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Evolution of Cyberspace as a Landscape in Cyberpunk Novels

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THE EVOLUTION OF CYBERSPACE AS A LANDSCAPE IN CYBERPUNK

NOVELS

by

HEATHER HOLLOWAY

Under the Direction of David Robinson

ABSTRACT

Millions of people enter cyberspace on some level daily. This new technology has infiltrated society rapidly since the first computers were networked. Interestingly, cyberpunk, a sub-genre of Science Fiction, depicted cyberspace many years before mainstream society had ever conceived of it. This thesis explores the changes in science fictional representations of cyberspace by examining William Gibson's *Neuromancer* and Neal Stephenson's *Snow Crash*. In this work I contrast the metaphysical, found nature of the first cyberpunk representation of cyberspace with the homogenized, commodified reality of the last cyberpunk representation.

INDEX WORDS: William Gibson, Neal Stephenson, *Neuromancer, Snow Crash,* Science Fiction, cyberpunk, cyberspace, metaphysics, cyberculture, transrealism

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B.A., Georgia Southern University, 2002

A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in

Partial Fulfillment of the Requirements for the Degree

MASTERS OF

ART

STATESBORO, GEORGIA

2004

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Electronic Version Approved:

December 2004

DEDICATION

I dedicate this work to my parents, Peggy and Larry Holloway, who loved and supported

me even when there was no end in sight.

ACKNOWLEDGMENTS

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CHAPTER 1

INTRODUCTION

Cyberspace is a concept, a theoretical construct or metaphor humans use to familiarize themselves with a confusing and omnipresent societal dependence on computer technologies. An intangible realm accessible only through a vast computer network, cyberspace is imaginary, yet millions of people transact important business within this medium daily. International banks exchange monies through cyber-actions. Single adults have met, courted, and become engaged, all without meeting one another in "real space." The willingness of individuals to use cyberspace for such important and personal activities testifies to the fundamental conception each has of this nebulous space. Oddly, most people imagine cyberspace or the Internet in the same terms. The widespread acceptance of this technology was not predetermined, however.

Two diametrically different ways in which to envision cyberspace exist. The two are mutually exclusive and affect even the most basic interaction within the space. The manner in which society as a whole has chosen to see cyberspace is as a liminal space which humans enter on a psychic level. By imagining the Internet as a real place, people allow themselves to "connect" with others in the medium. For this reason, "I met her on the Internet" is as logical an explanation of a night's entertainment as "I met her in a bar." The acceptance of this view is as phenomenal as it is significant, for another option seems more likely. Rather than seeing cyberspace as a real, nearly concrete space, culturally it could have been viewed as a barrier between communication ports. Rather than meeting someone in cyberspace, we could easily envision cyberspace as a venue into

which we send information. Just as one doesn't really feel that they have "met" their pen pal, cyber-friends and associates would be less likely to feel as if they had actually interacted in a real space environment. This loss of a virtual, co-habitated space would make everything from meeting peers in chat rooms to transacting multi-national business deals more foreign a concept. Rather than exchanging information in a shared space, one would send information from a computer into a void, which would then translate that information to a user on another terminal. In a society which requires not just a handshake, but a signature, at least one witness, and an assurance of mental competence to sign a legal document, one would expect a far less accepting attitude towards the transient nature of the Internet, especially in matters of business. However, e-trade and e-business thrive in today's economy.

Though we have accepted the insurgence of Internet technologies as a matter of course, the change in our cultural perceptions constitute the most important paradigm shift in a century. At some point, the layperson's idea of a computer changed from an inactive object within the landscape of a larger space into a conduit to an infinite and real space. It is important to note that *cyberspace does not exist.* We made it up to explain our relationship to a newly networked world. The widespread acceptance of this metaphor is amazing. At some point, people actually began to *believe* in the existence of cyberspace.

Perhaps this willingness to believe stems from the sometimes religious clout given to cyberspace by science fiction writers. If so, these fringe writers have managed to affect their culture as much as any "respectable" writer in the past few decades. But the oft-

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cited cyberpunk authors of the Eighties and early-Nineties were not the first people to conceive of a computer generated, virtual space. In 1951, Ray Bradbury published his collection of short stories *The Illustrated Man*. The first of these stories, "The Veldt," presents a family living in a fully automated house. Lights flip off as dad leaves the room, and mom never has to get up to fetch the ketchup. The nursery accesses the children's thoughts, manifesting them in a virtual playroom composed of "all dimensional superactionary, supersensitive color film and mental tape film behind glass screens" (10). The virtual reality created by this very expensive piece of technology takes the parents' place in the children's affections. Ultimately, Peter and Wendy, the kids, murder their parents by locking them in the playroom with preprogrammed, voracious lions. Bradbury's is a cautionary tale, warning of the perilous path of dependence on new technologies. Though many SF writers profess a love of new technology, Bradbury distinguishes himself by eschewing technology, even the automobile and plane. His idea of a virtual space is dramatically different from cyberpunk authors and generally overlooked in relation to cyberpunk due primarily to the reasoning behind the creation of cyberspace. Bradbury warns of a future in which technology rules.

William Gibson creates cyberspace for a completely different purpose. Rather than seeing cyberspace as an apocalyptic precursor, Gibson envisages the space as a way for humans to interact with the creative force. In *Neuromancer*, Gibson creates a transpersonal realm in which his hero, Case, may effect extraordinary change on a metaphysical level. It is in this work that Gibson coined the now universally recognized term "cyberspace." The publication of *Neuromancer* marks the official beginning of

cyberpunk literature. The word "cyberpunk" was coined by SF writer Bruce Bethke for a short story he wrote. In his essay "The Etymology of Cyberpunk" Bethke insists he was "actively *trying* to invent a new term that grokked the juxtaposition of punk attitudes and high technology" (1). "Cyber" refers to the computer technology aspect of cyberpunk. "Punk" refers to the nature of cyberpunk protagonists. Always an outsider working to effect some type of change, the loner-hacker is the most characteristic feature of cyberpunk literature. The "punk" of cyberpunk is always well-versed in computer technologies and usually defines himself in techno terms. Both Gibson's Case and Stephenson's Hiro embody this idea perfectly. Both define themselves as hackers or coders, but Case doesn't work well with others, and Hiro simply refuses to try.

Gibson's creation coincided with a rise in consumer computer technologies (the year of publication for *Neuromancer* also saw the famous 1984 Apple Computer Super Bowl commercial) and also with a need for new blood in SF. Usually having been concerned with new worlds and alien intelligences, SF was faced with a point in history when the future was there. Bruce Sterling, in a speech to the Convocation on Technology and Education at the National Academy of Sciences, said, "I used to think that cyberspace was fifty years away. What I thought was fifty years away, was only ten years away. And what I thought was ten years away—it was already here. I just wasn't aware of it yet." Though the millennium was two decades off, new technologies like the personal computer were becoming commonplace in American and international households. In order to maintain a sense of urgency, SF had to morph to fit the world changing around it. Gibson extrapolated a near future, one that has come true in many respects. Darko Suvin

in *The Metamorphoses of Science Fiction* defines SF as "a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment" (27). Beyond coming up with a more realistic vision of the future, Gibson also managed to embody this definition completely. Cyberspace, as Gibson envisions it, estranges the body and the mind, while allowing Gibson to create a completely separate "imaginative framework alternative." Past SF writers had created alien worlds and space ships or even extrapolated a near future, but Gibson creates a world—parallel to and separate from the real world but completely open to humans, almost like a parallel dimension, but without the heavy physics questions. The matrix is subject to its own laws and protocol. Even universal constants, like gravity, are rewritten or completely ignored in this realm. Istvan Csicsery-Ronay, Jr. in "Cyberpunk and Neuromanticism" explains that

> in SF's expansive phase, it did not matter whether the "moral" was liberal-optimistic like *Star Trek* or Freudian-conservative like *Forbidden Planet*; the truth was discovered through exploration of what was not Earth. Hence, the Earth was placed in a bubble that insured its safe and secure historical development within liberal constraints. (187)

Cyberpunks have twisted this idea slightly by having their "not Earth" or cyberspace overlaying and affecting Earth directly. Gibson's matrix parallels his Sprawl, the large city that runs from New York City down to Atlanta (urban sprawl at its most horrifying), in many of its more chaotic and destructive cultural tendencies, which is why Case lives

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there. He wants to remember the dangerous edge surfing the matrix offers hackers.

Gibson blurs the matrix and Earth very early in his narrative by describing the Sprawl in terms of data exchange:

> Program a map to display frequency of data exchange, every thousand megabytes a single pixel on a very large screen. Manhattan and Atlanta burn solid white. Then they start to pulse, the rate of traffic threatening to overload your simulation. Your map is about to go nova. Cool it down. Up your scale. Each pixel a million megabytes. At a hundred million megabytes per second, you begin to make out certain blocks in midtown Manhattan, outlines of hundred-year-old industrial parks ringing the old core of Atlanta. (43)

Culture, indeed geography, in Gibson's world is defined in terms of how much information one can get to and from certain geographic areas.

Eight years after *Neuromancer,* Neal Stephenson published *Snow Crash.* Although some critics would designate the novel as post-cyberpunk, it is clear that *Snow Crash* is the last of the cyberpunk novels. Stephenson's work maintains the fragmented and franchised cityscape familiar in cyberpunk novels. His main character, the not-ironically named Hiro Protagonist, allows *Snow Crash* to be seen as cyberpunk in that he is the quintessential cyberpunk hero, the loner-hacker, an outsider working against a larger cultural machine. Stephenson's Metaverse not only overlies the real world, it has become so intricately linked with it that some people can function simultaneously in the real world and cyberspace. Though these "gargoyles" are ostracized by most hackers,

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"they wear their computers on their bodies, broken up into separate modules that hang on the waist, on the back, on the headset" (124). Stephenson imagines the Metaverse as a capital-driven space. Everything in his cyberspace is commodified and homogenized.

Both Gibson and Stephenson explore the idea of a newly created cyberspace and its connection to the society in which it thrives. Gibson's cyberspace seems to be a found metaphysical space, one that separates users' minds from their bodies and provides an individual, transpersonal experience. Stephenson's cyberspace, though directly evolved from Gibson's matrix, is intrinsically different in its make-up. Entering the Metaverse does not require the mind to separate from the body; indeed, the virtual reality of this cyberspace is physically written *onto* the body of the user. By examining the physical nature of cyberspace, the hardware used when "jacking in," and the entities which inhabit both Gibson's and Stephenson's cyberspaces, this work will compare the first cyberpunk representation of cyberspace and the last in an effort to illustrate how science fictional cyberspace evolved from a metaphysical, found realm into a homogenized, commodified human-created area.

CHAPTER 2

"JACKING IN" AND THE NATURE OF CYBERSPACE

William Gibson created the term "cyberspace" in his 1984 novel *Neuromancer*.

Not exactly a computer expert, Gibson told Larry McCaffery in an interview that the

initial idea for cyberspace came from observing kids in a video arcade; they "clearly

believed in the space games projected. Everyone I know who works with computers

seems to develop a belief that there's some kind of actual space behind the screen,

someplace you can't see but you know is there" (272). According to Michael Marshall

Smith, "the two things for which science fiction is best known are these: the creation of

new environments, and the evocation of a sense of wonder" (xi). Gibson fulfilled these

criteria when he took a few kids' enthrallment with *Centipede* and *Galaga* and

extrapolated a complex, metaphysical realm into which his protagonist may "projec[t] his

disembodied consciousness into the consensual hallucination that was the matrix" (5).

Once in this space, Gibson's protagonist, Case, is subject to a bewildering array of visual,

auditory, and physical stimuli, artificial intelligences, and potentially dangerous anti-

hacking software.

Kevin Robins refers to cyberspace as a "psychotic space [in which] the reality of

the real world is disavowed; the coherence of the self-deconstructed into fragments; and

the quality of experience reduced to sensation and intoxication" (144). Gibson's

cyberspace could not be more aptly defined. Interaction within the matrix is a "bodiless

exultation" (6). Unlike the "residual self image" projected by Neo in the 1998 movie *The

Matrix*, Case has no sense of a physical self while jacked into cyberspace. Beyond having

only an abstract sense of materiality in the matrix, Case loses himself in the experience. Just before the Straylight Run, during which Case, Molly, and the Panther Moderns attempt to break into the Tessier-Ashpool stronghold, Case asks Maelcum for a catheter, saying that he will "probably be under the trodes for maybe eight hours straight" (167). Though he will be able to recognize outside stimuli–"you can grab my left wrist. I'll feel it"–Case will be otherwise so engaged in his hacking that rest stops will be out of the question (168).

After Armitage restores his ability to enter the matrix, Case becomes "absorbed in the patterns of the Sense/Net ice. This was it. This was what he was, who he was, his being. He forgot to eat . . . . Sometimes he resented having to leave the deck to use the chemical toilet they'd set up in a corner of the loft" (59). Gibsonian cyberspace is not written *over* the real world, it exists parallel to the real world. In order to function within its parameters, Case must release his hold on physical reality. He leaves his body in order to insert himself into cyberspace. As Bruce Sterling gleefully points out in his much quoted preface to the *Mirrorshades* anthology, "Timothy Leary proclaimed personal computers 'the LSD of the 1980s'" (xiii). Case is addicted to cyberspace. He sees it in his sleep and neglects the needs of his physical body while "jacked in." Obviously, this virtual space provides more for Case than simply a means to support himself. Sterling insists that "[f]or the cyberpunks . . . technology is visceral. It is not the bottled genie of remote Big Science boffins; it is pervasive, utterly intimate. Not outside us, but next to us. Under our skin; often, inside our minds" (xiii). Case's cyberspace exists within his mind. He retreats there each time he enters the matrix. Without the mental high provided

by cyberspace, Case sinks deeply into depression. Being blocked from cyberspace, to Case, is tantamount to being blocked from a part of his own mind. After relocating to Night City, "a deranged experiment in social Darwinism," Case purposely begins to accept the most dangerous deals on the street and stops carrying a weapon (7). His "arc of . . . self-destruction was glaringly obvious to his customers . . . but . . . part of him basked in the knowledge that it was only a matter of time" (7). Case's dependence on a now elusive cyberspace high turns into a single-minded pursuit of death. If he can not surf the net, Case would rather die.

Neal Stephenson's Metaverse differs substantially from Gibson's vision. Rather than leaving the body behind in the real world, the user allows cyberspace to be written *onto* his/her body. Stephenson's Hiro Protagonist enters the Metaverse

> wearing shiny goggles that wrap halfway around his head; the bows of the goggles have little earphones that are plugged into his outer ears.
>
> The earphones have some built-in noise cancellation features. This sort of thing works best on steady noise. When jumbo jets make their takeoff runs on the runway across the street, the sound is reduced to a low doodling hum. But when Vitaly Chernobyl thrashes out an experimental guitar solo, it still hurts Hiro's ears.
>
> The goggles throw a light, smoky haze across his eyes and reflect a distorted wide-angle view of a brilliantly lit boulevard that stretches off into an infinite blackness. (20)

Tri-colored lasers write cyberspace across Hiro's corneas. Unlike Case, who loses himself in the throes of VR ecstasy, Hiro must wear Metaverse earplugs in order to dampen real world noise. And even while jacked in, Hiro can still be annoyed by the heavy guitar riffs his rock star roommate cranks out. Michelle Kendrick insists that

> [t]he goggles, with their "light, smoky haze," barely interfere with interaction in material reality. The user can choose to be fully immersed in cyberspace, or simply see a transparent overlay that does not obscure how he/she sees the "real" world. *This* cyberspace is not a revolutionary new space; it is a 'hang out' where violent fantasies are contained and managed, where hackers go to bars, and suburban teenagers go on dates.
> (61)

Though he does own a house there, Hiro does not live within the Metaverse. As the "last of the freelance hackers . . . . specializing in software-related intel" he enters, when need be, in order to upload the information that he sells, to research, or to visit old friends and colleagues. Hiro has no problem maintaining a dichotomy between his real life and his Metaverse life. Indeed, his Metaverse life is more glamorous than the U-Stor-It apartment and general joblessness that mark Hiro's reality. However, Hiro sees his Metaverse dealings, particularly the selling of information through the CIC Library, as a meal ticket, rather than an intoxicating experience. After selling a stolen screenplay to several studios, Hiro "ate and vacationed off [it] . . . for six months" (22).

Whereas Gibson never gives a concrete summary of cyberspace, Stephenson gives a very detailed description of the Metaverse. Even though "it does not really exist,"

[t]he dimensions of the Street are fixed by a protocol, hammered out by

the computer-graphic ninja overlords of the Association for Computing

Machinery's Global Multimedia Protocol Group. The Street seems to be a

grand boulevard going all the way around the equator of a black sphere

with a radius of a bit more then ten thousand kilometers. That makes it

65,536 kilometers around, which is considerably bigger than Earth. (24)

Following a short treatise on the importance of 1s and 0s in the hacker domain,

Stephenson writes that

[d]evelopers can build their own small streets feeding off of the main one.

They can build buildings, parks, signs, as well as things that do not exist in

Reality, such as vast hovering overhead light shows, special

neighborhoods where the rules of three-dimensional spacetime are

ignored, and free-combat zones where people can go to hunt and kill each

other. (25)

As Kendrick insists, "[d]espite the technology that 'performs' cyberspace as a coherent

locale, Stephenson's Metaverse is, at its foundation, textual. The audiovisual wonders it

offers are enabled through an essential, precise, underlying mathematical code" (61).

This code gives its wielders absolute control over the Metaverse. Hiro, one of the

primary programmers of the Metaverse, enjoys a god-like power within the system. After

dismembering an impolite Nipponese businessman in The Black Sun, Hiro explains his

win to his roommate: "Of course I won the fucking sword fight . . . . I'm the greatest

sword fighter in the world." Vitaly is less sure of Hiro's skill: "And you wrote the

software" (104). Hiro did write the software; hence, he cannot lose the fight. Case exerts

a more tenuous control over his cyberspace. He may be able to hack the systems his

employers need hacked, but a greater power exists within the matrix. Neuromancer and

Wintermute possess the ability to pull Case into a deeper part of the matrix, causing

Case's body to flatline, or to suffer braindeath, for a short time.

Case also has less technical ability within his virtual space than Hiro. Hiro reads

binary as fluently as he does English and writes his own hackware when needed.

Conversely, Case buys his hackware off the Chinese black market (204). Cavallaro

points out that for all its protagonist's intuitive ability within cyberspace,

> Gibson's fiction . . . show[s] that even in accessing the most exclusive
>
> and thoroughly protected fortresses of power by breaking ICE ("intrusion
>
> countermeasures electronics"), his characters do not achieve total control
>
> over any set of data. They are at all times surrounded by unpredictable
>
> forces, including mythical ones. Power is hard to quantify or visualize.
>
> (40)

Gibsonian cyberspace offers its users an individualistic experience. Unlike the

homogenized, mass experience offered by the Metaverse, individual users see and

perceive very different things within the space of the matrix. It is for this reason that

Gibson spends very little time describing the physical attributes of the matrix. Instead,

we find cyberspace to be a transpersonal space, one which changes according to the

needs, expectations, and experiences of the user. Case might see "the scarlet tiers of the

Eastern Seaboard Fission Authority" while others may see rainbow tiers, a small pink elephant, or hell (270).

Molly explains the Rastafarians' belief system to Case saying, "they don't make much of a difference between states, you know? Aerol tells you it happened, well, it happened to *him*. It's not like bullshit, more like poetry. Get it?" (106). Her description of the ganja induced hallucinations is an accurate representation of the effects of cyberspace. Noticing the parallels between cyberspace and Aerol's almost religious reaction to his drug haze, Case asks Aerol, as if sharing a beloved book, to "jack in" to the matrix. Aerol wants no part of Case's joy; he sees "Babylon" within the net. Michael Heim, in *The Metaphysics of Virtual Reality,* insists that

> the ultimate VR experience is a philosophical experience, probably an
>
> experience of the sublime or awesome . . . the final point of a virtual world
>
> is to dissolve the constraints of the anchored world so that we can lift
>
> anchor–not to drift aimlessly without point, but so we can explore
>
> anchorage in ever new places. (35)

In this description, cyberspace would be less a constructed playground than a dreamlike experience, open to interpretation. Gibson's first description of cyberspace is in relation to Case's dreams. Our hero, unable to return to the matrix, dreams of the "bright lattices of logic unfolding across that colorless void" (5). An abstract idea, logic, cannot unfold across anything, much less a "colorless void." Immediately, cyberspace is shown to be open to personal interpretation. Case enters cyberspace by being "jacked into a custom cyberspace deck that project[s] his disembodied consciousness into the consensual

hallucination that was the matrix" (5). One line blazons an entire conception of cyberspace. The consciousness is removed from one reality and transported to another.

Case's consciousness separates from the body to journey into a hallucinatory realm, one being perceived by nameless others in a consensual out-of-body experience. Cavallaro, in her book *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson,* writes that "[t]he 'ontology of cyberspace' is associated with the erotic rather than the aesthetic because computers are envisaged as vehicles for the transcendence of our flawed material selves" (103). While this holds true in Gibson's cyberspace, those controlling Stephenson's Metaverse are very concerned with the aesthetic appeal of their space, and transcendence takes a backseat to capitalism. The Street's (the Metaverse's main area) protocol was "hammered out by the computer-graphics ninja overlords of the Association for Computing Machinery's Global Multimedia Protocol Group" (24). In order to develop in the Metaverse, a corporation has

> had to get approval from the Global Multimedia Protocol Group, [has] had
> to buy frontage on the Street, get zoning approval, obtain permits, bribe
> inspectors, the whole bit. The money these corporations pay to build
> things on the Street all goes into a trust fund owned and operated by the
> GMPG, which pays for developing and expanding the machinery that
> enables the Street to exist. (25)

This company exists only to upkeep the machines which produce the Street protocol and to regulate the development of the Metaverse. Rules exist to keep users from "just

materializ[ing] anywhere in the Metaverse, like Captain Kirk beaming down from on high. This would be confusing and irritating to the people around you. It would break the metaphor" (36). "The metaphor" becomes all important in Hiro's cyberspace. In order to function in the Metaverse, a user takes on a physical persona within the net through the use of "pieces of software called avatars. They are the audiovisual bodies that people use to communicate with each other in the Metaverse" (35-36). A desire to see the Metaverse as an extension of Reality causes avatars to sip fake drinks in virtual bars; it is why avatars cannot walk through one another in The Black Sun, why an avatar cannot exist in two places at once.

Though those interacting in the Metaverse work hard to maintain "the metaphor," there is also a sense of irreverence that Gibsonian cyberspace lacks. The most accomplished hackers personally design avatars which look as much like their real life bodies as possible. The rich and famous commission photo-realistic avatars to be designed for them. However, it is not unusual to see avatars that "look like a gorilla or a dragon or a giant talking penis" (36). Even the Black Sun, bastion of hacker elitism, a place where garish avatars are looked down upon because "the clientele has a lot more class," condescends to a bit of visual, programmed humor. Da5id [sic] Meier, the proprietor, "has even enhanced the physics of The Black Sun to make it a little cartoonish, so that particularly obnoxious people can be hit over the head with giant mallets or crushed under plummeting safes before being ejected" (55). The only acceptable attacks on the all important metaphor are perpetrated by those who most cherish the metaphor in an effort to remind others of their godlike nature within the

system. The Black Sun's clients know who controls the venue. It is Da5id who programs

dropping safes and who, flouting Street protocol, "allows free expression inside The

Black Sun," letting avatars be taller than their wielders' real life bodies (75). Michelle

Kendrick posits that "the move to cyberspace is the final 'shift': the human is no longer

the effect of time, space and sensory experience . . . but instead the demiurge presiding

over such changes" (59). Da5id understands that his patrons are most comfortable in a

space which simulates Reality. He also understands that slight alterations to this reality

point directly to his superior hacking skills and, ultimately, control. Basically,

Stephenson's hackers respect their own rules, up to the point where ego gets in the way.

Obviously, Stephenson's cyberspace is a direct descendant, as are all science

fictional representations of cyberspace, of Gibson's matrix; however, the two differ in

very fundamental ways. Stephenson's space is secular and organized. Gibson's is

chaotic and metaphysical. The ability to function in Gibsonian cyberspace is a talent.

Like professional athletes, hackers may hone their abilities through instruction and

practice, but each time one enters the matrix, the nervous system is utilized in some

unknown way. Case's former employers "damaged his nervous system with a wartime

Russian mycotoxin . . . . Strapped to a bed in a Memphis hotel, his talent burning out

micron by micron, he hallucinated for thirty hours" (6). Call it nature or God, something

bestows upon the Gibsonian hacker an ineffable quality, some unknown aspect of the

nervous system, that allows him/her to enter the matrix. Like life itself, men may be able

to take the quality from Case, but no one, not even "the men in black clinics, his last

hope," could give it back (6). Wintermute, an artificial intelligence, returns (with the help

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of his construction Armitage) this ability to Case's being. Does this ability make

Wintermute a god? The newly merged entity that once was Wintermute and

Neuromancer tells Case, "I'm the matrix . . . . I'm the sum total of the works, the whole

show" (269). Case asks if this makes it God. Wintermute/Neuromancer answers that

"[t]hings aren't different. Things are things" (270)–as fulfilling an assertion as the

Biblical God's "I am."

The essence of cyberspace hacking ability hints at the "found" nature of the

space. In his article "Frothing the Synaptic Bath: What Puts the Punk in Cyberpunk?,"

David Porush asks: "And isn't it clear by now that cyberspace is heaven?" (252). Maybe

not. But Porush does posit, in another article, also titled "Frothing the Synaptic Bath,"

that "[c]yberpunk is a fascinating and new expression of an ancient heritage, *a*

consequence of the human nervous system itself; the impulse to invent a hyperreality and

then live there is hardwired in our cognitive habits by the genetic code" (331). In

Porush's estimation, cyberspace is our destiny. But who hardwired our cognitive habits?

In Gibson's world, we did not *create* cyberspace, so much as create a way to *access*

cyberspace. In the end, humans could give up cyberspace, leave and never enter the space

again; Wintermute/Neuromancer, Linda Lee, and, apparently, part of Case would live on

in the matrix forever, along with a sentient series of transmissions from the Centauri

system (270-71). Cyberspace's existence is not contingent on use or upkeep of humans.

Cavallaro writes that metaphor

> may seem to celebrate an ideal of unity by establishing powerful bonds
>
> between superficial images and the latent meanings that such images are

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supposed to stand for. On the other hand, in setting up correspondences

between logically incongruous components, metaphor displaces the idea of

any fixed values. There is no demonstrable reason, in other words, for

which *an* image should incontrovertibly lead to *a* meaning. There are only

contingent agreements as to what a pertinent reading might consist of, and

these are always negotiable. (68)

The images confronting Case each time he enters the matrix visually represent the

abstract data uploaded on a daily basis. Cavallaro posits that "[i]n cyberpunk, space is

often conceived of in immaterial terms as a product of the electronic mapping of abstract

data" (133). Gibsonian cyberspace is the Platonic ideal of logic. Cyberspace, in the

words of Jean Baudrillard, does not have a "resemblance or lack of resemblance, of God,

or human being, but an imminent logic of the operational principle" (180). Heim in "The

Design of Virtual Reality" insists that "[w]ith its virtual worlds, cyberspace transcends

the physical by replacing it with the electronic heaven of ideally organized shapes and

forms" (74-75). An ineffable *something* arranges uploaded abstract data into visual

representations. These "bright lattices of logic" can then be navigated with coded

programs which, themselves, have a visual representation within the system. Cavallaro

also points out that "reality may ultimately be describable purely in terms of *design*,

design practices and design principles" (36). However, it is unclear *who* designs the

visual representations laid out in cyberspace.

In examining *Snow Crash*'s cyberspace, Kendrick observes that

[t]here is none of the ephemeral "floating" or disorientation that marks

Gibson's cyberspaces. Stephenson's Metaverse mimics the physics of the

real world (importantly, exceptions can be made for talented hackers); and

it mimics the 'meta'physics of reality as well. Unlike cyberspace in

Gibson's novel, the Metaverse is a simulacrum of the real world, not the

representation of a data-driven imaginary space of capital. (60)

The Metaverse is an approximation of reality because it was designed and created in its

entirety by humans. In contrast to Gibson's vision, the ability to traverse and alter the

Metaverse is a skill. Kendrick notes that

Hiro, as the one in the 'know', has no problem doing the impossible in

cyberspace. A figure of masculine agency–wielding his sword–he creates

and breaks rules at will. It is perhaps important to note that Stephenson's

version of knowledge=control=power, although here put in terms of

programming, is analogous to the traditionally conceived notion of the

literary author. Control the code and create the world. (61)

One is not born, however, with the ability to alter cyberspace. For this reason

[t]he number 65,536 is an awkward figure to everyone except a hacker,

who recognizes it more readily than his own mother's date of birth: It

happens to be a power of 2–2^{16} power to be exact–and even the exponent

16 is equal to 2^4, and 4 is equal to 2^2. . . . 2 is the only really important

number because that's how many digits a computer can recognize. One of

those digits is 0, and the other is 1. Any number that can be created by

fetishistically multiplying 2s by each other, and subtracting the occasional

1, will be instantly recognizable to a hacker. (24)

This passage illustrates the technical aspect to computer programming. Obviously a

hacker must be very dedicated to his/her craft. However, the skills involved in hacking

Stephenson's cyberspace are learned rather than innate. In order to master cyberspace,

Stephenson's characters must learn to read and write binary; they must understand the

inner workings of the machinery with which they enter the Metaverse, and they must have

a strange attraction to the multiplication tables. Even maneuvering in the Metaverse is a

learned behavior. Hiro can tell if someone has "just goggled into the Metaverse for the

first time and doesn't know how to move around. He keeps bumping into tables, and

when he wants to turn around, he spins around several times, not knowing how to stop

himself" (203). Stephenson's creation lacks the quasi-religious aura of Gibsonian

cyberspace. Instead, it is a secular, man-made world in which *absolute* power is wielded

by the coders.

Though Case's ability to enter and manipulate cyberspace is innate and somewhat

intuitive, he must develop this talent just as an operatic diva must hone her craft.

Interestingly, Hiro's ability is self-made, while Case's was *bestowed* by some unknown

greater power before birth. However, both Case and Hiro are schooled in their technique.

Rather than learn his trade in a university, Case had to seek out the tutelage of street-wise

gurus in the business. He had "been trained by the best, by McCoy Pauley and Bobby

Quine, legends in the biz" (5). Case may possess an almost preternatural ability in the

virtual dimension; however, in Reality, he is a technocriminal. Far from gaining him the

acceptance and envy of mainstream society, Case's position as a hacker makes him "[a] thief, [who] worked for other, wealthier thieves" (5). In *Neuromancer,* master hackers pass on their knowledge to hand chosen pupils. McCoy Pauley was a legend in the business; however, "[t]he grapevine–slender, street level, and the only one going–had little to say about Pauley, other than that he'd done the impossible" (77). The whole situation has the flavor of mafioso underworld activity. On the other hand, Hiro picked up his skills at Berkeley, where he and Juanita first met in a shared physics lab (56). It was in the socially accepted, even preferred, collegiate atmosphere that Hiro met the people with whom he will work in the future. Hiro and his friends find their abilities and their community in the structured world of academia. Whereas Hiro basks in the glow of societally sanctioned academic elitism, Case lives the life of a street-educated criminal. Hiro's education gives him a type of legitimacy that Case lacks. The difference demonstrates the nature of the two cyberspaces. The Metaverse becomes the domain of the intelligentsia, while Gibsonian cyberspace is the dominion of streetwise thugs.

Beyond being a disrespected arena for illegal activities, Gibsonian cyberspace steals Case's memories in an effort to communicate. According to Cavallaro, "Wintermute penetrates Case's memory storehouse and translates some of its data into holograms to be further reorganized to his own advantage. This scenario presents a rather bleak denial of people's right to remember and save their memories as individual markers of identity" (206). Perhaps Wintermute's use of Case's memories is an invasion of privacy, but it also points to how much Gibsonian cyberspace tailors itself (or is tailored by invisible forces) to reflect the user. Though humans in *Snow Crash* have more agency

in their virtual spaces than do *Neuromancer's* characters, they have less ability to express themselves individually. James Kneale and Rob Kitchin write that "[i]n *Snow Crash*, Stephenson acknowledges the role played by technology and text (cyberspace) in constructing subjectivity but also sees this inscription as threatening individuality and agency" (13). Surely, the design of avatars gives Metaverse users an outlet for artistic and even individualistic expression. However, as every seen action of an avatar is the visual representation of coding, every individual in the Metaverse draws from the same source code when expressing themselves through eye movements, frowns, a shrug. Juanita Marquez, Hiro's ex-girlfriend, "is the one who figured out a way to make avatars show something close to real emotion." Because they were dating while she was writing this programming, "whenever an avatar looks surprised or angry or passionate in the Metaverse, he sees an echo of himself or Juanita–the Adam and Eve of the Metaverse" (63). Even though it is Juanita's faces that made The Black Sun popular, her coding that allows Nipponese businessmen "to condense fact from the vapor of nuance" (60), she thinks that "the Metaverse is distorting the way people talk to each other" (64). Juanita believes that communication is more than simply words, that a person's expressions and body language are an important part of life. Juanita "refuse[s] to analyze this process, insist[s] that it [is] something ineffable, something you [can't] explain with words" (64). This is a moot point in Gibson's matrix; a person's essence is transported directly to the net. Case does not express himself through an intervening code. Humans, in the evolution of science fictional cyberspace, may have gained complete mastery over their

surroundings, but they have lost a piece of the metaphysical reality that comprises the self.

The changes between Gibsonian cyberspace and Stephenson's vision parallel the real life change from the command line interface to the graphical user interface. In fact, the operating system (OS) paradigm may be the closest to the evolution of cyberspace. Like cyberspace, an operating system is intangible. In his non-fiction book *In the Beginning . . . Was the Command Line*, Neal Stephenson writes that an OS is "a very long string of ones and zeros that, when properly installed and coddled, gave you the ability to manipulate other very long strings of ones and zeros" (1). Continuing with the characterization of OSs, Stephenson points out that

> [e]ven those few who actually understood what a computer operating system was were apt to think of it as a fantastically arcane engineering prodigy, like a breeder reactor or a U-2 spy plane, and not something that could ever be (in the parlance of high tech) "productized." (1-2)

Just as the first OSs were sold within the computer and not as separate products, Case does not envision his cyberspace as something one could sell. Rather, he sees it as a gateway to information, the most valuable commodity in his universe. However, just as Microsoft began to sell Windows as individually packaged products, Hiro knows that cyberspace itself can sell for large chunks of money. In the Metaverse, cyberspace real estate is a booming business.

As mentioned earlier, OSs developed in response to a desire to move away from the command line interface (CLI) to the graphical user interface (GUI). The average

computer user needed a simpler method of running his/her PC. A computer running a

CLI offers a visual prompt to which the user gives a command. The system responds and

another command is given. Basically, the CLI allows a user to speak to a computer

without the interference of a mediating code. Rather than working through the

preprogrammed commands of an outside coder, anyone utilizing the CLI talks directly to

the computer. Admittedly, the CLI is itself a mediating code, as the true computer

language is binary. But the CLI does offer a more direct solution when communicating

directions to a computer. Obviously, this parallels the ways in which Case communicates

in cyberspace. Directly "jacking in" to the system, Case repudiates the idea of an

intermediary between himself and the virtual landscape. However, the GUI

revolutionized (for good or ill) the way people work with computers. Stephenson, in *In

the Beginning . . . Was the Command Line,* insists that

> an OS is a stack of metaphors and abstractions that stands between you
>
> and the telegrams, and embodying various tricks the programmer used to
>
> convert the information you're working with–be it images, e-mail
>
> messages, movies, or word-processing documents--into the necklaces of
>
> bytes that are the only things computers know how to work with. When
>
> we used actual telegraph equipment (teletypes) or their higher-tech
>
> substitutes ("glass teletypes," or the MS-DOS command line) to work with
>
> our computers, we were very close to the bottom of that stack. When we
>
> use most modern operating systems, though, our interaction with the
>
> machine is heavily mediated. Everything we do is interpreted and

translated time and again as it works its way down through all of the

metaphors and abstractions. (18-19)

When we moved from sending a direct message to the computer saying, in its own

programming language, "bring up the word processing program, please" to clicking a

graphic representation of the program as seen on our desktops, people lost the ability to

really communicate or command their machines. Now the masses rely on the work of

others to help us wield our computers. Obviously, the Metaverse embodies this type of

OS. From the visually represented hypercards to the photo-realistic avatars, Metaverse

patrons desire a mediated experience. Even Hiro, who is able to move back to the CLI

within the Metaverse when he accesses "Bigboard," which is "a piece of software he

wrote, a powerful tool . . . . It digs into The Black Sun's operating system, rifles it for

information, and then throws up a flat square map in front of his face, giving him a quick

overview of who's here and whom they're talking to" (55), still functions mostly with a

GUI. The office in which Hiro does most of his work is full of icons linking him to larger

programs.

Even though Metaverse patrons exert more control over their cyberspace, Hiro

and his ilk relate to their cyber-surroundings through an intervening code. This code

allows businessmen, soccer moms, and white trash teenage girls to feel comfortable using

the matrix for business transactions, shopping, and dates. The metaphor does not allow

the average user to experience the true language of the realm. Michelle Kendrick writes

that if you "know the code . . . you'll know how the space or the subject functions" (62).

So, when one allows a GUI to stricture movement through cyberspace, one gives up

agency. Hiro is able to transcend the barriers set up to protect the metaphor, but even he is chided by Da5id for using Bigboard. Hackers, while subtly breaking the metaphor, demonstrate their power within the system.

Gibsonian cyberspace does not offer a user-friendly metaphor to ease interaction in the space. Rather, Case sees what Jean Baudrillard refers to as "an imminent logic of the operational principle" (180). Case deals with representations of pure logic. This stronger connection to cyberspace comes with inherent dangers. Case must hone his talent in order to navigate the ominous cyberspace he adores. Rather than entering the matrix as a computer rendered holographic entity, Case directly interfaces with a dreadful and mystifying cyberspace. As no intervening code mediates Case's experiences, there is no way for his space to be commodified. However, Stephenson opens his cyberspace to the forces of capitalism. The ability to effectively communicate in cyberspace is commodified in *Snow Crash*. The richest and most intelligent users may express themselves freely while the poorest users must rely on shoddy mass-produced avatars. Hiro's space allows him to feel a sense of superiority which Case lacks. However, this agency comes with a price. Case's space allows him to commune with an exciting and mystical creative force. Hiro trades this communion for absolute power.

CHAPTER 3

PEOPLE, PERSONALITIES, AND ARTIFICIAL INTELLIGENCES IN CYBERSPACE

Damien Broderick writes in his book *Transrealist Fiction* that

> quite a few writers in and out of science fiction have been eddying in the
>
> slipstream of science toward a gnarly attractor in narrative space (as a
>
> physicist might put it), a way of combining wild ideas, subversion and
>
> criticism of the supposedly inviolate Real, together with realistic
>
> thickening of the supposedly airy fantastic, all bound together in a
>
> passionate, noncompliant act of self-examination. (3)

Examining a little known movement in SF, Broderick writes that "not only is transrealism

writing about immediate reality–in a fantastic way, it is also a way of writing the fantastic

from the standpoint of your richly personalized reality" (3). Though the term was created

by and used to describe the literature of Rudy Rucker, "transrealism" applies, at least

tangentially, to all cyberpunk novels. If, as Broderick insists, transrealism is "a blend of

speculative fantasy and bitter psychological truth-telling . . . ." (37), then cyberspace, as a

hyperreal realm, opens itself as a landscape for transreal storytelling. However, as the

transreal text seeks to explore the hyperpersonal, or the extreme boundaries between one

person's experience and another's, analyzing only the geography of cyberspace leaves an

essential part of its character unexamined. Cavallaro insists that

> technology has a lamentable knack of *concealing* Being, of obfuscating its
>
> purity and depredating its intrinsic truth. However, in so far as all forms
>
> of cultural existence emanate from Being–however fallen and depraved

they may be–technology itself is part of Being's inscrutable unfolding. Cyberpunk's anti-idealistic universe concurrently underscores and parodies this message: it highlights the inevitability of technology and, at the same time, our inability to demonstrate the existence of a pure Being behind its operations. (86)

Only by studying the interconnectedness of a Being and the cyberspace can the true nature of either become clear. "Being" in this upper-case sense, refers to both the sentience of the human awareness *and*, in some cases, to the inexplicable, ineffable, but lower-case, god or supreme planning consciousness behind existence. As cyberspace exists in the "nonspace of the mind" of the user, the inhabitants and visitors tell much about the space itself.

Both Case and Hiro see themselves as hackers, or as Case might call himself a "cyberspace cowboy" (5). However, the two perform very different functions in their cyberspaces. Paid to break into data fields and steal information, Case navigates cyberspace. While Gibson never clearly explains what Case does or what about him makes Case more proficient at his work than others, he does intimate that Case's main job is to break through Intrusion Countermeasures Electronics, or ICE, and obtain corporate secrets. Conversely, Hiro, as a hacker, writes code. Interestingly, Hiro sells information as a stringer for the Central Intelligence Corporation, just as Case sold his abilities to get highly protected information. Hiro, however, considers this job completely separate from his life as the "last of the freelance hackers" (17). In fact, because hackers can no longer subsist as freelancers, Hiro refuses to labor in that

profession. Unable to work on assembly line constructed code, Hiro sees ultimate control

over the creative process as the most sacred of his hacker abilities. The fundamental

difference becomes apparent; Hiro creates, while Case destroys. This shift illustrates a

main difference between Gibsonian cyberspace and the Metaverse. Unable to create

something perfect (just as humans could not return Case's nervous system to its former

state), humans in *Neuromancer* are shown as the destroyers. However, as Stephenson's

hackers are the godlike creators, rather than the finders of cyberspace, building becomes

their aim.

　　　While watching a documentary targeting children, Case hears a voiceover extol

the virtues of the net:

> The matrix has its roots in primitive arcade games . . . in early graphics
>
> programs and military experimentation with cranial jacks . . . . Cyberspace.
>
> A consensual hallucination experienced daily by billions of legitimate
>
> operators, in every nation, by children being taught mathematical concepts
>
> . . . A graphic representation of data abstracted from the banks of every
>
> computer in the human system. Unthinkable complexity. Lines of light
>
> ranged in the nonspace of the mind, clusters and constellations of data.
>
> Like city lights, receding . . . . (51)

This description makes the matrix sound like an egalitarian space open to the world's

population. According to the recording, "in every nation" humans are online and using

cyberspace for education and business transactions. *Neuromancer's* readers never see

this aspect of Gibsonian cyberspace. We find that the ways in which cyberspace is

37

utilized differ drastically between users. As the beginnings of cyberspace were with

video games and "graphics programs," it can be assumed that entertainment was high on

the list of priorities of its creators. The involvement of the military, however, presents a

striking comparison to the other, more commercial, side of the equation. Hackers and

regular matrix users even enter cyberspace with different equipment:

> Cowboys didn't get into simstim, he thought, because it was basically a
>
> meat toy. He knew that the trodes he used and the little plastic tiara
>
> dangling from a simstim deck were basically the same, and that the
>
> cyberspace matrix was actually a drastic simplification of the human
>
> sensorium, at least in terms of presentation, but simstim itself struck him
>
> as a gratuitous multiplication of flesh input. The commercial stuff was
>
> edited, of course, so that if Tally Isham got a headache in the course of a
>
> segment, you didn't feel it. (55)

Apparently, the majority of people on the planet see cyberspace as the new television.

Cyberspace may provide visual representations of "unthinkable complexity," but most

people prefer their experience mediated. Case eschews the more dynamic bodily

experience of a simstim deck. Instead, he jacks directly into the "rich fields of data"

which comprise pure cyberspace (5). The masses can connect to the net and experience

the bodily feelings of Tally Isham, cyberspace actress, but the experience is changed. The

journey through cyberspace provided by Tally Isham is edited for mass consumption.

Most of the "billions of legitimate operators" never experience the purer form of

cyberspace, and though Case acknowledges the slightly more advanced bodily experience

added by the simstim deck, something fundamental is lost in the translation of mental

sensation to "flesh input." If, as Cavallaro insists, "the 'ontology of cyberspace' is

associated with the erotic rather than the aesthetic because computers are envisaged as

vehicles for the transcendence of our flawed material selves" (103), then concentrating on

the physical fulfillment offered by the matrix, rather than spiritual or personal growth,

seems almost cowardly and certainly precludes personal growth.

As far as is intimated in the novel, cyberspace itself contains no programmed

pleasure sites. For this reason, actor mediated experiences are the only reason, other than

for perhaps purely educational means, one would enter Gibsonian cyberspace–unless, of

course, one is a "console cowboy" or hacker. Case and his ilk may be the only people to

truly travel through cyberspace. While focusing on cyberspace without the veil of the

body, Case becomes a subversive figure. This is the "punk" aspect of cyberpunk. While

working for other criminals, Case tests the boundaries of his existence.

Interestingly, the dichotomy between mass users of the matrix and professional

hackers like Case does not create a class system *within* cyberspace. As the two types of

users do not meet in the virtual space they cannot develop any kind of elitist tendencies

toward one another that are manifest inside the system. Case may feel superior, but most

mass consumers know little of his existence. This is in stark contrast to the situation in

Snow Crash. Billions of people do not haunt the Metaverse. Rather,

> [i]n the real world–planet Earth, Reality–there are somewhere between six
>
> and ten billion people. At any given time, most of them are making mud
>
> bricks or field-stripping their AK-47s. Perhaps a billion of them have

enough money to own a computer; these people have more money than all

the others put together. Of these billion potential computer owners, maybe

a quarter of them actually bother to own computers, and a quarter of these

have machines that are powerful enough to handle the Street protocol.

That makes for about sixty million people who can be on the Street at any

given time. Add in another sixty million or so who can't really afford it

but go there anyway, by using public machines, or machines owned by

their school or their employer, and at any given time the Street is occupied

by twice the population of New York City. (26)

Stephenson points to the class issues involved in cyberspace use. Only the most

privileged can even afford to own a computer, and after the monetary concerns, only the

more intelligent members of society actually bother to purchase a machine. The

Metaverse spawned its own social group–those who can enter. The pull of the net is

strong enough to draw 60 million people who *cannot* actually afford to be there. In

addition to the social dichotomy set up by the haves and have-nots of surfing ability, a

second social disparity exists. Avatars distinguish their owners' social class very quickly.

The rich can pay to have life-like and technically advanced avatars, while some people

can't afford to have custom avatars made and don't know how to write

their own. They have to buy off-the-shelf avatars . . . . Brandy and Clint

are both popular, off-the-shelf models. When white-trash high school girls

are going on a date in the Metaverse, they invariably run down to the

40

computer-games section of the local Wal-Mart and buy a copy of Brandy.

(37)

Elitist Metaverse patrons look down upon white trash teenagers who enter the system with mass produced avatars, but at least these avatars provide a sense of anonymity and community that comes with the sheer numbers of Brandys and Clints on the Street at one time. Even more low class, the "black-and-white" people possess no pre-programmed avatar. Instead, those entering the Metaverse via a public terminal are represented exactly as they look in Reality, "except not as well" (41). Hiro illustrates the class difference when he admonishes Da5id, "I can't believe you took a hypercard from a black-and-white person" (72). Gibsonian cyberspace never allows the proles and intelligentsia (criminals though they may be) to intermingle. By shoving everyone together onto the Street, Stephenson's virtual space seems a more utopian area. However, class stratification permeates the most basic levels of the space.

Most insidious of the differences is the lower class avatars' diminished ability to communicate. Ultimately, only Hiro and Juanita possess the ability to truly communicate in cyberspace. As Juanita used their facial expressions when coding the emotions software, she and Hiro are the "Adam and Eve of the Metaverse." Even when Juanita enters The Black Sun as a black-and-white person, "[d]espite her lack of color and shitty resolution, Hiro recognizes her by the way she folds her arms when she's talking, the way she tosses her hair when she's listening to Da5id" (56). For everyone other than Hiro and Juanita, "the Metaverse is distorting the way people talk to each other" (64). This problem affects some users more than others. Da5id is able to "indicat[e] with a flick of

41

his eyes that this is not a good time. Normally, such subtle gestures are lost in the system's noise, but Da5id has a very good personal computer, and Juanita helped design his avatar–so the message comes through like a shot fired into the ceiling" (64). Being wealthy, Da5id owns a computer system capable of producing a very high resolution avatar and benefits from "networking" within the intelligentsia, as his ex-wife coded the facial expressions software and, in turn, helped to create his personal avatar.

Kevin Robins believes that "[e]xistence in cyberspace–a space in which real selves and situations are in suspension–encourages the sense of identification and symmetry among individuals" (150). Unfortunately, in *Snow Crash* the alienation of individuals continues unabated as economic levels decrease. Brandys and Clints, probably the most popular choice of avatars for the majority of people using the Metaverse, have very basic ways of communicating. In addition to having

> three breast sizes: improbable, impossible, and ludicrous[,] Brandy has a
> limited repertoire of facial expressions: cute and pouty; cute and sultry;
> perky and interested; smiling and receptive; cute and spacy. Her eyelashes
> are half an inch long, and the software is so cheap that they are rendered as
> solid ebony chips. . . .

> Clint is just the male counterpart of Brandy. He is craggy and
> handsome and has an extremely limited range of facial expressions. (37)

Users "wearing" a Brandy or a Clint are unable to express any type of personal emotion at all. Rather, they are allocated the stereotypical facial movements of vacuous bimbos and manmeat. Probably the most disenfranchised of the avatars would be the "black-and-

whites." When in the Metaverse, "[t]alking to a black-and-white on the Street is like talking to a person who has his face stuck in a xerox machine, repeatedly pounding the copy button, while you stand by the output tray pulling the sheets out one at a time and looking at them" (41). The pay terminals truncate the communication efforts of anyone using their services. Juanita's faces account for The Black Sun's wild success. The elite meeting space is the preferred rendevous of

> the businessmen in the Nipponese Quadrant. They come here to talk turkey with suits from around the world, and they consider it just as good as a face-to-face. They more or less ignore what is being said–a lot gets lost in translation, after all. They pay attention to the facial expressions and body language of the people they are talking to. And that's how they know what's going on inside a person's head–by condensing fact from the vapor of nuance. (64)

Multibillion dollar business deals boil down to personal expression, or more importantly, the ability of The Black Sun to commodify the ability to read personal expression.

Ultimately, the wild free expression offered to hackers in Gibsonian cyberspace eludes even the most sophisticated coders in Stephenson's Metaverse. The shift from an individualistic, transpersonal space to a homogenized, commodified space becomes apparent. Where Gibson first envisioned "jacking in" to cyberspace as a movement of the mental essence of an individual onto a vast abstract framework of logic, Stephenson changes cyberspace into an area where everything, even a person's ability to actually *be* him/herself, is for sale. Cavallaro writes that

embedded in cyberculture is a sense of instability; as long as the abstract

formulae of cybernetics are translated into commodities which, in the logic

of capitalism, are required to undergo constant (if minimal)

transformations, there can be no real permanence. (19)

From development spaces to graphic advertisements, as a created space, everything in the

Metaverse is for sale. The Metaverse encourages the illusion that individuality, or at least

the ability to express ones' self individually, can be bought. This cyberspace has created

the most perfect commodified product ever: a product that no one will cease to seek, but

which will never actually exist. Like a video game that cannot be won, Metaverse

patrons are asked to keep shoving quarters into an arcade machine, in an effort to reach a

nonexistent level 10.

Though cyberpunk novels are generally concerned with people's interactions with

machines, humans are not the only inhabitants of fictional cyberspace. Two artificial

intelligences dominate the landscape of *Neuromancer*. Once the Finn points out that

"Wintermute is the recognition code for an AI . . . . Artificial intelligence" (73), the

audience becomes aware that the driving force behind the plot is a pair of

consciousnesses designed by the Tessier Ashpools. Humans in Gibsonian cyberspace

bestow upon Neuromancer and Wintermute sentience. Though humans can hand-design

a consciousness, they find it very hard to control one. The Turing Police fear the day

"that [an AI] starts figuring out ways to make itself smarter" (132). Even though an AI

may have "limited Swiss citizenship under their equivalent of the Act of '53" (72), the

Turing Police have an almost Gestapo-like intensity when an AI becomes uppity. Once

this occurs, Turing's only recourse becomes destruction. In contrast, the hackers in *Snow Crash* never develop an artificial intelligence. Instead, non-sentient daemons populate the Metaverse:

> "Daemon" is an old piece of jargon from the UNIX operating system, where it referred to a piece of low-level utility software, a fundamental part of the operating system. In The Black Sun, a daemon is like an avatar, but it does not represent a human being. It's a robot that lives in the Metaverse. A piece of software, a kind of spirit that inhabits the machine, usually with some particular role to carry out. The Black Sun has a number of daemons that serve imaginary drinks to the patrons and run little errands for people. (55)

These daemons include the bouncer gorillas in The Black Sun, as well as graveyard daemons which dispose of dismembered avatars. The Librarian comes closest to the AIs of *Neuromancer*, but still lacks sentience. While he possesses "the innate ability to learn from experience," the Librarian cannot summarize the articles he pulls from the Library, as he cannot understand the information he presents to Hiro.

Though human beings in *Neuromancer* can create intelligence, they do not create the realm in which this intelligence flourishes. The coders of *Snow Crash* exert a god-like control over their virtual space, but remain unable to create an intelligence. We find that Gibsonian cyberspace is an area of infinite possibility; not only does it encourage individuality, it helps breed it in the form of artificial (and illegal) intelligences. Once again we see that the Metaverse is ultimately a commodifying space. Unable to create

45

sentience, coders must remain content creating ever more useful daemons, or software which can be adopted into use within the system, given a physical form, and objectified.

Finally one type of entity in Gibsonian cyberspace has no Metaverse doppelganger. The personality constructs of *Neuromancer* are very nearly ghosts. Case's old guru McCoy Pauley died years ago of a heart attack. McCoy's consciousness, however, remains viable in the form of "a construct, a hardwired ROM cassette replicating a dead man's skills, obsessions, knee-jerk responses" (76-77). Now referred to as the Dixie Flatline, a double-sided reference to his Southern heritage and his death, McCoy must be told of his death:

> "Dix? Who am I?"
>
> "You got me hung, Jack. Who the fuck are you?"
>
> "Ca–your buddy. Partner. What's happening, man?"
>
> "Good question."
>
> "Remember being here, a second ago?"
>
> "No."
>
> "Know how a ROM personality matrix works?"
>
> "Sure, bro, it's a firmware construct."
>
> "So I jack it into the bank I'm using, I can give it sequential real time memory?"
>
> "Guess so," said the construct.
>
> "Okay, Dix. You *are* a ROM construct. Got me?"
>
> "If you say so," said the construct. "Who are you?"

"Case."

"Miami," said the voice, "joeboy, quick study." (78-79)

Dixie remembers Case because, as read only memory, it is all he can do. But does this make him the friend that Case remembers? In his article "Cyberpunk and Neuromanticism," Istvan Csicsery-Ronay, Jr., insists that "[t]he current scientific scene is entranced by the microstudy of boundaries no longer believed to be fundamental: between life and nonlife, parasite and host, human and machine, great and small, body-brain and cosmos" (188). Later, during a run, Dixie and Case have a philosophical discussion:

> "Me, I'm not human either, but I *respond* like one. See?"
>
> "Wait a sec," Case said. "Are you sentient, or not?"
>
> "Well, it *feels* like I am, kid, but I'm really just a bunch of ROM. It's one
>
> of them, ah, philosophical questions, I guess . . . . But I ain't likely to
>
> write you no poem, if you follow me. Your AI might. But it ain't no way
>
> *human*." (131)

Dixie exists in the in-between space between death and life. Everything he was, still *is*, but he can never grow as an individual. That this fact makes Dix inhuman points to the importance of personal growth in Gibson's universe.

Hackers in the Metaverse and Gibsonian cyberspace view their roles in drastically different manners. Case sees himself as a navigator of cyberspace. Hiro, however, knows himself to be a creator of the Metaverse. Case must ride the wild waves thrown at him by the matrix. Hiro can simply "write car and motorcycle software in order to get around" (27). Though Hiro may be said to have more agency in his cyberspace, Case

does not interact with the use of an avatar. Once Case has connected to his deck, his mind unfolds in the nonspace of cyberspace itself. Case's very essence is able to work in cyberspace without a mediating code. As a Gibsonian hacker, Case remains secluded from other users, other than other hackers, while "jacked in." Hiro is obliged to walk the Street with "twice the population of New York City." This everyday interaction breeds a class system based on both economic status and coding ability; the poor and stupid lose agency simply because they are unable to obtain better software. For this reason, cyberspace itself takes on a commodified aspect in *Snow Crash*. This commodification does not exist in the matrix of *Neuromancer*. Hackers in Gibson's novel never develop a code to mediate their experience. However, two non-human entities do inhabit the virtual space of Gibson's matrix. The closest humans come to actual creation in Gibsonian cyberspace is the coding of artificial intelligences. It is only when the matrix takes over and these creations begin to change themselves that they take on signs of true sentience. The ROM construct exists as the uploaded memory of a dead person. Not actually human, the construct may react like a real person, but it will not learn or grow. The existence of non-human, but seemingly sentient entities, in cyberspace points to the metaphysical aspects of Gibsonian cyberspace. Sentience is not limited to human coder-creators. Rather, we see that a greater creation force exists somewhere within the infinite space of the matrix. This aspect, nearly religious in nature, does not extend to Stephenson's later vision of a human-constructed cyberspace.

CHAPTER 4

THE METAPHYSICS OF THE MATRIX: DEATH AND GOD IN CYBERSPACE

When David Porush asks his readers "And isn't it clear by now that cyberspace is heaven?" (252) it is clear that he expects a resounding "yes." While it is true that both Gibsonian cyberspace and Stephenson's matrix function as a type of heaven, the disparate roles of human users illustrate fundamental differences in the spaces. Metaverse patrons enjoy a sense of autonomy and control that stems from their role as the gods of cyberspace. As Michelle Kendrick writes, "the human is no longer the effect of time, space and sensory experience (as, say, Hume would posit) but instead the demiurge presiding over such changes" (59). All Metaverse users control their own interaction with cyberspace to some extent, and the sense of awe inspired by "neighborhoods where the rules of three-dimensional spacetime are ignored" (25) is dampened by the garish consumer atmosphere in which Hiro can be randomly assaulted as

> A passing fighter plane bursts into flames, falls out of its trajectory, and
> zooms directly toward him at twice the speed of sound. It plows into the
> Street fifty feet in front of him, disintegrates, and explodes, blooming into
> a tangled cloud of wreckage and flame that skids across the pavement
> toward him, growing to envelop him so that all he can see is turbulent
> flame, perfectly simulated and rendered. (38)

The display is sensational, but not religious. In this space, Hiro easily dismisses this custom designed spectacle as a parlor trick. Rather cynically, "Hiro walks straight through the display, and it vanishes" (39). The physical and visual miracles offered by

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the Metaverse do not evoke the same fear and mystery which permeates the cyberspace of
Neuromancer.

Case places an importance on the matrix that borders on worship. The matrix is
"what he was, who he was, his being" (59). Finding a life purpose within the confines of
cyberspace, Case loses himself in the ice he must crack. Before he can infiltrate their
system, Case must

> ma[p] the route he'd take through Sense/Net's ice. It was good ice.
>
> Wonderful ice. Its patterns burned there while he lay with his arm under
>
> Molly's shoulders, watching the red dawn through the steel grid of the
>
> skylight. Its rainbow pixel maze was the first thing he saw when he woke.
>
> He'd go straight to the deck, not bothering to dress, and jack in. He was
>
> cutting it. He was working. He lost track of days. (59)

Ice stands for intrusion countermeasures electronics, the programs that protect specific
sites and information in cyberspace. Case's job consists of finding and then cracking
high-level ice for Armitage. Unfortunately, a misstep while "buzzing" ice may lead to
braindeath. Occasionally this death lasts for mere seconds, and the cowboy comes back
from the dead. McCoy Pauley experienced braindeath many times before finally dying
while trying to hack the AI Wintermute. Interestingly, it is the ice in which Case loses
himself. Though it seems that Case fetishizes death in his single-minded pursuit of the
ice, he really deifies the unknown nature of cyberspace. The ice may kill, but how? And
who or what causes this reaction? Pauley took on a mythic stature in the hacker
underground of Case's youth. Everyone had

heard of Pauley, the redneck jockey from the 'Lanta fringes, who'd

survived braindeath behind black ice. The grapevine–slender, street level,

and the only one going–had little to say about Pauley, other than that he'd

done the impossible. "It was big," another would-be told Case, for the

price of a beer, "but who knows what? I hear maybe a Brazilian payroll

net. Anyway, the man was dead, flat down braindeath." (77)

The indeterminate aspect of the matrix which can cause death leads to an atmosphere of

anxiety. Rather than idolize the hacker who defied death, "[t]he cowboy elite in the Loser

shunned Pauley out of some strange group anxiety, almost a superstition. McCoy Pauley,

Lazarus of cyberspace. . . ." (78). This tacit respect for death, or more specifically, the

unknown variable in cyberspace causing death, speaks to the metaphysical nature of the

space. Cavallaro insists that

Gibson's fiction highlights these issues by showing that even in accessing

the most exclusive and thoroughly protected fortresses of power by

breaking ICE ("intrusion countermeasures electronics"), his characters do

not achieve total control over any set of data. They are at all times

surrounded by unpredictable forces, including mythical ones. Power is

hard to quantify or visualize. (40)

This inability to visualize or quantify forces within the matrix points to Case's status

while inside the system. As a hacker, he can manipulate the matrix more thoroughly than

the average citizen, but he is still subject to the whims of an omnipotent presence at work

within cyberspace.

Hiro never need worry about his role in cyberspace. As one of its original coders, he wields absolute power within its confines, which is "why Hiro has a nice big house in the Metaverse but has to share a 20-by-30 in Reality" (26). Death in the Metaverse holds no particular danger to users. Though the Metaverse offers a more realistic-looking community than the "abstract fields of data" found in *Neuromancer*, death takes on a more cartoonish quality "so that particularly obnoxious people can be hit over the head with giant mallets or crushed under plummeting safes before they are ejected" (55). Hiro utilizes the closest approximation to death offered by the Metaverse protocol while in the Black Sun. After an abbreviated sword fight with a Nipponese businessman, Hiro

> hacks the guy's head off. It falls to the floor, does a half-roll, and comes
> to rest staring straight up at the ceiling. So Hiro steps back a couple of
> paces and mumbles, "Safe."
>
> A largish safe, about a meter on a side, materializes just below the
> ceiling, plummets, and lands directly on the businessman's head. The
> impact drives both the safe and the head straight down through the floor of
> The Black Sun, leaving a square hole in the floor, exposing the tunnel
> system underneath. The rest of the dismembered body is still strewn
> around the floor.
>
> At this moment, a Nipponese businessman somewhere, in a nice
> hotel in London or an office in Tokyo or even in the first-class lounge of
> the LATH, the Los Angeles/Tokyo Hypersonic, is sitting in front of his
> computer, red-faced and sweating, looking at The Black Sun Hall of Fame.

He has been cut off from contact with The Black Sun itself, disconnected

as it were from the Metaverse, and is just seeing a two-dimensional

display. The top ten swordsmen of all time are shown along with their

photographs. . . . [H]e is currently ranked number 863 out of 890 people

who have ever participated in a sword fight in The Black Sun.

Number One, the name and the photograph on the top of the list,

belongs to Hiroaki Protagonist. (88-89)

The worst possible outcome for one "killed" in the Metaverse is to be kicked offline.

Almost as if Hiro has hit the reset button on the businessman's computer, the killing blow

merely inconveniences his opponent. Hiro's and Case's reactions to death in cyberspace

point to each one's status within his matrix, both of which have certain religious

overtones. Hiro *is* god. He can kill and maim with impunity. However, to carry on the

metaphor, the Nipponese man is also god, though perhaps not as effective as Hiro.

Neither Hiro nor the businessman can die because of the actions of either while in the

Metaverse. However, Hiro can kill the businessman's avatar. Avatars are the creations

of god (the user); a god may kill his/her creation, but not another god. For Csicsery-

Ronay,

the computer represents the possibility of modeling everything that exists

in the phenomenal world, of breaking down into information and then

simulating perfectly in infinitely replicable form those processes that

precybernetic humanity had held to be inklings of transcendence. With the

computer, the problem of identity is moot, and the idea of reflection is

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transformed into the algorithm of replication. SF's computer wipes out

the Philosophical God and ushers in the demiurge of thought-as-technique.

(189)

As avatars are the creations of godlike users and therefore not the users themselves, they

can be destroyed and rebuilt on a whim, leaving the users unscathed. God is dead in

cyberspace, but that's okay, because man does not need him. Kendrick points out that

[b]y stressing the "code" and text of the Metaverse, Stephenson is able to

represent Hiro as masterful, a powerful hacker who knows how to

manipulate the very building blocks of an alternative reality. But

Stephenson does not end his fictional representation with the creation of

virtual geographies and their external creators and controllers. Stephenson

goes on to suggest that this "basic" level of computer programming on

which all else is built has its correlative with the human mind. (395)

Programming, in Stephenson's estimation, is the equivalent of God's programming of the

human mind.

Conversely, Case does not use an intermediary code in his interaction within

cyberspace. Rather, he downloads his mind, essence, soul *into* the matrix. Anything that

happens in the system happens to Case's body. Should his mind die, Case's body would

soon follow. Fortunately, it is possible for Case to return from the dead. Molly must

reassure Maelcum after Case flatlines on the *Marcus Garvey* that "It's just okay. It's

something these guys do, is all. Like, he wasn't dead, and it was only a few seconds. . . ."

Maelcum remains unconvinced: "I saw th' screen, EEG readin' dead. Nothin' movin',

forty second" (121). Users of Gibsonian cyberspace are subject to a greater metaphysical

presence than their own intellects. For Cavallaro, cyberpunk

> inevitably contains simmering absences, vacuous presences, gaps and
>
> secrets, and [cyberspace is an] invisible or hidden world [which] is not a
>
> fantasy world but a crucial portion of social reality. Indeed, social reality
>
> only ever holds itself together through the denial, disavowal or repression
>
> of an unnameable *something.* (85)

The wanna-be hackers at the Gentleman Loser ostracize Pauley because they cannot bring

themselves to face the unnameable something responsible for his deaths.

Whenever Wintermute wishes to speak to Case, it pulls the coder into a deeper

part of cyberspace. Wintermute resides in this ultimate part of the matrix. However, the

only way to access this deeper realm is to die. During the few seconds that Case's EEG

readout flatlines Wintermute may communicate freely with him. The last time Case dies,

however, it is Neuromancer, not Wintermute, who pulls him into the recesses of

cyberspace. The deaths that Case experiences are not painful at all. He sees and feels

> [n]othing. Gray void.
>
> No matrix, no grid. No cyberspace.
>
> The deck was gone. His fingers were . . .
>
> And on the far rim of consciousness, a scurrying, a fleeting
>
> impression of something rushing toward him, across leagues of black
>
> mirror.
>
> He tried to scream.

Neuromancer pulls Case into a simulated beach paradise. Weeping on the sand, Case

moans aloud "Wintermute . . . Wintermute . . . .Jesus . . . . Jesus" (234). Evoking the

name of the AI and the Christian messiah points to a connection between the sacrifice of

Christ and the sacrifice Wintermute and Neuromancer are preparing to make, one

willingly, the other less so. Lying beyond the beach, "[t]here seemed to be a city" (233).

After walking for kilometers while talking to a simulated Ratz, Case finds "a bunker,

stone or concrete, buried in drift of the dark sand" (235). Linda "was crouched beside

rusted steel, a sort of fireplace where driftwood burned, ... and as his gaze met the

wide, startled eyes, he recognized her headband, a rolled scarf, printed with a pattern like

magnified circuitry" (235). Case decides that "[s]he wasn't real, curled there on her side

in the firelight. He watched her mouth, the lips parted slightly. She was the girl he

remembered from their trip across the Bay, and that was cruel" (235). Case believes this

new AI has spitefully chosen his dead ex-girlfriend to host its consciousness. He finds

that the situation is far more complex. Case chooses to leave the beach paradise and

return to reality, but first he admits to Linda that "maybe you're here" (244). Although he

realizes that simulated Linda is actually the soul or consciousness of the real Linda, Case

cannot bring himself to accept death and remain forever with her in what may be heaven.

Heaven, in this sense, refers not to the domain of the Christian god so much as the

metaphysical domain of any higher creative force. Wintermute, during one of its

conversations with the flatlined Case, asks, "You want I should come to you in the matrix

like a burning bush?" (169). This is unnecessary; Wintermute's, and by extension

Neuromancer's, status as a god-like being is not, by this point, in question. As

Wintermute insists, "[o]ne burning bush looks pretty much like another" (173). Both AIs have the ability to kill and revive Case, as well as the ability to predict the future. Neuromancer, in particular, sees Linda's

> death coming. In the patterns you sometimes imagined you could detect in the dance of the street. Those patterns are real. I am complex enough, in my narrow ways, to read those dances. Far better than Wintermute can. I saw her death in her need for you, in the magnetic code of the lock on the door of your coffin in Cheap Hotel, in Julie Deane's account with a Hongkong shirtmaker. As clear to me as the shadow of a tumor to a surgeon studying a patient's scan. (259)

When the certainty of Linda's death became clear, Neuromancer "brought her . . . . [i]nto [itself]" like a god pulling someone into the afterlife (259). In order for the matrix to realize its full potential, Wintermute and Neuromancer must merge. For this merger to take place, a specific word must be spoken into a mechanized outlet. Unfortunately, Wintermute must rely on Case, Molly, and the Straylight Run in order to obtain the word. Wintermute and Case discuss both the word and the hoped-for change:

> I don't know. You might say that what I am is basically defined by the fact that I don't know, because I *can't* know. I am that which knoweth not the word. If you knew, man, and told me, I couldn't *know*. It's hardwired in. Someone else has to learn it and bring it here
>
> What happens then?
>
> I don't exist, after that. I cease. (173)

Wintermute later tells Case that "when this is over, we do it right, I'm gonna be part of something bigger. Much bigger" (206). Clearly, both Wintermute and Neuromancer are gods. After merging, they become, not just one entity, but the matrix itself.

After the word has been spoken, Wintermute, or more specifically the newly formed entity Wintermute/Neuromancer, speaks to Case:

"I'm not Wintermute now."

"So what are you . . . ?"

"I'm the matrix, Case."

Case laughed. "Where's that get you?"

"Nowhere. Everywhere. I'm the sum total of the works, the whole show . . ."

"So what's the score? How are things different? You running the world now? You God?"

"Things aren't different. Things are things." (269-70)

James Kneale and Rob Kitchin believe "that SF represents space in ways which generally 'eff' the ineffable" (9). Gibson allows Case to "eff" in a truly dynamic manner: Case helps to *create* an ineffable presence. Unable to quantify its existence to Case, Wintermute/Neuromancer's assertion "things are things" is as comforting and explanatory as Yahweh's "I am."

After the merger, Case,

punching himself past the scarlet tiers of the Eastern Seaboard Fission

Authority, . . . saw three figures, tiny, impossible, who stood at the very

58

edge of one of the vast steps of data. Small as they were, he could make

out the boy's grin, his pink gums, the glitter of the long gray eyes that had

been Riviera's. Linda still wore his jacket; she waved, as he passed. But

the third figure, close behind her, arm across her shoulders, was himself.

Somewhere, very close, the laugh that wasn't laughter. (270)

Wintermute and Neuromancer have become one seamless and coherent lifeforce.

Interestingly, this new entity manifests itself to Case in the form of a trinity. In some

unknown way, even Linda has become part of the matrix/god. By combining, the AIs

take on one another's abilities and strengths. Referring to its brother, Wintermute calls

Neuromancer "[m]y . . . other lobe" (173). Just as the right and left sides of the brain

manage to work together and complete separate functions at the same time, Wintermute

and Neuromancer have different aspirations and beliefs and are able to become one being.

Even though Wintermute did erase the Dixie Flatline, Case hears the same eerie non-

laugh that marked the ROM construct's attempts at humor. Apparently,

Wintermute/Neuromancer chose to fulfill Wintermute's promise to the construct, but also

decided to allow Pauley's essence to live within the matrix anyway.

Gibson points to a connection between the newly formed AI/god. Just as the

biblical god allowed his creations choice, Neuromancer must deal with Case's freewill.

Rather than simply letting Case die while flatlined, Neuromancer tells him that "the

choice is [his]" (244). Case must choose to remain with Linda. Though Neuromancer

has the capability to kill Case, he does not have to ability to do so without Case's

permission.

Gibsonian cyberspace, with its presences and abstract landscapes, offers an infinite realm which opens the door to the transpersonal. Psychologist Stanislav Grof explores transpersonal psychology and altered states of consciousness in his book *The Cosmic Game: Explorations of the Frontiers of Human Consciousness.* According to Grof,

> [t]he second additional domain of the psyche. . . can be referred to as *transpersonal*, since its basic characteristic is the experience of transcending the usual personal limitations of the body and the ego. Transpersonal experiences vastly expand the sense of personal identity by including elements of the external world and other dimensions of reality. One important category of transpersonal experiences involves, for example, authentic experiential identification with other people, animals, plants, and various other aspects of nature and the cosmos. (15)

Broken down, transpersonal refers to an experience or state of mind in which a person, usually due to some type of meditation, feels that he/she is communing with a higher power or creative force. While this communion is taking place, the body loses significance as a confining area. The mind is free to travel with or toward what Grof calls "other dimensions of reality" (15). During a transpersonal episode, the person experiences a connection to the divine in an intimate and personal manner. In some way, the collective unconscious is tapped and the subject realizes that not only is he/she infinitesimally small but also fairly significant to a directing life force. Travel through Gibsonian cyberspace allows the user to transcend his/her body. By directly linking the

60

mind to the infinite chasm that makes up cyberspace, each user is free to examine his/her

particular place in the fabric of reality. The most viable manner in which to explore a

transpersonal episode is by altering one's state of consciousness. An alteration of this

sort allows the mind to open itself to new understandings.

The experience provided by Gibsonian cyberspace relates very closely to an

altered state of consciousness. Grof notes that "[c]onsciousness can be profoundly

changed by a variety of pathological processes–by cerebral traumas, by intoxications with

poisons, by infections, or by degenerative and circulatory processes in the brain" (5).

Grof, however, distinguishes between altered states of consciousness which are produced

by unnatural or adverse stimulation to the body and more therapeutic altered states which

he refers to as holotropic. We find that

> [h]olotropic states are characterized by a specific transformation of
>
> consciousness associated with perceptual changes in all sensory areas,
>
> intense and often unusual emotions, and profound alterations in the
>
> thought processes. They are also usually accompanied by a variety of
>
> intense psychosomatic manifestations and unconventional forms of
>
> behavior. Consciousness is changed qualitatively in a very profound and
>
> fundamental way but, unlike in the delirant conditions, it is not grossly
>
> impaired. In holotropic states, we experience intrusion of other
>
> dimensions of existence that can be very intense and even overwhelming.
>
> However, at the same time, we typically remain fully oriented and do not

completely lose touch with everyday reality. We experience

simultaneously two very different realities. (5-6)

A hacker's reaction to Gibsonian cyberspace closely parallels the reactions of a person

ensconced in an altered state of consciousness. Unknown chemicals in the brain allow

Case to enter cyberspace in much the same way that chemicals allow humans to enter an

altered state of consciousness. When the AIs pull Case into a deeper part of cyberspace,

he experiences a more intense holotropic state. According to Grof,

> the lack of fixed spatial and temporal coordinates does not make the
>
> archetypal world ontologically less real. The encounters with
>
> mythological beings and visits to mythic landscapes, as experienced in
>
> holotropic states, can be in eery respect as real as events in our everyday
>
> life, or more so. The archetypal realm is not a figment of human fantasy
>
> and imagination; it has an independent existence of its own and a high
>
> degree of autonomy. At the same time, its dynamics seem to be intimately
>
> connected with material reality and with human life. (69-70)

Case's experiences during braindeath comprise his most significant brush with "god."

Grof asserts that

> [e]xtraordinary changes in sensory perception represent a very important
>
> and characteristic aspect of holotropic states. With the eyes open, we
>
> typically experience profound changes in the shapes and colors of the
>
> environment. When we close our eyes, we can be flooded with images
>
> drawn from our personal history and from the collective unconscious. We

can also have visions portraying various aspects of nature, of the cosmos,

or of the mythological realms. This can be accompanied by a wide range

of experiences engaging other senses–various sounds, physical sensations,

smells, and tastes. (6)

The first level of cyberspace, that encountered when first entering the space, parallels the

holotropic state achieved with the eyes open. The landscape of Gibsonian cyberspace

changes depending on what site a user accesses. However, the scenery is always abstract

in nature. At one point Case "jacks in" and finds "an infinite blue space ranged with

color-coded spheres strung on a tight grid of pale blue neon. In the nonspace of the

matrix, the interior of a given data construct possessed unlimited subjective dimension . .

. . [C]hill blue neon vault above him starless and smooth as frosted glass" (63).

When the AIs cause Case to flatline, his experiences resemble a holotropic state

entered while one's eyes are closed. Wintermute accesses Case's memories to simulate

Julius Deane's office and "the Finn's place in lower Manhattan" (170). The beach and

ever-receding city created by Neuromancer come, not from Case's memories of a specific

beach, but rather, the AI's ideas about the human ideal of paradise. Wintermute does not

receive his idea of paradise from a human subject, rather it culls this beach from the

collective unconscious. While in this virtual heaven, Case comes to terms with the nature

of Wintermute and Neuromancer. As Linda stands beside him, a reminder of the power

this entity possesses, Case says: "I know you" (243). Neuromancer is not sure of the truth

of his statement. In an effort to define itself, Neuromancer tells Case "I *am* the dead, and

their land" (244). Even before merging with its "other lobe," Neuromancer defines itself

as made up of human consciousnesses *and* their domain.

Grof further explains the effects of holotropic states which "are characterized by a

specific transformation of consciousness associated with perceptual changes in all sensory

areas, intense and often unusual emotions, and profound alterations in the thought

processes" (5-6). When Neuromancer pulls Case onto the simulated beach, Case

> crouched on his haunches on the damp sand, his arms wrapped tight across
>
> his knees, and shook. He stayed that way for what seemed a very long
>
> time, even after the shaking stopped . . . . He held himself and rocked,
>
> singing a song without words or tune. . . . He put his face against his
>
> knees and wept, the sound of his sobbing as distant and alien as the cry of
>
> the searching gull. Hot urine soaked his jeans, dribbled on the sand, and
>
> quickly cooled in the wind off the water. When his tears were gone, his
>
> throat ached. (233-34)

Even though Case has flatlined before, this instance so shocks him that he weeps openly

before urinating on himself. The unfamiliar surroundings frighten Case; he is used to

being coddled by Wintermute in simulated areas drawn from his own memories. This

new experience is more traumatic to Case because Neuromancer forces him to confront

something much larger than himself and his known world. Case "turned his head and

stared out to sea, longing for the hologram logo of Fuji Electric, for the drone of a

helicopter, anything at all" (233). Case yearns for familiarity. Unable to cope with the

idea of an AI being able to take Case from the "nonspace of the mind" and into the

nonspace of the collective conscious, Case suffers an emotional breakdown. He is

confronted by a force greater and more mystifying than even Wintermute.

This greater force is able to affect even the perception of time. A person within an

altered state of consciousness may perceive time as moving more quickly or slowly than

in subjective reality. Each time Case flatlines, he is dead for only moments, but an hour

in communion with Wintermute or Neuromancer may "only take you a couple of

seconds" in real time (169). Unlike in *Neuromancer, Snow Crash'*s cyberspace lacks a

metaphysical dimension. As illustrated earlier, Stephenson imagines coders as the gods

of cyberspace. There is little need for a supreme being to manage the human-designed

confines of the Metaverse. In fact, even the human brain relates to a computer. Lagos

tells Hiro about how learning a language changes the brain:

> Neurolinguistic pathways in your brain. Remember the first time you
>
> learned binary code? . . . . You were forming pathways in your brain.
>
> Deep structures. Your nerves grow new connections as you use them–the
>
> axons split and push their way between the dividing glial cells–your
>
> bioware self-modifies–the software becomes part of the hardware. (126)

The brain becomes the computer, the language software. The mind is hardware which

has been programmed by God. Cyberspace is software which has been programmed to

write itself onto the body of a user.

We see that the main difference between Gibsonian cyberspace and the Metaverse

is the different relationship human users have with each space. In the Gibsonian matrix,

humans are subject to the machinations of unknown forces. Danger awaits behind every

piece of ice found in the system. Ultimately, "console cowboys" cannot achieve greater

mastery over the space through their own efforts. Case effects more change on the matrix

than any human in history simply by helping two human-created AIs become greater than

their human creators could have made or imagined them. Conversely, the human creators

of the Metaverse wield *absolute* control within its boundaries. Creation, death, laws of

gravity are all subject to the whims and programming abilities of human hackers.

Stephenson even goes so far as to compare the programming of cyberspace with the

programming of the human mind. Gibson imagines cyberspace to be the realm of

mysterious, metaphysical forces; the matrix is god's playground. Humans enter at their

own risk and with knowledge of their subordination. Stephenson allows his characters

mastery of cyberspace, but, interestingly parallels this mastery with the evolution of

human sentience. Gibson never fully explains the physical effects of cyberspace travel.

Entering the matrix requires an unknown biological trait to be utilized. Stephenson also

connects the creation of cyberspace with the chemistry of the brain. However, by giving

complete control of cyberspace over to humans, Stephenson demystifies the miracle of

human sentience. In Stephenson's estimation, God programmed the human mind in the

same way Hiro programmed The Black Sun's sword fighting protocol. The transpersonal

and religious experiences offered by Gibsonian cyberspace are lost. Power in cyberspace

shifts from an unknown and all-powerful creative force and into the hands of humans.

CHAPTER 5

CONCLUSION

Science fictional cyberspace underwent profound changes during the eight year

reign of cyberpunk. The change in fictional cyberspace may be attributed to the changing

attitudes of cyberpunk writers or to the influence of very real Internet technologies. When

Gibson first conceived of cyberspace, it was as a liminal space within an arcade game.

This vision led to the creation of a fictional arena in which Gibson's protagonist must

forever maneuver around obstacles thrown in his path by an unknown directing power,

just as eighties teens would spend countless hours shooting at an unending parade of

killer centipedes sent forth by an anonymous enemy.

The move from a mystical cyber-realm to a concrete and understandable virtual

community in cyberpunk is far-reaching and realistic. Initially, Gibson's cyber-epiphany

did elicit wonder in both the author and his readers. But as cyberspace became more

accepted as a SF trope, the slight agency Gibson gives Case becomes unfulfilling. Instead

of representing humans as overwhelmed participants in an infinite data driven landscape,

Snow Crash depicts Hiro as a master of a specifically designed, finite communal area.

Stephenson realized that his audience no longer balked at the idea that cyberspace may

one day exist. Rather, by 1992, the Internet was burgeoning and "cyberspace" was

working its way into the average person's lexicon. Whereas *Neuromancer* offered

stewardship of cyberspace, *Snow Crash* offered control, even godhood. The types of

protagonists displayed in cyberpunk did not change so much as cyberspace itself. As the

readership of SF novels began to see cyberspace as mundane, the idea of absolute agency

within the space became less unreal. Indeed, actual total control over the space seems far more likely. Also, Stephenson had the advantage of witnessing the first steps toward a pervasively networked world.

The rise and fall of cyberpunk predates the widespread acceptance of the Internet and our real life concepts of cyberspace. A familiarity with real life Internet technologies helped both future cyberpunk writers like Stephenson and SF readers to understand the once revolutionary idea of cyberspace. The evolution of fictional cyberspace closely follows the authors' understandings of actual cyberspace and computer technology. Gibson had only a vague idea of the potential inherent in the personal computer. For this reason, his cyberspace is murky and uncertain. Danger lurks in corners, waiting for an unsuspecting hacker to misstep and die. Stephenson, on the other hand, intimately understood the possibilities of the computer. A coder himself, Stephenson studied computer programming in college and had a fairly realistic idea of the future of the Internet. Designed by human users and utilized to cater to the personal whims of the rich and intelligent, the Metaverse allows patrons a degree of control completely absent from Gibson's matrix. Stephenson's comfort with computers allows him to imagine his protagonist as hacker/master.

The revolutionary nature of Gibson's cyberspace faded as his readership began to see echoes of it in their own computer monitors. And, perhaps, it is science fictional cyberspace that helped Internet users to see cyberspace as a real area. Even though it seems easier to think of cyberspace as a void into which we send millions of megabytes of data everyday, more people think of cyberspace as a kind of psychic city that they visit

on a daily basis. And, of course, the user base of the Internet is far larger than Gibson's

readership, but many real world coders who were most influential in the computer

technology business *did* read both *Neuromancer* and *Snow Crash.*

The easily recognized parallels between the evolution of computers and IT, from

CLI to GUI and ARPANET and Linux demostrate a symbiosis of creation. Cyberpunk

seems to have influenced society's reception of real life cyberspace and society's reaction

to cyberspace seems to have influenced cyberpunk's representations of cyberspace. The

same people who asked us to logon to the AOL community and join the global village

read cyberpunk novels before they had finished developing the technology. Maybe

Stephenson's idea of a cyberspace that is written onto the body of a user helped computer

users to rationalize their intense relationship with a new and frightening technology.

However, the average Internet user knows very little about the technology on which

he/she so depends. The ideas and prejudices held by the tech gurus who helped them

through the early days of hooking up their Macs and logging onto Compuserve for the

very first time made strong impressions on them.

Gibson's utilitarian matrix mirrors the beginnings of the Internet. Only a few

computers were networked; programmers logged onto the network in order to work and

communicate with other users. The only people that they could connect with were other

programmers. No pleasure sites existed, nor did user friendly interfaces. As real life

computer technology changed to encompass GUIs and widespread use by non-experts,

cyberpunk seemed to develop alongside reality. Published in 1992, *Snow Crash* presents

a chaotic cyberspace, ruled completely by humans. Disparate social groups come

together in a hodgepodge of classism, racism, and fake community. Just after *Snow Crash's* publication, the first Internet service providers began to become popular, offering their clients an egalitarian global community in which they could communicate effectively and thoughtfully in what was presented as a real time, real space environment. Users were asked to "visit" Web sites and "build" their own Web pages. For all intents and purposes, early users of the Internet were told that they were creating a new world, a better world than the real one, as this one would be free of racism, sexism, and classist agendas. Hiro helped design the Metaverse only to see it fall victim to intellectual elitism and well-coded pop-ups, just as the Internet has been taken over by porn sites and not-very-well-coded pop-ups.

The fact that cyberpunk predicted so accurately the rise of computer technologies and IT makes the genre fairly important. If its only contribution to mainstream culture was to introduce the concept of cyberspace, then cyberpunk still managed to influence the way many people live everyday. The shift from a transpersonal, individualistic cyberspace to a homogenized, commodified space parallels the public's conception of every new technology. Just as telephones, airplanes, and space travel, once the spooky fantasies of SF writers, have become ordinary and accepted facets of an evolving society, cyberspace underwent the same metamorphosis.

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