Imagination and Science in Romanticism

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William Blake understands the imagination to be embodied in the nerves. Nelson Hilton has shown how fibers treated by Blake are “the conducting passageways of the vital spirits of imagination (spirits that, as Los says, live in the brain and nerves)” (98). Central to The Four Zoas is the construction of nervous bodies. Hence, in this chapter, I ask, Why did Blake simultaneously reduce the imagination to the nerves—thereby seemingly risking a physicalism devoid of spirit and an automaticity that denies intentionality and consciousness—and associate his poet figure, Los, with loss? (Physicalism is typically thought to do an end run around mentality, autonomy, and context, not to mention the theological soul.1) In so doing, I argue, Blake paradoxically gains a kind of universalism that escapes the limits usually associated with physical reductionism, and he is able to do so because Romantic physicality included entities like imponderable matter, entities that do not disallow spirit. I turn to Blake’s The Four Zoas to consider the ways in which neurology of the period facilitated a flexible materialism that included both spirit and a dynamic materiality in the form of life, but one nonetheless with a reductionism driving toward a unity that can only be gestured at through narrative. As Blake puts it, “A Perfect Unity / Cannot Exist” (N1 E300: 6–7).2 Romantic neurologists likewise recognized that reductionism was a heuristic, linking forms of it with probability, and thus could contemplate both what it enabled and what it cost.3 Criticism has shown how important unity was to Romantic science,4 but it has neither broached the implications of this unity for the scientific goal of reductionism nor elaborated upon how scientific reductionism in the Romantic period could be perfectly in keeping with art’s formal unity, a unity that Blake insists brings with it loss. Because humanists are so eager to cast the stone of re-
ductionism upon scientists, they are sometimes blinded by the fact that textuality is a brittle, not to mention aging, glass house. From a scientific perspective, reductionism is simply the work necessary for science to have a purchase on a problem. When Blake equates poetry with loss, he reminds readers that both art and science engage in a kind of reductionism so that the reader’s imagination remains engaged. Given the vertiginous textual plenitude of the poem—where the characters morph into each other—the reader craves loss: some kind of path through. Textual weaving thereby dovetails with nervous branching.

Because Romantic writers recognized that unity was especially a problem when it was about the imposition of hierarchy, art and science then together strove for what Coleridge called multicity in unity, a unity that did not absorb all difference. This unity with difference is one key reason why Blake ends *The Four Zoas* by imagining “sweet Science [to] reign” (N9 E407: 10), and it can do so because “the dark Religions are departed” (ibid.). For Blake, dark religions like deism and natural religion suppress imagination and prevent enlightenment. When Blake equates “the golden armour of science” with “intellectual war” (ibid.), science is given the potential to offer improvement because, while war retains the energy of difference, science provides some armor. This “remainder of difference” in intellectual war speaks to the limits of an eliminative reductionism that would get rid of all other levels making any such war impossible, even as it demands that we consider the materialization of poetry as necessary loss. If the poetry were fully embodied, Blake would do away with the need for imaginative interpretation. Hence Blake turns to allegory—“other” speech—because it demands comparisons without eliminating differences. Its unbound status—Blake never had *The Four Zoas* bound—is only its most manifest form of its plenitude.

Although we today understand vitalism to resist reductionism, vitalism was an important strand of the science of the time. Geneticist François Jacob goes so far as to claim that, without vitalism, biology could not establish itself during the period (92), and his reminder that biology moves simultaneously in two different directions—integration and reductionism—helps us capture why vitalism could have such purchase. Vitalism encouraged work in both directions. As a principle, it gave at very least a regulatory idea for biology to focus on. And because this idea could not be firmly localized in any single instance, to pursue it, one had to expand one’s horizons to the very plenitude of nature. For those like Humboldt who believed that the organic was simply a higher form of the inorganic, those horizons expanded to things.

Because vitalism in Romanticism was a part of scientific explanation especially when it resisted vitalist substances and instead relied upon processes, it enabled
a flexible reductionism that, in turn, licensed art and science to work together to imagine forms of fluid embodiment that lent intelligibility especially when mechanism was deemed an insufficient form of explanation. In brief, because nervous “organization” in the Romantic period stood for the process by which an organized structure is formed (Figlio 40), it was inseparable from life yet was used to gesture toward the idea of living structure while leaving highly ambiguous the exact relation of nervous material to function. Simultaneously, emphasis was tilted toward animation and away from the structures and mechanisms that enable it so that the ideal of autonomy can be preserved (41). The Romantic use of “organization” was not just a form of obfuscation but a scientifically necessary way of both gesturing toward a structure in process and self-organizing systems (like Buffon’s *moules intérieur*), which fend off simple determinism. Moreover, because self-organizing systems are capable of moving the boundary between agent and environment, they thus have an unpredictable radical plasticity. An added boon for humanists: multiple levels of interacting organization allow for mind and intentionality. Today, neuroscientists working on emotion speak about “degeneracy,” the fact that many different combinations of neurons can create, just to use one instance, the emotion of fear (Barrett 19). Finally, this turn to organization was also a turn to ecology: living things became integrated into nature and into their environments (Jacob 86). Literally so: Humboldt’s speculations on “social plants” led to the formation of the science of ecology (8).

Hence, in *The Four Zoas*, Orc begins “to Organize a Serpent body / Despising Urizen’s light & turning it into flaming fire” when he needs to work against Los’s “cold hypocrisy” (N7 E356: 44–45). Three points need to be made here. One, Orc’s vitality organizes the body, granting it a purposiveness that resists any externally imposed instrumentality. Two, this resistance enables it to foment revolution, symbolized by Orc’s flaming fire and its ability to douse Urizen’s light. Teetering between substance and a verb, “organization” was and is a way of refusing to assume, as Paul Ricoeur puts it, that a dualism of referents (body, mind) implies a dualism of substances (14). Finally, organization was then a form of localization that could enhance synthesis: in *Neural Imagination*, Irving Massey notes that “neurology is more effective in analysis than synthesis” (18), and he worries about the loss of the whole experience within neuroscientific accounts of aesthetics. However, embodiment within a decentering nervous network could address synthesis because the idea of network makes fungible the basic unit of analysis, moving as it does from a nerve to a network of nerves. Networks demand sliding scales, and the nerves are simultaneously part and whole. For Blake, embodiment demanded that nervous being be inextricable from making, or the continuous work of imag-
ination. Central to this making is the feeling of pleasure and aliveness, which is what the nerves are about. In this, the Romantics anticipate how Agamben questions the current passive acceptance of the reduction of the life sciences to “bio-power” when “life itself is the power that exceeds its forms and its fulfillment” (490). Blake illustrates life’s excess when he shows how, despite all of Urizen’s and Vala’s energies devoted to melting bodily forms in the furnaces, bodies remain divine forms. In Night 4, Blake will suggest that “disorganizd” equates to being “rent from Eternity.”

Even today, “organization” places distinct limits on what reductionism can accomplish because it widens the scope of localization from single areas to distributed networks to make space for autonomy, often by pushing it to a higher level. Biologist Steven Rose reminds us that “neither neurons nor synapses are isolated monads,” and that the way the units are organized is crucial to understanding the brain (148). Professors of psychology and philosophy, Maurice Schouten and Huib Looren de Jong submit that “the organization of the parts and interactions of the mechanism with its environment requires (semi)-autonomous higher-level research” (16). Philosopher Robert Richardson adds, it is not “structure that illuminates the reduction, but the dynamics, and dynamics are driven by explanatory rather than metaphysical needs” (138). Researchers at Dartmouth, moreover, have very recently argued that the imagination requires a widespread neural network to consciously manipulate images in the brain. In the Romantic turn to nervous organization to understand sensibility, we see the primacy of the dynamic over the structural, allowing for a robust vital embodiment that allows for the emergence of consciousness without denying the possibility that a future science will heal the gap between the brain and mentality, which helps us to understand Blake’s interest in neurology and nervous anatomy. Emergence, moreover, means that the whole exceeds the sum of its parts, and that results cannot be predicted. That Blake’s nerves are metonymic allows them to resist externally imposed syntheses by branching in unexpected ways. Isabelle Stengers helps us grapple with the issues here: she argues that the centuries-long confrontation between mind and body fails to introduce “any precise requirements or obligations” (Cosmopolitics 189) because what is captured is a result or invention of research. Her example is the neuron, which has “no determinate reference to the brain as such” (93), and which must be imagined as an agent, which Blake does by giving it a kind of Kantian purposiveness, but in the form of pleasure.

Neurology of the Romantic period gave wide berth to the imagination even as it embodied it in a complex network of nerves. In the gap between structure and function, there were many ways for the nerves to work. Fluids, spirits, vibrations,
and electricity name the main schools of thought. Blumenbach detailed the various “opinions” of physiologists—animal spirits, electricity, magnetic effluvia (Elements 159)—only to prefer a model that relied upon the movement of nervous fluid, specifying “oscillatory vibrations, when subjected to the action and influence of stimuli” (ibid.). Since sensibility as purposiveness enabled nervous function to require little or no anatomical support during the Romantic period (Clarke and Jacyna 159), the ideal of life as a form of purposiveness stood in for a sufficient explanation. Robert Young notes that Franz Gall did not even feel embarrassed at the fact that he had almost nothing to say about nervous physiology (Mind, Brain 30); all he did was to specify the organ as the material condition of its function and make behavior the form of function. A second practical solution to this problem was to accept nervous animation as a theoretical object to be provisionally accepted as physically real (Nagel 147) so that the nerves could make sensibility intelligible. Another way of saying this is that animation could remain imagined so long as one qualified its status as knowledge as imagined or speculative or for the limited purposes of intelligibility. The turn to nervous energy or excitability, moreover, compensated for the difficulty of correlating nervous diseases to lesions, which of course could be found only during an autopsy.

Yet Romantic neurologists could be remarkably modest. John Hill wrote in The Construction of the Nerves and the Origin of Nervous Disorders (1758) about what he had “persuaded” himself he had seen in the nerves (2). Alexander Monro II admitted, “Every one of these opinions [on the formation of the nerves], on very important points, will, perhaps, be found doubtful or erroneous when we consider them fully” (24). Scottish physician Robert Whytt used the “name of animal or vital spirits” but made it clear that he was not committing to “any view of ascertaining its particular nature or manner of acting” (Essay 9), deeming it sufficient to stipulate the existence of a power “in general, though its peculiar nature and properties be unknown” (9). Much like the Romantic physiological object, which is open to revision when proof warrants because it is more epistemological than ontological, the nerves invite imaginative ontologies that have provisional status. Of course, scientific objects demand an elasticity that allows for technological changes, or else they risk becoming moribund, and this is why they take on a kind of figural elasticity. Even today, neuroscientists need only to claim a commitment to a future mechanism rather than specify an actual mechanism, and Catherine Malabou’s work on the different kinds of neural plasticity shows how neuroscience constantly defers that specificity by moving between these definitions.

Blake not only embodies the imagination in the nerves, but he also dwells in
The Four Zoas upon the literary and scientific implications of reductionism. In fact, mankind’s fall from divine grace is experienced as a kind of brutal reductionism to dead matter, but corporeality does not in Blake mean the automatic death of spirit. His idea of the body divine refuses the presumption of an a priori rupture between body and spirit. To wit, Blake often represents mental strength as muscularity (Damrosch 125). Early on, Blake announces the subject of The Four Zoas will be Albion’s “fall into Division & Resurrection to Unity” (N1 E301: 4). I will show how he understands the human body divine as expansive, and not as a necessary constraint—despite the valiant and insistent efforts of Vala and Urizen to reduce it to deadly fixity—or structures without functions (a mundane shell) or structures with dead functions (Blake’s zombies). And since the characters seek to avoid eternal death and find regeneration, Blake suggests how reduction to nervous embodiment can avoid the former while attaining the latter. Blake emplots reduction along the Christian idea of the fall, which, for Blake, helped human beings to forget their divinity, but the nerves as organs of pleasure resist such death along with the moralizing of pleasure.

Reductionism has literary implications as well, insofar as it enabled comparison between perspectives that appear to be incommensurate. Nonetheless, by multiplying the agents who manipulate the bodily structures in his works as if they were inert and not living, Blake warns, on the one hand, against forms of reductionism that forget the spiritual dimensions of life otherwise known as animation/vitalism and, on the other hand, against ways of understanding that would turn to universals without context. In this view, bodily organization is context dependent. There are four zoas and multiple eternals, and each represents the contingency of experience despite Urizen’s attempts to reduce the body into constraint to consolidate his power. That each zoa embodies one of the four energies in every human being (Urthona/Los as imagination; Urizen as reason or law; Tharmas as instinct/desire; and Luvah/Orc as passion) multiplies the differences and likely combinations. Hence, each character in Blake brings to the situation at hand an emotional and environmental context that helps explain his or her actions, which, in turn, are presented as potentially both redemptive and damning, a move that again insists upon context. Enion thus murders Tharmas’s emanations, for instance, only to discover that they were hers as well (E 304). Humankind’s fall can become a fortunate fall, but only so long as the imagination is not reduced to dead fibers, and insofar as the fall itself is understood not so much as a historical event that has occurred in the past but rather as one in the present reader’s imaginative engagement to resist it (Ault, Narrative Unbound 10). By equating the materialization of poetry with Los/loss, Blake reminds us both that even his illuminations
cannot substitute for the reader’s imagination and that death is necessary for creative embodiment to occur.24

Although moral philosophers like Frances Hutcheson, Edmund Burke, and David Hartley sought to connect nervous anatomy with moral sense, associating pleasures with virtues and pain with vices, Blake vigorously contests the reduction of nervous anatomy with conventional moral values, since he shows damning acts to be unwittingly redemptive, and since he considers the nerves as a dynamic open network that learns. Urizen admits, “I have erred and my Error remains with me” (FZ N9 E391: 225), suggesting that error becomes a part of his being and thus not something forgotten. Acts in Blake exceed their intended consequences, and consequences depend upon the scale at which one views events. Moreover, by constantly playing “higher” levels of organization against “lower” ones, as Blake does with emanations, specters, vegetated bodies, shadows, and gender, and by having “higher” and “lower” continually switch places, Blake confounds a reductionism that would allow one level to speak for all even as he insists upon a nervous imagination that is multiply realized and requires narratives to stitch together the levels. “Lower” levels often act with surprising emotional passion if not complexity. And, indeed, the proliferating cast of characters in The Four Zoas amply testifies to the ability of individualized nervous embodiment to yield similar states like jealousy and possessiveness, which hints at a unity that does not let go of difference.

Of course, multiple realizability is the standard philosophic refutation of reductionism. The logic goes like this: How can we explain why a single property, state, or event, can be realized by many distinct physical kinds?25 Romantic reductionism allowed for multiple realizations since nervous structure before cell theory was only a loose idea, and since comparative anatomy—and the incredible anatomical collections of the Hunter brothers—built knowledge of higher forms on lower ones. Furthermore, even now, philosopher Robert Richardson argues that science is not so much theory reduction as a “succession of models constituting partial solutions based on inadequacies to specific and local problems” (138–39). Richardson allows us to narrow the gap between Romantic science and current science, because nerve specialists model physiology and correct those models in light of subsequent developments.26 In thinking about how reductionism gets operationalized within science, Richardson sees the imagination and adaptation of models, which engage with the particulars of scientific knowledge and work through their implications. If we apply his wisdom to Blake, we can wager that Blake looks to both model the nerves and, in so doing, to model solutions based on inadequacies within individual approaches to the fall.
Imaginative modeling allows us to see how neurology not only exploits the imagination’s powers of visualization but also brackets those models as being subject to kinds of scientific confirmation. Neuroscientists Gerald Edelman and Giulio Tononi argue that modeling also demands a shift away from localization to process: integration in their model was not achieved in any place, but it was achieved by the process (118). If the science wars and the Romantics before them framed scientific experiment as necessary reductionism, meaning by this a kind of impoverishment, some Romantic scientists dismissed the imagination’s visualizing powers in advance without considering how it could offer a kind of provisional modeling of organization between levels. Just as experiment should not be judged in advance of what it can show (Stengers, *Invention* 233), imagination should not be dismissed out of hand before it can suggest connections to be scientifically ratified.

In a wider view, thinking about the Romantic imagination in the context of the science of the nerves accomplishes several things. It shows the falseness of the material/immaterial binary insofar as Romantic nervous science, on the one hand, made ample space for the soul (see Haekel, *Soul*) and, on the other hand, bracketed ontological claims as speculative. The notion of animal spirits is built upon the idea of an anima. It reminds us that the imagination was far more than just an idea (Engell) because it was thought to be embodied in a network of nerves and consequently was believed to have not only force in the world but also to engage with and be shaped by that world. Indeed, Helen McNeil has argued that the zoas act “according to the requirements of the present situation, not according to a concept of stable personality” (373), and the nerves both help explain how this can be done and instill within corporeality an essential responsiveness to the environment. It undermines the equivalence of imagination to ideology because the purposiveness and organization of the nerves will not narrow to specific forms of instrumentality or purpose, not even biopower. The fact that characters perform multiple functions—Enitharmon is an emanation of Los and the form of the fallen world (Otto, *Blake’s Critique*)—also buttresses Blake’s claim that the nervous imagination is not necessarily a rigid reduction. Furthermore, despite enormous leaps in our knowledge of nervous structure, science then struggled with similar problems as it does now (i.e., the limits of reductionism and the ability of physics to speak for living matter). It even anticipated some of our current preoccupations with ecological understandings of the nerves, understandings that seek to grasp the role of environment in shaping the nervous system because they stipulate a formative interaction between organism and environment, as does Blake when he frames nervous development against a backdrop of an ongoing labor of harvest.
Indeed, the bread and the wine ritualize a future but dynamic synthesis through poetic symbols.

Unlike some current forms of reductionism, romantic reductionism entails a kind of particularity that has the benefit of being capable of subjection to empirical investigation without reduction to that particularity because everything is theorized as part of a unified absolute that resists delivery. The empirical offered intelligibility something to hold onto. Because this particularity is simultaneously material and metonymic, the material takes on the flexibility of figure, thus preserving autonomy, even as the bridge from particular to absolute must continually be reimagined to maximize both intelligibility and the very comprehensiveness of the absolute. To that end, Blake even grants chaos perceptive organs “according to the Human Nerves of Sensation” (cited in Connolly 204–05). At the same time, organic unity helps to make complexity a form of simplicity, once again without absolute reductionism, because the relay between simplicity and complexity has primacy over any one version of simplicity, even as the level of simplicity that does not lose sight of a physical spirit earns the designation of a higher level.

Given the danger that the reduction of the imagination to the nervous system would encourage a materialism that could deny both the spiritual and creative work of the imagination, why does Blake risk it? Although, today, reductionism is a clear enemy of the imagination, it was not then, and, indeed, one might argue that Blake insists upon reductionism even within his art so as to demand readerly engagement. Readers must improvise connections between dots or levels. When reductionism is absolute, it tends to repress imagination, since everything must be reduced to a more basic level that is granted the only legitimacy. Romantic reductionism, by contrast, was far more modest. Since the very basis of organicism, the quality of being designed without presupposing the designer, articulated the existence of a plan without having to specify one (R. Richards, Conception 76), reductionism to the organic made the further reduction to mechanism unhelpful since mechanisms could not explain reproduction. Historian of medicine Owsei Temkin, argues that since nerve specialists were not able to fathom how the nervous system integrates its various components—a problem still very much unsolved—living organization cannot be a form of mechanism as Descartes thought (Double Face 329). Here, neurologists harness the very failure of imagination to prove the inadequacy of mechanism as a form of explanation, while at the same time screening the failure of vitalism to specify its own workings as other than a beyond to mechanism.

The fact that one cannot fathom a mechanism of course neither refutes mech-
anism nor vindicates vitalism. It does not help matters that the blanket invocation of mechanism without knowing the means of the mechanism also still functions to rescue scientists from the horrors of metaphysics, not to mention ignorance, while simultaneously screening the failure to specify an actual mechanics of mechanism under the name of mechanism. Moreover, by locating meaning in the network’s operation, yet in rendering that network “incapable of justifying the meaning that ‘emerges’ from that operation, the topology of a ‘body’ is created, along with the idea of autonomy” (Stengers, *Cosmopolitics II* 258). In Night 7, Los says to Enitharmon, “For thou art but a form & organ of life & of thyself/A art nothing being Created Continually by Mercy & Love divine” (E368: 359). The bottom line, however, is that nerves proffered a reduction to the physical that poets could not only live with but embrace, because it neither disallowed spirit nor upended creativity. To the contrary, the “organ of life” is a form “created continually.” In Blake’s case, reduction enables him to think about why pleasure is so crucial to the nervous human body divine: not merely the gratification of any particular sense or nerve, pleasure is about the overall feeling of well-being, a joy that makes imaginative life possible and vice versa.

Reductionism was further worth risking for the following reasons. Nerves provided a universalizing counterweight to Blake’s otherwise impenetrable private mythology. As the very localization of sensibility in the body, the nervous system promises the twin Blakean goals of the breakdown of mind and body dualism, not to mention the collapse of body and soul. If, as Ernest Nagel argues, the point of reductionism is generality and unification, Blake gains through the nerves a way of conceptualizing the development (*Bildung*) of the individual subject. And since the nerves were understood as the very organs of pleasure, Blake further gains reasons to think about how the explosive energy of pleasure resists ideological containment. At the same time, the common nervous system dictates that individual development must have universal or generalizable implications, and the problem becomes sorting out the generalizable from the truly individual. Because Blake denounces pleasure that remains merely selfish—as when Luvah achieves dominion over Albion by having Vala jack him off—the nerves remind all of the larger community that one person’s pleasure simply cannot compensate for. The mere presence of two people of course does not imply intersubjectivity, since sex here is literally a form of masturbation.

For Blake, corporeality is not reduction because his bodies are coextensive with spirit, littered as they are with expansive nervous fibers that pulse with joy. Hence, Blake associates Orc repeatedly with living pulse and animation over structure: “Pulse after pulse beat on his fetters pulse after pulse his spirit/Darted”
Here, pulse proliferates through consonance, combating fetters instead of being a fetter. Moreover, Blake describes his “vital substance in these fires that issue new & new” (N7 E354: 21), making corporeality a living process whose insistent incendiary newness resists conservatism. A bit later he insists, “life cannot be quenched” (NS E381: 24), underscoring the openness of life. Reductionism to the physical does not have to be the enemy, since Blake understands corporeality to be both divine and dynamic. However, Blake does associate absolute reductionism with a kind of tyranny: the need to reduce the otherwise divine body to one thing is always for him an abuse of power. And, as the body takes on a fixity of form, one is contained by it, rather than forming it (Otto, Blake’s Critique 80).

Blake further turns to the nerves to manipulate scale so that individual expansion becomes corporate expansion. Blake writes, “They in us & we in them alternate Livd/Drinking the joys of Universal Manhood” (N7 E359: 10–11). Notice how the first three syllables mirror the next set of three — Blake flirts with a virtual palindrome here — thereby enacting the interchange of they in us and we in them. On both sides the “in” functions as a pivot. Highlighting a common human nervous system allows Blake to turn to joy to materialize what otherwise would be an abstract intersubjectivity. More to the point, the collective network thereby becomes the gauge against which even individual actions must be measured, even as individual perceptions require social ratification in order to be acted upon. Malabou insists that networks deny the very possibility of a privileged vantage point (42). Blake thus gains the ability to think through the tortuous history of individuality. The etymology of this term signifies that which cannot be divided from, but the Romantic period sought to divide it. Blake explores the uses and abuses of division by splitting his characters into emanations and yet relies upon a common nervous system whose systematic plasticity nonetheless staunches the negative outcomes of division. For instance, Tharmas responds to Enion with a suicidal death drive and literal submersion in water, and he cannot redeem himself until he reunites with community. Connectivity limits the value of individual pleasure, because pleasure should have collective implications and social force. It ideally further encourages the forgiveness of sins and universal brotherhood.

Romantic efforts to ascertain the general laws of life and organization through comparative anatomy, moreover, help demonstrate that “the most elaborate forms of organization were developments of simple types: the ‘highest’ and ‘lowest’ organisms were therefore constructed upon a uniform plan” (Clarke and Jacyna 20–21). If simplicity somehow evolves into or emerges from complexity, the one need not preclude the other, and thus neurology provides an optimistic future.
even when the signs of that future are nowhere visible, since simplicity does not preclude forms of complexity that cannot be predicted. Colin Jager reminds us that “emergent properties cannot be reduced to properties of their physical substrate” (paragraph 25), and this endows physicalism with unpredictability. Insofar as Blake tracks sensation from worms to mammals to humans, he is not unlike a comparative anatomist with regard to the nerves, thinking about how complexity builds upon simplicity. And insofar as comparative anatomy encouraged the generalizing of function across species, it encouraged ways of thinking about how different nervous structures yield the same states. His nervous systems traffic in pleasure, measured in the form of electrical energy, and their organization emerges from and is altered by the quantity and quality of pleasure that is experienced. Blake thus views bodies from multiple vantages, resisting reductionism to one level, and, in one instance, the “Council of God” watches man’s body “clothed in Luvah’s robes of blood” while the daughters of Beulah are comforted by the divine vision (N4 E337: 10–14). As if the perspectives of the council, the daughters, Luvah’s clothing, and the divine vision were not enough, is the divine located in the Council of God or man’s body or both? This proliferation of different perspectives suggests that Blake is interested in what we call qualia, the subjective sense of qualities, and qualia remains a problem for absolute reductionism. Neuroscientist Jean-Pierre Changeux argues that qualia demand no incompatibility between mind and brain in part because individual brains give rise to experiences we can share (18–19). The shareability of individual qualia is, however, nonetheless an issue.41

Blake could also understand the nerves not to diminish the soul because he understood behavior to emerge from an interaction among nervous structure, subject, and the environment. The poet’s focus on nerves highlights the issue of whether the nerves passively record sensation or the degree to which they creatively generate it, and Blake hews to the side of creative generation. This is because for him sensation is always being interpreted, and thus one can work up a stance toward one’s experiences that not only becomes part of the experience but shifts the meaning of individual experiences. Moreover, the emotions shape the sensations one attends to. As much as Urizen and Los contain the nerves, they branch out in unexpected ways. Within the discourse of nerves itself, the privileging of function over structure does not grant structure powers of predetermination. The role that nerves play in terms of cause or effect is further complicated by the fact that nervous structures emerge out of learning. A certain unpredictability emerges from the fact that behavior helps shape structures, which lead to new forms of interactions. Nervous embodiment is a creative, open form of embodiment, and thus to think of the imagination as being embodied in nerves in
no way results in predictability, much less determinism. Blake at one point describes “Fibres . . . from the Chain of Jealousy inwove themselves” (N5 E342: 23), thereby ascribing to them a purposiveness that has been perverted into jealousy.

Blake understood behavior to be tied to fundamental entities like nerves and yet took behavior to be novel or irreducible with respect to them. Once again reductionism had distinct limits. Historically, British emergentism grows out of the need to reconcile mechanism and vitalism, with the “emergent” specifying vital processes or forms of organization but not insisting upon vital substances, since those could signify allegiance to the occult. Blake’s nerves therefore generate narrative possibility and branching connections instead of closure. In Jerusalem, for instance, Jesus will extoll the “Fibres of love from man to man thro Albion’s pleasant land” (E146, plate 4: 7), thus not only insisting upon material connectivity but also seeing no disjunction between the material and the spiritual. “Emergent” names types of interaction that are nominally consequences of levels of physical interactions but nonetheless cannot be predicted in advance and therefore are not subject to control. Once again, levels and organization allow for autonomy. By seeing function as simultaneous to structure and by making both structure and function lead to unpredicted consequences, Blake sees the nervous imagination not in terms of determinism but rather in terms of possibility. David Clark explains how Blake eschews Urizenic self-mastery for the thrownness of a contingently ecstatic life (169), and his remarks help open up Blake’s fascination with the nerves. No more resonant phrase than “embryon passions” (N1 E305: 25) better captures Blake’s sense that nervous embodiment is an evolving process: sensibility develops like the embryo develops and “embryon” indicates the becoming of the material. It has all the materiality of a felt emotion, at once physiological and evanescent. Similarly, Orc forms a girdle that “by night was burst in twain” (N5 E341: 17), again highlighting forms of embodiment that exceed themselves. Finally, when “all Tyranny was cut off from the face of Earth” (N9 E388: 14), the “stony forms” of Urizen are replaced by “flames rolling intense thro the wide Universe” (N9 E388: 16). Of course, Urizen forgets that his bodies have multiple forms.

In keeping with emergence, Blake often describes the nerves as “branching.” In fact, especially when Urizen tries to shape the body into inflexible forms, the nerves extend themselves. At one point when the eternal mind is being “bounded,” Blake writes, “in harrowing fear rolling his nervous brain shot branches / On high into two little orbs hiding in two little caves” (N4 E336: 20–21). Fear prompts the nervous branches to expand to the eyes, which hide. Moments later, these are described as “Panting Conglobing trembling Shooting out ten thousand branches /
Around his solid bones” (N4 E336: 18–19). Vitality and animation, underscored by Blake’s accretion of four enjambed gerunds, thus insist upon the nerves’ resistance to the kinds of instrumentality imposed upon them; the body has a purposiveness of its own that will not be instrumentalized into social ideology. Hence, Blake shows the nerves literally working around the skeletal obstructions with ten thousand branches. In fact, as the above example documents, the more the nerves are repressed, the more they branch. If we take on board Steven Pinker’s definition of intelligence as the ability to deal with obstacles (62), we might even say that Blake’s nerves learn.

Reductionism is crucial to science because nature must be unified and subjected to empirical investigation (Schouten and de Jong 3). Reductionism was also surprisingly crucial to Romantic art because of the need to see the universe in terms of unity. While the Romantics shared the goal of the unity of nature, they were wary both of an excessive materialism that denied the possibility of spirit and a unity that could be, on the one hand unfortunately isolationist and, on the other hand, imperialist. Hence, their forms of reductionism posited a unity with difference. The Romantics privileged a relationality between the levels demarcated in the fallen world as matter and spirit, where the one could be an allegory of the other, making the levels interchangeable and thus mitigating hierarchy. Near the end of The Four Zoas, Orc “consumed himself in Mental flames,” prompting “Regenerate Man” to warn about the gods combining “against Man Setting their Dominion above/The Human form Divine” (N9 E 395: 10–11). Should they do so, Orc insists, they would be “Thrown down from their high Station/In the Eternal heavens of Human Imagination” (N9 E395: 11–12). Blake figures the human imagination as both the “Eternal heavens” and the “Human form Divine,” from which the gods are exiled for presuming to set themselves above human form. By connecting exile and hierarchy, Blake considers the dangers of isolationism even as he warns the gods that they will be banished from the imagination’s Eden. Yet, by placing the human body above the gods, he challenges conventional forms of divinity. Blake warns that Luvah and Vala “Must renew their brightness & their disorganiz’d functions/Again reorganize till they assume the image of the human/Cooperating in the bliss of Man obeying his Will/Servants to the infinite & Eternal of the Human Form” (N9 E395: 14–17). The reorganization of desire and its emanation culminates in the image of the human, which represents a fruitful synergy between will and pleasure.

Ontological simplicity was a goal of reductionism so long as the right level of explanation could be found. Paying attention to the nerves in Blake thus is rewarded by getting to the core of how beings lose connections to the spiritual and
make meaning out of it or, in other words, experience reductionism. Explanatory parsimony, a goal of reductionism, was not a problem within Romantic science for two reasons: one could not seem to be putting a limit upon or doing away with the need for God’s powers, since unity ultimately spoke to the design of the universe; and the autonomy of the human could not be replaced by forms of mechanism. Blake’s version of unity was grounded in “mutual interchange,” not in terms of static essence, and thus the nerves were the perfect locus for imaginative process, especially since, within that interchange, otherness was ineradicable (Clark 181). Hence, he prevents any one character’s perspective from prevailing and highlights the potential of reductionism to be a form of totalitarian imposition, especially when the two levels of explanation must lead to identity. Indeed, he describes the worst kind of reductionism as a form of literal shrinkage: in Night 5, for example, Enitharmon “shrunk up all their fibres withing beneath / As plants witherd by winter leaves & stems & roots decaying” (E339: 8–9), transforming others into a kind of hortus siccus, dried botanical specimens that are dead. Elsewhere, he links reductionism to murder and embalming, as when Enion murders Tharmas and embalms him in her bosom (N1 E312: 23–24).

This kind of materialist reductionism is called “eliminative” insofar as one of the levels makes the higher level unnecessary, and, as Blake’s relentless allegories imply, he had no truck with eliminative materialism because for him that was either Newton’s sleep or Urizen’s hubris. Tharmas experiences just this kind of reduction and complains that he is “like an atom, / A Nothing left in Darkness” (N1 E302: 43–44). And hence during Night 4, Blake describes Los doing Urizen’s work of “the Eternal Mind bounded” (E336: 208). He continues:

Restless the immortal inchain’d heaving dolorous
Anguished unbearable till a roof shaggy wild inclos’d
In an orb his fountain of thought

In a horrible dreamful slumber like the linked chain
A vast spine writh’d in torment upon the wind
Shooting pain’d. ribbs like a bending Cavern
And bones of solidness froze over all his nerves of joy (E336: 215–22)

As nerves of joy become encased in bone, pleasure is falsely contained. Blake’s mounting adjectives highlight feeling’s excess, adding an emotional enjambment to his poetic ones. To underscore the absurdity of such containment, Blake not only has an orb contain a fountain but further highlights a “restless” energy that will out. His use of syneresis (as in “writh’d” and “pain’d”) underscores the violence
of this reduction. Ernest Nagel argues that “the reduction of one science to a second . . . does not wipe out or transform into something insubstantial or ‘merely apparent’ the distinctions and types of behavior which the secondary discipline recognizes” (366), and this is suggestive for reading Blake because Urizen’s reductions hardly wipe out anything. In fact, reduction to inflexible bones does not eliminate pleasure but only forces it to become secret. Los may joy in the sorrows of Luvah and thus help build the errors of the mundane shell (N2 E321: 3–4), but he will learn the limits of that shell. Blake’s metaphors further insist upon the primacy of representation, which allows for a stance vis-à-vis the object represented.

Romantic reductionism, by contrast to Urizen’s, offered much wider latitude. Such flexibility was enhanced by the Romantic preference for differences of degree as opposed to those of kind. Unlike differences of kind, differences of degree assert, on the one hand, that difference can ultimately be subsumed under unity yet, on the other hand, that reduction need not do away with difference. To adapt Lacoue-Labarthe and Nancy’s framing of Romanticism as “literature producing itself as it produces its own theory” (12) as a way of thinking about the Blake’s nervous imagination, I consider how the nerves both name and embody a totality that enacts itself in the very act of embodiment. Lacoue-Labarthe and Nancy are right that Romanticism is about the problem of the subject, the binding together of its infinite sensations, and thus the subject cannot know itself but instead turns to a form and language capable of capturing the problem. The language of nervous organization enhanced the idea of an essential inwardness or interiority too deep for any structure to capture except within an ever-changing or branching organization (Figlio 38). The nerves then allow for the absolute, even as they allow for a future science to make sense of our current reductions.

Because nervous networks emphasized communication and sympathy, the individual problem is transferred to the collective, and only the collective has powers to overcome them. Blake could not have known that the neuron “exhibits both unity and autonomy” (Changeux 11), but he uses nerves in such a way as to anticipate this very problem. As Enion “in gnawing pain drawn out by her lov’d fingers every nerve/She counted . . . Her woof begin to animate & not/As Garments woven subservient to her hands” (N1 E302: 20–21). Note that nerves begin as direct objects only to become their own agents, refusing the status of garments and thus subservience. As such the nerves are a metonymy for human communication itself, warning of the possibility of isolationism and alienation.

The Romantic preference for thinking about difference in terms of degree as opposed to kind further helps prevent unity from being imperialist. While degree allows for ultimate unity in the sense of imaginative integration, it ensures that
Imagination and Science in Romanticism

difference will mean no one thing insofar as unity does not entail the loss of the
category of difference itself that is a feature of much analytical reduction, only
the loss of degrees of difference. As Donald Ault argues, “Any kind of unity that
irreducibly involves closure [in Blake] must, in general, be suspect” (122). Blake’s
unity therefore is dynamic, whereby difference is continually renegotiated. To
wit, in humanity’s prelapsarian state, the four zoas exist in every individual: “Four
Mighty Ones are in every Man; a Perfect Unity / Cannot Exist” (N1 E300: 3–4).
Even within what might look to be perfection, the four exist and negotiate their
differences.

My attention to neurology in this chapter further highlights how Romantic
science undercuts the historicist equation of the imagination with an evasion of
history or with ideology. Far from promoting escapism, the neurological imagina-
tion not only insisted on the workings of culture — reading the nervous body as the
tracings of that working — but also conceptualized nervous materiality as an emer-
gent form whose organization interacted with the environment to enable an elas-
tic purposiveness. Thus nervous embodiment is essentially dialectic, shaping
the inside based on an interaction with the outside, and the Romantic nervous
imagination was emphatically the product of a contingent process of biological
socialization. Denise Gigante suggests that, “by resisting the predictive value of
scientific formulas, living matter kept alive the fortuitous developmental chance:
the contingency which entailed not only the chance of going ‘wrong’ within a
system but of veering out of systematicity altogether” (31). Yet, within the science
of the time, purposiveness or life was a form of at least regulative systematicity,
whose system remains outside the bounds of articulation, and thus must rely upon
form to gesture toward it.

Epigenetics, the study of how the matrix of genetic material that shapes whether
genes are activated, moreover, has made even biology attuned to the role of envi-
ronment in shaping development. Neurobiologist Jean-Pierre Changeux explains
biological socialization this way: neuronal development is epigenetic, and by this
he means that learning and experience superimpose themselves upon the action
of the genes, coordinating and organizing development (184–85). He continues,
“Connections between neurons are established in stages, with a considerable
margin of variability, and are subject to a process of selection that proceeds by means
of trial and error” (185). Most crucially, as the organs of sympathy, the nerves im-
plied a kind of embodiment that was contingent upon experience: neurologists of
the period wanted to understand how networks could both embody sympathy and
explain or deny its selectiveness. Anticipating today’s radically embodied cognitive
science, Blake understands “cognition as the unfolding of a brain-body environment system” (Chemero 43), and his proliferating mythology shows how knowledge is irreducibly embedded in context and environment. Why else would Blake proliferate so many versions of the experience of reductionism?

In *The Four Zoas*, Blake could not have done more to contest a reductionism of another kind: the historicist view of the imagination as a kind of ideological escapism. After all, he turns to a dream sequence not to equate the imagination with escapism but to develop an embodied imagination that confronts, rather than avoids, the major ills of his time. In adopting the mise-en-scène of a dream, Blake takes the imagination at its most dangerous and potentially delusional, and nonetheless seeks to get his audience to think about how one knows the difference between reality and delusion. Indeed, forms of the word “delusion” occur twenty-four times in the nine nights, which raises the question, how does risking delusion through dreaming better help us to grapple with it? In a work so concerned with nervous embodiment, Blake, on the one hand, defends the imagination from charges that it engages in merely subjective, feckless dreaming by showing how dreaming becomes a means to knowing, especially when imaginative absorption into imagistic thought loosens the ego boundary (Thompson 112–13), as when Enion pleads with Tharmas to “Make not the thing that loveth thee. a tear wiped away” (N3 E330: 26). On the other hand, readers must always assume Blake’s illuminations to be delusions, else one falls victim to imaginative passivity, a kind of waiting for an externally imposed revelation. Here, Urizen’s reason imposes its version of reality upon the world in its attempt to fix the image into an embodiment, only to find that its obsession with discipline exacerbates its failures. And, since Blake understands so much of reality to be pathological, pathology no longer separates imagination from delusion. The problem is thus not so much the quantity or degree of imaginative thought—quantity or degree will not indicate pathology—but what that imaginative thought enables one to do. In this view, it is always necessary to assume imagination is delusion, which affords doubt the active process that may eventually lead to procedures for knowing the difference.

As Blake understood it, much of perception is unconscious—what we now know to be dorsal stream activity—while much of imagination is not, because characters can continually report on their imaginative activities. Moreover, the Romantic stance toward reductionism offers science the possibility of seeing the forms of it as aesthetic embodiments even as those forms become amenable to empirical investigation. Viewing it from the standpoint of a unity that cannot betray the absolute enables readers a skeptical stance against the ontology of any
form of reduction, which must be tensed against the explanatory and ideological work of the reduction. Finally, by insistently bracketing what the characters understand to be reality as “delusion,” Blake reminds readers to learn not to take any individual phenomenality as reality but rather to look for consensus.

Reductionism is in part about the problem of dealing with what appear to be incommensurate levels of evidence. Philosopher of science Ernest Nagel explains, “In reductions, the subject matter of the primary science appears to be qualitatively discontinuous with the materials studied by the secondary science” (342). When we consider how the various characters in The Four Zoas think they are having unique experiences and yet are ultimately battling similar repressions, we understand how reductionism demands the apprehension of what appear to be differences in terms of unity. And yet Blake allows us to see the costs of such unity, for unity would cancel out all qualia, the subjective sense of things, which, in turn, would cancel out the need for his mythological figures to divide and proliferate. At the same time, he shows us characters like Urizen and Los, who have versions of the essential natures of humanity that they attempt to pigeonhole humanity into, along with the practical consequences of those forced versions of nature. Nagel further argues that since these versions of nature are inevitably theoretical, not ontological, they and their implications are not subject to direct inspection: properties and natures cannot adjudicate between various reductions (364–65).

At bottom, I show how scientific understandings of neurology help explain so much of the workings of Blake’s Four Zoas. I also argue that the flexible materiality within neurology of the time did not force choices between metaphysics and physics: corporeality and spirit were simultaneously possible, and the theory of electricity as an imponderable or immeasurable fluid, thought either to be analogous to nervous force or identified as it, concretized that possibility. In Blake’s case, pleasure becomes electrical energy, the circulation of which is akin to life itself. More crucially, neurology was not after the structural limits of the body. Although Thomas Frosch links bodily restriction in Blake to restricted creativity, Blake’s dynamic sense of the vital body refuses the notion of corporeality as necessary restriction. Read in light of the neurology of his time, Blake’s bodies resist natural limits rather than stand for the constraints of “external nature” (Lincoln 18). That the neurology then stressed function over structure, since so little about the structure was known, meant that intelligibility within neurology was far more important than anatomy. The nerves further allow Blake to reorient sensibility against moral law, since it tries to impose its own versions of which pleasures count and under what circumstances they do so.
Neurology of the period helps explain how Blake could believe in this very “Human Form Divine,” one organized by nerves. Luvah, or desire, in fact claims that Uri-zen’s attempts to smite him are because “I blotted out / That Human delusion to deliver all the sons of God / From bondage of the Human form” (N2 E318: 16–18). Luvah blots out the idea of human form as necessary bondage. In Memoirs of Albert de Haller, for which Blake had engraved the portrait of Haller, Thomas Henry explained that Haller had avoided one of the perils of reductionism—mechanism, which “would destroy one of the proofs of the doctrine of providence” (66)—by turning to laws. He wrote, “Is it not in the wisdom and goodness which the whole of these phenomena announce, and not in the nature of the powers they produce, that we ought to look for proofs of the existence of a superior being?” (67). By deflecting attention from mechanism, which undermined providence, and toward the wholeness glimpsed through laws, Haller could turn to physiological experiment for information without undermining either God’s wisdom or the need for imaginative revelation, which Blake considered the very essence of religion. More to the point, by specifying laws as the appropriate level at which to pitch a reduction, Haller made science and theology somewhat compatible. When reduction presented a problem, Haller suggested, think about the right level of analysis, and pitch the reduction there.

George Rousseau comments that, “before the nineteenth century, the ‘spirit’ is the sign of all the discourses of the nerve” (NA 226), and the corporeality of spirit has everything to do with Blake’s embodied imagination. Haller’s 1755 Dissertation on the Sensible and Irritable Parts of Animals defined sensibility as that which “transmit[s] the impressions to . . . the soul” (9). He continues, “In brutes, in whom the existence of a soul is not so clear, I call those parts sensible, the irritation of which occasions evident signs of pain and disquiet in the animal” (ibid.). He thereby allows pain to become a sign of sensibility, even if animals may lack souls. My point here is that Haller helps define the symptoms of sensibility, thereby reducing sensibility to an empirical symptom, but nonetheless allows the gap between symptom and sensibility to frame sensibility as an absolute that can only be gestured toward. Blake no doubt found suggestive Haller’s conception of the nerves as being connected to the soul, further collapsing the dualism of mind and body, even as it extends the nerves to the spirit.56

On Haller in particular, Rousseau argues that he made the nerves the center of his physiology, claiming its complete dependence upon the nerves (NA 229). Nerves are at the center of Blake’s physiology as well. Although Haller believed
in an unspecified nerve force, what he called a vis nervosa, he remained skeptical of its identity with electrical or magnetic matter (Clarke and Jacyna 162). Although the nerves embodied sensibility, physical connectedness did not explain sensibility. Haller notes, “If a nerve is cut, and irritated below the section, the animal feels no sensation therefrom, which is proof that pain is not propagated from one nerve to another by their anastomosing” (Dissertation 24). He concludes, “Wherefore the nerves alone are sensible of themselves, and their whole sensibility resides in their medullary part, which is a production of the internal substance of the brain, to which the pia mater furnishes a coat” (ibid.). Several points are suggestive here. Haller recognizes that the actual connections between the nerves do not necessarily predict how they work together, and therefore embodiment exceeds the literal; specifically, the study of anastomosing, the reconnecting of two streams that have previously branched out, does not enable him to trace the path of propagation of any nervous signal. Haller anticipates the synapse and the fact that nervous connectivity is flexible. Second, he identifies the nervous substance as “medullary,” and here the brain was divided into “cortical” and “medullary” substances, the latter of which will become associated with myelination. “Medullary” allows Haller the illusion of localization, but, since he had no idea how medullary matter worked, he could simply skip over the mechanics. In this way, neurology did not demand reduction to a static matter and instead could promote expansiveness.

While Gall did develop the concept of cortical localization in the Romantic period, the confinement of specific functions to specific organs within the brain did not preclude overall connectivity. Gall in fact worried that brain surgery could not remove an organ without affecting the local areas surrounding it (R. Young, Mind, Brain 48). Localization did not prevent more holistic accounts of cognition. Even leaving aside questions of nervous structure, those most responsible for the rise in experimental work within neurology—Flourens, Magendie, and Müller—made no attempts to determine the categories of function but instead relied upon traditional ones like memory, reason, imagination, and will (R. Young, “Functions” 257), and this facilitated a collapse between neurology and the imagination. Moreover, rather than allowing the categories of physiological or neurological analysis “to dictate the elements from which the phenomena of everyday life would have to be synthesized,” terms of everyday experience like the imagination and memory dictated “how the nervous system must be organized and must function” (R. Young, Mind, Brain viii, ix). What this means for Blake’s embodied imagination is that he can stress its workings without worrying so much about its structure.
Another reason why neurology could be so suggestive to writers was that neurologists were so upfront in thinking about the problems associated with neurology as a science. How to correlate flesh with mind? Although neurology had proved interconnections between body and mind, neurologists like Alexander Monro II worried about the degree to which the will was in control. Here was his problem: we are conscious of having willed only certain actions—mind is not sole author of functions since we are not conscious of which muscles to use when moving our forearms. He also recognized that sympathy cannot be traced backward; as vastly interconnected and intermixed, actual nervous connections could not quite explain how sympathy could be partial and selective (46). While Gall worried about the costs of reducing mental life to sensibility, irritability, and muscular motion (R. Young, *Mind, Brain* 256), Emanuel Swedenborg admitted that “anatomy dictates nothing more than the probability of our position, and is dumb except in cases of vivisection” (*Brain* 1: 140). By linking anatomy with at best probability, Swedenborg helped encourage epistemological modesty with regard to the brain. Blake at times likewise hoped for such modesty. He worried, for instance, about the arrogance of scientific demonstration, commenting that the sons of Urizen “In ignorance to view a small portion & think that All/And call it Demonstration blind to all the simple rules of life” (N7 E364: 32–33). He implies that demonstration, along with the reductions it requires, at its best can serve as only a metonymy for truth, but only if that demonstration did not violate the “rules of life” here amounting to expansive joy.

Blake’s faith in the flexibility of nervous embodiment was perhaps enhanced by John Quincy’s *Pharmacopeia Offinalis, or A Complete English Dispensatory*, a copy of which he owned. Quincy framed the workings of the nervous system in both the terms of animal spirits and nervous fluid, refusing to choose between models (71). He further emphasizes how sensitive the nervous system is to the food one eats, and, when blockages were expected, evacuants were prescribed. This is why physicians thought treating diarrhea could help treat madness. When Quincy claimed, “The head hath principle share in agreeable sensations” (70), he may have buttressed Blake’s claim that joy circulates in the brain. Quincy had also ascribed the health of the nervous system to “the animal spirits or nervous juice,” which are responsible for the “make and contexts of those fine Threads or Fibres” that compose the body (71). The nerves were responsible for emotional health as well: “What is grateful to the Senses gives an inexpressible Emotion to the fine nervous Filaments, so does what is fetid and disagrees quite destroy that Emotion, and deaden it” (87).

Key to that flexibility were electrical accounts of the nerves, accounts that
provided ways of thinking about sympathy and communication through material means, and thus helped to enact a galvanizing aesthetics. Electricity promised to deliver the very secrets of life, and if electricity was not completely reducible to an empirical phenomenon because it was imponderable, or immeasurable, the idea of it explained how nervous conduction could be so fast. Alexander Monro II reasoned that actual connections cannot account for sympathy, since the nervous system was so interconnected. He therefore thought that feeling takes place in the brain (47). Since the known mechanical principles also could not account for nervous action, Monro turned to the concept of “nervous energy,” which allowed him to exploit electricity as energy without having to commit to material limits since nervous energy was not yet measurable. Although Blake makes few references to electricity in this poem, he does link pleasure, nervous energy, and life. He defines “war” as “energy Enslav’d” (N9 E390: 42), and Vala connects “the forms of Life & of delight” (N7 E367: 37). In Night 9, there are “flames of mental fire.” In the context of how the body in the poem is enslaved to fixed forms, Blake suggests continued resistance and nervous energy as the source of that resistance. He further describes Orc as having “consum’d himself in Mental flames/Expending all his energy against the fuel of fire” (N9 E395: 1–2). The child of Los and Enitharmon, Orc represents a revolution that pits mental flames against fire, a destructive force that attempts to attenuate its own violence through pleasure. The concept of nervous energy suggests an overall bodily economy where the nerves are essential to life, thus providing a way of thinking in terms of synthesis: wholes, not parts.

Emanuel Swedenborg’s voluminous writings on the brain and nerves further expand our understanding of Blakean nervous bodies. For Swedenborg, the brain is defined not so much by its structures but rather by its dynamism, its motions and pulsations: “Not a particle of it is destitute of this motion” (Brain 1: 105). He argues, “Every pleasure and every desire conjoined with pleasure, expands the body in general; and contrariwise, that everything hurtful, tormenting and displeasing constricts the body. In the former case there is nothing that compels or takes away liberty; hence comes activity, and this, like heat,—which also consists in the activity of the parts or its aura,—naturally produces expansion” (Three Transactions 1: 603). Swedenborg connects bodily expansion with pleasure, liberty, and meaningful action; by contrast, pain forces the contraction of the body and the loss of liberty. These configurations are highly suggestive for what Blake is up to in The Four Zoas and indeed help account for the manuscript’s pornographic illustrations, which aim simultaneously to combat the repression of sexual pleasure and to actualize pleasure outside of discipline. Furthermore, the very joyful pur-
posiveness of living nerves made it possible to interrogate moralizing or instrumentalizing claims of nervous function.

Swedishborg is further instructive in his struggle with how to talk about divine corporeality. Blake’s insistence on bodily states—shadows, specters, emanations—may owe something to Swedishborg’s insistence on degrees and the relationality between each degree:

Since spirituality is ascribed to this organic [nervous] fluid, and since nothing physical, mechanical, material, and corporeal is competent to it except as understood analogically, therefore in order to avoid empty disputes originating in mere terms, I might have wished to explain what it is, provided only the ontologist, with the consent of all, justly define what spirit is, what substance, what the simple, force, the immaterial, the pure, matter, and such like terms; and if he cannot do this with the consent of all, that he yet so do it that he himself may know what they are. Let spirit be substance and force; but with these terms of the definition unknown, tell me what spirit is. From the unknown, can aught come that is better known? . . . If it be merely force, if bare thought, tell me what Sensation is, Perception, Idea, Imagination, Sight, Hearing, Modification, etc., without organs, substances, a brain, eye, ear, auras. Separated from these, is such an abstract entity possible in reason? In nature? In the world? Thus as concerns this animal spirit which flows in fibres wherein it is enclosed, and which by means of nerves, moves the muscles, and enters into and constitutes the blood and the smallest part of the body, it is a substantiate, that is to say, it must originate from substance. (Three Transactions 1: 730)

In asking the question of how abstraction is to act in the world, Swedishborg points to the necessary materialism of all bodily things. What would imagination be without an organ, he wonders? And yet Swedishborg is especially careful in the kind of materiality he offers: the animal spirits originate from substance, but this does not mean that they are fully substance. His noun, “substantiate,” hedges its commitment to substance by temporalizing substantiality to its origin, thereby avoiding the question of what it now is. Swedishborg stresses process, animation, and movement in his account of the brain over any static structures—he thought the brain was a chemical laboratory and thus a site of the combination of chemicals—and Blake underscores process in his account of the nerves. Even more cannily, Swedishborg reminds his readers that the divine can be known only by analogy to the body, but one must not mistake analogy for essence. Although spirituality is ascribed to the nervous fluid—and tellingly Swedishborg does not claim to be doing the ascribing—he modestly limits his claim to an analogue relationship
between spirit and fluid. Furthermore, his invocation of the “ontologist” implies that questions of being are beyond his particular expertise, especially since he wonders whether an ontologist might achieve consensus and sufficient definition.

**WHAT THE NERVOUS IMAGINATION DOES FOR BLAKE**

In *The Four Zoas*, Blake connects joy with the brain and nerves, and genuine joy results in expansiveness over constriction. Blake’s poet figure, Los, proclaims, “Tho in the Brain of Man we live, & in his circling Nerves. /Tho’ this bright world of all our joy is in the Human Brain” (N1 E306: 15–16). Localizing joy in the brain and nerves allows Blake to imagine healthy bodies predicated upon the free circulation of pleasure (Luvah) that results in an expansive body that can be so perceived. Blake’s sense of how pleasure could be so conducive to generative embodiment anticipates current understandings of brain development. Recently, molecular neurobiologist Jean-Pierre Changeux highlights how pleasure is central to brain development: “Positive reward from the external world results in the widespread release of neurotransmitters such as dopamine . . . [thereby] strengthening or weakening synaptic connections between neurons of the relevant networks” (61). Blake’s underscoring of “tho’” insists upon an expansiveness that overcomes obstacles, even as the circle, especially in its gerund form, reminds us of infinity. Pleasure thus is so central to Blake because it is the very basis of bodily divinity and expansiveness, and pleasure is what the nerves do. The road to ecstatic fourfold vision is through the nerves.

Tellingly, Night 1 begins with the “Auricular Nerves of Human Life” (E301: 12), as Enion sits “singing her lamentation” (E302: 1). The ears matter because they are the place where dialogue occurs; David Clarksuggestively observes, “Dialogos—a speaking between—displaces Logos” (185), and dialogue matters because the audience is to absorb the collective “Song! Sung at the Feast of Los and Enitharmon.” Not only does the song have both call and “responsing” (N1 E308: 4), but Blake also refers to these nerves as “the Earth of Eden.” This curious phrase makes the nerves simultaneously material and divine even as assonance solders them together. In a larger view, the dialogue between characters is where understanding becomes possible, but too often dialogue in this text is impossible. Dialogue is prevented because characters form attachments to others yet nonetheless seek to reduce them to possessions or passive objects. Simply put, one cannot dialogue with an object. For example, Enion seeks attachment to Tharmas but then reduces him to a covering for her sins. “I have lookd into the secret soul of him I lovd,” Enion announces, “And in the Dark recesses found Sin &
cannot return” (N1 E301: 26–27). Part of what Blake wonders is why human attachment begins optimistically only to devolve into forms of possession and destruction. Finding sin in others is a large piece of the problem especially since another’s sin enhances one’s pride, leaving no incentive for change and little incentive for genuine intersubjectivity. Even worse, since Tharmas and Enion accuse each other of what each of them are doing, there can be no exchange. With reduction comes the blunting of the senses: “Their senses unexpansive in one stedfast bulk remain” (N5 E339: 19). Blake’s illustration shifts our attention from the nervous propagation of sound to the sexual propagation of the emanations, with a cupid figure riding what looks simultaneously like a serpent and a giant penis, and certainly the penis was known to be littered with nerves. By connecting one network of nerves to a second, Blake reminds us of the varying forms of successful propagation; he furthermore puts into play a self-organizing system of networks, a poem whose sum is much more that its manifold parts because the parts are tied to individual perspectives.

When Enion weaves the “Circle of Destiny” or the specter of Tharmas in the first night of *The Four Zoas*, she provides a sustained glimpse into what nervous embodiment does for Blake. Donald Ault has shown how the circle at times appears as a cause, at other times, an effect, and, in so playing with causality, Blake undermines any “Destiny” the circle seems to proffer by “retroactively correcting the reader’s natural assumption that the Circle must have existed prior to the action of the poem” (6–7). Visually, this circle is sometimes a crown of stars, a hoop, multiple egg-like forms, or a globe, adding problems of both number and scale. Blake depicts Joy in the “Circling nerves . . . in the Human Brain” (N1 E306: 15–16), and, immediately before he refers to the “Circle of Destiny” for the first time, he describes Enion “draw[ing] out by her lovd fingers every nerve” (N1 E302: 16), thereby making the circle essentially nervous. Read as an image of nervous embodiment in the making, the circle of destiny further ironizes destiny. Enion’s very shaping of the nerves into a circle of destiny falsely contains them. Even worse, she intends to “weave” this circle into a “Covering for my Given Sins from the wrath of Tharmas” (N1 E304: 18). When she witnesses “her woof began to animate” (N1 E302: 20), the gap between animation and structure hints that life has a purposiveness of its own. Blake underscores the difference between structure and function by granting the garment “a will/Of its own perverse & wayward” (N1 E302: 21–22). Simply put, the nerves resist the uses Enion seeks to impose upon them, and they become “her own Created Phantasm” (N1 E303: 53). Even she recognizes that in her own phantasm “All life is blotted out” (N1 E303: 47).
In Eden, in the Ancient House of Heaven's Left
Which is the Ninth of Eden, he he looses propagates
Like Dove & Daughter, Thew dwelling of Heav'n Shine
His fall into Diumay in the Heav'n your to brightly
Supplantation for the foundation for her had
Began your Chasman present power, darkening in the west
And still left an evil conscience from some of the Dream
We are become a heaven in the light of God in secret
I have added this poem to your abstract
Of too the world has a day part I have every one come in
The whole body of the serpent in the Earth
And they are resolved to encompass an Earth
They are the Children of Earth in the Earth
The whole body in CMS and of all I am in the Earth

Exalted. This fear has made my mouth to be broken out of me
All day in a dream I need to be made wise of 
And then demonstrated the hell of the Earth
Once having the title of heaven. - A wise word
By of my God, and well there is in this terror till
I am almost ready and you shall be in my terror. To
The whole body can be found that it very soon upon the Earth has
But in my dream (the serpent that) work flagging in my ear
An angel of the Earth to remember in delusion, always

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Insofar as the nerves function as a kind of feedback loop, thereby integrating the self with the environment, the ironies behind the circle of destiny mount. If even the boundary between self and environment is continuously shifting, how can destiny be something known in advance? In a late paper published in the Royal Society’s *Philosophical Transactions*, Charles Bell argued that “between the brain and the muscles there is a circle of nerves; one nerve conveys the influence from the brain to the muscle, another gives the sense of the condition of the muscle to the brain. If the circle be broken by the division of the motor nerve, motion ceases; if it be broken by the division of the other nerve, there is no longer a sense of the condition of the muscle, and therefore no regulation of its activity” (10). Bell uses “circle” to describe a feedback loop between perception and action, the very openness of the nerves to the information from the world. And yet if the nerves were supposed to conduct information from the outside in as well as generate its own information, Blake anticipates Bell when he has Enion comment, “in this thy world not mine tho dark I feel my world within” (N1 E304: 7). If she begins the line insisting upon the gap between “thy” / “not mine,” she ends it by nonetheless claiming to feel her world within. Insofar as the circle of destiny negotiates between the outside and the in, it is a feedback mechanism, albeit a perverse one. The constitution of our faculties and nerves impacts the world we are able to perceive, and Blake underscores their mutual inter-implication in an effort to short-circuit destiny as a fixed destination. Earlier Enion had claimed that the creation of the circle led to the “reversion” of her eyes: “all that I behold/Within my soul has lost its splendor & a brooding Fear/Shadows me oer & drives me outward to a world of woe” (N1 E303: 50–52). Material embodiment is this case leads to the loss of the soul’s splendor, a kind of reductionism that Blake and Haller vigorously protested against. Now overshadowed by fear, she loses herself, only to project this fear onto the woe of the world. By implication, when the feedback mechanism is working well and the information it provides is rightly interpreted, the soul should be strengthened.

Although Enion views her work as “complete” with its destiny fulfilled, Blake underscores that her work and destiny are emphatically incomplete, yet to be realized. Enion becomes “Terrified in her own Creation” (E303, emphasis mine) and is literally within part of the circle of destiny of her own making, and therefore a metonymy of herself. Furthermore, “A Frowning Continent appeared” in the place of the circle (N1 E303: 26), and Blake’s dramatic shift in scale from the individual to the continental points to the absurdity of Enion’s vision of completion even as the metonymy works to ironize completion itself. Although Enion would like to continue spreading Tharmas’s fibers for examination, Blake’s widening of the
aperture to a continental scale makes such a project ridiculous, especially since he reminds us continually that the nerves are always branching because they are an open system. Indeed, by end of Night the Third, Tharmas, through his “thundering sobbing bursting,” has “broken . . . the bounds of Destiny” (N3 E330: 10), and the poet’s accretion of enjambed gerunds without punctuation intensifies such a break. Complicating matters still further, the daughters of Beulah give “The Circle of Destiny” “a space / And namd the Space Ulro & brooded over it in care & love” (N1 E303: 36–37). By consigning the circle to a material and vegetative world, and by naming this space Ulro, the daughters seek to limit its influence and falsely to impose their version of destiny upon it. Blake’s verb “namd” further insists upon the gap between the name and the thing. At a textual level, Blake’s narration of the circle of destiny not only has an unusually high degree of erasure and cross-outs, but it is also represented by an image of an angel who may be masturbating. Indeed, the excised text refers to “pollution,” and the last words on the verso are “her own created Phantasm.” Where is his or her other hand? And what is that dark pencil line near his or her crotch? Perhaps the closed eyes indicate the state of petite mort. Masturbation suggests how solipsistic this loop is. However, that the angel has both hands and wings once again reminds us of the human body divine.

These ironies behind the “Circle of Destiny” help explain why Blake changed the title of this work from Vala to The Four Zoas; the original title reduces the work to a singular and perhaps hints at the destined triumph of the veils of truth. By altering the title, Blake sought to remind us that destiny was made, not given, and that the nervous system had numerous feedback loops to engage with its environment, so that, as long as life was present, destiny was in the making, not made. When Los unites with Enitharmon, he feels “a world within / Opening its gates” (N7 E368: 7–8) as he literally expands into a world that is itself opening its gates. Provided they are not entirely self-enclosed, feedback loops, moreover, make linear narrative less possible, as the feedback changes, perhaps multiplying, the actual pathways. The fact that the zoas are themselves an amalgam of other entities reacting dynamically to whatever plot elements are present reminds us that they are in essence creatures of nervous sensibility. So too does the fall not have to lead to eternal death, and it is up to Albion to figure out how to regain the vitality he once had. Blake’s simultaneous emphasis on localization and metonymy reminds readers that reduction must lead to organization, and that organization has multiple forms. As geneticist François Jacobs puts it, in biology “there is not one single organization of the living, but a series of organizations fitted into one another like nests of boxes” (16), and formally the poem registers this truth.
The British Library Board. William Blake’s Manuscript of The Four Zoas, MS 39764, verso 3.
Here, the circles of destiny seem self-generating, as there are circles within circles, insistently multiple. The rapidity and dynamism with which they are drawn suggest that they will soon take over the space. Finally, the circles repeat the circles of the figure’s breasts, which she holds in her hands, further intimating generativeness and refusing anything like closure.

Up until Night the Ninth, characters experience the fall as a form of reduction of the spiritual to the dead, and reduction is played out in terms of the death of the imagination. Peter Otto captures it this way: “To close one’s body in a rigid form is inevitably to confine the active powers that once animated it” (Blake’s Critique 117). Blake notes, “tygers of wrath called the horses of instruction from their mangers/they unloos’d them & put on the harness of gold & silver & ivory/... Petrifying all the Human Imagination into rock & sand” (N2 E314: 3–4, 6). Harnessing of horses alludes to the regulation of the passions, and if harnessing were not enough, there is also petrification. Swedenborg wrote of a “petrified ox brain, which had become as hard as rock—the outer surface was encrusted” (Cerebrum 1: 680). Apparently, the ox, whose cerebrum had hardened to the consistency of marble, was an “unusually stupid animal with its head ever hanging down” (ibid.). Like the ox, “the Eternal Mind bounded,” “bones of solidness froze over all his nerves of joy” (N4 E336: 1, 14). Urizen at this point stands “in the Human Brain/And all its golden porches grew pale with his sickening light” (N2 E313: 12–13), transforming the imagination into its very opposite and making it ill: a mundane shell. Hence the poet describes the repeated attempts to animate vegetated bodies without imagination, as if all structures can yield are zombies.

The bottom falls out on Night the Fourth as “the Corse of Albion” is reduced to a “Human polypus of Death” (E337: 14–16). “Polypus,” of course, refers to an abnormal or cancerous growth, and Blake’s implication here is that the loss of divine vision and reduction to materialism is a death akin to cancer. Yet even a polypus is not beyond redemption. Despite Tharmas’s degradation, the specter of Urthona protests: “but still I know thee tho in this horrible ruin whelmd” (N4 E333: 28). Blake’s emphasis on “whelmd” implies merely the subjective sense of being reduced to dead structures, and the fact that even a specter can still know who Tharmas really is implies that reduction cannot whelm identity. Blake further has Jesus appear “bent over the corse of Death/Saying If ye will Believe your Brother shall rise again” (N4 E337: 17–18). Redemption here is crucially contingent on active belief, the summoning of imagination to compel belief even when evidence for belief would seem to be in very short supply. From Rahab’s perspective, Jesus himself is a residue of the body’s active powers (nerves), and thus the external savior is potentially always within (Otto, Blake’s Critique 260).
In contrast to reductions that seek to dominate and suppress the divine, Blake reminds us that the flesh is no necessary stranger to spirit. One key instance of this spiritual expansiveness occurs when Urizen berates Orc in the Seventh Night of Vala:

Sure thou art bathd in rivers of delight on verdant fields
Walking in joy in bright Expanses sleeping on bright clouds
With visions of delight so lovely that they urge thy rage
Tenfold with fierce desire to rend thy chain & howl in fury
And dim oblivion of all woe & desperate repose
Or is thy joy founded on torment which others bear for thee

(E354: 36–41)

Urizen of course has been doing everything he can to constrict Orc and perceives him rightly in terms of a blissful expansion that threatens his own power. Blake emphasizes his support for Orc formally, by avoiding all punctuation and caesuras in over six lines. Although Urizen accuses Orc of founding his joy on the torments of others, Blake suggests it is Urizen, Blake’s poster boy for wet blankets, who is guilty of schadenfreude, and schadenfreude is not to be mistaken for true joy since it is necessarily at someone else’s expense. Urizen interprets Orc’s joy as rage, perhaps projecting onto him, even as he correctly sees Orc as expansive joy. Blake describes Urizen’s imagination as “filled” as he watches Los and Enitharmon’s labors: he “saw & envied & his imagination was filled” (N2 E322: 5) with sterile geometric shapes: “Trapeziums Rhoms Rhomboids/Paralellograms. triple & quadruple. Polygonic” (lines 34–35). “Envy” renders the imagination a form of contained mimesis—it becomes an inert container that blindly mirrors—instead of creativity. Blake emphasizes the woodenness of this filling with his staccato use of the ampersand, the inappropriate use of envy as the engine of the imagination because that limits it to passive imitation, and the suggestion that Urizen is just rotely following a list. This catalogue of nonce geometric shapes, moreover, is filled with caesuras, showing the stunting of imagination.

When Blake connects reductionism to the crucifixion, he calls attention to the fact that religious ideas like the fact that Christ has to die to redeem our sins reduce humankind to victims who passively await salvation, despite religion’s ostensible connection to spirituality. The Females of Amalek perpetrate the crucifixion, warning:

If thou dost go away from me I shall consume upon the rocks
These fibres of thine eyes that used to wander in distant heavens
Away from me I have bound down with a hot iron
These nostrils that Expanded with delight in the morning skies
(N8 E379: 33–36)

Reduction is a form of crucifixion. Expansiveness is framed as part of the past: the nervous fibers that used to wander are now heavily bound. Even worse, as Christ’s body is nailed to the cross, “they nailed him upon the tree of Mystery weeping over him/And then mocking & then worshipping calling him Lord & King” (N8 E379: 3–4). The “bounding down” of the body to the cross is itself a reduction of the body to a kind of instrumentality, one made palatable by worship, and the get out of jail free card that his crucifixion implies.65 These ironies are sharpened by the fact that this description begins at line 33, the age when Christ was crucified.

All is not lost. Despite this binding and petrification, Blake depicts Los’s “right hand branching out in fibrous Strength” (N9 E386: 7). Branching, a form of expansion, had previously been associated with the expansion of the nerves. Blake implies that Urizen’s/Orc’s constriction is ultimately doomed insofar as the nerves now expand under cover instead of openly, and as they do so joy is felt. This hint of failure does not prevent Urizen’s attempts to reseal Luvah/lust in his furnaces; in fact, it only makes him more resolute. Yet eventually recognizing that the nerves are self-regenerative and thus resist containment, Urizen and Los accept the futility of their reductions, going so far to rise in joy and “exult,” even “exhaling the spirits of Luvah & Vala thro the atmosphere” (N9 E400: 33). “Spirit” here recalls the animal spirits thought to animate the nerves and in terms of the bodily process of exhalation, and this collapse of body and spirit allows the human to remain divine. Blake certainly agreed with pleasure and joy as the bases for bodily health and expansiveness, provided the motivations behind the pleasure and joy were in the name of liberty and not control, and were not merely narcissistic.

Blake could turn to the nerves to embody the imagination because the nerves ideally partook of an emergent embodiment, one responsive to the environment, and not a fixed one. While Blake was apprenticed to James Basire from 1772 to 1779, the official engraver to the London Royal Society, William Cruikshank, published a paper in which he claimed that he done experiments proving that cut nerves had in fact regenerated. Blake may well have known of this paper, read to the society by none other than John Hunter, whom Blake likely knew.66 By regeneration, he meant “the complete reunion of the nerve after division, and its regeneration after the loss of substance” (Cruikshank 13). In one experiment, he divided four nerves of the first class in the dog and found it dead the next morning. He performed an autopsy that showed one pair of nervous extremities “covered
with a plug of coagulable lymph” (5). He suspected the dog had died because “none of the nerves had yet acquired the power of performing their former offices; and that, were the operations performed at a greater distance of time, the animal would recover” (5–6). In a subsequent experiment, he did indeed allow for more time, and the dog recovered. This led to another experiment where he did not remove so much of the nerves, and upon autopsy performed to look at the nerves, Cruikshank discovered “the regenerating nerve, like bone in the same situation, converting the whole of the surrounding extravasated blood into its own substance” (7). Cruikshank sees the living body very much in process, and even bone stands not for bodily limits but instead for regeneration, a term that Blake uses to highlight spiritual dimensions of the body. At one point, as if recalling Cruikshank’s theory of the development of the nerves from blood, Blake describes “The globe of life blood trembled Branching out into roots; Fibrous, writhing upon the winds; Fibres of blood, milk and tears” (N4 E338: 24–25). He adds, Blake writes, “his nervous brain shot branches On high into two little orbs hiding in two little caves” (N4 E336: 20–21). Here the nervous body is under construction, and Blake understands it in terms of dynamic fluidity, one intensified by Blake’s gerunds. In Night 9, Blake alludes to “regenerate” bodies no less than four times, thus perhaps recalling Cruikshank and, in so doing, once again concretizing the human body divine. Although the nerves have the power to regenerate, Blake connects nervous power with pleasure/joy, and thus being responsive to joy enhances true regeneration. Crucially, the poet distinguishes between the regenerations that are imposed on from without—as when “the Lamb of God Creates himself a bride & wife/That we his Children evermore may live in Jerusalem” (E391: 16–17)—and those that are borne from within and then actively pursued. The Lamb does the work of creation, and Blake’s “that” implies that the children do nothing but reap the benefits. Here, although the poet understands the nerves to have the potential to regenerate, that potential must be self-activated. Even Ahania actively “cast[s] off her death clothes” resulting in “brightening limbs” (N9 E394: 27). This, in turn, enables Urizen to rise up from his couch “on wings of tenfold joy” (N9 E394: 29). Because Ahania, or pleasure, is Urizen’s emanation, Urizen is not just a passive recipient of Ahania’s acts. Later, when “Regenerate Man” sits at the feast “rejoicing & the wine of Eternity” (N9 E400: 11), his participation in the feast is a necessary but insufficient condition for his regeneration. The rejoicing is a step in the right direction and can be consummated with the sexual generation that Christ has modeled but cannot do for us.

Surgeon and physiologist John Haighton confirmed the regenerating powers of the nerves in a 1795 Philosophical Transactions paper, though he called these
powers “reproduction.” Especially suggestive for Blake was his need to reject anatomical judgment concerning the nerves because this criterion “supposes, that anatomy is fully competent to determine, what is the precise structure of nerves, what are the nature and characters of ultimate nervous fibres, and by what mechanism or power they execute their allotted function” (2–3). In the place of anatomical confirmation or nerve reproduction, he proffers the physiological rule “that if the action of a nerve be suspended by the division of it, and if that action be recovered in consequence of an union of its divided extremities, such medium of union must possess the characters and properties of nerve” (4). When he divided the eight pairs of nerves in a dog and the dog eventually recovered, Haighton was “strongly inclined to believe that there must have been a true reproduction of the nerve” (8). He conceded, however, that “if the part of union were examined by an anatomical eye, such reproduction would be very evident. On the contrary, I am persuaded that anatomy can determine only the presence and existence of an uniting medium; but it is the province of physiology to decide whether the medium of union possess the characters, and perform the function of the original nerve” (8–9). In the absence of clear anatomical evidence, Haighton shifts the grounds of proof from anatomy to physiology, with the result that the restoration of function trumps the need for anatomical evidence. He thus made reduction of nervous physiology to anatomy feckless, instead moving things to the higher level of physiology to preserve autonomy. Haighton confirms “his distrust of those decisions founded on an appeal to the eye, seeing that anatomy has yet to explain by what mechanism or structure these organs perform their office” (10). The poor dog, having survived nineteen months, had his nerves divided again and dissected so that Haighton could prove “the nerves are not only capable of being united when divided, but that the new formed substance is really and truly nerve” (11). Haighton shows the nerves to be capable of regeneration, and, as such, science helps to confirm Blake’s sense of divine corporeality insofar as flesh regenerates and eventually attains fourfold vision.

Narrative weaving in *The Four Zoas* thus mimics the kind of branching nerves undergo. Unlike Peter Logan, who sees narrative as a pathology of the nervous narrator, I underscore the generative possibilities of the nerves in Blake, which expands the imagination rather than dooming nervous speakers to endlessly recapitulate their disease. At once the narrative of the eternal death of Albion and his resurrection, the reader is often uncertain of which direction the narrative is headed. Blake is after alternative narratives. Formally, he enacts expansiveness through epic-like catalogues that list entities demanding some kind of narrative thread that pulls them together. Donald Ault rightly argues that “the implicit goal of Newtonian
narrative is imaginative death through positive affirmation; the explicit goal of Blake’s narrative is an intense awakening, through narrative dialectic, to hitherto buried possibilities of the human imagination” (4). I add simply that this awakening is made possible by the nerves, which further enable the experience of joy. Moreover, since fourfold vision is something like incomprehensibility—Blake describes the “Four Wonders of the Almighty/Incomprehensible” (N9 E393: 258–59), which of course are the four zoas—the reader’s imagination must confront its own exhaustion only to engage in more active branching in hopes that new connections will somehow make the whole more comprehensible.

Seen in light of nervous embodiment, family thus is not so much a given network as a constantly renegotiated set of interconnected relations. Tharmas confronts Los, shifting subordination into dominance but in the process becoming the dominance he abhors, as when he orders Los to rebuild the universe (Night 4). Enion thinks her children, Los and Enitharmon, are “ingrates,” and this resentment is the cause behind the children’s development of a “dread repulsive power” (N1 E304: 4). This family dynamic is the nursery behind “embryon passions” (N1 E305: 25). When Enion can see past her resentment, she eventually learns that “In families we see our shadows born. & thence we know /That Man subsists by Brotherood & Universal Love” (N9 E402: 21–22). To cite another example, eternal man mistakenly begs the Prince of Light to save him, but “the deep buried his voice & answer none returned” (N9 E389: 26). And he will get no answer until he learns some self-reliance. With reduction, spirit separates from body, the two sexes divide, and, as characters impose domination upon each other, requests become orders. As children mature, however, the model of obedience becomes less and less adequate.

**IMAGINATIVE DELUSION VERSUS KNOWLEDGE**

Thus far, the free circulation of pleasure and energy would seem to indicate health. The problem, however, is that corporeality, even expansive corporeality, cannot speak for itself. The meaning of its feltness must be articulated, as there is no one necessary meaning to any one feeling, and certainly no necessary one-to-one correlation between a feeling and an action. This is why Blake insists that absolute reduction to physicalism fails: the physical always has a feltness that is being interpreted. Not only are vitalism and sensibility resistant to physical reduction, but also context is an all-important index of meaning, especially since it points to states of intentionality, which derives from the meaning the person imposes upon the objects of his or her perception. If expansiveness and continued creation are
the goals, not every form of expansiveness and creativity will do: some forms of expansiveness are really delusional, and one major goal of The Four Zoas is to teach readers how to distinguish actual healthy pleasure from delusion.67

At the simplest level, the clearest signifier of delusion is rigidity or absolute reduction. Thus, at the start of the fifth night, Urizen “infected Mad he daned on his mountains high & dark as heaven/Now fixd into one stedfast bulk his features stonify” (N5 E338: 1–2). While watching Urizen, Enitharmon becomes what she beheld, feeling “her immortal limbs freeze stiffning pale inflexible” (N5 E339: 6). Although many thinkers consider materiality to refute delusion—if something is materially present, how can it be a delusion?—Blake is interested in the ways in which materiality acquires the power to delude others of its perdurability and inevitability. Take his description of Urizen, “sitting in his web of dece[i]ful Religion” and “feel[ing] his pores /Drink in the deadly dull delusion horrors of Eternal death” (N8 E381: 18, 20–21). What does Blake mean when he describes Urizen feeling his pores drink in the delusion of eternal death? The porousness of the body and its openness to delusion is figured in the form of a felt material encounter. As he becomes stupefied, delusion enters the skin, and Blake’s consonance gives it a drumbeat as it enters the ears. Characters regularly forget that the materiality before them does not equate to inevitability. By that, I mean that Blake underscores how the way one thinks changes how one views material objects and thus alters the kinds of encounter with them that seem possible and what those encounters mean. Indeed, The Four Zoas show us how others react to encounters, and in the process suggests that we can learn from their many mistakes. Tharmas and Urthona now begin to feel “the stony stupor rise /into their limbs” (N8 E382: 21–22), but Tharmas now “gave his Power to Los, [while] Urthona gave his strength /Into the youthful prophet for the Love of Enitharmon” (N8 E383: 31–32). Enitharmon weaves “soft delusive forms of Man,” and Tharmas here to his ample credit recognizes those forms as delusions (N4 E332: 6) and thus refuses to accept them. Erasmus Darwin, by contrast, called insanity the tendency to “mistake ideas of sensation for those from irritation, that is, imaginations for realities” (Z 2: 356–58).

Although Swedenborg celebrated bodily expansiveness, Blake shows that expansiveness is not in itself a necessary good. One therefore has to look into the causes of expansiveness so expansion can be evaluated. On occasion, expansiveness can poison even felt pleasure. Although the illustrations to Night 3 indicate the appearance of sexual freedom and nudity, Blake inserts this caution: “till these dens thy wisdom framd /Golden & beautiful but O how unlike those sweet fields of bliss /Where liberty was justice & eternal science was mercy” (N3 E327: 9–11).
On the one hand, the dens frame wisdom, giving wisdom something to concentrate on. On the other hand, although these dens appear “Golden and beautiful,” Blake brackets these adjectives by “but.” These golden fields are furthermore “unlike those sweet fields of bliss.” Blake’s poetry therefore must repeatedly rethink true expansiveness—hence, he insistently distinguishes between delusional and imaginative pleasure—until something like a nonhierarchically dynamic unity is achieved, one that preserves difference. And since context is what helps explain why some pleasures are to be valued more highly than others, Blake immerses readers in context. Even Los gets it wrong when he takes pleasure in the sufferings of Luvah.

Vala herself symbolizes natural delusion. Associated with veils that hide the truth, Vala is only the partially erased main protagonist of *The Four Zoas*. In this way, her departure itself is a visual absence but not necessarily an actual absence. And yet what is Blake doing by embodying the imagination in the nerves and at the same time seemingly warning against the kinds of delusions that Vala’s embodiment represents? Since both are embodied, what is the difference between imagination and delusion? How is the reader to distinguish the kind of embodiment Blake approves of from the kind of false embodiment that Vala represents? Blake opens *The Four Zoas* with, “[What] are the Natures of those Living Creatures the Heavenly Father only / [Knoweth] no Individual [Knoweth nor] Can know in all Eternity”? (N1 E301: 7–8). Thereby he suggests that the problem is unsolvable. However, attentive readers learn to be skeptical of appearances that are framed as reality and to apply that skepticism to all forms of embodiment. The trick is to consider what the embodiment leads to, and then to make the warranted causal claim. Embodiment that stagnifies is a sure sign something is awry. Emotions further offer important clues, especially since despair is often the outcome of constriction. Characters, moreover, are motivated by different emotions, most commonly, jealousy, envy, pride, wrath, fear, and pity, and these emotions not only correlate to intentional states that undermine reductionism but also paradoxically serve as the very drivers to reduce others to fixed states, especially those that see falleness as irredeemable.

Luvah mistakenly thinks his mission is “to deliver all the sons of God / From bondage of the Human form” (N2 E318: 17–18), but rightly perceives the human form poses no necessary bondage. Blake later notes that “For without a Created Body the Spectre is Eternal Death” (N7 E369: 38). The delusion that the human body is limited leads to a rejection of the body and to the ideal of transcendence, and Peter Otto has ably documented how Blake fights religious transcendence because it defers salvation to the afterlife (*Blake’s Critique*). Though Blake has been charged with faulty Greek in pluralizing “zoas”—the Greek *zoa* is already
plural—I suggest that it is precisely this kind of expansion that Blake harnesses to prevent a stifling unity. After all, he numbers multiple eternities, proliferates eternal men, and the zoas physically embody those eternities.

Earlier Blake describes an even more intoxicating delusion. His interest in how delusions become attractive makes him think in terms of the psychological incentives for believing delusions, and, thus, if a delusion becomes someone one wants to believe, one can perhaps choose not to believe it:

The Man ascended mourning into the splendors of his palace
Above him rose a Shadow from his wearied intellect
Of living gold, pure, perfect, holy; in white linen pure he hover'd
A sweet entrancing self delusion, a watry vision of Man
Soft exulting in existence all the Man absorbing

(N3 E327: 2–6)

Purity, holiness, and gold make for enticing viewing, and man’s ascension further suggests Blake’s endorsement. However, that purity, rather than standing for a larger whole, is merely part, a shadow of his wearied intellect. If metonymy advertises a substitution that explicitly fails to substitute, the poet underscores self-delusion. Man’s devolution into watery softness offers another warning sign. Man’s later declaration that he is nothing in the fact of God further frustrates Blake, as man has forgotten his own divinity, preoccupied as he is in being saved and merely being passive. This is why he makes the Lamb of God the creator of the conditions for eternal death (Ault Narrative 269), and not just the savior. Nonetheless, the fact that so many characters actively seek self-delusions means that delusion is only a partial denial since one should not fully be deluded by the delusions that one actively seeks. If delusions are partly willed, logic implies they can be unwilled. The key then is to see the part the self plays in the delusions it adopts, and why it adopts them.

In order to teach his readers how to learn the difference between delusion and reality, a difference exacerbated by the fact that delusions regularly acquire material form in Blake, he encourages his audience to think contextually and beyond linear time. Acts have consequences, but they so rarely lead to the consequences intended, and this means that in acting one should not assume a linear path between intention, act, and consequence. Crucially, others are never just the tools of our intentions. Because nerves are places of embodiment where emotions allegedly roost, they somehow contribute to intentional states. Blake envisions emotions as pointing perceptions into actions, but too often characters are motivated by either selfish or cruel feelings, and indeed “delusive cruelty” is an insistent phrase. Furthermore, as Urizen builds his altar with the “labor of ten thousand
Slaves,” Enitharmon with “her caresses & her tears revivd him to life & joy” (N2 E320: 39, 47). Yet instead of perpetuating this life and joy, they build the mundane shell, “plant[ing] divisions in the Soul of Urizen & Ahania” (N2 E322: 3). The problem is that Urizen has learned how to delight in another’s pain. Moreover, Enitharmon feels “strong vibrations of fierce jealousy” (N2 E323: 45). Vibrations allude to David Hartley’s argument that the nerves work through vibratiuncles. Jealously causes her to think that Urizen is hers, “created for my will, my slave” (N2 E323: 46), but not even Urizen can be her possession. By making actions and emotional reactions the only engines of plot, Blake makes it impossible not to think about actions contextually, since context rather than fixed interiority provides what interpretative clues we have. This means that linear causality will always be insufficient, in part because it cannot account for how we are always modifying our sensations with memory and information from the environment; moreover, memories are tied to emotional states that trigger the recall of it, thus shaping it to fit a larger narrative. It is perhaps not too far from here to leap to Gerald Edelman’s idea that the brain works through a process of selection guided by values imposed in the brain (Remembered Present). Enacting plans, moreover, changes the causal relations between objects (Edelman, Bright Air 169).

Perhaps nowhere is context more important than in the poet’s giant tumescent phalli (see manuscript pages 40 and 41, in Magno and Erdman 46–47). The mere presence of pleasure, in this case genital erection, is no sign of progress in itself, insofar as Blake describes Albion as “idolatrous to his own shadow.” Desire is reduced to selfishness and even a form of false self-worship. Although expansion would seem to defy moral law, in point of fact it serves only to eroticize it insofar as the taboo makes it seem sexier. That Blake depicts Vala masturbating a large penis to the point when “the balmy drops fell down” (N3 E327: 1) only serves to underscore that “rent from Eternal Brotherhood we die & are no more” (N3 E328: 9). Blake’s truncation of Albion’s legs recalls William Hunter’s anatomical drawings depicting the human body as a butchered piece of meat, thus further indicting a pernicious reductionism. Blake makes the context for evaluating acts communal, since ideally pleasure is a unifying experience. He insists, “Man liveth not by Self alone but in his brothers face/Each shall behold the Eternal Father & love & joy abound” (N9 E402: 25–26). Blake’s subtle expansion of “bound” to “abound,” heightened by his enjambment, aggressively curtails any reduction.

Materiality so often leads to the desire for possessiveness, and Blake’s point is that the material eludes possession. Properly understood, the material body expands beyond whatever contains it because it is dynamic. When the container of eternity is filled, Blake moves to the next eternity. His notion of unity further avoids
totalitarian imposition by paradoxically holding on to difference. To wit, Tharmas understands himself to be “like an atom/A nothing left in darkness yet, he proclaims [he] is an identity” (N1 E302: 43–44). How can nothing have an identity unless it is differentiated from its surroundings? To return briefly to Enion’s possession of Tharmas, I underscore how Blake highlights the consequences of characters being reduced to tools. When Tharmas returns the favor by raping Enitharmon (N4 E332: 4), Blake shows how the cycle of violence perpetuates itself and how woman’s status as property encourages violence. When Tharmas “balm[s] her bleeding wound” (line 6), he recognizes his guilt.

Blake denounces as delusion pleasure that leads to domination, obedience, pity, jealousy, envy, and fear, calling war the result of the repression of energy. Urizen accuses Los of being “the soft delusion of Eternity” (N1 E307: 25), but the fact that he “collected in himself in awful pride” hints that his accusation of delusion is the delusion. Los later asks “why can I not Enjoy [Enitharmon’s] beauty” (N7 E357: 23), blind to the fact that “his jealous lamentation” is itself the cause. He sees her “thrilling joy in beaming summer loveliness” but cannot feel it, and the gap between seeing and feeling is a space from which one can suspect delusion is at work since genuine pleasure should have no delay. The fact that Los “felt the Envy in his limbs like to a blighted tree” (N7 E353: 27) hints that physiology helps us grasp what the emotions mean, especially when they become associated with illness. Illness marks the feeling as ugly. Orc knows that “the arts of Urizen were Pity & Meek affection/And that by these arts the Serpent form exuded from his limbs” (N7 E363: 11–12). Pity and meekness have the power to thus delude attention away from the serpent form; Blake thus labels them “arts,” thereby dissociating them from sincerity and making them a potential screen for manipulation. Those arts then need to be distinguished from Blake’s art. The reader’s role is to learn the difference between Urizen’s delusive arts and the poet’s, and the problem is that Blake’s art always risks delusion. Fear causes love to recede: Enion remarks, “All Love is lost Terror succeeds & Hatred instead of Love” (N1 E301: 18).

Although characters may have to resort to secrecy in order to subvert, secrecy ultimately poses a problem because it enhances repression and threatens to make pleasure into a delusion. Urizen builds a temple in the human heart. “They formd the Secret place reversing all the order of delight/That whosoever enterd into the temple might not behold/The hidden wonders allegoric of the Generations” (N7 E361: 2–4). Blake emphasizes restriction here; those who enter the temple are blind to the wonders of generations. Although hiding is a reasonable response to repression, ultimately Blake thinks that it adds to repression. Why else would he claim that secrecy has the power to reverse “all the order of delight”?
So do purity and righteousness signal delusion. On Night the First, Tharmas’s specter demands of Enion:

Who art thou Diminutive husk & shell  
If thou hast sinned & art polluted know that I am pure  
And unpolluted & will bring to rigid strict account  
All thy past deeds.  
(N1 E303: 9–12)

That a specter accusses Enion of being a husk and shell is unintentionally funny. Even worse, the identification of the self with purity leads to judgment rather than intersubjectivity, for the “pure” individual not only wants nothing to do with pollution but counts on the sins of others to maintain distance and feel better about herself. And yet Blake’s point is that this arrogance and superiority is itself a form of pollution, especially since purity both so desperately needs its opposite to keep its sanctity and is completely unaware of the possibility of self-criticism. Hence, he couples righteousness and doom (N3 E330: 20). Likewise, when Urizen urges his daughters to “let Moral duty tune your tongue/But be your hearts harder than the nether millstone” (N7 E355: 40–41), the fact that hearts are required to be hardened in the name of duty signals something awry. Blake then links this to the evaporation of Los and the compulsion of the poor “to live upon a Crust of bread by soft mild arts” (N7 E355: 9). Living in dire poverty, Blake would have known what this was like, with the added problem that if bread was used to wipe excess ink off his copper plates, the crusts would be useless. The mere fact that purity must be known to others undermines the very existence of purity, since the show becomes more important than the worth of any deeds. It also explains why priesthood lends itself to “dark delusions of repentance” (N8 E382: 18). As the previous example already suggests, the presence of pride further promises delusion. Tharmas’s specter is “exalted in terrific Pride” (N1 E303: 8). Similarly, pride makes Urizen think “himself the Sole author/Of all his wandering Experiments” (N7 E356: 1–2). Finally, Los “in furious pride [with] sparks issuing from his hair” (N4 E332: 11) hopes to drink up the Eternal Man. “Sparks” hint at the electrical nerves, which thankfully have been able to retain their nervous power.

Fear also often invites delusion. Urizen constantly fears his son, Orc, and as a result does everything he can to destroy him. Enion can be redeemed only when mankind loses its fear of death. At that moment, she becomes a loving mother, sacrificing herself for others. Blake argues that regeneration is possible when one confronts eternal death by facing one’s fears.

Despite providing these indications of delusion, Blake recognizes that the gap between imagination and delusion is a fine one. Hence in Night the Eighth, he
depicts the Council of God viewing the divine vision, except that it is not clear where the divine vision begins and ends. Does it include Urizen’s “Engines of deceit” which “pervert all the faculties of sense” (N8 E374–75: 15, 20)? Does it include the birth of lust (N8 E375: 28)? And does it include the appearance of Satan’s “Vast Hermaphroditic form” (N8 E377: 21) or Ahania’s speech, which encourages deism and natural religion? The answer is yes to all these, and Blake’s implication is that even these satanic embodiments are also forms of the divine. He provides an important clue when he insists, “Where Death Eternal is put off Eternally / Assume the dark Satanic body in the Virgin’s womb” (N8 E377: 12–13). Blake’s verb “assume” hints that satanic form is mere appearance. Moreover, not to insist on this gap between imagination and delusion would mean that salvation has been achieved and that imagination has no work to do.

Although Enlightenment psychiatrists and neurologists generally sought to make delusions stand unambiguously on the side of madness and often turned to physical explanations like the actual compression on the nerves to explain delusions, Blake thinks the causes are not physical but psychological. John Hill was one exception: he thought that “vain sensibility and wanderings of the mind could be cured by “command of the imagination, which we call presence of mind” (On the Construction 46). Blake agrees that command of imagination is both possible and potentially beneficial. For him, the only guarantee of the end of delusion is what Blake calls in his penultimate line, “intellectual War The War of swords departed now” (N9 E407: 9). Although redemption entails the end of physical war, intellectual war nonetheless remains. With pride and purity especially, there can be no intellectual war, as the self does not doubt itself. There is also the problem that seeing one’s enemies in terms of delusions can be comforting. Noting Los as a threat to his power, Urizen asks of him, “Art thou a visionary of Jesus the soft delusion of Eternity” (N1 E307: 25). By framing Los as a visionary of a delusion, Urizen attempts to dismiss him into the ether. Blake, however, emphasizes Urizen’s false and erroneous bravado when he has Urizen thump his chest and declaim, “Lo I am God the terrible destroyer & not the Saviour” (N1 E307: 26). Just as Urizen sought twice to desubstantialize Los, he twice insists on his own identity, both in terms of what he is and what he isn’t, a fraught form of masculine identity. Urizen also cannot resist decapitating Los, the poet figure, into the empty gestural interjection, Lo.

Implied in his understanding of a fine line between imagination and delusion is Blake’s awareness that even reduction and contraction can have positive uses. In “Great Eternity,” humankind gains powers of perceptive expansion and contraction at will: “Then those in Great Eternity met in the Council of God/As one Man
for contracting their Exalted Senses/They behold Multitude or Expanding they behold as one” (N1 E310–11: 16–18). Contraction and expansion in eternity are essentially perceptive; moreover, by making unity the work of contraction/reduction, Blake undemonizes what is in the fallen world demonizing. Urizen’s furnaces exist to constrict, and Blake’s point is to remind readers that Urizen and his ilk must work extraordinarily hard to constrict what is in essence expansive in nature. Expansion is a way of thinking about joy in spatial terms; and, in here revaluing constriction as a way to perceive unity, Blake reimagines an expansiveness that ideally becomes a form of willingly self-imposed constriction, so that all can appear as unity. The upshot is that even constriction is not necessarily evil, and the added implication is that qualities that seem irredeemable are not so. The crucial difference is that this constriction of vision is self-imposed for the right reasons.

If imagination and delusion are less far apart than the culture maintains, then the distinction between them will no longer serve as a clear indication of madness. Blake challenged the Enlightenment discourse on delusion because delusions were not intrinsically pathological—having a delusion did not mean automatic madness—but, on the one hand, delusions were caused by a power structure that cultivates delusions like moral law and purity to reinforce hierarchy and priesthood, and, on the other hand, they were caused by wish fulfillment and by not being able to see the differences between what one wishes to be true and what is true. He argues that there are forms of delusion like moral law, which most people subscribe to, because it feeds their need to feel superior. Thomas Arnold in his Observations on the Nature, Kinds, Causes, and Prevention of Insanity, for instance, called a delusion “the possession of a supposed excellency” (176). Even Los kindles Enitharmon’s “delusive hopes” (N2 E324: 94). Hence, Urizen and Los force bodies into versions of fixity and delude themselves that this is working. Blake therefore realizes that the only way to protect oneself from delusion is to always worry about the potential for self-delusion. Even delusions can be a vehicle to self-knowledge, if only one can figure out why the delusion is attractive to begin with.

In a work about the knowledge that comes from dreams, therefore, Blake uses forms of the word “delusion” twenty-four times in the nine nights, thereby normalizing delusions and insisting on the ability to demarcate delusions from truth. Is a delusion something that has not yet been proven true? He thus insists that readers always factor in the possibility of delusion. Blake also recognizes the degree to which poor self-knowledge contributes to delusions; Urizen after all insists that he is doing moral good when he is destroying imagination and pleasure. Imaginative folks required more vigilance; Thomas Trotter argued that because of their “deluded and vivid imaginations . . . nervous people are capable of believing any-
thing” (238). When delusions no longer imply pathology, it is easier to think about why one is attracted to them; it is also possible to consider the psychological benefits of an idea that make the delusion attractive. It becomes possible to think about the versions of selfhood delusion underwrites. In fact, immunity to delusion requires a Goldilocks devaluation of selfhood: not too much to be a lack of self-confidence and not too little so as to be seduced by purity or pride. Hence Blake’s just-right insistence upon a paradoxical self-annihilation without a loss of self, since the tension between the two is what prevents the extremes at both poles.

Blake’s awareness of the costs of reductionism makes him define self-annihilation against the developing scientific form of it called “objectivity.” Lorraine Daston and Peter Galison argue that objectivity is a denial of subjectivity, a kind of will to willlessness that replaces the subjective with disciplined observation. From Blake’s perspective, not only does objectivity distance oneself from one’s emotions, and thus make oneself powerless to think about the psychological benefits provided by delusions, but also objectivity hardens things into objects, so that they can be appropriated and the appropriation seem justified. Like reductionism, objectivity makes it easier to impose one’s will on the world. By contrast to objectivity, Blake’s notion of self-annihilation is at once deeply subjective—it comes at a painful cost to the self, and the self is acutely aware of the sacrifices it is making.

Blake further challenges the idea that delusion equals madness by recognizing how attractive the condition of forgetfulness is and by having his characters choose states of “oblivion” that make them unable to resist reductionism. Not only do characters regularly attempt to go into hiding, which has the preliminary advantage of escaping surveillance, but also characters deliberately withdraw into forgetfulness. Thus, when Urizen finds that his binding of Orc isn’t working, he “hid to recure his obstructed powers with rest & oblivion” (N6 E348: 10). If oblivion can be a tactical choice, then memory is selective, even creative, and is based on values.

For Blake imagination and delusion are so intertwined because the roots of delusion are either experience or belief, and it is not clear how one leads to another. The imagination is the nexus where experience amounts to belief or belief shapes experience, and the nervous imagination is where emotion tinges both experience and belief, lending both a reality effect. By having perceptions that are already emotionally freighted, Blake blurs the ground between perception and belief, and makes perceptions into prompts to action. Thus Orc’s energy is enflamed by Urizen’s binding; Urizen’s binding of Orc is based on envy, and because of his envy, Urizen will instruct his daughters to “over all let Moral Duty tune your tongue” (N7 E355: 3). The two will goad each other into conflict until one of them recognizes that the mutually defeating pattern harbors delusions and invents a
new paradigm. Orc is, after all, Urizen’s son. The goal, then, is to try to change either the emotion or the meaning made of it, as the nameless shadowy female does when she meets Orc’s wrath with meekness, hoping to temper it. Such rapprochement opens the possibility of “unit[ing] in one, another better world will be / Opend within your heart & loins & wondrous brain / Threefold as it was in Eternity” (N7 E368: 43–45). Note, however, that, even within unity, Blake describes threefoldness, implying the preservation of difference even within this unity even as the holy trinity is sexualized. The pronoun “your” marking the other’s organs and brain further insists on difference. And there is presumably a fourth level to go.

The ending of *The Four Zoas* reminds the audience that one can always move from the constriction of night and into Enlightenment, that it is possible to gain control over one’s delusions:

> And Man walks forth from midst of the fires the evil is all consumd
> His eyes behold the Angelic spheres arising night & day
> The stars consumd like a lamp blown out & in their stead behold
> The Expanding Eyes of Man behold the depths of wondrous worlds

(N9 E406: 22–25)

In this imagined divine vision, Blake’s use of metonymy is nothing less than extraordinary and works to make eliminative reductionism absurd. If absorption into image through the imagination reveals the self as limit, the poet’s sliding scale puts front and center the limits of perspective. By literally surrounding the stars with human eyes that are expanding, he highlights how perception shifts reality even as he figures the stars as eyes beholding human eyes beholding wondrous worlds. Blake achieves something like the perspective of infinity in the shifting scales of eyes, lamps, and stars; for the one to be perceived as the other, scale itself must be shown to be a limit to perception, and, by logical extension, imagination must expand beyond the self, as it does when one is absorbed into the image. His decision to illustrate expansiveness through both the figure of metonymy and the fourteeners that acquire extra syllables, however, sets into motion colliding scales, which arrest the dissolution of self through the insistence on perspective. This ability to shift perspective, to see unitites despite differences, makes it possible to resist delusion’s seduction that one is better than or holier than someone else. To that end, the passage performs a simultaneous annihilation of the self without getting rid of the self, for the vantage point remains front and center even though the scales shift and the relentless enjambment threatens to swallow each individual line. Of course, the walking in the midst of the fires that consume evil allegorizes Blake’s printing process and his use of acid, and this reminds us that what we have
here is no distant vision but something taking place as readers consume the poem and it becomes part of us.

I have shown how the science of the nerves in the Romantic period enabled Blake to reduce the imagination to the nerves without getting rid of spirit or consciousness or autonomy. At the same time, too much autonomy comes at the expense of community. The concept of nervous organization made ample space for spirit and autonomy from mechanism. In *The Four Zoas*, Blake pits a flexible reductionism against an eliminative reductionism. The former, because it understands difference allegorically and does not attempt to get rid of it, is compatible with mutuality. The latter enhances domination and hierarchy. As the organs of pleasure, the nerves are crucial to Blake, for they explain why a healthy body relies on a free circulation of pleasure and situate that pleasure in a larger communal context. Against historicist treatments of the imagination that reduce it to ideology, Blake actively thinks about the fine line between imagination and delusion, and ultimately argues that one must always be on guard because not only might one’s imaginations be delusions, but also collective delusions like moral law, priesthood, and holiness simultaneously enhance one’s own passivity and disenfranchisement along with the illusion of one’s superiority. *The Four Zoas*, then, is simultaneously a plea on behalf of consciousness and autonomy notwithstanding the neurological self and a warning that autonomy must not be taken as given but actively maintained yet tethered to community so division doesn’t become divisive. It is also a plea for an imagination not merely subject to the understanding, as Kant understood it, insofar as Blake shows the ways in which even delusions can enhance understanding, because they are often, at bottom, about the misguided need to aggrandize the self at someone else’s expense.