Dutta earned his Ph.D. from Raiganj University, where his doctoral research examined war poetry with critical rigor and profound empathy, illuminating the emotional and ethical complexities embedded in literary representations of conflict. Alongside his executive responsibilities at Raiganj University, Dr. Dutta remains actively engaged in research and has contributed widely to reputed national and international journals. His scholarly interests span War Literature, Early Modern Drama, the works of Shakespeare and Ernest Hemingway, and the dynamic interface between Religion and Literature.