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Augmenting Reality:

Neuromancer and The Body of the Real

Abstract:

In William Gibson's cyberpunk classic, cyberspace becomes a fully-immersive digital environment frequented by computer hackers who mock the flesh in favor of disembodied consciousness. As such, *Neuromancer* revolves around Henry Dorsett Case: a washed-up "console cowboy" whose deeply-rooted addiction to the matrix, familiarity with neural implants, and compromised ability to access cyberspace has intensified his own dualistic outlook on the body and mind. However, Case finally appears to recognize the overwhelming illusion of cyberspace when he has digitally-mediated sex with his murdered girlfriend, compelling him to embrace the warmth of the flesh. Yet does this experience really normalize Case's conception of reality? By viewing *Neuromancer* through the lens of Michael Persinger's neuropsychological experiments, this paper argues that no sharp divide must exist between artificially-induced and natural perceptions. It reveals that something more radical than mind-body dualism—namely, a unified conception of disparate experiential states—is hidden in Case's cybersexual encounter. And by bridging the fact and fiction of neural augmentation, I believe that it irrevocably augments own notions of what is real.

In William Gibson's classic cyberpunk novel, *Neuromancer*, cyberspace has become a fully-immersive digital environment frequented by computer hackers who mock the flesh in favor of disembodied consciousness. As such, the novel revolves around Henry Dorsett Case, a washed-up "console cowboy" whose deeply-rooted addiction to the matrix, familiarity with neural implants, and compromised ability to access cyberspace has exacerbated his own dualistic outlook on the body and mind. In exchange for a repaired ability to connect to the matrix, Case is coerced by an artificial intelligence (AI) called Wintermute to hack through the digital constraints that prevent it from merging with its other half, Neuromancer. Whether through cyberspace, drugs, or death, Wintermute and Neuromancer fuel Case's obsessive desire to escape his body. But when Neuromancer constructs a cybersexual encounter with Linda Lee, Case's murdered girlfriend, it unintentionally deepens the hacker's bodily immersion and fails to keep him in cyberspace forever. Through this experience, Case finally appears to realize the overwhelming illusion of cyberspace in comparison to the warmth of the flesh—yet does this experience actually normalize his conception of reality? Must it really elevate Case's body above the vast datascapes of the matrix? In this paper, I argue that something more radical than mind-body dualism is hidden within Case's digitally-mediated sex with Linda. By viewing *Neuromancer* through the lens of Michael Persinger's neuropsychological experiments, it becomes apparent that no sharp divide must exist between artificially-induced and natural perceptions. Despite the fragmented world of cyberspace, it reveals that Case himself has developed a unified conception of reality. And by bridging the facts and fiction of neural augmentation, it irrevocably augments own notions of what is real.

Undeniably, Case's unique situation has complicated his relationship with reality. As a consequence of his past employment history, Case's nervous system was sabotaged with a Russian mycotoxin to ensure that he would never enter cyberspace again. Then driven to seek help at the best clinics in the world, Case traveled to Japan, was told the damage was incurable, and soon ran out of money. Furthermore, despite distracting himself with two years of reckless drug deals, Case would still dream of the matrix in his sleep—and wake up crying, clawing, for a console that wasn't there. For a man "who'd lived for the bodiless exultation of cyberspace, it was the Fall" (Gibson 6), an irreconcilable trauma that chained him to the prison of this own body. And with this sense of lack so deeply ingrained into his being, it was nearly inevitable Case's life would devolve into a silent mission of self-destruction: "a very ancient game that had no name, a final solitaire" as he "basked in the knowledge that it was only a matter of time" before he would be liberated from his chains (Gibson 7). For him, there are only two options: cyberspace or death.

While he dislikes physical reality, this doesn't stop Case from picking up a girlfriend and immersing himself in the life of the flesh. But even after meeting Linda Lee in a streetside arcade, Case still manages to disregard their sex as a mere fixation of "the meat … and all it wants" (Gibson 9). For him, nothing evoked by the body can ever be as unmediated and pure as the digital dance of cyberspace. In fact, this corruption of the body even carries over to simulated stimulation, or *simstim:* another neurotechnology that's similar to virtual reality (VR), but allows for rich sensory experiences to be shared between real people. Despite Case's knowledge that the full spectrum of human perception is blunted in cyberspace, he still deems simstim detestable for being "a gratuitous multiplication of flesh inputs" (Gibson 55). Though arising from the same

source—from electrical modulation of the nervous system—Case still finds something perverted about *any* connection to the body and its gross desires. Nevertheless, Case's love for Linda is still able to surface above his suicidal dissociation with the body. But like someone stuck in the self-reinforcing depths of depression, "that was the part of him … that most hated the thought of Linda Lee" (Gibson 8).

Even more striking, perhaps, is that Case simply tries to deny the deeply-rooted satisfaction he gets from *all* the body's emotional signals. For instance, Wintermute prefers to borrow Case's memories as a template to construct digital personas and spaces for their interaction. But when the AI talks through Linda Lee, Case's emotional charge causes the simulation to fall apart, "yanking away the simple animal promise of food, warmth, a place to sleep" (Gibson 152) and vitalizing him with rage. After this encounter, Wintermute slowly cleaves through Case's perpetual numbness, thereby rekindling "this warm thing, this chip of murder" as they prepare for the Villa Straylight hack (Gibson 152). And, for a while, this synergetic play of love and rage empowers Case. Yet it is undeniable that this very same passage—this emerging moment of empathy with Case's cold persona—ends with a reiteration of his perpetual inner conflict: *"It's the meat talking, ignore it"* (Gibson 152).

As we transition into the Villa Straylight hack, it is worth mentioning that Case's mission increasingly devolves into a convoluted mess. Throughout the novel, we know that two things must occur in parallel for Wintermute to be freed: Case must destroy the AI's digital constraints with a computer virus called the Kuang Grade Mark Eleven, and Molly Millions, an augmented mercenary, must physically infiltrate the Villa Straylight and get the owner, Lady 3Jane Marie-France Tessier-Ashpool, to simultaneously speak a special phrase that acts as final

safeguard to Wintermute's prison. However, this labyrinthine mansion is actually located within a commercial space habitat owned by the Tessier-Ashpool family. Thus Case and Molly are forced to travel into orbit, secure a ship, and sneak into the Villa without arousing suspicion. Unfortunately, Molly collapses from a previous leg injury while pursuing 3Jane, and thereby becomes the captive of her target. With no other option, Case must now come after her. Yet when Case checks on the Kuang program in the middle of the Villa, Neuromancer intervenes with his twin's plan. If Wintermute's biggest strength was strategy, Neuromancer's was personality—and it was afraid of losing that in the upcoming merger with its twin. As such, the AI redirects Case into an immersive cyberspatial beach populated by a digital reconstruction of Linda Lee, who had previously been murdered while trying to sell Case's black-market RAM. In this way, Case is offered a choice: gain digital immortality with his resurrected lover, or continue with the hack and unleash something wholly unknown—the merger of two super-intelligences—into the world.

In light of Case's incessant repression, it is notable that his emotions finally burst forth in the presence of Neuromancer's digitally-reconstructed Linda Lee. Despite his skepticism regarding Linda's reality, Case's love for her blossoms to a point where it can no longer be ignored. Consequently, the pair shares a moment of intimacy in the firelight, taking Case to:

> a place he'd known before; not everyone could take him there, and somehow he always managed to forget it. Something he'd found and lost so many times. It belonged, he knew—he remembered—as she pulled him down, to the meat, the flesh the cowboys mocked. It was a vast thing, beyond knowing, a sea of information coded in spiral and

> pheromone, infinite intricacy that only the body, in its strong blind way, could ever read. (Gibson 239)

Undoubtedly, this moment marks a drastic shift in Case's perspective, in which the body is no longer subordinate to the data-clusters of cyberspace. With a richness that overwhelms the ingrained preconceptions of his past, "the flesh the cowboys mocked" becomes something infinitely more complex than the underlying ones and zeros of the matrix (Gibson 239). It escapes from Case's perceptual periphery, and restructures his entire conception of reality. And in this way, it finally seems that Case has grounded himself in the *reality of the body:* the primacy of the flesh over the simulacra of cyberspace.

This body-centric conception of reality is further corroborated by Nicholas Ruddick in "Putting the Bits Together: Information Theory, 'Neuromancer', and Science Fiction," an analysis of *Neuromancer* through the lens of 1980's information theory. Overall, Ruddick sheds new light on Case and Linda's cybersexual encounter by framing their love as a moment of true transcendence. As such, their coupling within this space is able to evoke "love, a truly emergent state, a multileveled exchange of information by two separate individuals, briefly united body and soul, briefly transcending time and death. Case is reminded to listen to the news of the flesh that he, unlike Linda, still possesses, and consequently comes to reject the artificial and sterile cyberspatial paradise" (Ruddick 90). In this way, the raw emotions of this encounter are a signal from Case's flesh that beckons him back to his natural state of embodiment. Through their influence, he is able to fully internalize the reality of the body while reconciling his dangerous fixation on the digital.

Though I agree there is a shift in Case's perspective that occurs as a result of this moment, I cannot allow myself to ignore Ruddick's vast oversimplification of cyberspatial reality. For instance, we must not forget *all* of this is taking place in a digitally-mediated context. And despite this fact, the event's sensual richness wasn't diminished in the slightest; in fact, it is *fully real* for those who inhabit the beach. Truly, how can cyberspace be "sterile" if it was able to evoke such a transcendent experience in the first place? Furthermore, Neuromancer—the creator of this shared space—believes Case is wrong to suspect that all of this is only an illusion. Since the AI can't know Case *or* Linda's thoughts, and the beach is so immersive to each of them, a different story is allowed to emerge: that "to live here is to live, there is no difference" (Gibson 258). In this way, Ruddick's entire argument pivots around an unfounded assumption regarding the unreality of cyberspace, when this is actually ambiguous.

Nevertheless, modern cognitive science appears to lean towards Ruddick's judgement. Within "Empirical and Phenomenological Studies of Embodied Cognition," David Morris synthesizes the counterintuitive theory that cognition is intimately shaped by the body—the main tenet of embodied cognition—with the descriptive analyses of first-person experience that are the focus of Husserlian phenomenology. In doing so, he continually reiterates that a description of cognition as merely "embrained" fails to acknowledge the highly-contextual nature of an embodied being that interacts with the world. Without using the physically-situated body as a pivot for reality, scientists and civilians alike are bound to confuse hallucinatory machinations as actual entities—and, as such, wind up dead in an evolutionary context, or unable to function in today's societies. Furthermore, Morris' use of the infamous "brain in a vat" thought experiment serves to undermine the neural implants that proliferate throughout *Neuromancer*. In his view,

connecting one's brain to sophisticated computers simulating an outside world could only evoke a "misguided, vatic abstraction … for [cyberspace] lacks the right kind of body to do thinking" (Morris 237). With no direct relationship between one's body and the simulated world, it would never work. And in this way, Morris asserts that the physical reality of the body is *the only conceptual ground which can be tolerated by modern science*. Without it, we risk theories that are not grounded in our own lived world, our own physicality. Yet we cannot deny that Case's encounter with Linda Lee still evidences the exact opposite: sensual richness is not diminished despite being coded within a digital simulation. What is really going on here?

In response to this conundrum, Michael Persinger's article, "Experimental Facilitation of the Sensed Presence is Predicted by the Specific Patterns of the Applied Magnetic Fields, Not by Suggestibility: Re-Analyses of 19 Experiment," makes the case that precise neural stimulation actually *will* evoke specific perceptual experiences. By using a magnetic stimulation helmet, Persinger was able to repeatedly cause his research participants to sense the presence of a sentient being. In particular, the experimental results are oddly similar to Case's experience with personality constructs in cyberspace, which evoked "exactly the sensation of someone reading over his shoulder" without a visual representation of the cyberspatial body (Gibson 78). Furthermore, in the words of Persinger, the "profound and personal experiences that subjects report following a brief exposure to the appropriately patterned, experimentally generated magnetic fields … suggests the procedures *may simulate the essential theme of 'natural' experiences*" (Persinger 1090). In this way, Persinger hints that reality might be conserved across diverse modes of neural firing: that we are unable to disregard the reality of certain perceptual experiences on the grounds that they were fabricated by artificial interventions. Thus it appears

cyberspatial reality is more complex than the simple, dualistic ideas of Ruddick, Morris, and Case. And, in fact, it appears science itself is in need of a reconciliation—thereby goading us to bridge this cacophony of perspectives into one, coherent whole.

Through the insights of Morris and Persinger, the reality of perception has become inseparably linked to *both* body and brain—yet we are still left teetering over the edge of a deeper synthesis. What sort of shift is Case really undergoing if he isn't realizing that the physically-situated body is the ground for reality? By applying Persinger's research to Case, the reality of the body must undeniably be reevaluated. Reality itself must be contextually separated from the flesh, thereby transfiguring the *reality of the body* into the *body of the real*: the notion that all perceptions are equally real, that the perceptual field is the body which we must ground reality in, regardless of our classification of information as "natural" or "digital."

In this way, Case's cybersexual encounter with Linda—the "infinite intricacy that only the body, in its strong blind way, could ever read" (Gibson 239)—is, in fact, reflective of this expanded notion of the body, a body that includes digital reality rather than precluding it. Taking place within Neuromancer's cyberspatial construct of encoded memories and copies of the dead, this overwhelming signal of reality bridges the divide between digital and physical, rather than causing Case to reject one side for the other. With a complex richness that matches physical reality and Persinger's claims, cyberspace can no longer be dismissed offhand. It can only be integrated into a single, cohesive plane—the body of the real. Besides, Case speaks for himself when rejecting Neuromancer's offer to stay on the beach with his lover. Despite the simulation wavering before his eyes, Case gives Linda his jacket before walking away down the shore, stating "'I don't know … maybe you're here. Anyways, it gets cold'" (Gibson 244). Though still

withholding his judgement regarding Linda's reality, Case nevertheless understands the imposing nature of Linda's digital context—if not for her, then at least for him—and tells the simple story of the body of the real with his own rare act of kindness.

While Case's time on the beach serves to catalyze his conceptual shift, the surrounding events actually corroborate his reconciliation of a previously-dualistic mindset. For example, it is notable that Case's awareness flips between physical reality, Molly's simstim, and cyberspace 36 times during the entire Villa Straylight hack. Besides displaying an extreme comfort with multiple sensory input channels, Case's sheer lack of disorientation appears to evidence a fluid conception of his own body in relation to different lived realities. Truly, the reality of the body can no longer hold as it has before. Since Case's bodily experiences shift between three perspectives—himself, Molly, and a free-floating cyberspatial awareness—there is no way for him to ground reality in a stable physical representation. Yet the other side of mind-body dualism fares no better. Truly, how could the sheer intensity and immersion of each experiential state be reconciled other than conceptualizing them as a one, continuous whole? Certainly, Persinger would urge us not to disregard two out of three experiential states as "unreal" for simply being evoked by different mechanisms. Thus, it seems Case must encapsulate *all* of them within the body of the real, and come one step closer to recognizing the full implications of this concept.

In fact, this maneuver is very similar to the ideas expressed by N. Katherine Hayles in her book *How We Became Posthuman*. While exploring digitally-mediated embodiment from a postmodern feminist perspective, Hayles repeatedly urges readers not to become seduced by the promise of disembodied information. Instead, she believes that we must integrate our bodies with

technology in a balanced manner—and potentially reframe our notion of embodiment in the process. As such, Hayles introduces the concept of "virtuality"to denote the idea that:

> human functionality expands because the parameters of the cognitive system it inhabits expand.…[I]t is not a question of leaving the body behind but rather of extending embodied awareness in highly specific, local, and material ways that would be impossible without electronic prosthesis. (Hayles 290-291)

In other words, embodied awareness can be expanded dramatically through the use of technology without transcending the body. Though no longer constituted of normative perceptions, the body will not dissolve into a background of infinite mentality; it will simply be reconfigured. It will be extended in "ways that would be impossible without electronic prosthesis" (Hayles 291), but these novel modes of interaction will be no less real than pure physicality. In the context of *Neuromancer*, Case is able to do different things within each state—whether dance with data, passively observe Molly's experience, or live the life of his flesh—because his embodied awareness, his body, has been rearranged with new constraints. Yet the body of the real is always the same body, regardless of one's utilization of a neural prosthesis to extend the space of possible perceptions. Again, the dualistic mindset portrayed at the beginning of the novel can no longer explain Case's experience without a disjunctive leap between physicality, simstim, and cyberspace. By solely bestowing full reality to the physical, we must put sharp boundaries between physical and digital spaces when these boundaries do not actually exist within Case's experience. Thus to accurately characterize Case's mental shift after his sex with Linda Lee, we must concede that his understanding of reality is more fluid and unified than mind-body dualism.

Additionally, Case's abnormal perceptual experiences—specifically his velocity-induced synaesthesia within cyberspace—are other striking moments related to the body of the real. For instance, Case's maneuvering of the jet-like Kuang virus program as he hacks through Wintermute's constraints produces the following sensation:

> His mouth filled with an aching taste of blue. His eyes were eggs of unstable crystal, vibrating with a frequency whose name was rain and the sound of trains, suddenly sprouting a humming forest of hair-fine glass spines. The spines split, bisected, split again, exponential growth under the dome of the Tessier-Ashpool ice. (Gibson 257)

Due to its resemblance to drug-induced psychosis, schizophrenia, or other misfirings of the nervous system, the experience contained within this passage would previously have been disregarded as ripping *apart* the body. As inherently unreal, it represents a violent subjection of the reality of the body to synaesthetic machinations. However, when viewed through the body of the real, Case's synaesthesia can be appreciated for what it really is: a ripping *open* of the body, which produces novel perceptual objects that cannot be held against any judgemental standard. In this way, it is possible to separate the intensity of the perceptual event itself—its reality—from contextual attributions of meaning. As such, Case's anomalous experience can be appreciated as a *real* occurrence arising from the same space as normal perception. Furthermore, like his encounter with Linda Lee, Case's synaesthesia dismantles dualistic reality by displaying the intrinsic intensity of experience itself. Though both cyberspatial experiences overwhelm perception with euphoric complexity, that is not to say Case's neural implant must always be obscuring the real with illusory simulacra. Rather, the implant simply evokes novel phenomena from the same space, the same *body*, as has always been present since Case was born. As such, it

is important to clarify that Case's shift in understanding does not *actually* reconcile a separation between his mind and body—but only a conceptual disjunction *represented within* an always-unified body of perception.

In light of the preceding evidence, it becomes necessary to readdress David Morris' views on embodied cognition—for, in fact, they may be less opposed to the body of the real than initially intimated. For instance, Morris concludes his exploration of embodied cognition with a statement that is very similar to our own unified conception of the body. In his words, "we must … conceive body and mind as two aspects of the same continually developing temporal process" (Morris 248-249). In this way, you undoubtedly change the *structure* of perception if either body or mind is changed—but the reality and temporality of this manipulated perception will nevertheless remain constant. In this way, Morris, Persinger, and Hayles all agree on one thing: an augmented body consequently augments reality itself, bringing it into a novel state rather than a hierarchical separation between normative and new. Furthermore, this property of mind and body also requires we "have a bodily place form which we perceive" since "objects and cognitive acts themselves mark perception as endogenously spatial and perspectival" (Morris 243). Is this not exactly what Case experiences as he hacks through Wintermute's constraints? Despite this moment's complexity, there is not a single instance where Case's perspective, the temporal flow of his experience, disappears. And in this way, it appears that modern science might also be able to unify its discord around *the body of the real.*

Finally, *Neuromancer* gives us one final taste of the body of the real when Case's awareness is returned to a cleansed, reframed baseline. In this way, the novel concludes when Case relaxes into a dark space that is similar to an experience on the Kuang virus, but now "it

was his own darkness, pulse and blood, the one where he'd always slept, behind his eyes and no other's" (Gibson 263). Evoked Case's own exhaustion rather than technological artifice, this darkness is more personal, unchanging, and natural than the preceding perceptual chaos. And though all of these properties could previously have been interpreted as exemplary evidence for the reality of the body, my preceding analysis allows us to recognize that this mustn't be the case. As such, Case's ownership of *this* darkness after cyberspatial chaos does not reaffirm Ruddick's assertion that the body has become Case's dualistic ground for reality; instead, Case might simply be deriving comfort from a constant he's observed throughout *all* experiential realms. Truly, despite distancing Case from his digitally-mediated experiences, this quotation nevertheless draws us back to *the act of perception itself*. It integrates the previous cacophony of perception through a sort of backtracking—not to the body, but to awareness itself—so that all of Case's subsequent experiences are subsumed by the body of the real. And from this point forward, they must always be conceptualized as "behind his eyes and no other's" (Gibson 263).

Despite initially fueling himself on the tenuous separation of body and mind, it is apparent that Case does not resettle on dualistic grounds after his cybersexual coupling with Linda Lee. Instead, Case appears to stabilize himself upon a new earth: a unitary plane of perception which simultaneously realizes "meat" and cyberspace in a synthesis of disparate experiential intensity. This is the body of the real—the means by which Case has bridged the age-old division between mind and body. But it is also that which augments our own conception of reality, not only within *Neuromancer*, but also the world beyond Gibson's words. For Case has shown us that we mustn't merely conceptualize technologically-mediated spaces—whether fictional or future instantiations of cyberspace—as illusory domains of disembodied sensation.

Instead, they must be deeply integrated into our conception of what reality *actually is*. They must not perpetuate mind-body dualism, but act as overwhelming evidence for the body of the real which sits, ever present, behind our own eyes.

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