

## Jeffrey A. Weinstock Virus Culture

The observation that "laughter is contagious" is a familiar one. However, currently on Route 66 in Virginia, commuters are advised by an illuminated road-side placard that "Safe driving is contagious." A recent television advertisement for a computer game encapsulated its product with the slogan, "Its not just a game, its an infection." Wolfgang Peterson's 1995 movie *Outbreak* begins with the dramatic assertion, from the suitably scientific and imposing "Joshua Lederberg, Ph.D., Nobel Laureate," that "The single biggest threat to man's continued domination of the planet is the virus." Miko D. Grmek, in his text *History of AIDS*, characterizes AIDS as the preeminent metaphor "express[ing] our era" (xii). The following warning has circulated repeatedly across computer bulletin boards and discussion groups throughout the world and will be familiar to most e-mail users:

There is a virus being sent by E-mail. If you get anything called "Good Times", DON'T read it or download it. It is a virus that will erase your hard drive. Forward this to all your friends. It may help them a lot.

That the "Good Times" virus is a myth, an urban legend, is significant. It makes especially evident what the rest of this essay will explore in detail: the ways in which "virus paranoia," fear of infection, operates as a contemporary cultural paradigm governing our ways of thinking about the world and interacting with others.

*Fin de siecle* American society is a "Virus Culture"--a landscape obsessed with the fear of contagion, infected with "infection paranoia." The present era is the era both of AIDS and of the computer virus--two phenomena which came to the fore of national consciousness at almost the exact same cultural moment and which are figured in identical terms--an identification resulting in the subsumption and problematic conflation of the mechanical and biological under the larger generic term *Virus*. This conflation is problematic, I argue, not because virus rhetoric collapses the distinction between body and machine, painting each in terms of the other, but rather because virus rhetoric attempts to efface the lived-reality of affected human beings. The omnipresence of "the virus" creates a generalized anxiety--infection paranoia--which manifests itself in the restigmatization of individuals living with and fighting against life-threatening conditions. When fear of viruses becomes a dominant cultural paradigm, the emergence of specific viruses creates panic, such that not only the viruses, but those affected, must be suppressed.

### INFECTING THE BLOOD: AIDS

As virtually every article addressing the social conditions and ramifications of the AIDS epidemic observes, AIDS has always carried with it the stigma of social ostracism. Christopher C. Taylor notes:

AIDS as "illness" incorporates judgments about its meaning for sufferers and society. . . . [M]any Americans fear and detest AIDS more for its perceived association with a "debauched" life-style, most notably, homosexuality and intravenous drug use, than for any direct health threat to themselves. The moral judgments leveled against gay men and IV drug users by certain segments of the American population have become part of the AIDS as "illness," part of AIDS as a "social construct." (55)

Along with the segregation and marginalization of "high-risk groups" is the implication of blame and personal responsibility. At its most virulent are the accusations noted by Edward Albert that gays, drug users, prostitutes, and others, are justifiable objects of the "righteous punishment of God for sinful behavior" (173). Many of the inflammatory statements have been issued by prominent public figures. Columnist Patrick Buchanan, formerly director of White House communications, commented in 1983, "The poor homosexuals--they have declared war upon nature, and now nature is exacting an awful retribution" (qtd. in Shilts 311). "Moral Majority" leader Jerry Falwell echoed these sentiments with the observation that "When you violate moral, health, and hygiene laws, you reap the whirlwind. You cannot shake your fist in God's face and get by with it" (qtd. in Shilts 347). AIDS as "gay plague" is thus interpreted as divine judgment visited upon the heads of sinners. (Although, as Kenneth Mackinnon wryly observes, why God is so well-disposed towards lesbians remains a mystery [154].)

The notion of preordination, of selective infection, as Judith Williamson observes, is echoed in the grammatical constructions most journalists use to describe AIDS, in which the disorder "claims" its "victims." To quote Williamson, "[AIDS] claims, chooses, rages, kills, with all the senseless yet directed energy of a mad axe-murderer: meanwhile those infected with HIV become peculiarly *de*-animated, 'victims' waiting to be 'claimed'" (74). What is implied is that the virus itself manifests intentionality, selectively infecting the "guilty."

The notion of guilt reinvokes the related concept of responsibility. Nelkin, Willis, and Parris consider that "Labeling AIDS as a disease of certain groups becomes a way to focus blame, to isolate the sources of contamination and contagion, and to deny vulnerability and responsibility to the wider population" (5). McCombie adds that

In many societies, epidemics are viewed as unnatural events brought on by various taboo violations. Even in modern Western cultures, victim blaming and viewing disease as punishment from God are frequent. Throughout history, disease has often been blamed on "outsiders," as defined by race, ethnicity, religion, or nationality. In Western cultural concepts, disease is considered unnatural, and the genesis of disease is best placed as far from "people like us" as possible. (15)

One notes, following McCombie's observation, both the controversial narrative locating the source of AIDS not only in Africa but in monkeys, and the restrictions barring HIV infected persons from entering the country.

AIDS, as epidemic, bears the double stigma of being transmitted sexually and being associated with sexual "perversion." Susan Sontag explains that "The sexual transmission of this illness, considered by most people to be a calamity one brings on oneself, is judged more harshly than other means--especially since AIDS is understood as a disease not only of sexual excess but of perversity" (26). Michael Quam adds that "In talking with Americans about AIDS, one is frequently struck by a tone of satisfaction underlying the expression of fear. They seem to be saying that finally something undeniably awful has occurred that makes clear the dangers of self-indulgence" (41). AIDS has thus been cast in the role as intentional entity, the wrath of God, an affliction of marginal groups. The sanitized rhetoric of acronyms and grammatical constructions that characterize the virus as intentionally choosing certain "victims" also functions as a repressive measure to quell infection paranoia. This being the case, what then explains the "spread" of infection paranoia to the general populace? Beneath the fierce rhetoric of distancing and condemnation is the fearful knowledge that the barriers are constructed and permeable.

Albert writes that "Underlying and fueling the stigmatization of AIDS risk groups is the fear that the social distinctions that protect will be breached, leaving the general population open to the onslaught of fatal infections that AIDS permits" (172). Judith Williamson adds that "what seems to be particularly threatening about AIDS is that it is linked to the *breakdown* of boundaries. The virus threatens to cross over that border between Other and Self: the threat it poses is not only one of disease but one of dissolution, the contamination of categories" (78). The virus *spreads*, as the *Newsweek* article "The AIDS Epidemic: The Search for a Cure" noted in 1983, "creeping out of well-defined epidemiological confines" (74).

In a 1983 meeting of the nation's mayors, Margaret Heckler, the United States Secretary of Health and Human Services, stated that the discovery of the cause and cure of AIDS was the government's number-one health priority. In the same speech, Heckler noted that the disease has two names: one being AIDS, the other being *Fear*. In June of the same year, television news anchorman David Brinkley reported to ABC's *World News Tonight* audience that

The terrible new disease, AIDS, first seen among homosexuals, drug users, Haitians, and hemophiliacs, is now appearing among people who are none of these. A study in the *New England Journal of Medicine* says apparently the disease can be spread by contact between heterosexuals--and there's no cure in sight. (qtd. in Kinsella 122)

Heckler and Brinkley's statements encapsulate the then-fulminating AIDS contagion hysteria, which was to reach full force with the July 1985 *Life Magazine* cover: "No One is Safe From AIDS." As Peter L. Callero and his colleagues note, "Although the actual physical symptoms of the disease may touch a relatively small percentage of the population, the psychological effects of fear are far reaching and potentially limitless" (227).

Sontag writes that "Infectious diseases to which sexual fault is attached always inspire fears of easy contagion and bizarre fantasies of transmission by nonvenereal means in public places" (27). Merle Sande further

elaborates on this theme, writing,

The belief that the AIDS virus can be transmitted by casual contact has produced numerous political, legal and ethical dilemmas. Responses have been varied, including calls for quarantine, mass screening of all potentially infected persons, expulsion from military service of all antibody positive personnel, and exclusion of infected children from schools. In some cases refusal to care for AIDS patients has been condoned. (380)

One could expand on this point indefinitely, noting various horrific cases of intimidation and violence directed at persons with AIDS (PWAs), the public's still-manifest fear of *donating* blood, the manner in which the press has contributed to false notions concerning the infectiousness of AIDS. However, my point here is simply to draw attention to the phenomenon of infection paranoia--to make a case for a generalized fear of infection suffusing American society, to characterize *Virus Culture*. AIDS, the "dread disease" that exploded onto the stage of American culture just about twelve years ago, has been internalized into the American unconscious. Various strategies have been employed to deal with the anxiety presented by the threat of infection by AIDS--language has been sanitized, groups have been marginalized. However, beneath all the various semantic debates which attempt to contain the disorder lurks the recognition of the virus's potential to transgress boundaries, to spread beyond the confines established for it, to subvert containment strategies. We live with this knowledge every day and, while the end-of-the-world rhetoric surrounding the epidemic (e.g. Gould's characterization of AIDS as ranking with nuclear weaponry as the greatest danger of our era [86]) has subsided somewhat, the internalized anxiety about infection surfaces repeatedly in cultural phenomena such as *Philadelphia* and *Angels in America*, which explicitly address the AIDS crisis, as well as in more sensationalist and problematic movies such as *Outbreak* and *12 Monkeys*, and the popular television series *The X-Files*, which play on and reinforce infection paranoia. Infection paranoia also surfaces in other cultural fads, like the "resurrection" of the vampire as cultural icon.

Briefly focusing on this latter manifestation, it should be noted that the visitation by the vampire involves intimate physical penetration--usually a bite on the neck during which bodily fluids are drained or exchanged. In the recent cinematic and written depictions of Francis Ford Coppola and Anne Rice, the vampire has become a sex symbol: young, attractive, *virile*. One merely need consider the cast-list to the 1994 movie version of Anne Rice's *Interview with the Vampire* to observe the heightened sexuality of the vampire: Tom Cruise as the vampire Lestat, Brad Pitt as the vampire Louis, Stephen Rae as the vampire Armand, and Christian Slater as another potential vampire at the end of the movie--a veritable Who's Who of male sex symbols. Equally in Coppola's *Bram Stoker's Dracula* (1992), the fiendish Count of Stoker's text is recast in the form of Gary Oldman, Christlike, luxuriantly longhaired, beautiful of body. Vampirism in both these modern cinematic adaptations of the vampire myth becomes a "disease" afflicting young beautiful males. And, even more significantly, vampirism is portrayed as a deadly "infection" that spreads via sexually-charged penetration of the body and the exchange of bodily fluids.

Coppola's *Bram Stoker's Dracula*, while contained within a rigidly heterosexual framework--the Count feeds upon only young attractive women--is suffused with images of blood and infection. The movie opens with a literal flood of blood: Count Dracula, whose bride has thrown herself from the battlements, forsakes God and plunges his sword into a crucifix above his chapel altar. The crucifix begins to bleed and as blood washes over everything, Dracula, in a bastardized religious sequence, drinks of this blood--this is presumably the source of his contamination. His renouncement of God, of Christianity, is accompanied by a defiant consumption of blood in a literalized communion sequence and the Count dies and is reborn as "the living dead." Dracula, as a result of his rejection of Christianity, is polluted by his ingestion of blood. The parallel with the "curse-of-God" rhetoric directed at PWAs is obvious and the juxtaposition of the PWA with the pestilential "undead" is especially disturbing.

In the Coppola reworking of the vampire tale, vampirism as infection of blood is explicitly foregrounded. In one of the more obvious departures from Stoker's text and a clear-cut reference to AIDS, the eccentric "philosopher-metaphysician" Van Helsing, played by Anthony Hopkins, lectures to a group of young medical students about venereal diseases, about, as he puts it, "diseases of the blood unknown to science," and their ramifications as the "ethics and ideals of Christian civilization are concerned." Van Helsing's lecture opens with a view of blood corpuscles as seen under a microscope, an image that is repeated several times throughout the film, most prominently at the moment during a seduction scene when bubbles in absinthe transform into corpuscles floating in a liquid medium.

The Van Helsing sequence consciously connects infection of blood, sexual activity, and vampirism, and, indeed, in the Coppola revision, the vampire Count is everywhere associated with frenzied, animalistic, "deviant"

sexuality. Dracula's alluring and topless brides ravish Jonathan Harker on a bed of satin, kissing, biting, and sucking his body in a sequence with obvious orgiastic and lesbian overtones. The Count's first victim, Lucy, usually dressed in vibrant red, is a shameless flirt and virtual nymphomaniac. In a dreamlike sequence, she is raped in the garden by the Count, who appears in the form of a wolf/ape monstrosity (suggesting yet another recent horror movie predicated upon infection of blood--the werewolf adaption *Wolf*, starring Jack Nicholson). Lucy's subsequent lust for blood is paralleled with a heightened sexual appetite--as the infection sets in, she writhes upon her sheets, bares her breasts, and begins to caress herself, much to the dismay (and excitement) of the concerned male spectators.

What becomes obvious in the Coppola reworking of the Stoker story is an emphasis on the theme of infection by blood as the result of "deviant" sexuality. The vampire, still accursed by God, still the pariah, but now young and handsome instead of old and repugnant, infects his victims through a sexualized exchange of bodily fluids. These same revisions are apparent in the works of Anne Rice, but with an even more pronounced homoeroticism and a noticeable absence of religious condemnation. In Coppola's *Dracula*, as in the recent AIDS movie *Philadelphia*, although the audience is allowed, indeed encouraged, to feel a certain amount of sympathy for the "sick" individual, ultimately, the infected entity must be expunged from the system before he can be embraced by the populace. That is to say, the full humanity of the Count or of the AIDS "victim" can only be realized after the dissolution of the entity, after the fear of contagion is relieved.

The current vampire fad can be seen to arise out of Virus Culture, out of a culture which has incorporated the threat of infection into its collective unconscious. Movies like *Bram Stoker's Dracula* and *Interview With the Vampire* both reflect and reinforce the pervasive fear of contamination by blood and, by equating infection with monstrosity, contribute to the marginalization of and direction of blame toward stigmatized groups.

#### INFECTING THE PROGRAM: COMPUTER VIRUSES

The medical rhetoric of the virus as code, as that which infects the human subject by effecting an alteration in the cell's DNA, foregrounds the body as decentralized information system, as a postmodern, coded text. Donna Haraway observes that "By the 1980s, the immune system is unambiguously a postmodern object" (207). Haraway suggests that as "a coded text, organized as an engineered communications system, ordered by a fluid and dispersed command-control-intelligence network[,] . . . the body ceases to be a stable spatial map of normalized functions and instead emerges as a highly mobile field of strategic differences" (211). Haraway's now-familiar postmodern subject, the "cyborg," the fusion of human and machine, is actualized in scientific discourse on the molecular level, where distinctions between machine and human do indeed collapse. On the molecular level, the body is conceived of as "programmed" by "written" codes: DNA and the various RNAs. The virus is that which effects a detrimental change in the code. Milo D. Grmek elaborates,

Most phages and pathogenic viruses are made up of protein and a long nucleic acid molecule. This molecule is a biological *program* that in some cases may be inserted into the chromosomal material of the infected cell. When it has been so inserted, the viral genes act like the genetic material of the host (51; my emphasis).

As Cindy Patton observes, "The [AIDS] virus is itself overlayed with communications language--messenger RNA, codes, evasion, changing its surface, transcription, long terminal repeats" (26). From the level of the consideration of the body as machine, programmed and coded, the jump to the application of biological viral rhetoric to computer malfunctions is a small one--a conflation neatly illustrated by the cover to Jan Hruska's *Computer Viruses and Anti-Virus Warfare*, which features bio-molecular viral structures creeping across the plane of a stylized computer chip.

Both AIDS and computer viruses came to the fore of national attention in the mid-1980s. E. L. Leiss dates a general awareness of computer viruses within the computer community from 1983 (iii). This is the same year that *Newsweek* featured AIDS as its cover story, that Buchanan published his vitriolic diatribe about the "gay plague," and that Assistant Secretary of Health Edward Brandt labeled the AIDS epidemic the nation's "No. 1 health priority," an announcement that translated, as Kinsella noted, into the first time the *New York Times* gave AIDS front-page treatment (262-63). E. L. Leiss goes on to observe that the threat of computer viruses has stimulated within the constantly expanding computer community, "a great deal of fear and loathing and a distinct feeling of defenselessness" (iii), an observation that could also quite easily be applied to the presence of AIDS within American culture in general and its gay sub-cultures more specifically.

However, the conflation of bodily virus and computer malfunction is most evident in the difficulty of discussing the latter in other than biological terms. A computer virus is a piece of code, usually embedded in some piece

of software, that is activated when a certain condition, such as running the software or performing a certain operation, is met. The "insidious" factors of the computer virus are its abilities to self-replicate, to subvert a computer system in some way, and to transmit copies of itself to other hardware/software systems. Each of the copies may in turn self-replicate and affect other systems. Equally insidious is the fact that the virus becomes activated only when certain conditions are met--when certain commands are executed by the computer operator. Therefore, as Leiss elaborates, the virus may seemingly lie dormant while it is in fact present and able to affect other systems (32).

The analogy of the computer virus with a biological virus is obvious: just like a biological virus, the computer virus is a piece of code that infiltrates and infects, possesses the ability seemingly to lie dormant, self-replicates and spreads. What is significant, however, is that it is not possible to specify exactly which way the analogy works--is it the biological virus that is being figured in computer jargon, as an event of coding? Or is it the computer virus that is being figured in biological terms, as contagious, as infecting a body? The public tendency, I suggest, is to consider the application of the term *virus* to computers as a catachresis, as the extension of a prior biological category to a new phenomenon for which there is no other descriptive term. However, the virus as a piece of code is equally applicable to both human and machine. In neither case is it a wholly metaphorical application. This is why it is so difficult to figure the computer virus in other than biological terms: in contemporary culture, the body is technologized, the body *is* a machine. Thus, the rhetoric of one domain cannot be divorced from the other. Computer viruses and human viruses are reduced to the same thing.

This may seem a dangerous assertion to make because it explicitly collapses the human/machine binary opposition (fearful to many in and of itself), and, in doing so, may seem insensitive to the plight of those currently living with AIDS and other biological viruses. And yet the equation of computer viruses and biological viruses, specifically AIDS, has been occurring within the American public since both become public issues. Sontag notes,

The virus that destroyed a considerable amount of data at the student computer center at Lehigh University in Bethlehem, Pennsylvania, in 1987, was given the name PC AIDS. In France, computer specialists already speak of the problem of *le sida informatique* . . . reinforc[ing] the sense of the omnipresence of AIDS. (70)

Leiss divides his text on viruses into sections entitled, "The Illness," "Diagnosis," "Prevention and Cures," and "Basic Hygiene." In many texts addressing computer viruses, the computer virus is explicitly described in terms of a sexually transmitted disease, as something which came to the fore as the result of increased and "less personal computer relationships," as the result of what Leiss characterizes as "wide spread networking" (10).

However, as Leiss and others lecture, the risk of infection can be minimized by taking certain precautions, employing certain "prophylactic" measures. These authors have embarked upon an educational campaign, noting with Fites that, "Once you are aware, your chances of being exposed, or, if exposed, infected, is less" (xv). Behind this educational process is the attempt to quell infection paranoia. For instance, in their chapter, "How Does A Virus Spread?" Philip Fites and his colleagues refute ideas of casual transmission, pointing out that "A computer virus does *not* spread through the air. You can't get it by shaking hands, or touching a doorknob, or by having someone next to you sneeze. A computer virus must be *put* into your computer by you or someone else" (8). The resemblance of this statement to the language used by grade school primers about sexually transmitted diseases and pregnancy is obvious. Less obvious is the implication that there are indeed non-computer viruses that can be contracted through the air or from doorknobs--a dangerous implication considering the obvious correlation of computer viruses with STDs, specifically AIDS. (That biological viruses spread through the air is a critical component of the 1995 movie *Outbreak*, in which--in the only animated sequence in the film--animated "germs" are tracked from their origin in one person's cough in a movie theater through the air and into the body of another person.) Leiss and Fites also advise avoiding certain "high-risk behaviors," such as sharing diskettes. Leiss makes the AIDS analogy even more explicit, (if possible), writing, "In the process, some convenience may have to be sacrificed and some of the free-wheeling ways will have to be replaced by a more structured (i.e., restrictive) approach to producing and using software. This may simply be part of computing's coming of age--*free love versus safe sex*" (26; my emphasis).

The rhetoric employed in the discussion of computer viruses is intimately bound up with the rhetoric of sexually transmitted disease, and the preeminent sexually transmitted disease of the late twentieth century is AIDS. The AIDS-computer-virus link serves to reinforce the omnipresence of AIDS and triggers infection paranoia. Computer virus paranoia is, at least in part, displaced AIDS anxiety. And, as more and more people

utilize computer technology, I suggest that the association also functions in reverse--that the omnipresence of biological viruses triggers conscious or unconscious concern regarding computer viruses.

Of course, what is lacking in the analysis of computer virus paranoia is the moral judgment that accompanies the thought of sexually transmitted diseases and especially those associated with a "deviant" subculture. However, this does not mean that the computer virus phenomenon lacks apocalyptic overtones. In an increasingly computerized and networked world, the threat of the virus that can subvert and disable information systems steadily grows more ominous. As more and more people and businesses go "on-line," the threat of the computer virus will affect more and more people. And, as Leiss observes, computer viruses can have very real physical ramifications:

[M]alfuncting of a certain system due to missing data or programs may result in massive loss of life (e.g., an air traffic control system; a control system for a hydro-electric dam or a nuclear power plant). Equally important, the potential of disruption can conceivably be more paralyzing than the explosion of a small bomb itself. (12)

Fites notes that viruses could be used as methods of extortion (64) and concludes that "we consider *all* viruses outside of research laboratories to be instances of terrorism" (63). Certainly the theme of computer breakdown, of technology gone awry, has surfaced as a prominent contemporary American horror movie nightmare. When the computer goes "down" in *Jurassic Park*, for instance, innocent lives are in danger, and when the hacker Matthew Broderick invades the Department of Defense's computer systems in *War Games*, World War III almost ensues. However, the function of the computer virus as tool for industrial espionage and as threat to military and national security is most vividly embraced by the recent cyberpunk movement within Science Fiction.

## INFECTING CYBERPUNK

While the scope of this essay precludes an in-depth analysis of cyberpunk, the genre, as exemplified by the texts of William Gibson, presents the most perfect depiction of the breakdown of the binary opposition human/machine and vigorously reinforces the omnipresent threat of the virus. The theme of body invasion and the dissolution of bodily limits is central to cyberpunk and is encountered in the forms prosthetic limbs, implanted circuitry, genetic alteration, and brain-computer interfaces. Gibson's world is a world of mutable and fragmented designer bodies, of vat-grown flesh and routine organ transplants. However, cyberpunk culture is most readily realized in Gibson's now-pervasive construction of cyberspace. The "cyberspace matrix," as introduced by Gibson in his best selling novel *Neuromancer*, (which significantly came out in 1984 during the initial period of heightened AIDS paranoia), is conceivable as a radically expanded and enhanced version of the Internet--a virtual space through which one can move in order to access data stored at different sites. However, in Gibson, machine and body literally fuse; the matrix is a "consensual hallucination." Via electrodes placed on the body, one's consciousness is projected into the matrix. Blocks of information are represented within cyberspace as various colored shapes which can be accessed by the appropriate computer commands, executed by the body working the keyboard.

Although nature is continually recast within Gibson's work in terms of technology (witness the famous opening line, "The sky above the port was the color of a television, tuned to a dead channel" [3]), what is worth noting here is the collapse of the distinction between man and machine in the cyberpunk genre (a collapse that works in both directions as AIs (artificial intelligences) begin to approximate humans and human personalities can be preserved on disk after the death of the body in question), and the deployment of viruses as strategic tools to penetrate particular information systems. Istvan Csicsery-Ronay, Jr. observes cyberpunk's breakdown of the distinctions between human and machine and the importance of the virus when he notes the genre's use of "'virus programs' constructed to work against other information systems' 'immune systems'" (190). Indeed, Cyberpunk is to computer viruses what recent vampire representations are to biological viruses: a popular culture instance of infection paranoia contributing to the omnipresence of the virus as invasive and threatening entity.

Within Gibson's construction of cyberspace, data resources are protected by ICE: intrusion countermeasures electronics (28). The cyberspace "cowboy" is the operator adept at circumventing ICE, the "hacker" who designs virus programs (icebreakers) specifically tailored to penetrate the defenses of a particular computational system. The impetus behind the narrative movement of *Neuromancer* is cowboy Case's preparation for and realization of a "run" on "industrial clan" (101) Tessier-Ashpool, S.A. Cyberspace infiltration of Tessier-Ashpool's information archives requires the deployment and manipulation of an ultra-

sophisticated virus, the "Kwang, Mark Eleven," provided by the AI Wintermute.

In Gibson's fiction, the body becomes technologized, continually subject to alteration and manipulation through invasive technology which allows one to resculpt the exterior body and to enhance physical and mental ability through seamless integration with technology--Molly, the "razor girl," has retractable blades implanted under her finger nails and individuals can "slot microsoft," software prosthetics, directly into their heads to accentuate memory and command of a field of knowledge. Veronica Hollinger comments that "We can read cyberpunk as an analysis of the postmodern *identification* of human and machine" (205). At the same time, Gibson's fiction makes equally manifest that the most potent weapon against technologized bodies is the strategic deployment of viruses which disrupt the codes governing the programs. The raid on Tessier-Ashpool with the Mark Eleven virus is only one example of what is understood to be the day-to-day reality of cyberspace cowboys, mercenaries paid to manipulate data through a repertoire of techniques which prominently includes the virus.

The virus in cyberpunk fiction becomes a salient trope, a powerful weapon for espionage and terrorism. However, in the same way that much of Gibson's 1984 vision of cyberspace is being currently realized by science, his propositions about the uses and dangers of computer viruses are also coming to fruition. The computer virus today is a very real phenomenon. And, as evinced in my own life by the number of warnings I have received concerning the ironically named "Good Times" virus, virus paranoia is spreading.

## CONCLUSION

Fear of infection structures our daily existence, whether it is the "disinfectant" program that runs automatically when we turn on our computer or whether we "instinctively" draw back from the blood of a cut on someone's body. The conflation of biological and computer viruses is now a fact. As Leiss observes, "...there is no question that by now the term 'computer virus' or just 'virus' has irrevocably entered into the computer jargon" (32). And it is not a question of trying to disentangle the strands of the biological from the technological or of attempting to impose a different vocabulary. What needs to be done is to explore the ways in which Virus Culture and infection paranoia create an aura of fear obscuring the lived bodily manifestation of biological disorders. The Virus as omnipresent, intangible entity needs to be continually interrogated and grounded in its real world manifestations. The danger is not in forgetting what a virus is, but what it does. As society isolates certain segments of the population, splintering and blaming, society macroscopically recapitulates the action of the infection within the individual body itself. As Sontag observes, "The virus invades the body; the disease (or, in the newer version, the fear of disease) is described as invading the whole society" (66). In both cases, what is achieved is the dissolution of the subject in question. The ways in which virus paranoia constructs Virus Culture resulting in the stigmatization of persons living with life-threatening ailments continually needs to be interrogated and combated.

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