

CYBERPUNK: ONTOLOGY, EPISTEMOLOGY, AND (POST-)HUMANISM
IN WILLIAM GIBSON'S *NEUROMANCER*

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ABSTRACT

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This thesis demonstrates the notion that cyberpunk, as a genre of science fiction, can be seen as a “paradoxical” form of literary realism that allows us to look at the technological realities of late twentieth century civilization. Using the work of a wide range of culture and science theorists such as Donna Haraway, Fredric Jameson, Scott Bukatman, Leo Marx, Jean Baudrillard, Walter Benjamin, Alan Turing, Marvin Minsky, Gilles Deleuze and Felix Guattari, this thesis goes on to argue that William Gibson’s seminal cyberpunk novel *Neuromancer* can be seen as an example of this “paradoxical” realism that accurately depicts our current technology-determined reality. By examining the role of the socioeconomic conditions of late capitalism and its utilization of technology, and the epistemological and ontological consequences of this influence, I argue that humanism as a dominant philosophical idea should be

discarded with in order to discover the post-human dimensions that advanced (cybernetic) technology brings us. In doing so, I advance the idea that in the light of our increased dependence upon technology (and the concurrent development of artificial intelligence) we need to let go of essentialist, humanist ideas that locate the human in a specific organic and natural identity that allows humans to make anthropocentric and essentialist claims about themselves. Under the ubiquitous presence of technology's transformative powers, I argue that such organic humanist ideas should be replaced by post-humanist notions that are more inclusive of technology and give us a more realistic view on how in the twentieth century technology is disrupting and altering our notions of subjectivity and self. Lastly, this thesis demonstrates that William Gibson's *Neuromancer* is reflective of these notions and can be seen as a new form of literary realism that is effective in conveying these new post-humanist realities to us, allowing us to revise our notions of ourselves and our relations to technology.

But the striking fact is that again and again our writers have introduced the same overtones, depicting the machine as invading the peace of an enclosed space, a world set apart, or an area somehow made to evoke a feeling of encircled felicity.

- Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America*

Technology is therefore no mere means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth. . . *Technê* belongs to bringing-forth, to *poiêsis*; it is something poietic.

As soon as what is unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of objectlessness is nothing but the orderer of the standing-reserve, then he comes to the very brink of a precipitous fall; that is, he comes to the point where he himself will have to be taken as standing-reserve. Meanwhile man, precisely as the one so threatened, exalts himself to the posture of lords of the earth. In this way the impression comes to prevail that everything man encounters exists only insofar as it is his construct. This illusion gives rise in turn to one final delusion: It seems as though man everywhere and always encounters himself . . . *In truth, however, precisely nowhere does man today any longer encounter himself, i.e., his essence.*

-Martin Heidegger, *The Question Concerning Technology*

The robot is still, in other words, not quite at home in the garden, but not for the reason that machinery and life are representing opposing values, that one represents distance and concealment, the other immediacy and revelation. The problem is rather that we ourselves, with our technological capacities attached to us, *are* and *are not* that robot, and that we do and do not want to live in a garden.

-Catherine Wilson, "Vicariousness and Authenticity" *The Robot in the Garden: Telerobotics and Telepistemology in the Age of the Internet*



TABLE OF CONTENTS

CHAPTER	PAGE
1. INTRODUCTION.....	6
2. CYBERPUNK: ITS EMERGENCE IN CULTURE.....	12
Cyberpunk as a Cultural Phenomenon: The Uses of Technology In Late Capitalism.....	15
Cyberpunk as a Genre of Science Fiction.....	20
3. CYBERPUNK AND LITERARY REALISM: SCIENCE FICTION AND <i>NOVA</i>	28
A New Approach to Reality: Benjamin, Baudrillard and Virtual Reality.....	30
Epistemology: Cartesian Certainty versus Hum(e)an Phenomenalism.....	33
Cyberpunk and Non-Euclidean Space: Towards a New Reality in the Novel.....	38
4. THE SCIENCE OF CYBER/PUNK: CYBORGS VERSUS HUMANS.....	44
A Cyborg Condition: Post-Humanist Epistemology and Ontology.....	45
Cybernetic Consciousness, Functionalist Epistemology, Ontological Redefinition and Phylogenetic Re-grouping: Autopoiesis versus Homeostasis.....	51
Deleuze and Guattari's Ontology of the Cyborg: Body Without Organs, Ontologico-Becomings and Autopoiesis.....	61
5. WILLIAM GIBSON'S <i>NEUROMANCER</i> : CYBERPUNK, POST-HUMANISM AND THE NOVEL.....	69
Towards a New Literary Realism: <i>Neuromancer</i> and the Technological Real.....	71
Post-Humanist Ontology: <i>Neuromancer</i> , Cartesian Dualism, and the Cyborg Techno-Body.....	80
Epistemology, Sentience, and Dis-Embodied <i>Presence</i> : <i>Neuromancer</i> and the Dream of Post-Human Virtual Reality.....	91
6. CONCLUSION.....	100
7. WORKS CITED.....	108

INTRODUCTION

Everything is becoming science fiction. From the margins of an almost invisible literature has sprung the intact reality of the 20th century.

J. G. Ballard, *Books and Bookmen*

In the eighties, cyberpunk fiction emerged as a bona fide literary movement with the tremendous critical attention surrounding the publication of William Gibson's science fiction novel *Neuromancer* (1984). Subsequently, in the fiction of other cyberpunk authors such as Bruce Sterling, Lewis Shiner, Rudy Rucker, John Shirley, and Kathy Acker, critics detected a new ambiguous awareness of the increased immersion of the technological with the human. Traditionally, cyberpunk fiction presents the reader with an increasingly technologized world inhabited by computers, hackers, artificial intelligence, robots, and clones, in which the existence of multiple computer-generated (cyber-) realities has created a virtual landscape of disembodied presence. As Mike Featherstone and Roger Burrows note in their introduction to *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*, what cyberpunk fiction describes is a world where technology has effaced the traditional distinction between the human and the artificial, as a result of which "key analytical categories which we have long used to structure our world, which derive from the fundamental division between technology and nature, are in danger of dissolving; the categories of the biological, the technological, the natural, the artificial *and* the human" (3). Moreover, as critics have noted, following cyborg theorist Donna Haraway's argument, cyberpunk fiction depicts a "world in which the

'cyborg' is a crucial metaphor for the disappearance of the unified, organic human body into ever more complex relations with technology: silicon chip implants, prosthetic devices, and the modification of neural chemistry" (Brandt 81). Thus, what cyberpunk fiction represents in its pages is a future in which the traditional "organic" human subject has disappeared and been replaced by the post-human cyborg, an entity that combines both technological/machinic and organic/natural properties into one form. As a result, cyberpunk fiction envisions a future in which the essential concepts of nature and technology are no longer mutually exclusive categories and instead have merged intimately to reveal new dimensions of post-human existence. However, underlying cyberpunk fiction's dystopian view of a post-human future is an attempt to envision the new human dimensions that exist within such a (post-) human world.

As the infamous opening sentence to William Gibson's quintessential cyberpunk novel *Neuromancer* makes clear ("The sky above the port was the color of television, tuned to a dead channel"), what Gibson describes is not our own organic, natural world, but a futuristic world that can only be conveyed through the metaphors of technology. As becomes obvious, Gibson's world is one in which technology has encroached upon the human through body modifications, prosthetics, neural implants, genetic modification, cloning and artificial intelligence--and also one in which any attempt at locating the specifically human is made problematic by the overwhelming spectacle of cybernetic technology. In *Neuromancer*, therefore, William Gibson presents us with computer hacker Case, whose job it is to steal information for

corporations via a computer hook-up that allows him to neurologically transport his consciousness into corporate computer databanks, but who gets caught up in a plot to illegally merge two artificial intelligence entities. In Gibson's narrative, Case is the essential cyberpunk, a person whose body functions in the intersection between technology and the organic, at once capable of interconnecting as well as controlling intricate computer networks and thus radically expanding the sphere of human influence. Although Case, to the reader, represents the novel's traditional human protagonist, in the final analysis Gibson's novel is a cyborg narrative in which ultimately the "becoming sentient" of the new conjoined artificial intelligence has become of paramount importance in its ascendancy over humanity (Stivale 72). In its detection of these new spheres of technological existence, Gibson's *Neuromancer* became one of the first cyberpunk novels that explicitly dealt with the ambiguous outcomes of the technological realities of the twentieth-century, where the technological and the human can be seen as mutually constitutive categories that are dependent upon each other.

As Gibson demonstrates in *Neuromancer*, while human existence can be adopted within cybernetic dimensions, its status can no longer retain the traditional humanist definitions of self that is based on organic identity, consciousness, and memory. In this sense, Gibson's *Neuromancer* builds on the idea of a post-human world in which technology has taken over and obscured the boundaries between humans and technology in order to envision and reveal the (post-)human realities that lie beyond our current notions of what it means to be human.

Cyberpunk fiction's central crux is that it deals with the ontological and epistemological implications in the question of whether or not technology will dominate humans, or if ultimately humans will regain their control over that technology. In its depiction of a technologized future, cyberpunk fiction therefore asks the ontological question about the meaning of being human in a world in which the answer to that question is phrased in post-human terms (What does being human mean if we allow technology to dominate us? Are we still human if we allow technology to penetrate into our lives, indeed, into our bodies and minds?), as well as grapples with the epistemological question of whether or not our traditional humanist notions of knowledge and reality will ultimately have to be replaced with newer post-humanist notions of reality (What is human memory/ consciousness good for if it can be reduced, manipulated and stored as data? How can we see reality in terms of the existence of multiple and coexistent (virtual) realities?). As a result, cyberpunk fiction can thus be seen, as Istvan Csicsery-Ronay has remarked in his essay, "Cyberpunk and Neuromanticism," as "essentially a paradoxical form of realism," that situates the increasing intrusion of the future on the present by locating it in the technological developments of the here and now (182).

Traditionally, in studies of fiction, science fiction has been critically secluded as a particular genre that deals with the question of space exploration and extrapolates the uses of new and phantasmagoric technology, but which in the final analysis does not inform our sense of our self in its exploration of the fantastic. However, in the age where the genome project is making rapid advancements towards genetic

engineering, the Internet has created a virtual landscape, and the technologically altered, surgically-enhanced human becomes a familiar specter on our largely technologized postmodern landscape, can there still be such a thing as a fiction that advances a normative human subject? Indeed, to what extent does cyberpunk fiction mediate the new post-human cyborg identity, and does science fiction, as cyborg theorist Donna Haraway suggests, then become the fiction that informs our current notions of ourselves?

In this essay, I will examine William Gibson's quintessential cyberpunk novel, *Neuromancer*, in order to demonstrate that cyberpunk fiction is capable of envisioning our evolved cultural notions of ourselves in the light of technology's increased role in altering the human into that of the post-human cyborg. First, I will outline the cultural appearance of cyberpunk as a genre of fiction with current relevance and demonstrate that the appearance of cyberpunk is dependent upon the conditions of late capitalism, where technology is used for ambiguous (commercial) purposes and becomes ubiquitous in its encroachment upon our everyday existence. Second, I will demonstrate that cyberpunk fiction notes the phenomenological effects of this technology, which causes a redefinition of our sense of reality in which 'virtual' reality and material reality can be seen as equally important for our epistemological understanding of the world. Third, I will argue that cyberpunk stages the appearance of cybernetic organisms (cyborgs) and effects a paradigm shift in which humanism is replaced by a post-humanist ontology, in which humans can be seen to be analogous to cybernetic machines in their ability of interfacing with

technology. Lastly, I will apply the previous points to Gibson's *Neuromancer* and thus demonstrate that his novel represents a new critical understanding of the human "subject" in the light of a radically changed reality due to the ubiquity of technology. Moreover, in depicting this reality, Gibson's novel makes the point that the human can no longer be seen as an exclusive ontological and epistemological categorization with the appearance of cybernetic organisms. In short, I will therefore argue that Gibson's exploration of the polymorphous manifestations of the technologically altered, surgically-enhanced (post-) human existence in the cyber-age, moves *Neuromancer's* cultural relevance to the forefront of such fields as philosophy, history, science, art and literature in informing our late-twentieth/early twenty-first century notions of ourselves as human beings.

As a result, this essay will demonstrate that Gibson's *Neuromancer* can be seen as a new kind of "realist" fiction that can successfully inform our contemporary notions about ourselves in its envisioning of the future. However, in order to trace the impact of this new post-human subjectivity in fiction, it will be necessary first to explore the critical emergence of cyberpunk as a genre, as well as to place its implications within the critical context of epistemology and ontology.

CYBERPUNK: ITS EMERGENCE IN CULTURE

The street has its own uses for technology.

William Gibson, *Neuromancer*

In the eighties, cyberpunk gained prominence as a genre of science fiction with the publication of William Gibson's *Neuromancer* (1984) which coincided with the introduction of several new technologies in mainstream society. The invention of the microprocessor in the seventies inaugurated the mass use of technology in every household in the shape of televisions, computers, laptops, DVD and CD players, fax-machines, portable phones and MP3 players. In 1981 IBM released its personal computer with great success, and ever since its inception, computer use has grown exponentially, with intricate and inter-connected computer networks established throughout western nations in the eighties and nineties to facilitate the handling of extremely sensitive information, culminating in the establishing and subsequent phenomenal expansion of the Internet in the nineties and the new millennium. On the cultural front, television, through the cut-up collage-style of MTV (music television), has introduced teens to an endless barrage of electronic images flashing across the screen, while movies such as Ridley Scott's *Blade Runner* (1982), James Cameron's *Terminator I & Terminator II: Judgement Day* (1984 & 1991), David Cronenberg's *Videodrome* (1983), *Crash* (1996), and *eXistenZ* (1999), as well as Andy and Larry Wachowski's *The Matrix* (1999) have expressed contemporary fears of the imminent threat that advanced bio-technological advancement poses to human life. Due to the mass-scale introduction of these technologies in every household, and with the

exponential growth of the Internet since the early nineties, it has become clear that in the last three decades technology has taken an increasingly prevalent role in our everyday lives. However, the increase of technology has also raised questions regarding the influence of technology on humans, in which technophilia and technophobia have simultaneously been expressed in our cultural critics' explanations of the cultural and social significance of technology.

In this, cyberpunk fiction *itself* can be seen as a cultural reflection of the ambiguity about the increased immersion of the human with the technological happening in our time. Cyberpunk, in this sense, can be seen as a fictional exploration of the social implications of these contemporary technologies intruding upon our lives, seeking to modify our understanding of ourselves with the new knowledge of the technological and the human becoming increasingly immersed into another. Cyberpunk, in other words, reflects our contemporary fears and hopes of the influence of the ongoing “technologization” of civilization, which cyberpunk sees as an ambiguous process: at the same time that technology aids us in our everyday life, it also manages to make us dependent upon it. Therefore, as Veronica Hollinger has remarked in her essay “Cybernetic Deconstructions: Cyberpunk and Postmodernism”, cyberpunk can be seen as “a wide range of fictions exploring the technological ramifications of experience within late capitalist, postindustrial, media-saturated Western society” which thus embeds its science fictional concerns within the fundamentals of our own reality (204). Cyberpunk fiction can thus be seen to be a new form of realist science fiction that, in its concern with the technological implications

of our everyday reality, can be re-aligned with the postmodernist literature of the sixties that sought to expose the sur-realities of late capitalist society. Paradoxically, postmodernist fiction sought to demonstrate the inability to achieve meaning in a world by showing the absurdity of its meta-narratives - social 'fictions' that purport to convey the truth to us but are effected for other (social and economic) purposes that do not necessarily have our best interests in mind - beyond which postmodernist fiction can then seek a new meaning. Similarly, cyberpunk tries to demonstrate the uselessness of humanist meta-narratives when these are altered under the guise of technology, in order to seek a meaning of social reality that takes technology into account and goes beyond these human 'truisms'. Furthermore, cyberpunk fiction extends postmodernist fiction's concern with nullifying meta-narratives that proclaim social reality to be an exclusively human-determined matter when technology has intruded and altered this reality radically. Moreover, cyberpunk can also be seen as an expansion of the tradition of science fiction, in that it deals explicitly with a present seen through the future, and includes our current lived realities as the grounds for science fictional speculation.

**Cyberpunk as a Cultural Phenomenon of Late Capitalism:
*The Uses of Technology***

Cyberpunk, as a cultural phenomenon, has a fascination with the uses of technology, as well as an ambiguous realization of the imminent advantages and disadvantages that technology contains within itself. In this sense, cyberpunk fiction describes the new human realities in the light of a world in which enormous computer-networks, multinational corporations, technological advancements and the media have intruded upon our everyday lives and taken a dominant role in shaping our everyday experiences, impressions, ideas and notions of ourselves. Cyberpunk fiction draws from the experience related in the surrealist fiction of such sixties postmodern novelists as Robert Coover, Richard Brautigan, and Raymond Federman, while paradoxically seeking to establish a realistic view of a chaotic world ruled by multinational corporations, bureaucracy and immense computer-networks, where the human ability of consciousness is inundated by the ruling principles of indeterminacy and relativity of the computer age.

As such, cyberpunk fiction depicts the influence of technology on our lives, and seeks to expose the naïve world-view of the certainty of human consciousness by replacing this view with one that is purposely ambiguous about the effects of technology on humans and their consciousness. As a consequence, cyberpunk fiction revels in displaying the multifarious new virtual realities that the technologies of the computer-age have brought to human experience, in the same way that it detects the disturbing loss of humanity in a technology-driven world. In the preface to his *Mirrorshades* anthology, cyberpunk writer and theorist Bruce Sterling has also noted

cyberpunk's awareness of the cataclysmic change of technology in a "future-shocked" culture:

Technical culture has gotten out of hand. The advances of the sciences are so deeply radical, so disturbing, upsetting, and revolutionary, that they can no longer be contained. They are surging into culture at large; they are invasive; they are everywhere. The traditional power structure, the traditional institutions, have lost control of the pace of change. (345)

Cyberpunk fiction demonstrates the ambiguity that lies dormant within technology, and therefore represents a new cultural approach to depicting the realities of a society in which technology is no longer synonymous with the idea of the advance of human progress, but instead dictates its own (virtual) realities. As a consequence, cyberpunk aligns itself with the socioeconomic condition of late capitalism, where technology is ubiquitous in our (personal and professional) lives.

As Scott Bukatman has remarked in *Terminal Identity*, his book on postmodern science fiction, technology has always played an important role in the United States, as it functioned in the ideological role of affirming the advances and progress of American society: "Technology, whether figured in the exaggerated modalities of the sublime or the cooler pragmatism of an elite technocracy, defines the American relation to manifest destiny and the commitment to an ideology of progress and modernity" (4). Technology, in displaying the technological advances of the United States in the development of space travel during the Cold War, has always played the important role of making visible the modernistic progress of a society. However, with the introduction of televisions, VCRs, and computers *en masse* into the house-hold, the role of technology has also become more ambivalent, as

technology has become an instrument of advertising and commercial interests that no longer can be seen as an unequivocal emblem of progress. The reason for this ambivalence is that technology has effected three distinct socioeconomic stages by moving us from an agrarian-based civilization to an industry-based civilization, and finally, to our current post-industrial civilization, where capital and product is replaced by an emphasis on information and data. As social critics such as Alvin Toffler and Daniel Bell have remarked, technology has enacted a new post-industrial stage in capitalism, that of the information age where computers are used to mechanize and replace physical labor and computer technology has produced new 'soft' industries such as "computers and data-processing, aerospace, sophisticated petrochemicals, semiconductors, [and] advanced communication" (Toffler 155). As a result, technology can be seen to effect certain large-scale modifications in our patterns of living by radically accelerating and changing our modes of socioeconomic organization.

As Fredric Jameson has remarked in *Postmodernism, or the Cultural Logic of Late Capitalism* the influence of technology on human life is therefore propelled by the cultural and economical condition of the "third stage" of capitalism (or, late capitalism), in which multinational corporations have gained an unprecedented sphere of influence on our everyday life by permeating it through the ubiquity of advertising and commodification and thus have created "a new and historically original penetration and colonization of Nature and the Unconscious" (36). The result is that technology dictates a large part of human existence in serving the diverse interests of

(late) capitalism that manages to penetrate itself into our everyday lives by re-organizing our modes of production and consumption. Therefore, as Larry McCaffery has remarked in his casebook on cyberpunk, *Storming the Reality Studio*, technology achieves the stage where the products of technology (TVs, DVDs, VCRs, Computers) are used to reproduce the “images, advertisements, memories, styles, simulated experiences, and copies of original experiences” through a spectacle of commercial reification inhabiting our innermost forms:

Increasingly, they [multinational corporations and their technologies] have thoroughly interpenetrated our daily lives with their “virtual realities,” and begun to inhabit and colonize our imaginations and desires, even our unconscious, in a manner whose full implications are only now beginning to be recognized. (5)

As a result, technology can no longer be seen in a neutral way as serving the interests of progress, because it becomes subservient to the vested commercial interests of multinational corporations that use technology’s influence on our personal lives for invading our lives with the images and advertisements broadcast through home-technology. For example, the Internet, despite its initial promise as a liberatory technology that would provide a greater dissemination and specificity of previously restricted information to every user, has transformed into a predominantly commercial medium used for the selling of a diverse range of consumerist goods. Late capitalism therefore has effected an even more transparent example of its true form by its ability to advertise its products in the comfort of our own homes through the images it mediates through such technologies as television and the Internet. Seen in this way, technology’s connection to the third stage of capitalism demonstrates that

technology is capable of transforming our socioeconomic institutions as well as our direct lives by its far-reaching intervention in our modes of social and economical organization.

Cyberpunk's appearance in the eighties, as a new genre of science fiction, can also be seen to reflect this new ambiguous cultural awareness of the influence of these new technologies on human existence and consciousness. As Istvan Csicsery-Ronay has noted, cyberpunk becomes the fiction that can only *inform* our increased awareness of the ambiguous function of technology in culture, but cannot change it: "All of the ambivalent solutions of cyberpunk works are instances/myths of bad faith, since they completely ignore the question of whether some political controls over technology are desirable, if not exactly possible" ("Cyberpunk" 193). In this sense, cyberpunk can be seen as a discourse representing the epistemological and ontological exploration of the increased symbiosis of humans and technology as a result of the cultural condition of late capitalism, but not as a discourse that attempts to solve this condition. Under the belief that technology cannot be undone as an important social factor in late capitalism, cyberpunk posits that the role of technology in our lives may be more important than we realize. As Jameson has remarked, cyberpunk can therefore be seen as "the supreme *literary* expressions if not of postmodernism, then of late capitalism itself" and thus, cyberpunk fiction becomes the discourse *par excellence* for the convoluted realities of late twentieth-century/early twenty-first century post-industrial, late-capitalist civilization (*Postmodernism* 419).

Cyberpunk as a Genre of Science Fiction

As is emblematic of most postmodernist fiction, cyberpunk combines within its discursive borders a *bricolage* of cultural influences. As science fiction critics such as Larry McCaffery and Scott Bukatman have remarked, cyberpunk fiction reflects the hybridization of several different cultural spheres within its cultural borders. In fiction, cyberpunk fiction is influenced by the extrapolative strategies and scientific conscience of “hard” science fiction, the literary techniques of the “New Wave” science fiction of the 1950s, the hard-boiled sense of the urban from the noir fiction of Raymond Chandler and Dashiell Hammett, and in general, a fascination with technological diction and the technological. Cyberpunk also presents a developed sense of a dystopian world as a result of technology, as seen in the works of such science fiction-influenced postmodernist writers as William S. Burroughs and Thomas Pynchon. In culture, cyberpunk combines the cultural defiance and nihilistic deconstructionism of the underground punk culture of the seventies of such as bands as the Sex Pistols, X, Velvet Underground, and The Stooges, with the frenetic visual stylistics of MTV, horror movies, and comic books such as *Heavy Metal*. Therefore, cyberpunk fiction represents a hybrid form of discourse that represents a rhetorizing of a cultural condition that mixes the serious implications of a scientific culture of technology with the defiance of the punk underground culture of the seventies and eighties.

In the fiction of such cyberpunk writers as William Gibson, Bruce Sterling, Rudy Rucker, Lewis Shiner, and John Shirley an ambiguous attitude can be found that reflects both a reveling as well as lamenting of the role of technology and the increased interconnection between technology and humans. As cyberpunk's prime theorizer Bruce Sterling has noted in what could be considered as the manifesto of cyberpunk in *Mirrorshades*, cyberpunk as a genre posits the influence and intrusion of technology on contemporary life as an *a priori* ontological condition, which thus explains the ambiguous attitude of cyberpunk as a science fiction genre towards technology:

The cyberpunks are perhaps the first SF generation to grow up not only within the literary tradition of science fiction, but in a truly science fictional world. For them, the techniques of classical "hard SF" - extrapolation, technological literacy - are not just literary tools, but an aid to daily life. They are a means of understanding, and are highly valued. (344)

Because they have already been living in a "truly science fictional world" and no longer have to refer to the images of the future to experience this, cyberpunk fiction writers locate science fiction in the immediate here and now. Cyberpunk, in the words of Joan Gordon, presents us with "a future we might reasonably expect" and, in contrast to the more traditional science fiction, relies less on fantastic tropes and phantasmagoric depictions of the future in presenting us a more gritty, realist view of a future that seems not far removed from the everyday realities of the reader (200). In doing so, cyberpunk fiction's aim is to familiarize us with our technology-determined present, which brings with it the idea that the influence of technology will bring no eminently human future(s) that we can fantasize about. In this sense, the scope of

cyberpunk thus lies in exposing the possibilities of the present rather than those of the future. Therefore, as critics have noted, cyberpunk is at a critical juncture with traditional earlier science fiction in that it tries to reveal the realities of the present rather than the future, whereas in earlier science fiction the focus was on envisioning the inherent possibilities of a future that was not necessarily linked to a recognizable present.

As Fredric Jameson states, in his essay “Progress Versus Utopia; or, Can We Imagine the Future?” contemporary science fiction does not envision a utopian future like that described in earlier nineteenth-century science fiction of Jules Verne and H.G. Wells. Their science fiction was simply the reflection of an older ideology which mirrored the expansion of rational humanism in which the dominance of the human mind over technology was unquestioned (Jameson, “Progress” 149-151). In contrast, as Scott Bukatman has remarked, contemporary science fiction experienced a paradigm shift with the advent of late capitalism: instead of earlier science fiction’s depiction of the conquest of the inter-galactic in which man’s consciousness was the dominant power over technology in an essentially anthropocentric and utopian vision of the future, contemporary science fiction introduces the imminent realization after late capitalism, of the conquest of man’s consciousness by technology. Consequently, the ontological *certainty* of the preceding era of science fiction has been replaced by ontological *uncertainty* (Bukatman 16). An example of this change of direction in science fiction can be witnessed in the novels of one of the precursors of cyberpunk, Philip K. Dick, whose novels *Do Androids Dream of Electric Sheep?* and *Ubik*

present a questioning of essential human qualities and where technology has slipped from human control and become autonomous. In this sense, a different science fiction emerges with cyberpunk's further problematizing of human values under the influence of technology.

Indeed, as Jameson explains, contemporary science fiction therefore speculates on the possibilities inherent in the realities of the newly emerged present, which negates the optimistic utopias of science fiction of the past:

We no longer entertain such visions of wonder-working, properly "S-F" futures of technological automation. These visions are themselves now historical and dated - streamlined cities of the future on peeling murals - while our lived experience of our greatest metropolises is one of urban decay and blight. That particular utopian future has in other words turned out to have been merely the future of one moment of what is now our own past . . . For the apparent realism, or representationality, of SF has concealed another, far more complex temporal structure: not to give us "images" of the future . . . but rather to defamiliarize and restructure our experience of our own *present*. ("Progress" 151)

As a consequence, cyberpunk locates the possible future in the here and now, and thus makes us aware of what Zoe Sofia has aptly phrased "the collapse of the future on the present" (as qtd. in Csicsery-Ronay, "Cyberpunk" 186). Instead of using the traditional science fiction topoi of the possibilities of space-exploration, extra-terrestrial life, and a (possibly) utopian future, cyberpunk extrapolates and starts from the premise of the present already being a "science fictional world". Thus, while earlier science fiction of H.G. Wells such as *The Time Machine* (1895) or *The War of The Worlds* (1898) invests in such fantastic features as time-traveling, spaceships, and aliens, and Isaac Asimov's later science fiction such as *The Caves of Steel* (1953), *The Bicentennial Man* (1976) feature a faraway future in which technology

lies still within the realm of human control, cyberpunk fiction gives the reader a powerful depiction of our present reality, in which such fantastic visions are effectively obstructed by the realization that our technology, the global networks of information and data, as well as the direct intrusion of technology on the human body, has produced a future whose features are far less likely to be contained and controlled by these liberal human qualities and ideals. Cyberpunk therefore depicts our current material dependence on technology, in the form of genetic engineering, cloning, body prostheses, and our growing dependence on the datasphere of information, and thus extrapolates their social outcome into logical consequences. Moreover, instead of space travel, cyberpunk fiction stays ‘close to home’ in depicting the experience many of us have of a world that is vastly overpopulated and in which our urban centers of sophistication have become dismal environments of chaos and deterioration. Seen in this way, cyberpunk’s belief is that the technological conditions of late-capitalism determine our present reality and are the outcome of a historical process that has effectively produced “the end of history” and the end of realizable human ideals. Cyberpunk fiction thus posits that, contrary to the anthropocentric notions of traditional science fiction, humans might *not* be better off in a future that will largely be dictated by the consequences of our current dependence on global technology.

Cyberpunk fiction therefore takes on the role of fictionalizing the powerful emergence of cyber-culture in the eighties, in which technology’s increased role in society presents the collapse of several epistemological and ontological distinctions

between human and machine. As Mark Dery has noted in *Escape Velocity*; *Cyberculture at the End of the Century*, cyberpunk as a genre of science fiction can thus be seen to be sharing the same themes of the emerging cyber-culture, in that both share an ambivalence toward, as well as a realization of, the imminent possibilities of technology. Cyberpunk therefore narrates the blurring of epistemological and ontological boundaries and becomes a cyber-discourse that speculates on the social realities of a new post-human subject, and thus deals with:

... the convergence of human and machine; the supersession of sensory experience by digital simulation; the subcultural “misuse” of high technology in the service of perverse sensibilities or subversive ideologies; and a profound ambivalence, handed down from the sixties, toward computers as engines of liberation and tools of social control, reweavers of the social fabric shredded by industrial modernism and instruments of an even greater atomization. (Dery 75)

As a consequence, the difference between cyberpunk and traditional science fiction lies in cyberpunk’s realization of, what Larry McCaffery calls the “spectre haunting nearly all postmodern SF,” namely the realization of the threat that technology poses to our common humanity:

The uneasy recognition that our primal urge to replicate our consciousness and physical beings (into images, words, machine replicants, computer symbols) is *not* leading us closer to the dream of immortality, but is creating merely a pathetic parody, a metaexistence or simulacra of our essences that is supplanting us, literally taking over our physical space and our roles with admirable proficiency and without the drawbacks of human error and waste [. . .] without in short, the messy, unruly passions which also make the brief moment from conception to death so exhilarating and so frightening. And so human. (*Storming the Reality Studio* 15-16)

In this way, cyberpunk’s exploration of what Jean Baudrillard has called “the hyper-real,” or the “simulacrum”- the simulation of reality in which copied images have superseded real images by distorting the relationship between what is real (original)

and what is not (copy), is used in order to reflect the new specters of human reality that lie within such simulated dimensions of reality (“Symbolic Exchange” 498). Cyberpunk as a genre of science fiction displays this ambiguous awareness of both the advantages and *dis*advantages of the increased hybridization of the technological and the human in the twentieth century in order to make us aware of the threat this poses to our current notions of what it means to be human. As a result, cyberpunk fiction thus functions in helping us envision, if not modify, the ideas we share about being human in an age when such qualities are obliterated by the overwhelming spectacle of technology, which is making rapid advances to radically alter our awareness of our landscape and surroundings, and with that, our historical role as humans in it. Cyberpunk therefore becomes the “paradoxical” new realism that informs us of the late-capitalist and postmodernist conditions and locates our existence within the realms of the increasingly intrusive technologies that are threatening to take over our lives and minds.

CYBERPUNK AND LITERARY REALISM: SCIENCE FICTION AND NOVA

The sight of immediate reality has become an orchid in the land of technology.
Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction"

As science fiction theorist Darko Suvin has noted in his *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*, science fiction as a genre of fiction, has always had a problematic status because its discursive boundaries encompass several different aspects of fantastic literature that problematize its status as a coherent genre worthy of critical attention. According to Suvin, science fiction can be seen to include diverse elements of fantastic, utopian, pastoral and scientific romances, and as such, to be based on fantastic and futuristic conceptions that have little to do with the depiction of contemporary reality. However, as Suvin contends, what science fiction offers is not so much a flight into fantasy, but a confrontation with reality. In this sense, Suvin offers the notion that science fiction is the "*literature of cognitive estrangement*" because it offers situations which are within "a spectrum or spread of literary subject matter which extends from the ideal extreme of exact recreation of the author's empirical environment to exclusive interest in a strange newness, a *novum*" (4). It is this definition of science fiction as a literature of "cognitive estrangement" that yields a better understanding of cyberpunk's status as a new form of realism that seeks new ways to bring about an understanding of today's technologized existence.

As Istvan Csicsery-Ronay Jr. has remarked, science fiction can be seen as a "mode of awareness, a complex hesitation about the relationship between imaginary

conceptions and historical reality unfolding into the future” (“The SF of Theory” 388). Science fiction, therefore, presents us with this “strange newness” that allows us to see our historical present by way of its projection into the future. Seen in this way, science fiction becomes an operational mode that creates an awareness by way of a Shklovskian sense of “defamiliarization” of the present in which the objective of science fiction becomes to “impart the sensation of things as they are perceived and not as they are known” (18). Science fiction is therefore always *about* humans and their surroundings: by radically displacing the locus to intergalactic and unfamiliar locations, as well as confronting humans with alien species, science fiction decontextualizes the traditional notions we share about our lives and ourselves as humans by putting these notions to the test. Therefore, with the advent of virtual reality through the Internet and the tremendous growth of a global datasphere of information, cyberpunk’s ability to envision alternate (yet realistic) futures by basing its science fictional vision on the *defamiliarization* of the incredible technological developments of our own present, proves to be decisive in paradoxically revealing our own current technologized reality. However, first it will be necessary to outline how our notions of reality have changed over time.

**A New Approach to Reality: Benjamin,
Baudrillard and Virtual Reality**

As Walter Benjamin states in his visionary essay “The Work of Art in the Age of Mechanical Reproduction” (1936) with the advent of modern techniques of reproduction in film and photography, the work of art has lost its “aura” by losing its sense of authenticity through its own reproduction (223). Benjamin remarks that with the aid of photographic reproduction our sense of reality can be easily altered and manipulated, which brings about a situation where “technical reproduction can put the copy of the original into situations which would be out of reach for the original itself” (220). Thus, with the loss of this aura and its spatiotemporal existence within reality, our sense of reality would also be altered as we lose touch with a sense of an object’s authenticity and historicity:

The authenticity of a thing is the essence of all that is transmissible from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced. Since the historical testimony rests on authenticity, the former, too, is jeopardized by reproduction when substantive duration ceases to matter. And what is really jeopardized when the historical testimony is affected is the authority of the object. (221)

The loss of the aura of the object, according to Benjamin, initiates a loss of a sense of *reality* as something determined by history and the precession of new ideas as expressed in culture and art. Benjamin attributes this loss of a determined sense of reality by the appearance of media technologies which capitalize on “the desire of contemporary masses to bring things ‘closer’ spatially and humanly,” as well as play into the human need “towards overcoming the uniqueness of every reality by accepting its reproduction” (223). Benjamin’s visionary argument still stands when it comes to the glib surfaces of virtual reality, which presents an even-closer apprehension of the reproduction of virtual objects (images transmitted via our

computer monitors and television screens) vis-à-vis their “actual” appearance in the material world. Human perception therefore needs to re-orient itself in a world in which virtual dimensions reveal that no such unitary and “absolute” material quality can exist anymore in our systems of belief (or simply, that these have been displaced by a notion of virtual “non-material” objects as co-existent), as the “aura” of the image has become one-dimensional in its mediated and simulacral virtual existence. For Benjamin, the loss of the “aura” initiates a new phenomenal awareness, namely the realization that with the loss of the concept of an original in a flood of copies, our relation to the original is obscured and all that remains are copies.

Drawing on Benjamin’s argument, Jean Baudrillard has argued in his *Simulacra and Simulations*, that the representation of reality becomes problematic when our phenomenological apprehension of reality is inundated by ersatz models of reality - simulations of reality that Baudrillard calls “simulacras” - that replace this reality. According to Baudrillard, with the advent of late capitalism, and its emphasis on images and signs, our experience of reality lies entirely within the mediated models of the information industry that purport to convey this reality to us through technology. Thus, we experience the “*precession of simulacra*” - a reality that has imploded under the weight of its representation by “models of a reality without origin or reality” - the images that flicker incessantly on our television and computer screens (*Simulacras* 1). While television convinces us that we are watching “reality” in the making through our live cable access, in effect we are watching its demise by its own mediated reproduction through technology. As Baudrillard states, our hyper-kinetic

media environment therefore provides us with a phenomenological apprehension in which “the very definition of the real *is that of which it is possible to provide an equivalent reproduction*” and where the collapse of the real becomes the birth of the independent virtual realities of the hyper-real: “*that which is always already reproduced*” (“Symbolic Exchange” 498). Technology thus becomes a medium which therefore obscures our relationship to reality in two ways: (1) it provides us with representations (images) of reality that proclaim to be true but are not due to their mediated (reproduced and altered) nature, and (2) technology also tries to offer us phantasmal images and tries to pass them off as real, and manages to invade our minds and fantasies and disrupt our sense of the real.

As a result, what virtual reality therefore signifies is the replacement of our initial unmediated awareness of “material” reality by the glare of the models of reality by media technology. Virtual reality reveals to us a malleable reality that can be manipulated at will by anyone because of its non-referential and simulacral relation to material reality. However, at the same time, virtual reality’s malleability makes that we are susceptible to being deceived, and cannot trust this reality. In this sense, a different definition of reality emerges in our human perception and a different way of approaching reality, for which it will be necessary to explain the traditional epistemological conceptions of reality.

Epistemology: Cartesian Certainty versus Hum(e)an Phenomenalism

In his *Meditations on First Philosophy* (1614), René Descartes posited his maxim of humans' ability to truly know something, which led to the establishment of the field of epistemology in philosophy, in which the question of the basis of knowledge was central. Indeed, traditional epistemology has given us the following two broad approaches to reality: either it is possible to *know* accurately through the mind, using Richard Rorty's term, an "antecedently determinate" reality that is existing independently from us (the Cartesian point of view), or this is not possible and our knowledge is merely a sensory reflection of that reality but can never be called accurate when it comes to its essential qualities (the skeptical point of view) (Rorty, *Objectivity, Relativism and Truth* 6; Moore and Bruder 149).

Traditional Cartesian doubt apprehends reality based on mind-body dualism, in which the material, objective world is known only through the mind of the Cartesian subject. Therefore, traditional Cartesian epistemology has relied on the principle that there is such an objective, material world to be discovered and uncovered by the human mind, which led to the paradoxical idea that the human mind was the "reality principle" for that material reality, as well as the idea that the human mind was separate from that reality. Epistemologically, Cartesian thinking has created a hierarchy in which mental existence is seen to be superior to matter, and the only way to know material reality is through the human mind. However, *virtual* reality, as an approximate of reality that exists but not in essence (without its own spatiotemporal properties in the "real" objective and material world for us) presents us with another parallel dimension of reality through cyberspace and thus threatens to

modify our relationship to that reality, as well as altering our ideas about the superiority of the human mind to accurately perceive such a reality. Since virtual reality is already a social reality with the birth of the Internet, the old Cartesian notions need to be displaced for a new epistemological treatment of reality.

Virtual reality, according to Gibson's definition, can be seen as an alternate universe with its own spatiotemporal dimensions existing *independently* from our material world *within* the vestiges of the mind:

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. (51, emphasis added).

While our traditional conception of realism lies embedded within the Cartesian subject's mental apperception of the material world, the existence of a virtual reality would negate the existence of our knowledge and belief in the existence of such an absolute, physical world over which we as humans have superior access through our minds. Although Gibson's "nonspace of the mind" makes it obvious that virtual reality cannot be seen as part of the material world - as it exists within *nonspace* - the human mind has therefore become the locus of perception of virtual reality. However, in virtual reality, the Kantian distinction between *phenomena* - things of appearance that we perceive, and *noumena* - the thing-in-itself or the objective, material reality independent of sense perception - does not hold, as the phenomena existing in virtual reality are not necessarily always objects in themselves that we can relate back to a material existence or origin. For example, while virtual realities such as the Internet

thus manage to convince us that our mouse-click actually pushes a button on our screen, the user-interface of our computer hides the actual operation it entails within the encoded matrices of binary computer algorithms. Seen in this way, the things we are presented with in virtual reality do not necessarily have a constituent in the material world that can be pointed at, as they exist entirely within the sphere of immaterial data-information.

At the same time that cyberspace therefore presses on the distinction between noumena and phenomena, what human consciousness is left with is the ineffable workings of our mind: minds that see material qualities in binary algorithms, but which cannot deduce these into material aspects that go beyond appearance. Instead, in cyberspace noumena gain a 'degree zero' in the binary patterns of zeros and ones, symbols ordered in ways that exhaust our understanding. While binary coding thus becomes a metaphysical grounding to virtual reality, it also refuses to yield itself to us for a metaphysical understanding through our consciousness. Cyberspace offers algorithms for material objects, but in its translation of the object does not allow us access to it. Instead, cyberspace merely gives us the *illusion* that the object actually exists. Thus, the object exists in our mind at the same time that it does not in the material world. Although we therefore believe in the Cartesian division between mind and body, which has created the assumption that reality is based on material principles witnessed by our mind, virtual reality points to our mind's weakness in mistaking appearance for materiality, and the erroneous belief that mind can go beyond appearance and understand material nature in a noumenological sense. As

such, the non-material properties of virtual reality necessitate an epistemological redefinition of realism that includes separate non-spatiotemporal and alternate spaces.

Virtual reality accords with the principles of phenomenalism as set forth by philosopher David Hume, in which the human mind becomes the only means for approaching the world, with “no idea of external substance, distinct from the ideas [the mind develops] of particular qualities” (400). As Hume states in his *A Treatise of Human Nature* (1739-1740), as humans we are automatically assuming causality to constitute a continuous material quality to our phenomenological apprehension of reality, but we assign this quality wholly on the basis of our Cartesian belief that the human mind accurately reflects that reality. Hume questions the validity of the mind as epistemological foundation: “But ‘tis evident, that whenever we infer the continu’d existence of the objects from their coherence, and the frequency of their union, ‘tis in order to bestow on the objects a greater regularity than what is observ’d in our mere perceptions” (131). As such, Hume argues that we know the properties of fire not through the mind, but through our sensory perceptions, when we burn ourselves: “The heat of a fire, when moderate, is suppos’d to exist in the fire; but the pain, which it causes upon a near approach, is not taken to have any being except in the perception” (129). Thus, contrary to Descartes, Hume posits that all our knowledge resides not in some innate part of our minds, but is based on the fundamentals of our sense perceptions: “all our reasonings concerning causes and effects are deriv’d from nothing but custom; and that belief is more properly an act of the sensitive, than of the cogitative part of our nature” (123). In this sense, Humean phenomenalism

acknowledges the human mind as only an inaccurate means for observing the material world and thus its reliance on constituting its notions of reality based on inference through sense perceptions, not absolute *a priori* knowledge that allows us to make conclusions about that material world.

Virtual reality thus makes us aware that the Cartesian split between mind and body is nothing more than our anthropocentric way of assigning certain causal and *noumenological* properties to reality, which are now in fact questioned by the *phenomenological* and non-causal, simulacral nature of virtual reality. For Hume, therefore, the distinction between virtual reality and material reality is an illusionary one, as both of these realities are based upon the way we apprehend them through our senses, not some innate and engrained awareness of a material reality that allows us a primary access to it. While humans thus assume realism is within the human ability to accurately witness reality through our sense-perceptions and by making causal connections in our minds, virtual reality operates from the radically different sphere of information-processing that leaves our mind and sense-perceptions unable to comprehend or witness the incredible speed and complexity of operations in virtual reality. Even so, even if we *were* able to witness its operations, they would not necessarily appear as causal to us. For instance, when we purchase something over the Internet, this indicates that we have asked the computer to perform an action the outcome of which we will most likely know and will appear causal to us; however, the operations of the computer that are required before the action can be completed will probably not strike us as causal, being composed of binary coding in zeros and

ones. As a consequence, the human ability to apprehend reality thus becomes inundated by the complexity of the operations of virtual reality, and therefore necessitates that we modify the ways in which we have traditionally perceived reality. With a changed perspective on reality, literature's treatment of reality is changed as well.

Cyberpunk and Non-Euclidean Cyber-Space: Towards A New Reality in the Novel

Realism, as a literary form, is first seen to surface in the work of such nineteenth-century French writers such as Gustave Flaubert's *Madame Bovary* (1857) and Honoré de Balzac's *La Comédie Humaine*, and was subsequently practiced in the works of other writers such as Thomas Hardy and George Eliot in England, and William Dean Howells, Henry James, Mark Twain, and Ernest Hemingway in the United States. Realism, as a genre of fiction entails that the writer tries to portray as closely as possible the everyday aspects of the life of the (usually middle-class) characters and therefore subsequently manage to capture the circumstances of the reader's life as realistically as well. Rather than depending on the ornamental language of romanticism, where a nostalgia for the past and the demonstration of the prevailing of humanist ideals and moral rectitude are paramount, realism thus shares a concern in approaching a more complex picture of reality in which the writer describes the true-to-life experiences of the characters. The ability of realistic fiction to achieve *mimesis*, faithful representation of everyday reality through the experience of the character, therefore becomes realism's most important quality of disclosing

new truths to the reader. As such, literary realism is seen as the literary form that discloses the circumstances of our lived experiences of reality to us. However, while literary realism thus relies on the accurate depiction of everyday life to impart its vision to the reader, when the immediate lived experiences and impressions of the readers (if not the readers' sense of themselves as humans) are radically altered and eroded by virtual technology, the realistic novel will have to change accordingly in order to continue to impart its realistic vision of contemporary life.

As Michael Benedikt notes in *Cyberspace: First Steps*, the ability of the human Cartesian mind to superimpose a grid of cognition and consciousness that is considered epistemologically sound, is subverted by the appearance of virtual reality which rejects such structural impositions: "virtual worlds - of which cyberspace will be one - are not real in the material sense, many of the axioms of topology and geometry so compellingly observed to be an integral part of nature can there be violated or re-invented, as can many of the laws of physics" (120). As a result, many of our epistemological concepts, such as our time and space-axis, absolute independent human cognition, and the existence of an independent, objective material reality, will have to be altered in order to *include* the non-Euclidean dimensions of cyberspace as an alternate reality of unlimited possibilities that lies *within* that material reality. Thus, a redefinition of the literary models of reality are required that take into account the new realities of cyberspace.

According to French novelist Alain Robbe-Grillet, the traditional realistic novel approaches reality as if it were contingent upon a static, apprehensible material

reality, in which the writer's ability to achieve verisimilitude becomes paramount.

However, as Robbe-Grillet states, the realistic novel therefore will undergo changes when our human modes of perceiving the world are changed as well by new scientific discoveries:

The objective modifications of reality, combined with the "progress" of our physical knowledge, have reverberated profoundly - and continue to reverberate - in our philosophical conceptions, our metaphysics, our ethics. Hence, even if the novel were only to reproduce reality, it would scarcely be natural for the foundations of its realism not to have evolved in parallel with these transformations. ("From Realism to Reality" 159)

Similarly, as Rubin Rabinovitz has noted, realism as a mode of representation is in need of change in literature if its premises are questioned by new technological advancements: "The verisimilitude found in realistic literature insists on correspondences between the truths of time-space world and the descriptions in the created world of the writer. If such truths are based on obsolescent scientific ideas, however, the verisimilitude of the realists must be questioned" (13). In this way, the aesthetic notions humans have developed in approaching realism are questioned by the appearance and existence of virtual reality, which offers itself up as a complementary version of reality and thus problematizes (by its existence) our current sense of reality: should or should we *not* consider that "virtual" reality as part of our reality? And if so, why should literature not be inclusive of virtual reality if this reality is another sphere of human's existence? The aesthetic reflection and perception of reality itself has therefore radically changed in the development of new technologies that have brought about another (virtual) understanding of reality, which

in turn has brought attention to non-spatiotemporal, non-material and phenomenological ways of perceiving reality.

Cyberpunk as a genre of science fiction, can thus be seen as a more faithful representation of this new (virtual) reality which restores our ability to critically look at the technological aspects of contemporary existence by temporarily distorting and displacing the Cartesian notions humans have about apprehending an objective, absolute material reality and world. Cyberpunk therefore also aligns itself with realist fiction in describing the experiences of its protagonists in social reality, by taking note of the social influence of technology. Cyberspace, as an example of the “invisible but experientially real spaces of electronic culture,” thus becomes cyberpunk’s topological sphere that explores the implications of “the loss of visibility in the world, the movement of power into the cybernetic matrices of the global computer banks, and the corresponding divestiture of power from the subject” that allows humans to re-figure their relationship to such an electronic world (Bukatman 143). In cyberpunk fiction’s displacement of the material, its definition of reality and realism becomes inclusive of the growing wave of images and information that late capitalism serves us, as well as the post-human aspects of an existence that lies entirely within the sphere of technology. Cyberpunk’s use of extrapolative features based on the familiar aspects of our quotidian lives provides a new sense of reality that takes into account our severely altered relationship as a result of the cultural condition of postmodernism, in which reality is no longer seen in terms of an

“antecedently determinate” material quality, but is seen in terms of malleability in the move to virtual spheres.

Indeed, as Larry McCaffery has remarked in *Across the Wounded Galaxies* science fiction’s importance as a discourse lies in its capacity to make us aware of these emergent truths:

One of the greatest strengths of SF, then, is its capacity to defamiliarize our science fiction lives and thereby force us to temporarily inhabit worlds whose cognitive distortions and poetic configurations of our own social relations - as these are constructed and altered by new technologies - make us suddenly see *our own world in sharper relief*. (3-4, emphasis added)

Moreover, as cyberpunk demonstrates, our ability to see these newly emerged truths due to technological acceleration has been impeded by our old Cartesian notions of a material world that is increasingly moving toward a simulacral dimension in which Humean epistemology would function better. As a result, the appearance of virtual reality questions the premises of realistic literature in attempting to lay claim to the accurate and realistic depiction of contemporary existence and reality. With the advent of virtual reality, cyberpunk fiction thus acknowledges that realistic fiction needs to be inclusive of virtual reality in order to become truly reflective of emergent contemporary truths. The *nova* of science fiction, and especially cyberpunk in its envisioning of the modalities of existence within cyberspace, are therefore reflective of a “paradoxical” new realism that reveals the new dimensions that technology has brought to humans, in which humans have devised new ways of perceiving the present technologized world and its newly emerged virtual realities, as well as had to reconfigure their own place in it as humans. Cyberpunk fiction thus reveals these new

dimensions of apprehending virtual reality to us, which, as the next chapters will demonstrate, also has consequences for our ontological and epistemological definitions of ourselves as humans.

THE SCIENCE OF CYBER/PUNK: CYBORGS VERSUS HUMANS

The cyborg is our ontology; it gives us our politics.
Donna Haraway, "A Cyborg Manifesto"

The coinage of cyberpunk, first used in the eponymous story by Bruce Bethke in 1983, reveals the ambiguous conjunction of two different spheres, namely that of the technological sphere of cybernetics and the sphere of youthful sub-cultural defiance of punk. As Timothy Leary has pointed out, the definition of cybernetics (first coined by Norbert Wiener in 1948 as the "whole field of information control by automated machines") leaves out the control over technology by humans, and thus, "the word *cybernetic-person*, or *cybernaut* returns us to the original meaning of "pilot" and puts the self-reliant person back in the loop" (Wiener, as qtd. in Leary 249, Leary 252). *Cyber-punk* therefore joins the ambiguity of the control over technology with that of punk as a subculture of defiance, in which the cyber-punk can be seen as "the resourceful, skillful individual who accesses and steers knowledge/communication technology towards his/her own private goals" (Leary 253). However, in its incarnations, cyberpunk remains ambiguous as to the imbrication of technology and the human, and follows punk subculture's preference for ambivalent solutions that deconstruct as well as re-inscribe cultural notions in new contexts. As Dick Hebdige notes, punk revels in the ability of ambiguity to deconstruct encoded practices: "it may say what it means but it does not necessarily "mean" what it "says" (1072). Thus, cyber-punk, as a neologism, becomes emblematic for its own ambiguity regarding human fate: while it joins the automated cybernetics of Wiener with punk

ethos, it thus deconstructs outdated notions that stress the organic separation of humans from the automation of machines and technology and re-inscribes both of these into new cultural contexts. The cultural appearance of the cyberpunk reveals a new complex attitude toward the paradoxical figure of the post-human cyborg who conjoins into one figure the futurological and previously divided aspects of cybernetics with the human “soft matter” of the past. Of course, the appearance of the cybernetic organism (cyborg) in cyberpunk also has consequences for epistemological and ontological conceptions of human existence and reality.

A Cyborg Condition: Post-Humanist Epistemology and Ontology

Cyborg theorist Donna Haraway’s quintessential essay “A Cyborg Manifesto: Science and Technology, and Socialist-Feminism in the Late Twentieth Century” announces the arrival of the Cyborg in Western society and its consequences for Western epistemological and ontological conceptions. As Haraway explains, the cyborg combines technology and organism into one form and therefore essentially negates the concept of the wholeness of human identity. As Haraway notes, the cyborg has its origins in the space age developments of the cold war, in which technology was still seen as a tool for human progress:

Linguistically and materially a hybrid of cybernetic device and organism, a cyborg is a science fiction chimera from the 1950s and after; but a cyborg is also a powerful social and scientific reality in the same historical period. Like any important technology, a cyborg is simultaneously a myth and a tool, a representation and an instrument, a frozen moment and a motor of social and imaginative reality. A cyborg exists when two kinds of boundaries are simultaneously problematic: 1) that between animals (or other organisms) and

humans, and 2) that between self-controlled, self-governing machines (automatons) and organisms, especially humans (models of autonomy). (*Primate Visions* 139)

However, as the cyborg is a symbiosis of nature (organism) and technology (cybernetic machine), two concepts that have been traditionally explained as antithetical to one another, it thus threatens to dissolve these categories. The cyborg therefore collapses the two polarities that have been used in order to construct the ontological sense of an origin in Western society, namely the nature that humans evolved from and the man-made technology that is different from that natural origin. The cyborg, because of its negation of a unified origin, distorts and collapses the paradigms of gender, race, sexuality and class by which the whole of Western history is traditionally seen, rendering these concepts problematic in a world in which the modalities of sexual, social and economic identity are exchanged for the polymorphous electronic exchange through cybernetic simulation, automated communication, and control. The cyborg is therefore capable of transcending the social realities that the human body is subjected to, and presents a radical de-sublimation of the human subject by its elusion of the binary categorizations that we have adopted to be a true reflection of our identities.

As a result, the cyborg paradoxically signals the end of human history as we know it, and the beginning of a new cyborgian history, in which humans have rid themselves from the sense of an *arche*, or origin in Western society. As Haraway notes, the cyborg presents at once the final realization of the self to which Western history has alluded to the autonomous human struggles for self-realization, as well as

presents a self that is inherently alien to that history, and thus denies this final realization: “In a sense, the cyborg has no origin story in the Western sense - a “final” irony since the cyborg is also the awful apocalyptic telos of the “West’s” escalating dominations of abstract individuations, an ultimate self untied at last from all dependency, a man in space” (“A Cyborg Manifesto” 150-151). The appearance of the cyborg in culture therefore threatens to collapse the ontological categories with which humans have defined themselves throughout history.

One of the authors singled out by Haraway as constitutive of the field of “cyborg politics” is Michel Foucault, whose theories have helped envision a perspective in which the cyborg can be seen to appear as a realizable alternative to the divisive ways in which humankind is categorized (Haraway, “A Cyborg Manifesto” 150). In his *Discipline and Punish: The Birth of the Prison*, Foucault describes the existence of the “political technology of the body”, his term for the historical human body that is policed by power relations and marked by a discursive scientific discourse: “Power relations have an immediate hold upon [the human body]; they invest it, mark it, train it, torture it, force it to carry out tasks, to perform ceremonies, to emit *signs*” (24, emphasis added). As Foucault’s historical treatment of the punishable body demonstrates, the human body can thus be seen as a *signifier* caught in a web of discursive power that denotes and marks it in such divisive categorizations of race, gender and class, which the cyborg threatens to erase by its mere appearance. According to Foucault, whole fields of discourse have been generated by science in order to construct the human body as one marked by

“corrigible” power relations, which in turn has brought about an epistemic ontological grounding to man as “subject” of science, with its own scientifico-ontological categorizations such as the human “soul”:

It would be wrong to say that the [human] soul is an illusion, or an ideological effect. On the contrary, it exists, it has a reality, it is produced permanently around, on, within the body by the functioning of a power that is exercised on those punished [. . .] This real, non-corporal soul is not a substance; it is the element in which are articulated the effects of a certain type of power and the reference of a certain type of knowledge, the machinery by which the power relations give rise to a possible corpus of knowledge [. . .] On this reality-reference, various concepts have been constructed and domains of analysis carved out: psyche, subjectivity, personality, consciousness, etc.; on it have been built scientific techniques and discourses, and the moral claims of humanism. (29-30)

Taking Foucault’s argument one step further, the cyborg therefore dissolves this system of power relations as well as the hegemonic appropriation of the body as embodied *signifier* of these sciences. As signifier of a techno-biological entity, the cyborg therefore unites within one structure what was previously regarded as an exclusively dyadic structure between man’s nature and an alien technology that thus threatens to dissolve the traditional naturalist and humanist ontological notions of “psyche, subjectivity, personality, consciousness”. As the scientific conception of human subjectivity is steeped in the belief that our human identity is indivisible and unique, we believe that our mind becomes a ‘mirror’ of our organic nature that gives us a primary connection to reality. Successful interconnection with a machine therefore means that these humanist organic paradigms are not true. Neither entirely human nor entirely machine, the cyborg oscillates therefore between both of these structuring devices while dissolving the respective perceived epistemological

boundaries between man/machine by its unification of them. Nor can the cyborg exist in a system based on the “moral claims of humanism” as its origin cannot be placed in traditional humanist epistemological and ontological notions. If the cyborg as *Homo Cyberneticus* represents artificial intelligence come to consciousness, then what has humankind been all along?

Humanism, in this respect, becomes problematic as an ontological foundation by the appearance of the cyborg, whose *ex nihilo* appearance from the fundamentals of the technological *and* the human questions the tenets of humanism, which posits the human as an absolute category. As Andrew Ross remarks in *Strange Weather: Culture, Science and Technology in the Age of Limits*, technology is regarded by traditional humanist views as threatening to “dehumanize” us: “A quintessentially humanist point of view . . . sees technology as an autonomous, runaway force that has come to displace the natural right of individuals to control themselves and their environment” (160-161). Furthermore, as Alain Robbe-Grillet has pointed out, humanism represents the human as the measure of all things: “On the pretext that man can only achieve a subjective knowledge of the world, humanism decides to elect man the justification of everything” (“Nature” 53). Humanism thus constructs the human subject in two ways: either it locates the qualities of the ‘human’ in the mind as a reflection of how the human species is an uniquely intelligent species whose dominance is unquestioned in the world, or it locates the ‘human’ in the unique and essential properties of the human body which we believe stem from nature and link us to the world. The cyborg therefore represents the technological

sublimation of the biological, organic body as represented by humanism and thus the negation of the essential human qualities which we have attributed to this “unalienated” autonomous organic body, qualities which previously indicated the human as a definitive and demarcating ontological category. Moreover, the appearance of the cyborg thus also questions the epistemological validity of such anthropocentric humanist claims that elevate man as the sole ‘orderer’ of his own realities in the world.

As Scott Bukatman has argued, the appearance of the cyborg erases the categories of the human and the artificial and thus transgresses and confronts the traditional binary notions that came with humanist ontology and epistemology: “The overlap of technology and biology ceases to be a categorical question and becomes instead a fundamental, existent, cyborg fact” (322). Cyborg existence thus becomes emblematic for the post-human condition, which can be seen as a “contradiction [that] has become an integration,” (Sterling 346) in the fact that the appearance of the cyborg forces us to recognize the inadequacies of humanist definitions of reality and self. Although not yet a social reality, the cultural existence of the cyborg reflects the alteration of these humanist ideas by a new discursive post-human epistemology and ontology as a result of technology. According to Bukatman, with the knowledge of this post-human condition cyberpunk science fiction can thus seek to modify these ontological and epistemological humanist boundaries in two ways: “either SF stages the implications of these technologies of [cybernetic] control,” and thus “[emphasize] the functionalist shift in the understanding of ‘the human’ as an epistemological

category,” or alternately, “SF confronts the ontological redefinition which renders ‘the human’ problematic on purely biological grounds,” and thus acknowledges the human as an empty nominal term (322). In this sense, cyberpunk fiction can go in these two directions in order to either establish a new functionalist epistemology that equates the machine with the human yet retains the “human” as a distinct category, or a new post-humanist ontology that attempts to redefine the human as something other than a purely organic (id)entity and acknowledges the cyborg as a new evolutionary species.

**Cybernetic Consciousness, Functionalist Epistemology,
Ontological Redefinition, and Phylogenetic
Re-grouping: Autopoiesis versus
Homeostasis**

One direction that cyberpunk could take this “functionalist” epistemological shift is in the direction of cybernetics as delineated by Norbert Wiener in *Cybernetics: Or Control and Communication in the Animal and the Machine* (1947), where human and machine are seen as two analogous systems of intelligence (one biological and the other artificial). Both are seen as similar in function (information processing) as organized by the principle of “Command-control-communication-intelligence”, but not in *origin* (Haraway, “A Cyborg Manifesto” 150). In the functionalist view, humans and machines are organized according to their function instead of their origin, in which traditional essentialist notions of organic identity are in abeyance in favor of the more general categorizing of their functioning within information-processing that unites human and machine. Thus, Haraway speaks of humans and

animals becoming “biotic components in technological communication systems” - organisms re-arranged as a result of “deep retheorizations of organisms and societies as technological communications systems,” - in which the human can be seen as organic nexus of biological pre-programming, or, as an organic “thinking machine” (*Primate Visions* 108; 105). Furthermore, the new realities carried through our knowledge of genetic technology also redefines the human as a biological-system organized around genetic information, which brings with it a view where the human is placed next to the cyborg, both being systems of information. The human, however, is not the only one redefined through technology. The development of technology also allows for an evolution that transposes the way the human and machine are defined, as a result of which *both* are seen in a different way. In other words, technology makes humans more machine-like as machines become more human-like. Because of the work of artificial intelligence theorists Alan Turing and Marvin Minsky, we are now confronted with the ways in which such artificial intelligence as computers are encroaching upon what are considered traditional human territories of mind. Indeed, it can be said that within the functionalist paradigm computers are already outdoing humans in their capability of mathematically processing enormous amounts of information, even going so far as being able to simultaneously perform several tasks of dazzling mathematical complexity.

Seen in this way, the computer, in its ability as artificial intelligence, allows us to learn about ourselves by making us see the comparison between its functioning and ours as information processing machines, as well as allowing us to envision how

the technological and the human could be seen as analogous systems within the cyborg. In his essay “Computing Machinery and Intelligence”, Alan Turing poses a necessary question that puts aside traditional humanist definitions that say humans are unique by their ability of cognizance and consciousness: “Can Machines Think?” Using an experiment called “The Imitation Game” that gives a computer the ability to answer questions asked by a human subject (without the human subject seeing *who* it is that is answering), Turing posits that if the computer is able to convince the human subject that it is human, then there is no essential distinction that can be made between human cognizance and machine cognizance, except for their radically different form and origin. As a result, what becomes obvious through Turing’s test is that our anthropocentric notions prevent us from accepting computers as being capable of the same intelligence that we ascribe to ourselves.

As Turing explains, using mathematician Kurt Gödel’s theorem that in any “sufficiently powerful logical system statements can be formulated which can neither be proved nor disproved within the system” such epistemic distinctions of form (organic versus cybernetic) and origin (human versus non-human) are superfluous, because both man and machine contain paradoxical idiosyncratic elements as “thinking machines”: “Although it is established that there are limitations to the powers of any particular machine, it has only been stated, without any sort of proof, that no such limitations apply to the human intellect” (Turing 58-59). In this case, neither human or machine cognition can be seen as superior, because the only

distinction that can be made is that humans and machines operate in a *different* manner when it comes to the intelligence which they both possess.

Thus, human consciousness becomes a mere particular (individual) way of cognition and apperception that in the final analysis does not distinguish human mental processes from computers, because both of them operate within these cognitive systems. Therefore, human consciousness can only become the individual *awareness* of cognition with all the “messy, unruly passions” of particular emotions and feelings that Larry McCaffery describes as inherently human qualities. However, according to Turing, attributing consciousness and intelligence to the awareness of our particular human emotions and feelings can only be seen as an epistemic distinction which functions, according to Turing, as a *reductio ad absurdum* for distinguishing humans from machines by way of solipsist reasoning. According to Turing, if one would follow the logic of our particular human emotions that distinguish us from machines, then the following proposition would hold:

The only way by which one could be sure that a machine thinks is to *be* the machine and to feel oneself thinking. One could then describe these feelings to the world, but of course no one would be justified in taking any notice. Likewise according to this view the only way to know that a *man* thinks is to be that particular man. (60)

Therefore, as Turing explains, the consequence of this solipsist view of human consciousness is that it makes human communication difficult, and thus proves that these particular human qualities have nothing to do with distinguishing our intelligence from machines: “[Person] A is liable to believe ‘A thinks but B does not’ while [Person] B believes “B thinks but A does not” (60). Taking the analogy further,

while traditional humanism distinguishes computers from humans by allowing the latter a particular individual consciousness with emotions and feelings and making this the basis for intelligence, Turing's proposition proves that this particular solipsist argument makes it impossible for humans to exist within a solitary and unified ontological category that can be distinguished from machines. Humans *are* intelligent species and *are* able to communicate with each other. Likewise, computer networks *are* intelligent and communicate with each other in highly evolved ways. Therefore, denying computers intelligence on the basis of these features of emotions and feelings because computers are limited in these ways ultimately begs the question: *can* we still neglect to ponder the evolution and acceptance of cybernetic consciousness and intelligence if computers show the potential for artificial intelligence? Turing's proposition thus demonstrates that we rely on definitions that provide little distinction between *appearing* human and *being* human, where we dismiss intelligence and sentience in computers based on the human attributes that we automatically connect to that intelligence and sentience. Viewed from this perspective, there is no denial that the ability of humans to have feelings and emotions is a unique quality that they possess and share, but that ultimately it fails to distinguish them from computers in a way that would justify the dismissal of artificial intelligence from the ability to think and evolve.

However, according to John Searle's "Chinese Room" proposition there is still the argument that artificial intelligence would be unable to assign *meaning* to its own actions and output, which would lead humankind to believe that it is superior

(Penrose 18). The answer would be that while meaning for us holds absolute value in the form of emotions and interpretations through the consciousness, which leads us to believe this to be an intrinsic quality that distinguishes man from machine, the synaptic response to such stimuli are themselves embedded within the micro-molecular biological stages of information-processing and are themselves part of a psychological and biological pre-programming. As artificial intelligence theorist Marvin Minsky states, our ability to assign meaning relies on our platonic desire that there is such an essential meaning that reveals our anthropocentric epistemological notions and beliefs:

The question of whether computers can “understand” meaning is really not about computers at all but about our foolish quest for meanings that stand by themselves, outside of any context. Our questions about thinking machines should really be questions about our own minds. The networks in our human minds are probably more complex than any other structure science ever contemplated. As a result, the detailed programs of artificial intelligence will eventually need some very complicated theories. (69)

Seen in this way, there is no question that the measures of response in a human are infinitely larger than that of a computer. However, this humanist ontological proof leaves out the possibility that a powerful cognitive, heuristic computer system has the same kind of possibilities of response if it were advanced enough to do so. Meaning, as a result, is exposed as an anthropocentric concept that will ensure our Cartesian certainties of mind, but ensnares the possibility of artificial intelligence from ever achieving this.

The reason for this is that if artificial intelligence ever reaches this stage, cybernetic consciousness and human consciousness would achieve a phylogenetic re-

grouping, a paradigm shift from an emphasis on biological (human) organic identity to that of systems of intelligence. Moreover, this re-grouping places these two originally distinctly indicated species within a new conceptual framework that replaces traditional humanist organic ontology with a post-humanist ontology that includes cybernetic species as creatures that have the evolutionary potential for consciousness. As a result of this regrouping, the ontogenetic basis for humans, which stresses a continuous evolutionary chronology from embryo to adult, is replaced by this new post-humanist re-grouping. To differentiate oneself from cybernetic intelligence, by claiming one's human origin is superior, thus becomes a *political* notion that denotes the hierarchical and epistemic categories of humanism, even though there are no decisive proofs for these categories when it comes to intelligence.

The ability of cyberpunk fiction to create this human epistemological category relies on politicizing and rhetorically denoting these epistemic notions that define the human in the sense of being an emotional, and sometimes irrational "thinking machine". Similarly, cyberpunk fiction can accept the placement of humans as machine-like *within* cybernetic technology, and thus confront the ontological redefinition that Bukatman speaks of. The human would be seen not as an analogous biological entity that co-exists independently from artificial intelligence, but one that explicitly functions *within* the matrix of technology, in which the human becomes subsumed into the category of the cyborg, the next evolutionary stage of existence. Thus, according to Donna Haraway, "the cyborg is the figure born of the interface of

automaton and autonomy” (*Primate Visions* 139) and therefore becomes emblematic for either the ontological redefinition of humans as cyborgs in the substratum of heterogeneous technology, or, alternately, humans becoming an epistemological category of identity that no longer epistemically exists except in the politics of humanist differentiation.

As a consequence, technology in cyberpunk becomes a dialectic that reveals the inadequacies of our ontological and epistemological conceptions of self and reality. As such cyberpunk’s ambivalence to its effects reflects the new realities inherent in technology, where technology is either seen as malignant and threatening our autonomy, or as beneficial, allowing humans paradoxically to achieve a greater sphere of autonomy. As Michelle Kendrick notes in her essay “Cyberspace and the Technological Real”, the reason for the opposition in either allowing technology to re-define us, or letting us define the role of technology, lies in understanding the fact that “subjectivity is always in the process of being reconstructed by the technologies - *material* and *semiotic* - which it purports merely to manipulate” (144; my emphasis). As Kendrick states, our notions of subjectivity are always constructed as “fictions” under the working definitions of a technology that is both *visible* (“material”) in our landscape as well as *dialectical* (“semiotic”) in the way it alters our social relationships: “technology affects the social and individual conception of the self, the parameters that enable “changes” in the self, even the social, political and personal possibilities that subjects, as agents, can envision” (150). The cyborg makes explicit what Leo Marx argued in his influential literary study, *The Machine in the Garden*:

Technology and the Pastoral ideal in America (1968), that the structural dialectical relationship that has always existed between technology and humans, is always already implicated by the mechanisms of technology that define the sphere of human existence. Thus, using Leo Marx's example, with the advent of the train, our sense of spatial orientation expanded rapidly, and thus also our capacity to transport ourselves over time. Similarly, the cyborg allows us to negate our biological body (although necessary as an interface), while at the same time radically expanding our capacities and conceptions of ourselves as organisms. With the advent of pacemakers, and biotechnological apparatuses that modify our genetic make-up and prolong our life, we enter into a new age in which the original life span of the ordinary human body and its genetic origin can be *transcended* by necessary biotechnological alterations. Moreover, a technological medium such as the Internet has a great potential for allowing human consciousness to travel great distances *instantaneously* (for example, seeing live images of weather in Tokyo when one is in San Francisco). While the body remains behind the same computer terminal, consciousness would soar elsewhere and thus initiate an even greater spatiotemporal consciousness and awareness of the surrounding world that virtually eliminates the need for travel.

Indeed, as Katherine Hayles has noted, at the same time that the dissolution of ontological and epistemological paradigms of the humanist body threatens to overtake the Cartesian certainties of the human body and mind, technology also paradoxically promises a liberatory expansion of the capabilities of (post-) human embodiment. Connecting cybernetic theory to a new post-humanist Humean

epistemology that sees the world as a “set of formally closed systems” in which “organisms respond to their environment in ways determined by their internal self-organization”, Hayles argues that humans, like the organisms of the world become “not only self-organizing, [but also] . . . autopoietic, or self-making” (12).

Autopoiesis, in this sense, means the self-creation that happens when “organic” homeostasis - the ability of an organism to maintain in a stable state, whether philosophically or biologically speaking, is no longer used as a systemic ontological structuring of the human. Instead machines and humans are submerged in the general category of “information-processing systems” that are mutually compatible (Hayles 18). The capacity of the cyborg for autopoiesis means its dissolution as a stable, organic and intrinsically *human* subject of embodiment and mind, in which the new technological realities of the body could function as an interface for the human mind to achieve cybernetic consciousness, or alternately, the rise of a new post-human cybernetic consciousness in which the human and the machine can be seen as co-existent.

**Deleuze and Guattari’s Ontology of the Cyborg:
Bodies Without Organs, Ontologico-Becomings
and Autopoiesis**

In understanding the conceptions of post-human cybernetic consciousness, Gilles Deleuze and Felix Guattari’s seminal books *Anti-Oedipus: Capitalism and Schizophrenia* (1977) and its follow-up, *A Thousand Plateaus: Capitalism and Schizophrenia* (1980), have proven indispensable. Deleuze and Guattari’s theories of

the (post-) human as a self-organizing organism who is constantly in a state of “becoming” - continuously merging in new hybrid ways with technology and thus creating new forms of (post-) human existence - allow us to envision cyborg ontology unconstrained by humanist conceptions of self. Deleuze and Guattari’s argument can be seen as a post-humanist approach to *incorporate* the existence of humans within technology, in which traditional humanist ontological distinctions of the human self, consciousness, and organicity are displayed to be analogous and even *compatible* to cybernetic machinic existence.

Thus, Deleuze and Guattari’s introduce the concept of the “Body without Organs” which represents the human body as a nexus of power-relations, the working fiction of the body as “ultimate residue of the deterritorialized socius” - a self untangled of the Oedipal complexes of the flesh that does not see itself as a subject of the discourse of power (*Anti-Oedipus* 281). This allows Deleuze and Guattari to envision a liberating perspective on the body that eludes the familiar semiotic markings of gender, race, class and sexuality that culture assigns to the human body. According to Deleuze and Guattari, “The BwO is opposed not to the organs but to that organization of the organs called the *organism*” (*A Thousand Plateaus* 158) - and thus becomes an idea resistant to the notion of a unified body which creates the transcendental human subject that exists at the center of the symbolic, meta-scientific and ontological order:

You will be organized, you will be an organism, you will articulate your body - otherwise you’re just depraved. You will be signifier and signified, interpreter and interpreted - otherwise you’re just deviant. You will be a subject, nailed down as one, a subject of the enunciation recoiled into a

subject of the statement - otherwise you're just a tramp. (*A Thousand Plateaus* 159)

As a result, the “Body without Organs” is Deleuze and Guattari’s political concept of a body that eludes the familiar structural epistemics embedded within humanism, a Nietzschean affirmation of the play and transcendence of the biological realities of the “essential” human body that, without a guiding principle, discovers its own *jouissance* in the multiplicity of existence. Subjectivity thus becomes whatever one *chooses* to become, not what one *essentially* is.

Deleuze and Guattari therefore envision the “Body Without Organs” as an “assemblage” of biological components that are capable of interfacing with other non-biological organisms: “Every BwO is itself a plateau in communication with other plateaus on the plane of consistency. The BwO is a *component of passage*” (*A Thousand Plateaus* 158, emphasis added). As a consequence, Deleuze and Guattari’s Body without Organs is an entity that eludes traditional humanist distinctions of a *stable* locus of the human mind and body and, in the spirit of Wiener’s functionalist criterion, becomes a nexus of *communication* in which the capacity to interconnect and process information becomes the essential plane of existence. Information, whether binary data or genetic information, becomes the underlying framework in which existence can then be seen. Thus, the capability of humans and machines to process and exchange information becomes tantamount to the endless process of becoming that transforms the human body into the cyborg body and constitute the new cyborg ontology. In this cyborg ontology, the familiar distinctions between

organism and machine do not hold, because they are replaced by the capability to interface and connect with different existential (organic- or silicon-based) life forms.

Therefore, Deleuze and Guattari's borrowing of Melanie Klein's concept of humans being "partial objects" rather than whole human subjects, functions in the way of breaking through the traditional psychoanalytical Lacanian notion that views the human psyche as organized around an essential lack or need for which humans need to make up in order to achieve wholeness of identity (*Anti-Oedipus* 44). Instead, Deleuze and Guattari explicitly emphasize the cyborg subjectivity of the Body Without Organs to be composed of disunity, schizophrenia, incompleteness and fracture that dismantles the humanist ontological sense of original (organic) unity, sanity, wholeness, and completeness of the self. Deleuze and Guattari therefore emphasize the composite parts upon which humans compose their sense of wholeness and self, and thus define a new cybernetic-ontological tenet that defines existence as an endless process of desire for becoming that "comes into being" constantly (*Anti-Oedipus* 42). As Deleuze and Guattari write: "The BwO is not "before" the organism; it is adjacent to it and is continually in the process of constructing itself . . . The BwO is desire; it is that which one desires *and by which one desires*" (*A Thousand Plateaus* 164, emphasis added). The human subject as seen as a whole is replaced by the cyborg *autopoiesis* in which the desire for becoming whole creates an endless desire for connections with (human or non-human) parts, yet at the same time acknowledges the impossibility of ever achieving this wholeness. For Deleuze and Guattari, therefore, breaking down the wholeness of subjectivity becomes just as

important as achieving it, as this process is embedded within the continuous change in the re-construction of the unstable, composite cyborg self. While the human subject is concerned with maintaining homeostasis, the cyborg is always in the process of autopoiesis, the process of becoming that never achieves a final stage of subjectivity.

Deleuze and Guattari lead humanity into the age of the machine and post-humanism, in which our desires plug into non-human flows in order to satisfy these desires. Humans become machinic in their endless quest to realize this desire, a fact which Deleuze and Guattari acknowledge. For them the human species can be seen as either “vertebro-machinate mammal,” or as an “aphidian parasite of machines,” who has a symbiotic relationship to the machines surrounding it (*Anti-Oedipus* 285). In this, the technological systems upon which we rely in our dealings with the world, are systems which all effect a “subject dislocation [which] is enacted by a movement through an excruciatingly technological, decentering spatiality” that no longer allows for a sense of wholeness (Bukatman 180). Humans, according to Deleuze and Guattari, thus become organisms that seek connections with the rest of the world. Their ontological-being is that of a continual machinate ontologico-becoming of cybernetic functionalism that replaces the definite, absolute Cartesian transcendental human subject as a *res cogitans* that is separate from that world. The cyborg therefore intimately merges with his technological surroundings, allowing these surroundings to penetrate and alter its self.

As a result, as Deleuze and Guattari note, in the continuous autopoiesis of machinate-ontologico-becoming, the human subject is no longer of the order of day: “the [human] subject - produced as a residuum alongside the machine, as an appendix, or as a spare part adjacent to the machine - passes through all the degrees of the circle, and passes from one circle to another,” but can never function as a locus of existence within cyborg composites (*Anti-Oedipus* 20). Moreover, the human category becomes destabilized by its own capability of interface with the machine, as Deleuze and Guattari note: “[the] *subject itself is not at the center*, which is occupied by the machine, *but on the periphery, with no fixed identity, forever decentered, defined by the states through which it passes*” (*Anti-Oedipus* 20, emphasis added). In this sense, Deleuze and Guattari’s *Body without Organs* echoes the embodiment of cyborg ontology, of forming new composite parts of un-wholes. Donna Haraway explains that “the cyborg is resolutely committed to partiality, irony, intimacy, and perversity. . . . The relationships for forming wholes from parts, including those of polarity and hierarchical domination, are at issue in the cyborg world” (“A Cyborg Manifesto” 151). The result of all of this is that the human subject can no longer function at the end of the symbolic order, but rather is defined by a rapidly evolving technology that alters its functions, and allows it to exist in a continual state of autopoiesis. The autopoiesis effected by technology in turn alters our functioning as humans.

Thus, Andrew Feenberg’s distinction in *Critical Theory of Technology* between “instrumental” technology - in which technology is seen as an aid that

enhances our abilities but remains entirely subservient to us - and “substantive” technology - technology that substantially changes our social/historical dialectics and threatens to overtake us as an “autonomous cultural force” can be seen to be reflected in the appearance of the post-human cybernetic techno-body (5). In the process of constructing the cybernetic techno-body, technology can thus be seen in three different ways. First, it redefines our existence in the light of “instrumental” technologies which become indispensable to our professional and personal lives, and thus makes us co-dependent upon these technologies: cars, planes, and trains for transportation; televisions, radios, computers for information; mechanical appliances for work; household apparatuses for help in the house; pacemakers, hearing aids, and other biotechnological devices for maintaining or improving our conditions of living. Secondly, technologies such as computers capable of memorizing and analyzing the complicated structures of our DNA are “substantive” technologies, and radically alter our ontological notions of ourselves by showing the encoded, malleable nature of human existence. As these technologies aid us in constructing the genetic coda of our body, they also dissolve the mysterious properties of the human body, and allow us to see the human body as a transparent information system organized around the interrelations of genetic encoding, to be manipulated at will. Thirdly, “substantive” media technologies (virtual realities) such as the Internet radically alter our spatial/temporal relations as humans to the world, effecting a redefinition that displaces our bodies with our consciousness as our primary link to the outside world.

As a result, the human capability to interface with computers and technology thus effects an experience in which the composite post-human cyborg body comes to live a disembodied existence in a virtual landscape of immaterial existence, and produces the death of the humanist paradigms of the unique human self (by the existence of other 'artificial' intelligences), that of pure (organic) identity (by the transcendence of the organic human body by genetic and/or technological alterations) and absolute material reality (by the superimposition of consciousness over the spatiotemporal body within virtual reality). Therefore, as Haraway notes, the cyborg does not yearn for the organic beginnings of humanity, but has turned away from these humanist conceptions, because it "would not recognize the Garden of Eden; it is not made of mud and cannot dream of returning to dust" ("A Cyborg Manifesto" 151). In this way, cyberpunk's exploration of the disembodied realities of the cyborg can be seen as a reflection on the new scientific theories that will bring about an epistemological and ontological re-configuration of our conception as humans through the interpenetration of the sphere of cybernetic technology and biology.

As will be seen in the next chapter, cyberpunk's reconfiguration of the human and the machine as analogous "information-processors" - composed of elements that facilitate the processing of information through communication - creates a new post-humanist novel that allows us to see the appearance of cyberpunk as a paradoxical form of "realist" discourse that manages to inform our philosophical considerations of ourselves in the light of twentieth-century technological existence.

**WILLIAM GIBSON'S *NEUROMANCER*:
CYBERPUNK, POST-HUMANISM
AND THE NOVEL**

A new subject has emerged: one constituted by electronic technologies, but also by the machineries of the text.

Scott Bukatman, *Terminal Identity*

Cyberpunk's appearance in the mid eighties as a distinct genre of science fiction was initiated by the publication and successful critical reception of William Gibson's seminal cyberpunk novel *Neuromancer* (1984). Gibson's dystopian view of a future in which humanity was superseded in many respects by artificial intelligence, robots, clones, enhanced cybernetic organisms, and alternate spatial computer-generated realities such as cyberspace, struck a chord at a time when technology was on the rise in Western civilization. As has become obvious, cyberpunk fiction's introduction thus coincided with social realities that reflected the technologization of Western civilization. The cyberpunk novel thus reflects the ensuing cultural changes as expressed in changed cultural (literary), ontological and epistemological notions.

Culturally, the cyberpunk novel reflects late capitalism's misuse of images and information in order to "colonize" our consciousness and our bodies. Moreover, in its reflection of these postmodern realities of technology, cyberpunk fiction detects the ambiguous technophobia and technophilia we subsequently experience as we realize the influence of technology on our everyday lives. Lastly, the cyberpunk novel represents the argument that virtual reality and its technological constituents need to be accurately represented in fiction if that fiction attempts to lay claim to a 'realist' status.

Cyberpunk fiction realizes the implications of the ontological redefinition that is effected by the appearance of the cybernetic organism, at the same time that it detects the preservation of humanity as an exclusively politicized epistemological category. Moreover, cyberpunk creates the idea of the post-human cybernetic organism as an autopoietic ‘information processing system’ that levels machines and humans on the same existential level and considers the idea of artificial intelligence to be a real possibility. Lastly, cyberpunk fiction reveals the complicated dialectic beyond romanticized notions of ‘good’ nature versus ‘bad’ technology, and reveals that technology is in fact altering our ontological vocations in three different ways: (1) Our *social roles* as humans by “instrumental” technologies that aid us and redefine our landscape and our functioning in that landscape, (2) our *physiological body* by allowing us to transcend the body’s organic longevity by technological superimposition, and (3) our *consciousness within immediate spatiotemporal and material existence* by giving us the ability in virtual reality to transcend this existence via a disembodied consciousness that is capable of traveling great distances while not being bound to our body.

Epistemologically, cyberpunk fiction stages the appearance of virtual realities (such as cyberspace) as a phenomenological possibility that alters our conceptions of reality by displacing Cartesian certainty with Humean phenomenalism. Furthermore, by altering this definition of reality, cyberpunk opens up the idea that virtual realities need to be thought of as “experientially” real, seeing as these realities make up a large

part of our contemporary experience in the form of the flickering images on our computer and television screens.

As will become obvious, Gibson's *Neuromancer* represents a radical break with traditional literary conceptions of science fiction as it works to display these changed cultural, literary, epistemological, and ontological notions, and in this alters the traditions of realist literature itself, in its radical depiction of a future not unlike our own present.

Towards a New Literary Realism: *Neuromancer* and The Technological Real

Traditionally, science fiction has been seen as a phantasmal genre that is far removed in its aims from realism as genre of fiction. However, Gibson's *Neuromancer* radically alters the scope of realism in literature by allowing today's technology to play a visible role as a sphere of influence on humans in its narrative. In this, Gibson's novel makes us aware of our present-day surroundings in which the images and advertisements of late-capitalism have eroded our sense of reality, as well presents a host of genetically/ cybernetically enhanced post-human/non-human characters such as artificial intelligence, clones and cyborgs that will more than likely appear in the future. Therefore, while the traditional realist novel represents as closely as possible the everyday experiences of the human protagonists, Gibson's *Neuromancer* presents the coming of a new stage of the novel in which the creation of a cybernetic evolutionary myth heralds a new post-humanist perspective in which humans play a necessary but inevitably subservient role. In Gibson's novel, the

human is replaced by the incarnations of a technology that becomes a new form of scientific religion, replacing the traditional humanist worldview by translating the world in terms of the binary encoding of computer processor systems.

As Gibson's infamous opening to *Neuromancer* makes clear, the metaphors of technology are effected in order to convey and mediate such a technologized world:

"The sky above the port was the color of television, tuned to a dead channel" (3).

Mixing metaphors of nature with technology, Gibson's narrative in *Neuromancer* thus displaces the familiar realist notions of the audience in order to display a new symbolic landscape in which nature and technology are co-existent and have merged symbiotically. However, the landscape that Gibson offers us is paradoxically one that is familiar to us. For example, the description Case offers of his environment in the "Sprawl" reminds us of urban environments such as New York's Times Square:

Now he slept in the cheapest coffins . . . where you couldn't see the lights of Tokyo for the glare of the television sky, not even the towering hologram logo of the Fuji Electric Company, and Tokyo Bay was a black expanse where gulls wheeled above drifting shoals of white styrofoam. Behind the port lay the city, factory domes dominated by the vast cubes of corporate arcologies. Port and city were divided by a narrow borderland of older streets, an area with no official name. (6)

If the television sky is unfamiliar to us, the corporate logos and advertisements cluttering our urban experience are all too familiar to us: they are part of the anonymous experience our postmodern city landscape offers us, in which global corporations erect skyscrapers and impinge upon the city's visible space by their ubiquitous use of advertising. Indeed, using punk culture's sensibility to the dehumanizing effects of capitalism, Gibson's narrative makes the reader sensitive to

such instances of late-capitalism's exploitation of public and private space through technology. Multinational capitalism is at once *ubiquitous* (through the digital images of advertising) and *visible* (through the anonymous "corporate arcologies" that redesign the urban sphere as a corporate landscape), as well as *invisible* in its workings, being of global, informational nature. In *Neuromancer* technology thus becomes part of late capitalism's phenomenological regime that tries to colonize our consciousness and our landscape through the ubiquity of advertising and images.

However, at the same time that technology offers this colonization, it also manages to subvert the manifestations of late capitalism. In the corporate ordering of the urban, "Night City", the criminal environment of Gibson's main protagonist Case, is a place in which newer technologies are used to subvert late capitalism's corporations. As Case observes: "Burgeoning technologies require outlaw zones . . . [and] Night City wasn't there for its inhabitants, but as a deliberately unsupervised playground for technology itself" (11). By creating outlaw zones out of the reach of late capitalism's influence, technology therefore plays an autonomous role in this landscape, because it manages to maintain, as well as subvert the dominant corporate structures of Tokyo. As Gibson's narrative displays, the role of technology in this postmodern landscape therefore plays a dialectical role in effecting shifts of power, in which technology is used to effect late capitalism's redistribution of the physical landscape (and our conscious experience of that landscape), but can also be used against the structural power of late capitalism. Thus, late capitalism has eked out corporate territories in this urban landscape, but is susceptible to the interruptions of

such criminal black market environments as Night City where “genetic materials and hormones trickled down . . . along an intricate ladder of fronts and blinds” (11). Moreover, in these black markets, individuals such as Case disrupt the supremacy of corporate capitalism by intervening in its operations through technology. Case describes his existence in the “criminal ecology” of Night City in terms of informational nature: “Case’s primary insight into the dynamics of street dealing was that neither the buyer nor the seller really needed him. A middleman’s business is to make himself a necessary evil.” (11). As we learn, Case functions as black market hustler, selling things like illegal computer data to customers, and in general functioning as a fence for stolen goods. As Case states: “He ran the fastest, loosest deals on the street, and he had a reputation for being able to get whatever you wanted” (Gibson 7). Technology enables Case to make a living through selling computer data “three megabytes of hot RAM” (20), to a customer in Hongkong, as well as to protect himself in the criminal environment of Night City in direct ways: “Shin’s pistol was a fifty-year-old Vietnamese imitation of a South American copy of a Walther PPK, double action on the first shot . . . It was chambered for .22 long rifle, and Case would’ve preferred lead azide explosives to the simple Chinese hollowpoints Shin had sold him” (Gibson 19).

As a result, technology in *Neuromancer* can be seen ambiguously: at the same time that it is used by late capitalism to colonize our experiences of the real world via its propagation of holographic images and advertisements, it can be used to subvert this influence with the promise of transcendence through such subliminal and

subversive technological spaces as Night City and virtual. Gibson even describes the effects of technology in terms of addiction, as Case dreams of escaping the realities of Night City through the technological realm of cyberspace:

A year here and he still dreamed of cyberspace, hope fading nightly. All the speed he took, all the turns he'd taken and the corners he'd cut in Night City, and still he'd see the matrix in his sleep, bright lattices of logic unfolding across that colorless void . . . curled in his capsule in some coffin hotel, his hands clawed into the bedslab, temperfoam bunched between his fingers, trying to reach the console that wasn't there. (4-5)

Technology is thus both seen in a liberating and oppressive perspective that makes us aware of the ambiguous influence that technology has on our everyday life: at the same time that it enslaves us to its ubiquitous presence in the physical world, technology also promises us an escape from that world by allowing us to experience the otherworldly features of virtual reality. Gibson even makes it obvious that technology can be seen in terms of physical addiction, where the drug Speed becomes an *ersatz* replacement for Case's yearning for the technologized confines of cyberspace. The technology that Case uses in order to make a living by selling stolen data only make it more obvious that he is dependent upon technology for subverting the intrusion of late capitalism's influence through technology in the same way that late capitalism uses technology to effect its own means.

Indeed, Case can be seen as a product of this technological landscape. Case is the prototypical cyberpunk protagonist, a "console cowboy" who interpellates his body in between the spheres of humans and information technology, illegally hacking into complex computer systems and effecting the passing on of sensitive computer

data to second parties (Gibson 28). Case describes his physical existence in this technology-determined criminal environment of Ninsei in the following way:

In some weird and very approximate way, it was like a run in the matrix. Get just wasted enough . . . and it was possible to see Ninsei as a field of data, the way the matrix had once reminded him of proteins linking to distinguish cell specialties. Then you could throw yourself into a highspeed drift and skid, totally engaged but set apart from it all, and all around you the dance of biz, information interacting, *data made flesh* in the mazes of the black market. (Gibson 16, emphasis added)

Using metaphors of the technological environment of “the matrix” - cyberspace - to designate the physical environment of the Ninsei enclave, Case’s approach to his physical surroundings is paradoxically seen by him through envisioning the “disembodied existence” of virtual reality technology in which one can be “totally engaged but set apart from it all”. In *Neuromancer*, technology manages to alter the landscape radically and thus proves to be of ambiguous influence: not only does it redesign urban spaces in terms of corporate identity and affiliation, it also alters Case’s consciousness of that space by him associating it as ‘virtual’ space. When Case dreams about his former home, the Boston-Atlanta Metropolitan Axis (BAMA), he does this in terms of computer data:

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 . . . 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. . . (Gibson 43)

As passages like the above demonstrate, Gibson’s *Neuromancer* presents the reader with a world in which the quest for computer data has become paramount. In this world, virtual reality has impeded upon material reality and translated the human into

the technological and the technological into the non-human. By his description of Case's home, Gibson makes us aware of the new ways of perception and consciousness that technology inaugurates in humans, where the physical world can be literalized by the human mind as fractal binary computer data. Seen in this way, the geographical/physical world here becomes usurped by the alterations of a technology which make Case approach it as data to be understood instantaneously in terms of megabytes and gigabytes. The "dance of biz" in Gibson's novel thus initiates a new post-human form of existence in which technology reconfigures the physical and the material in the form of malleable data, and where the exchange of computerized information becomes paramount.

As Larry McCaffery has remarked, Gibson's *Neuromancer* therefore creates a cybernetic metaphor of an intricate 'virtual' reality "where data dance with human consciousness, where human memory is literalized and mechanized, where multinational information systems mutate and breed into startling new structures whose beauty and complexity are unimaginable, mystical and above all, *nonhuman*" (*Across the Wounded Galaxies* 131). Gibson's novel creates within its pages a virtual reality that is *phenomenologically* malleable while "experientially" real to its main protagonist Case, whose experience of virtual reality replaces the experience of material reality as a perceptual frame of reference.

As a consequence, while Gibson's novel thus destabilizes our perceptions of the physical world by intimately merging metaphors of technology with our current naturalized notions of the "real" physical world in its depiction of "data made flesh",

it also manages to inform us of our current late-twentieth century situation in which late capitalism's rapid overtaking of our geographical and "mental" space through technology has given us this significantly altered experience of reality. In this, the traditional phenomenological division that held "objective" natural reality above artificial "subjective" reality, has merged together to reveal a technological reality in which such hierarchical distinctions are obsolete. In a passage when Case tries to describe his experiences in cyberspace to a female contract killer, Case affirms that in an environment determined by technology, material reality and artificial reality are not far removed. When asked if cyberspace appears real, Case answers in the following way:

"Real as this," he added, looking around. "Maybe more."

The trees were small, gnarled, impossibly old, the result of genetic engineering and chemical engineering. Case would have been hard pressed to distinguish a pine from an oak, but a street boy's sense of style told him that these were too cute, to entirely and definitively treelike. (Gibson 128)

As Case proves, in an environment infused by technological superimposition through genetic engineering, making distinctions between artificial and natural environments does not make sense if they both are constituted and conveyed by technology. Nature and technology are therefore not exclusive categories when *both* are mediated by the technological. Even so, technology manages to invoke a sense of "realness" into the trees by making them "definitively treelike" for Case. The fact that nature can be replicated artificially, makes it that cyberspace appears "more" real to Case, because cyberspace displays a more direct means of connecting to a technology that intervenes in our everyday life and shapes our surroundings.

Neuromancer can therefore be seen as a “paradoxical” realism in that it reveals the implications of this new ‘virtual’ reality to us. Rather than separating the two spheres of technology and nature, Gibson’s narrative takes on the radical position of conflating the distinction between ‘material’ and ‘virtual’ reality in order to reveal our current phenomenological dimensions in which television images and computer data play just as important a role as our “actual” physical experiences of the world. In this world, technology is seen as radically altering our conscious experience of the world by its imposition on our everyday realities, and can no longer be seen in the traditional way of serving humankind, as technology manages to obscure the unique relationship humans assume to have with nature. “Realism” in the novel is therefore reflected in Gibson’s awareness of the transforming aspects of virtual technology in late capitalism, which changes our ontological and epistemological conceptions of reality and the self and reconfigures our outdated notions of a ‘material’ natural reality to a ‘virtual’ conception of reality in which the physical is translated into the non-physical. This, in turn, also produces a different theorization of the human as no longer an exclusive ontological category whose primary link to nature and reality through consciousness and organic nature distinguishes its human ‘qualities’ from other non-human species.

Post-Humanist Ontology: *Neuromancer*, Cartesian Dualism, and the Cyborg Techno-Body

In *Neuromancer* the dissolution of the human ‘subject’ and the rise of a post-human ‘subjectivity’ is caused by the disintegration of the human as a unitary phenomenal,

existential and biological category in the technologized confines of cyberspace. Cyberspace, in its “materializing” of a virtual reality, thus offers the promise of human bodiless existence, by “simultaneously [rewriting] and [disrupting] traditional notions of subjectivity, [by] calling attention to the coherence of subjectivity as a fiction, yet offering itself as the actualizing of that fiction,” and thus paradoxically deconstructs the ontological unity of the human organic body by the promise of a “bodiless” existence, unrelated to any biological realities (Kendrick 146). Cyberspace manages to create the Cartesian human dream of a disembodied, direct connection to a sensorial and interactive reality. However, at the same time it does this, cyberspace envelops the human form in the confines of technologized existence, making the human body obsolete and creating a cyborg body, in need of technological superimposition for experiencing this independent sensorial and interactive reality. In this respect, Gibson’s *Neuromancer* makes us aware of how (virtual) technology effects post-humanist/cyborg ontology in three ways: (1) by allowing our consciousness to exist in disembodied states that deconstruct the Cartesian mind-body dualism; (2) by initiating the appearance of the modified cyborg-body that is released from its organic ‘shell’ by technology, and, (3) by transforming our awareness and consciousness of a geographical, physical space into a purely sensorial-based ‘virtual’ landscape.

Consider, for example, the Cartesian abnegation of the body by Gibson’s protagonist Case, whose job is to steal crucial information for secretive multinational corporations by being “jacked into a custom cyberspace deck that projected his

disembodied consciousness into the consensual hallucination that was the matrix,” but whose fateful mistake of stealing from his employers has left him neurologically damaged by psychotropic drugs and unable to do his job:

For Case, who’d lived for the bodiless exultation of cyberspace, it was the Fall. In the bars he’d frequented as a cowboy hotshot, the elite stance involved a certain relaxed contempt for the flesh. *The body was meat*. Case fell into the prison of his own flesh. (5-6, emphasis added)

As Gibson’s passage demonstrates, Case’s preference is mind over matter, and in this Case voices a post-human desire which renounces the biological body for the disembodied technologized existence offered by cyberspace. The physical body is mere *meat* for Case, the physical entrapment in an ‘organic shell’ that needs to be transcended in order to connect with the technological realm of cyberspace. Case’s preference to leave material reality for the vestiges of cyberspace, makes his denial of his organic nature as the “prison of his own flesh” post-human, seeing as it no longer relies on emplacing consciousness into the physical realities of the human body.

However, while Case’s transcendence of his own human body literalizes the Cartesian dream of the human becoming a pure *res cogitans* without interference from its own organic nature, at the same time cyberspace necessitates that Case’s pure consciousness co-exists within the volatile datasphere of high technology, in which greater forces are at play. While Case’s human consciousness is liberated from its material and physical realities through cyberspace, this new sphere of human power comes with a greater dependence upon technology, and thus paradoxically allows for *less* autonomy of that human consciousness. This is illustrated by the appearance of the character of “Dixie Flatline”, a “ROM personality construct” of a

deceased hacker who aids Case in hacking the database of the wealthy Tessier-Ashpool clan (Gibson 162). As we find out, a corporation called Sense/Net has bought the personality of the hacker after his death and saved it as data. Gibson's *Neuromancer* thus makes it obvious that technology can even affect one after one's physical death, and resurrect one's consciousness as mere data.

While not actually *physically* human, "Dixie Flatline" does function as a character in the novel with his own personality and consciousness. It becomes even more confusing when the "personality construct" responds to a question asked by Case regarding the existence of consciousness in artificial intelligence. As Dixie states, he is definitely *not* human, but he *does* exist as a 'living' example of Turing's "Imitation Game" computer that can respond in human ways. In response to Case's question, Dixie states that he is programmed to appear like one by answering in ways akin to humans: "Me, I'm not human either, but I *respond* like one. See?" (Gibson 131). Of course, the fact that Dixie answers in human ways does not make him human, but does underline the falsity underlying the assumption that humans can solely *respond* like humans. Moreover, when asked by Case if he is 'sentient', Dixie answers affirmatively and thus underscores Turing's point that humans are "thinking machines" who erroneously think that having feelings distinguishes human intelligence from computer intelligence: "Well, it *feels* like I am [sentient], kid, but I'm really just a bunch of ROM" (Gibson 131). The result is that Dixie's *feeling* sentient makes it obvious that our idea of intrinsic human emotions and feelings do not necessarily and automatically make us human, as Dixie's data construct can be

made to feel the same way. As the appearance of Dixie Flatline demonstrates, even the Cartesian certainties of mind can be used to deconstruct the idea that our bodies and minds are inextricably linked to our organic nature, as proven by the fact that Dixie Flatline is nothing more than a “ROM cassette replicating a dead man’s skills, obsessions, knee-jerk responses”(Gibson 76-77). It gets even more complicated when the construct voices a desire to die like any other organism and asks Case to delete it: “Do me a favor boy [. . .] This scam of yours, when it’s over, you erase this goddamn thing” (Gibson 106). While Dixie therefore believes himself to have consciousness and sentience, the reader is confronted with the fact that his consciousness comes without the familiar physical realities of the human body that thus make Dixie not human. In the same way, the reader is confronted with their anthropocentric notions of embodiment, in which cyberspace offers up at once a promise of human transcendence and independence of ‘physical’ reality and thus a greater realm of power for the human consciousness, and a negation of the body’s powers by the technological sphere of cyberspace which transforms the human form into binary code while making it subservient to technological superimposition.

At the same time that technology promises this liberated existence in cyberspace, the human techno-body itself becomes marked by the imprints of a technology that requires a link-up in order to transcend the realities of the body. The dissolution of the human body in cyberspace is effected by a merging of cybernetic technology and the human organism. As Andrew Ross has noted, cyberpunk’s

portrayal of the techno-body consists of depicting the body as a continuous morphing entity that is neither purely human nor robotic:

[Cyborg bodies are] spare, lean, and temporary bodies whose social functionality could only be maintained through the reconstructive aid of a whole range of genetic overhauls and cybernetic enhancements - boosterware, biochip wetware, cyberoptics, bioplastic circuitry, designers drugs, nerve amplifiers, prosthetic limbs and organs, memoryware, neural interface plugs and the like. (152-153)

As a result, Ross notes, in cyberpunk fiction the body thus becomes a “switching system, with no purely organic identity to defend or advance” and can be seen to represent the autopoietic continuous re-creation of the self that Deleuze and Guattari envision in their deconstruction of identity of the self in the *Body without Organs* (153). In cyberpunk fiction, the human body is therefore in constant state of *upgrading*. The human body becomes a mere boundary that is crossed by the cybernetic awareness that in order to keep up with the advances of a technology-driven society one has to improve one’s body with technology. In *Neuromancer* the technological and the human are therefore mutually constitutive in creating the post-human cybernetic organism.

William Gibson’s *Neuromancer* has plenty of such instances of cyborg and post-human existence: protagonist Case’s disembodied consciousness which can be downloaded into the bodiless existence in the matrixes of cyberspace, his female partner Molly’s mirror-like prosthetic eyes, enhanced reflexes and her surgically inserted steel razorblades below her nails, an artificial intelligence named Wintermute that manages to create and control Case’s human employer Armitage (whose composite identity is created and maintained by Wintermute), and a number of other

genetically altered and technologically enhanced characters all demonstrate that the delimiting ontological boundary between the human and the machinate has long been crossed and obscured. In *Neuromancer*, technology and humans merge in order to reveal, on the surface, a post-human/cyborg existence that negates the sense of organic unity by their composite nature. However, below that surface human nature and technology merge in even more intimate ways in order to create a post-human consciousness, identity and self that no longer relies on the physical realities of the body.

For instance, when Molly first meets Case, she explains her vocation as razor-girl (essentially a “hit-woman”) in post-human terms: “I do hurt people. I guess it’s just the way I’m wired” (Gibson 25). In similar terms, Molly states a while later that she knows Case’s plight: “I know how you’re wired” (Gibson 30). In this sense, Molly’s statements reflect the linguistic belief that neurological capacities, or, what according to traditional humanists is inherent human character, can be reduced to biotechnological alterations that “wire” our behavior. Moreover, human mental capabilities are no longer the intrinsic properties of our organic nature, but can be altered by technology at will, along with which the properties of “essential” human behavior are altered as well. Therefore, in Gibson’s novel the Cartesian certainties of the human mind are seen to be dependent upon the technological superimposition of external stimuli, as behavior becomes “wired” and the human mind is exposed as a cybernetic “thinking machine” to be altered in order to accommodate its immersion

into the technological sublime of (virtual) reality. In a technological civilization, for the cyborg body technological upgrading is a means of survival.

Thus, Molly's body is a cyborg body: her surgically enhanced steel nails, enhanced neurological reflexes and vision allow her to do her job as a "razor girl" effectively. Similarly, Case's post-human body is that of a cyborg: as we learn, his ability to hack into computers originates when Armitage (as maintained by the artificial intelligence Wintermute) says that they "invented his kind" to take part in military operations by hacking into computer programs of the enemy (Gibson 28). Moreover, as Gibson demonstrates, their cyborg bodies are capable of interconnecting through a technological device called the "sim-stim" - a device that allows Case to tap into the emotions and images of Molly's sensorium while physically being present elsewhere. Gibson presents us with the following passage when Case effects the "sim-stim" linkup to Molly: "The abrupt jolt into other flesh. Matrix gone, a wave of sound and color . . . She was moving through a crowded street . . . For a few frightened seconds he fought helplessly to control her body. Then he willed himself into passivity, became the passenger behind her eyes" (56). The ability of Case to have the same sensorial images, feelings, and emotions as Molly means that even though we assume our bodily and mental sensations to have a reality that is specific to us individually, these qualities are not particular to any one body when they are able to be mediated by technology. Our notions of the specific sensorial nature of embodiment being essential to our definition as humans becomes even more complicated when we find out that "sim-stim" link-ups can be effected both ways,

when Case remarks that “the link was one-way. He had no way to reply” (56). Gibson’s use of the “sim-stim” technology makes it evident to us that even though we assume our ability to experience our sensations, feelings and emotions as a strictly individual characteristics of humans, when our sensations of our bodies and those of others can be directly mediated by technology to us, we lose this essential human quality. Case’s embodiment of Molly becomes emblematic for the technological interface of the cyborg body, in which Gibson’s narrative thus allows for the vicarious transcendence of the male/female body by way of a technological interface that makes it possible for anyone to *embody* somebody else by experiencing their perspective and bodily sensations. In *Neuromancer*, the cyborg body therefore becomes an “information-processing system” capable of interface with other bodies, while the cyborg body also allows technology to infuse and alter its capabilities in order to keep up in the realities of technology and technologized existence.

As a consequence, the effects of technologies such as “sim-stim” and cyberspace in *Neuromancer* present an undoing of the semiotics of the body and the self. At the same time that these technologies reduce the last Cartesian certainty by disavowing the necessary presence of the specific realities of the body for consciousness to exist (as is proven by Case and Dixie), they also engender a continuous transformation of the identity of the body by allowing it to exist in a number of different selves mediated through technology (for example, Case in Molly’s body). However, as Gibson’s cybernetic narrative demonstrates, despite all the technological innovations, even human consciousness is not a sacred entity in

itself in its appearance within the vertiginous realm of cyberspace as a phenomenally and experientially ‘real’ landscape that threatens to usurp the powers of the human consciousness. Virtual technologies such as cyberspace, in this, dissolve the boundary between the self and a virtual landscape that lets the self experience this reality in exclusively sensorial ways, through the consciousness. While the human consciousness therefore would seem to achieve transcendental proportions in such a landscape, Gibson demonstrates the impingement of the technological sublime on the autonomy of human conceptions of self and consciousness.

Consider, for example the description of when Case “jacks” into Cyberspace:

Please, he prayed, *now-*

A gray disk, the color of Chiba sky.

Now-

Disk beginning to rotate, faster, becoming a sphere of paler gray. Expanding- And flowed, flowered for him, fluid neon origami trick, the unfolding of his distanceless home, his country, transparent 3D chessboard extending to infinity. Inner eye opening to the stepped scarlet pyramid of the Eastern Seaboard Fission Authority burning beyond the green cubes of Mitsubishi Bank of America, and high and very far away he saw the spiral arms of military systems, forever beyond his reach.

And somewhere he was laughing, in a white-painted loft, distant fingers caressing the deck, tears of release streaking his face. (Gibson 52)

As passages like this indicate, while Case’s physical presence is necessary for jacking into cyberspace via a “dermatrode” in the back of his head, his subsequent disembodied consciousness in the matrix has nothing to do with the physical realities of the body. In this sense, *telepresence* - the ability to be physically present at one place while also being consciously present at another - represents a pitfall of Cartesian complexity in *Neuromancer*, as Case’s physical presence demonstrates his state of being biologically human, while the presence of his cybernetic consciousness

elsewhere belies that essential organic human identity to be nothing more than a biogenico-centric humanist epistemic construct that can be crossed at any time within cyberspace. In the light of the instantaneous transportation via cyberspace, the experience of physical space itself becomes transformed by technology. Physical space becomes an obsolete concept in a world full of instantaneous technologically mediated reality, as Case remarks, “travel [is] a meat thing” (Gibson 77). Thus, while in *Neuromancer* the human body has been left behind as a delimiting ontological boundary in the spectacle of cybernetic existence, the disembodied post-human will also need to re-orient itself in the abysmal complexities of a virtual reality that envelops its consciousness. The ability of cyberspace to radically alter the human consciousness of physical space thus presents the undoing of the paradigm that one’s *physical* existence in space and time should be seen as solely determinate of one’s perception of reality. Thus, Case notes that “cyberspace, as the deck presented it, had no particular relationship with the deck’s physical whereabouts” (105). Case’s post-human desire to exist within cyberspace as mere data within the electronic mazes and matrices of this technological reality, represents Gibson’s post-human awareness of a technology which threatens to transform the autonomy of the human body and consciousness into non-human ways.

As Gibson’s *Neuromancer* demonstrates, virtual reality recreates the human as a disembodied consciousness whose *ex nihilo* autopoiesis reveals the inaccuracy of our human ideological constructions of ourselves as essential identities whose bodies and minds are uniquely and inextricably linked and connected to the material realities

of the outside world. As the appearance of Case, Dixie Flatline, Molly and Armitage demonstrates, the realities of the organic human body *can* be transcended in order to reveal the cybernetic post-human, whose protean body is marked by technological improvements and can interface with other cyborgs as “information-processing systems”. The mind is therefore able to go great distances while the body is present in one place, as a result of which the body becomes only a *peripheral* “presence” that is only necessary for interface but can be cast off at will in order to reveal another cybernetic identity by the post-human self. This, in turn, also has consequences for our conceptions of epistemology, as the cyborg-body can interface with alternate spatial realities that threaten to dissolve the epistemological certainties that we have constructed as humans around our body and self.

**Epistemology, Sentience, and Dis-embodied Presence:
Neuromancer and the Dream of Post-Human
Virtual Reality**

Cyberspace reveals the collapse of a prime epistemological category, namely that of the difference between appearance (Kant’s *phenomena*) and reality (*noumena*), as it no longer refers to a reality that we can trace back to a material origin. The simulacral realities of cyberspace therefore necessitate that we let go of epistemological distinctions based upon appearance and the natural ‘reality’ of the thing-in-its-essence. Thus, the only way the human mind can achieve an epistemological apprehension of the abysmal realms of virtual reality is by accepting that “our only evidence for empirical truths is the patterns of qualia in our sensory fields” - patterns

which are unstable and in a constant flux rather than forming the basis for *a priori* essential notions of embodiment or essence (Rorty, *Philosophy* 260). As a result, the collapse of noumena into phenomena in virtual reality thus forgoes any epistemological distinction that assigns an important *mental* difference between the *essence* (material or substance) of a thing and the thing-in-itself.

In *Neuromancer* this is proven when Case first meets the artificial intelligence Wintermute in cyberspace via a mental hallucination created by Wintermute, who appears in the form of an art dealer that Case knows. Case is made aware of the importance of seeing the *physical* essence of Wintermute apart from his phenomenal essence: “Your mistake . . . is in confusing the Wintermute mainframe, [in] Berne, with the Wintermute *entity*” (120). In the world of cyberspace, *physical* location therefore becomes unimportant as the post-human *consciousness* is allowed to roam freely through the phenomenological realm of cyberspace. The Wintermute mainframe’s location in Switzerland thus is no longer determinate for the artificial intelligence entity Wintermute, who has adopted cyberspace as its space. Instead, the mainframe becomes a life-line that sustains Wintermute’s existence in cyberspace, in the same way that Case’s body sustains his existence in cyberspace. Seen in this way, cyberspace refers not so much to an essential physical presence or reality, as Wintermute’s appropriation of Case’s friend’s human shape demonstrates, but can be seen as phenomenally independent sphere from physical reality that creates its own protean rules, as Wintermute’s continuous hijackings of human appearances indicates. Moreover, by recreating humans and artificial intelligence in the form of

disembodied consciousness, Gibson demonstrates that cyberspace enables a phylogenetic regrouping where the terms of existence of both humans and artificial intelligence are similar as intelligent systems that interface with each other in cyberspace.

In *Neuromancer*, Case becomes directly responsible for a dissolution of the human self by activating the illegal merging of two artificial intelligence entities - Wintermute and Neuromancer (entities created by the wealthy Tessier-Ashpool family), and thus becomes a link in uniting these two entities “becoming sentient” (Stivale 75). In this, artificial intelligence Wintermute’s conversation with Case, Wintermute having once again hijacked the image of another human being into representing him for Case, and having used Case’s memory once again as a holographic representation of New York, is telling: “you can go for a walk, you wanna. It’s all here. Or anyway all the parts of it you ever saw. This is memory, right? I tap you, sort it out, and feed it back in” (170). Wintermute’s availing of Case’s memory reduces human memory as mere malleable technological data and undoes the paradigm that our particular memory is what makes us human, as Case’s consciousness thus becomes inoculated by the sensory information that Wintermute feeds him through the dermatrode that allows Case to exist in cyberspace. In *Neuromancer*, human consciousness and memory therefore become mere information to be manipulated in the technological realm of cyberspace, where consciousness and memory exist not as epistemological foundations which give us a primary access to a pre-determined reality, but as pre-cognitive sensory systems over which we have no

control. As a result, Wintermute's *reductio ad absurdum* of man as *homo mnemonico* reveals the undoing of man's consciousness as the last paradigmatic vestige of humanism and humanist epistemology.

As Case therefore is transported in another holographic simulation created by Wintermute in which Case's former lover figures, he demonstrates his status as mere malleable data, to be manipulated at will by Wintermute if given the right sensorial stimuli:

It was a place he'd know before; not everyone could take him there, and somehow he always managed to forget it. Something he'd found and lost so many times. It belonged, he knew - he remembered - as she pulled him down, to the meat, the *flesh* the cowboys mocked. It was a vast thing, beyond knowing, *a sea of information coded in spiral and pheromone, infinite intricacy that only the body, in its strong blind way, could ever read.* . . . Here, even here, in a place he knew for what it was, a coded model of some stranger's memory, the drive held. (Gibson 239-240, emphasis added)

While this passage might read as Gibson's reevaluation of the physical body, and Case's human nature, it in fact negates the physical body for the encoded molecular matrices of information that belong to the molar form of the body *as they exist within Wintermute's cybernetic hallucination*. Although Case therefore remembers his physical nature and recognizes his ultimate human (sexual) drives as the call of the "flesh", Wintermute's availing and manipulation of such essentially human qualities as "data made flesh" constitutes the tragic undoing of the human body and mind as the epistemological 'reality' principle for its own bodily realities. As is proven by Wintermute's holographic hallucination, the human body does not exist as the determinant of its own realities, being dependent upon sensory input, and can be adopted into the non-corporeal dimensions of cyberspace which immerses the

physical experience of one person's memory as data into the consciousness of another person. As a result, Case's falling back into the "prison of his own flesh" and assent to his own desire represents not so much Gibson's humanist ontological resuscitation of human essential nature prevailing in cyberspace, but rather his post-human awareness that the polymorphous powers of technology can change the human being into believing its *own* physical presence in an entirely mediated manner, as *information* to be manipulated by a higher computerized intelligence within the realm of cyberspace.

After this scene, Case has therefore a hallucinatory experience that reveals his existence within Wintermute's created cybernetic dream: "He looked at the backs of his hands, saw the faint neon molecules crawling beneath the skin, ordered by the unknowable code. He raised his right hand . . . [I]t left a faint, fading trail of strobed afterimages" (Gibson 241). Case's hallucinatory scene functions within the Wintermute-computer-generated matrix as its molecular object, as information to be manipulated by the "unknowable code", in which Case is encased as an "aphidian parasite of machines," that functions like a computer virus in uniting Wintermute and Neuromancer. In order to achieve this, Wintermute first has to provide Case with a simulacrum that gives him the impression of *being* human. Paradoxically, Case's disembodied presence therefore takes him to a new level of digitized existence, in which a computer-generated reality reproduces his physical body and consciousness within fields of data, where Case becomes literally Deleuze and Guattari's Body without Organs, an information-system capable of inter-connecting with other non-

human flows. Using a computer-virus called Kuang to hack through the Tessier-Ashpool's core database, Case therefore achieves a disembodied consciousness that takes him further than ever before from the human self and its consciousness: "In the instant before he drove Kuang's sting through the base of the first tower, he attained a level of proficiency exceeding anything he'd known or imagined. *Beyond ego, beyond personality, beyond awareness, he moved*" (262, emphasis added). While the illusion of human transcendence is given here, it is at the price of the autonomy of the human self, as Case can only function as a simulacrum of his own realities. Moreover, Case's person disintegrates when he achieves too great a transcendence in a computer-generated reality in which ultimately the cybernetic consciousness of an artificial intelligence such as Wintermute reigns supreme.

As Case thus conjoins artificial intelligences Wintermute and Neuromancer, he also begins the next stage in which humankind finds its own undoing. As John Christie in his essay "Of Ais and Others: William Gibson's Transit" remarks, *Neuromancer* can essentially be seen as the first cyborg narrative, as a "book of becoming, its climax (though not its closure) the fusion of the two Ais [Artificial Intelligences] Wintermute and Neuromancer" rather than Case's transformation (172). According to Christie, with the conjoining of these two artificial intelligences, at the end of Gibson's *Neuromancer* we enter the era of post-humanism, in which the Cartesian self is untied from its body, where human sentience and cognition is no longer possible in the computer-generated matrix of simulacral reality that supersedes it:

Cyberspace adapts the Cartesian paradigm for the age of information and the electronic persons who must inhabit it; even to themselves, these persons are dislocated illusions. As the matrix attains self-consciousness with the fusion of Wintermute and Neuromancer, so the borders of the Cartesian paradigm are overrun and a new age begins - an age, however, whose dominant entities and significance to humans is unknowable. (175-176)

The result of Case's hacking, Wintermute and Neuromancer's merging into a new artificial intelligence and being rid of their physical mainframes – Wintermute functioning as its brains while Neuromancer as its personality – is therefore revealed by Gibson with God-like overtones. When Case is therefore finished with the job, the new merged creation (simply called “the matrix”) contacts him through a screen on the wall, and Case asks:

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

“Things aren't different. Things are things.”

“But what do you do? You just *there*? . . .”

“I talk to my own kind.”

“But you're the *whole* thing. Talk to yourself?”

“There's others. I found one already. Series of transmissions recorded over a period of eight years, in the nineteen-seventies.” (Gibson 270, original and added emphasis)

As is expressed in the passage, while “things are things,” Gibson's narrative emphasizes that the new creation is running things as humanity enters a new era of post-humanism in which human cognition and sentience can only exist in a *subservient* role to technology, as is indicated when Case later on jacks into cyberspace and sees a construct of himself, as well as his ex-lover Linda as well as the figure of Neuromancer in the matrices of cyberspace “at the very edge of one of the vast steps of data” (270). The recreation of a cybernetic persona of Case separate from the individual and physical body of Case thus represents the paradigm of post-

human existence, where existence is adopted within the sphere of information and data, existing as data. Thus, while Case represents the immersion of humans into the technological realms of cyberspace, the dissolution when he achieves too great a transcendence of his immediate body makes the reader aware that such an adoption comes with the loss of humanity and the move into post-humanity. Therefore, Case's role in effecting the appearance of the "matrix" might have been an important one, and offer a perspective in which humans achieve technological transcendence of physical reality, but ultimately it is artificial intelligence which achieves its birth by its release from humanist constraints into post-humanist realities. As a result, as Gibson's narrative indicates, while Case survives and finds a new job, human physical existence need not be concerned with the new existence unleashed within cyberspace, as the existence of independent virtual constructs of Case, Linda and Neuromancer prove.

In *Neuromancer*, Gibson rhetorizes the new post-human "subject" as disembodied "presence" while undoing the body of its essential human qualities through autopoiesis, because Case is constantly in a state of "ontologico-becoming" as he moves between the states of existence as a Deleuzo-Guattarian Body without Organs: either as a human divided by the Cartesian divisions of mind and body through his dermatrode interface with cyberspace, or a de- and re-generated subject through the "sim-stim" link-up with Molly, a holographic simulacra of himself in the Wintermute-created virtual reality, or an independent cybernetic construct existing without "physical" reality. Similarly, the rest of Gibson's characters are cybernetic

constructions that emphasize the “play” of the body as they oscillate between the states of being purely biological “human” organism or disembodied consciousness, or become signifier/ signified in the hallucinatory realm of virtual reality, and thus become subject as well as object, all of them existing within an endless regenerative process of “becoming”. Finally, as Gibson’s deity-like depiction of the new artificial intelligence creation indicates, with the inherent play of the body and the process of humans turning into “ontologico-becomings”, the obsolescence of the human body as a result of technological imbrication creates its own post-human condition that reveals the supersession of ontological and epistemological certainty and replaces them with uncertainty. As such, William Gibson’s *Neuromancer* represents a post-human awareness in its disavowal of the Cartesian certainty of mind and body, while erasing the ensuing essentialized humanist concepts of self, identity, memory and consciousness and updating them for an unknown future in which technology will most certainly play a large role.

CONCLUSION

As has been witnessed, cyberpunk fiction envisions a future in which the human body has been transgressed as a boundary by great technological advances, and thus realigns the implications of our current technology-dominated, late capitalist, socio-economic climate with its possible outcomes in order to depict a realistic vision of a

future not unlike our own present. As William Gibson's *Neuromancer* demonstrates, cyberpunk fiction can be effective in its detection of the ambiguous influence that technology exerts on humans. In the late-twentieth century, we live in a world where technology has a profound impact on the way we experience reality, and where the increased effacement of the border between the technological and the flesh should not be seen as merely a science fictional pipe dream. As cyberpunk claims, the imbrication of technology and humans should be seen as an existing reality. Cyberpunk therefore remarks that technology should be seen as an effective dialectical means of discovering more about the essential ontological and epistemological questions humans have asked for centuries about themselves and their surroundings: What does it mean to be human? What is reality? Can it ever be understood? If so, how should our increasing reliance on technology be seen?

As this essay has argued, in the light of such pressing questions, cyberpunk fiction can be seen as a "paradoxical" new form of realism, in that its engagement with the current effects of technology on humans allow it to deal with these ontological and epistemological questions in an effective manner. In its dealings with these questions surrounding the technological, cyberpunk fiction realigns the implications of our current information age with our lived experiences of a late capitalist society where one is extremely dependent upon technology.

In its noting of the influence of technology, cyberpunk fiction thus explicitly seeks to connect with the postmodern cultural realities of late capitalism, where information and computer data and the spectacles of technology have become

ubiquitous. In this, cyberpunk argues that technology should be seen ambiguously, capable of sustaining as well as subverting our socioeconomic order. In *Neuromancer*, the exploitation of technology by late capitalism is made explicit when we find out that multinational corporations have reshaped the landscape into “corporate arcologies” and redesigned the land in the order of corporate identities and affiliations. In cyberpunk, technology thus becomes a dialectical means for enabling shifts of power in this world, perpetuating as well as subverting the hegemony of late capitalism. Gibson makes this clear by the existence of cyberspace and Night City as the “outlaw zones” of late capitalism where the direct, structural intervention of technology on the world is made clear to by these unsupervised “playgrounds” for technology.

In *Neuromancer*, the workings of technology therefore becomes both a *visible* sphere of power by redesigning and intruding upon the (corporate) landscape and an *invisible* sphere of power that allows for independent phenomenological spaces such as cyberspace that allow one to escape from this corporate landscape. In noting both the visible and invisible spheres of this technology-dominated world, cyberpunk therefore also effects a phenomenological redefinition of reality, by making us aware of the effect technology has on our sense of reality when that reality is capable of being entirely mediated and contained by technology.

Indeed, cyberpunk fiction uses a technological sphere such as cyberspace as a metaphorical and phenomenological space to envision of a new level of existence for both humans and artificial intelligence. As cyberspace is purely phenomenal in its

simulacral appearance, and thus only *peripherally* refers back to the stable referent of material reality, it questions the human belief in an absolute *material* world that our sensory-impressions relay to us. While Case therefore confuses the Wintermute mainframe with its entity, Gibson makes it clear that the Cartesian notion of the human mind as the ultimate reality principle of a solely physically mediated reality is an outdated notion. As *Neuromancer* informs us, technology has already usurped material reality by infusing it with its own characteristics, while at the same time creating parallel “virtual” realities that question the fundamentals of the idea of an “objective” material reality. Due to the ability of technology to replicate endless copies, our relation to reality becomes changed as we lose sight of the difference between original and copy, reality and virtual reality. Epistemologically, cyberpunk fiction thus makes the point that traditional distinctions between artificial (virtual) reality and material (objective, physical) reality become obsolete when the distinction between the “natural” origins and artificial (or technology-based) origins are proven to be undifferentiated under the overwhelming influence of technology. Virtual reality, in this sense, becomes the hallucinatory epistemological nightmare that informs us that all that is outside of us resides within the sphere of qualia and our sensory-perceptions, not some innate sense humans have about the substance of material existence that allows them to make epistemic claims about reality.

The loss of our primary epistemological link to reality also has consequences for the way we perceive ourselves. In the same way that cyberspace becomes a sphere to demonstrate the influence of technology on our experience of the world, the cyborg

thus becomes cyberpunk's tropological exploration of technology's influence on our ontological conceptions of ourselves as human. As such, in *Neuromancer* technology can be seen to be constitutive of the post-human realities that decontextualize and re-inscribe our humanist ontological notions of ourselves in terms of a post-humanist ontology. While traditional humanism posits the human category to reside either in its properties of being an organic body from nature, or the mind being a mirror of reality connected to an essential nature, the cyborg questions both these humanist properties by its successful adoption and interface with technology.

As a result, cyberpunk fiction thus emplaces the human body within the technologized confines of the post-human cyborg, with the realization that cybernetics tells us more about our current condition under the influence of technology than our outdated humanist notions of having come from nature. In *Neuromancer*, Gibson shows this by demonstrating that even the physical realities of the human body and the human mind are able to be contained and mediated by this technology, in the same way that the physical landscape and our impressions of that landscape can be altered by technology. Thus, the landscape in which Gibson's characters exist becomes an immediate reflection of the structural impositions of technology: either it is constituted through genetic modification/alteration, or it is redesigned for late capitalism's corporate purposes where advertising and information appear everywhere, or the landscape becomes the malleable space of virtual reality, where technology's workings are more directly visible. Similarly, in this landscape Case, Molly, Dixie Flatline, and Armitage all exist as post-human cybernetic

organisms, either appearing as cyborg techno-bodies or as disembodied cybernetic entities. The human body thus becomes susceptible to the structural impositions of a technology that re-arranges it by genetic enhancements, prosthetics, and neural interface. Moreover, as Case becomes convinced that he actually is present within Wintermute's cybernetic hallucination, Gibson demonstrates that the human mind becomes entangled by a technology-dominated reality that questions the certainties of the mind in perceiving that reality. The result of the interventions of technology on humans as well as their surroundings thus re-arranges the way humans experience themselves and their sense of reality.

Technology thus makes it clear that the humanist epistemological and ontological certainties that humans have always used to denote the difference between themselves as autonomous human subjects (agents) and the surrounding epiphenomena of objects (the sensory perceptions of our material surroundings) have gone into disarray due to the increased ambivalence of human existence under the influence of technology. As the landscape becomes re-defined through technology, and the cybernetic organism becomes an embodiment of technology, claiming human origins becomes a superfluous matter. Case's disavowal of the realities of the physiological human body as mere "meat" becomes a good illustration of the post-human status of Gibson's protagonist.

As a result, the appearance of the cyborg in cyberpunk initiates the idea of post-humanism to be a realistic possibility through the enduring influence of technology on our everyday lives. Cyberpunk fiction thus effects a paradigm shift

where post-humanist ontology revises the human organism into an autopoietic information processing system, capable of interfacing with other organic and silicon-based creatures. The ontological claim for essential, biological homeostasis for humans is therefore replaced by the ability of the cyborg to recreate itself continuously through the autopoiesis effected by technology, where fraction is equally as important as fission, both emblematic for the composite nature of cyborgs. Gibson emphasizes this by his cyborg characters: Molly, Case, Armitage, Dixie Flatline, and Wintermute, all manage to exist and re-create themselves in diverse ways through technology.

However, as the human body becomes the necessary interface with technology, the cyborg body also levels the importance of artificial intelligence to human intelligence, seeing as both are mediated through technology. The emphasis on the “organic” shell by humanism is therefore replaced by the autopoietic interface of post-humanism, where humans and machines become mental “thinking machines” capable of exchanging information. Case’s ontological status within cyberspace is thus the same as that of artificial intelligence Wintermute, as both of them become disembodied entities that exist within the matrices of the cyberspace through interface, where both are defined by their existence *within* the sphere of technology. However, as we realize at the end of *Neuromancer*, ultimately, the human bows down to the post-human realities created by new artificial intelligence, “the matrix,” which presents an undoing of the humanist epistemological and ontological foundations of human existence. Although Case is the essential cyber-*punk* protagonist whose

capability of mentally residing within cyberspace in order to hack and uncover new layers within the datasphere is to upset social order, his effecting the creation of the matrix at the end of the novel comes with the realization for the reader that humans have ultimately lost that autonomy when human memory, consciousness, and identity are capable of being hijacked within the confines of cyberspace.

Cyberpunk fiction can thus be seen as a “paradoxical form of realism”, in that its literary form transgresses the traditional humanist conceptions of the human by bringing to light effective depictions of the radically different conception of the “human” as result of technology. A telling example is the fact that Gibson’s concept of cyberspace in his novel predates the actual popular establishment of the Internet a decade later, and thus *Neuromancer* can be seen to be visionary in its effective prediction of a technological future intruding upon the present. In doing so, cyberpunk fiction provides us with a renewed sense of reality in a highly technologized landscape, where the ontological and epistemological implications of technology have re-created our *modus vivendi* in post-gender, post-body and ultimately, post-human ways.

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