

Of Shit and the Soul: Tropes of Cybernetic Disembodiment in Contemporary Culture

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Indeed, why the concern over the body today if not to emphasize the fact that the (natural) body in the postmodern condition has already disappeared, and what we experience as the body is only a fantastic simulacra of body rhetorics. (Arthur Kroker and Marilouise Kroker, 'Theses on the Disappearing Body in the Hyper-modern Condition', in *Body Invaders: Panic Sex in America*, 1987)

The body is obsolete. (Stelarc, www.stelarc.va.com.au)

One of the most pervasive themes in the fiction and theory of cyberculture of the past few decades has been that the human body is vanishing, irrelevant or, interfaced with the machine, an empty shell robbed of what is variously called spirit, consciousness or identity. The cybernetic era has been represented as a postevolutionary or post-human phase; but how accurate is it to argue that the boundaries of our bodies and inherent 'humanity' have been breached irrevocably because both bodies and machines might be theoretically defined or programmed as information or pattern? While recent theories of postmodern human identity have called into question the continued existence and reproduction of 'natural' human bodies, it is worth reiterating the obvious point that the **[end of page 73]** rhetoric of disembodiment is a theoretical approach primarily defined and practised within the humanities and arts. The construct of the disembodied subject is a literary trope – a product of language and image – as much as it is the result of the abstractions of digital computation or the day-to-day lives of people engaged with technological tools. In cultural theory and popular media since the early 1980s, the cyborg has been a prop for various agendas, an imaginary being that signals utopian or dystopian versions of contemporary human 'spirit' or identity. The illogical premise of the body's disappearance or irrelevance due to our post-modern 'technological condition' was made plausible, however, only by invoking traditional western literary

constructs of human spirit in religion and philosophy. The rhetoric of disembodied cyborgs, then, seems to reflect not so much a postmodern condition as a discursive tradition in popular literature, art and academic theory.

That physical embodiment and presence are eliminated and that individual identity, self or 'spirit' will be irrevocably changed due to the union of technology with the body were views that became increasingly prominent in popular media and cultural studies as we approached the end of the 20th century. This pervasiveness was reflected by the popularity of the film *The Matrix* (1999), which drew upon both biblical allusions and the theories of Jean Baudrillard to explore the obsolescence and virtualization of humans enslaved by machines.¹ Theories of the loss of selfhood and elimination of the 'real' or 'natural' body due to electronic media have been a long-standing tradition in academic studies: 'The violence that all electric media inflict on their users', Marshall McLuhan wrote a quarter of a century ago, 'is that they are instantly invaded and deprived of their physical bodies and are merged in a network of extensions of their own nervous systems' (1976: 9). Advancing such speculations on the loss of individual identity and 'elimination of the physical bodies of the electric media users' (McLuhan, 1976: 9), Baudrillard wrote in 1983 of the 'ecstasy' of communication, that is, of the individual consciousness vacating the body once 'behavior is crystallized on certain screens and operational terminals' (1983: 128). What is left of our body, he wrote, appears 'deserted and condemned.... simply superfluous, basically useless in its extension, in the multiplicity and complexity of its organs, its tissues and functions' (1983: 129). In the early 1990s, Arthur Kroker and Michael Weinstein pushed the metaphor further, claiming that through a 'will to virtuality' in the computer network 'the body becomes a passive archive to be processed, entertained, and stockpiled.... [and] human intelligence is reduced to a circulating medium of cybernetic exchange' (1994: 6). 'Human flesh no longer exists, except as an incept of the wireless world', they wrote (1994: 18). Networked communications speak the 'digital language of the world's first post-flesh **[end of page 74]** body.... energized by the telematic dream of instantly disposable cybersex machines, and reduced in its bodily movements to a twitching finger (on the cyber-dial)' (1994: 19–20). The human form thus becomes an 'electronic body ... obsessed with its own disappearance' (1994: 20). Kroker later characterized the period as 'the flesh-eating 90s' (Kroker and Kroker, 1996).² Such fantastic imaginings seem to owe as much to the ironic versions of post-humanity in cyberpunk fiction as to communications theory: in the first of his paradigmatic cyberspace trilogy in the early 1980s, William Gibson portrayed the digital abstraction and virtual reproduction of embodied selves in cyberspace as 'data made flesh'

(1984: 16). Gibson's trilogy, which began in the dangerous world of the city – a world of darkness, social sterility and chaos – climaxed rather more idyllically. Following the deaths of their physical bodies, Bobby (the Count) Newmark and his bride Angela (Angie) Mitchell are immortalized in digital format in an 'aleph' supercomputer. In this new virtual world of beauty and order they inhabit a house of grey stone and slate in a season of early summer – with grass that never needs cutting and wildflowers that never fade. There is, apparently, neither birth nor decay in this marriage of calculation and angelic spirit: no offspring, no ageing bodies, no organs or secretions. What Gibson depicts here is truly a marriage of minds: perhaps it is not accidental that the last two words of the book are 'no shit' (1988: 308).³

Gibson's words underscore the essential paradox of the cyberculture discourse that proclaims disembodiment or bodily obsolescence: the human body has never before been so present, or so materially manifest at any time in the history of humanity. In 1980, 4.5 billion human bodies lived on earth; by mid-2000 there were 6.1 billion. Global population is growing at an annual rate of 1.2 percent, or 77 million people per year (United Nations, 2000: v). Seizing on the popularity of early cyberpunk, theorists have also described a postmodern state of technologized disembodiment – in spite of the fact that there are so many bodies going about the business of eating and drinking, excreting and reproducing, that we risk polluting the global environment with nothing so much as our own naturally occurring bodily wastes. This is not to undermine the sophisticated inquiries into evolving constructions of humanity, but simply to ask: what kind of logic has given rise to this equation of technology with disembodied consciousness and superfluous bodies?⁴ In 1996 the World Resources Institute reported that 'Human excreta is frequently the most critical pollutant [in poorer urban environments], and unsanitary conditions in the home and neighborhood are generally more of a threat to health than industrial pollution' (1996: 17–18). Moreover, 'in immediate human terms, [household wastes] may be the most urgent of all worldwide environmental problems' (1996: 19). The problem is not **[end of page 75]** limited to poor countries: 'Disposal of domestic wastewater remains a problem, although by no means as severe, in wealthier regions as well' (1996: 21). Obviously, the threat to the environment from billions of living human bodies is not a recent one. Lattee Fahm wrote in 1980 that 'people produce excretal matter at about 5.5 million metric tons every twenty-four hours, close to two billion metric tons per year' (1980: 40). The evidence of such statistics renders contradictory, if not absurd, the extravagantly metaphorical claims over the past two decades of the human body's disappearance or obsolescence due to technology. Why did

academics embrace the obviously fictional construct of technologically disembodied consciousness?

Disembodiment became part of both cyberpunk literature and academic jargon from the 1980s on, supporting proclamations of human spirit at the brink of either enrichment or destruction depending on the author's politics or relative degree of optimism. Following Donna Haraway's 'A Manifesto for Cyborgs', first published in 1985, cyberfeminists have debated whether a digital culture liberates users from gender, race or age by detaching identity completely from the body, or merely replicates the existing social order of material culture. In contrast to the dark futures imagined by many postmodernists, some writers saw the entry of consciousness into cyberspace as a form of spiritual renewal. Roy Ascott, for example, proclaimed in 1989 that:

... computer networking ... can lead to an immense diversity of cultural transformations, and in science and philosophy, enriched definitions of the human condition. Computer networking responds to our deep psychological desire for transcendence – to reach the immaterial, the spiritual – the wish to be out of body, out of mind, to exceed the limitations of time and space, a kind of bio-technological theology. (Ascott, 1999: 86)

Peter Weibel in 1990 suggested:

Virtual machines provide the spirit with new bodies, packaging it in tele-bodies and tele-organs, setting the scene for what Moravec has called 'ejecting the spirit from the body.' The emperor, the spirit of the mind, is now fitted out with new bodies ... by equipping it with new artificial 'organs-in-prosthesis,' namely with virtual machines like data glove[s], etc. These tele-organs make man into the Freudian god of prosthesis, or tele-deity, a god of tele-presence instead of omnipresence. Virtual machines create the tele-body and thus represent the emperor's the spirit's, new bodies. (Weibel, 1999: 223)

Rather more warily Michael Heim wrote in 1993 that 'in cyberspace minds are connected to minds, existing in perfect concord without the limitations or necessities of the physical body' (1993: 34). 'At the computer interface', he wrote, 'the spirit migrates from the body to a world of total representation. Information and images float through the Platonic mind without a grounding in bodily experience. You can lose your humanity at the throw of the dice' (1993: 100–1). **[end of page 76]** Similarly, Allucquère Rosanne Stone suggested that 'A disembodied subjectivity messes with whereness. In cyberspace you are everywhere and somewhere and nowhere, but almost never herein the positivist sense' (1994a: 180). Stone

also observed, however, that: The discourse of visionary virtual world builders is rife with images of imaginal bodies freed from the constraints that flesh imposes. Cyberspace developers foresee a time when they will be able to forget about the body. But it is important to remember that virtual community originates in, and must return to the physical.... Even in the age of the technosocial subject, life is lived through bodies. (Stone, 1994b, 113)

More recently the performance artist Stelarc has described the self situated in electronic space in terms of 'the shedding of skin' and 'fractal flesh': 'Subjectively, the body experiences itself as a more extruded system, rather than an enclosed structure. The self becomes situated beyond the skin. It is partly through this extrusion that the body becomes empty' (1999: 119–20).⁵ The highly quotable artists Stelarc and Orlan both have proclaimed the obsolescence of the biological body as if it were no longer used, or increasingly vestigial: 'Like the Australian artist, Stelarc, I think that the body is obsolete. It is no longer adequate for the current situation', Orlan has claimed (Orlan, Conference Extract 3, n.d.), though as in Stelarc's performances her 'natural' albeit modified organic body is omnipresent in the enactments of its irrelevance.

These narratives, performances, concerns and dreams, both ironic and earnest, have all contributed to a form of anxiety about human disembodiment or evolution to a post-human state in some media or cyber-studies, most notably in the works of Kroker and Baudrillard, which in turn have influenced popular culture such as the film *The Matrix* (1999; dir. Wachowski and Wachowski). If we are going to be talking about the living human body in cultural studies of the interface of body and technology, however, we need also to emphasize that human consciousness is inalienably enmeshed with its corporeality, with the everyday actualities of its flesh, its giving-birth, its growths and excrescences, the regularities or indignities of its secretions; our consciousness is mediated by hunger pangs roiling beneath the rib cage, by dripping and oozing mucal secretions, by the insistence of that imperative erectile tissue in our genitalia, by the sometimes pleasurable and urgent necessity to shit. These undignified aspects of human life sharply contrast the supposed dematerialization of flesh into data that have continued to be a powerful metaphor in literary and cultural studies for decades. We might instead acknowledge or explore the use of the cyborg not as actual disengagement of self from body, but as a metaphoric construct arising from centuries-old textual traditions of the body as a material residence for that mysterious immaterial entity variously called soul, mind or consciousness. What **[end of page 77]** I explore here, then, is the literary history that enables such utopian or dystopian projections to imagine away our smelly and oozy material embodiment, and squint time and again at the

imperceptible aura of human spirit or consciousness. N. Katherine Hayles has already cogently explored the ideology of the body's supposed dematerialization in *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (1999). Hayles notes the discursive tradition that had already disembodied humanity by representing the ideal human consciousness or soul transcending bodily imperatives: philosophy dating back to the Ancient Greeks combined with a philosophy based on powerful computing lays 'the groundwork for a new variation on an ancient game, in which disembodied information becomes the ultimate Platonic form' (1999: 13). To imagine capturing the ideal Form in a nonbiological medium such as a computer disk, she notes, would suggest the question 'Why do we need the body's superfluous flesh?' (1999: 13). In an overpopulated society, imagining human consciousness without the encumbrance of waste-producing bodies is understandable: 'In a world despoiled by overdevelopment, overpopulation, and time-release environmental poisons', she writes, commenting on Hans Moravec's version of immortality in *Mind Children*, 'it is comforting to think that physical forms can recover their pristine purity by being reconstituted as informational patterns in a multidimensional computer space' (1999: 36).

In the following pages I analyze how these images of human spirit, reproduction and immortality derive from a specifically Christian literary tradition. Certain iterations of cultural theory and popular media have imported metaphors of body separate from spirit, presenting them as literal truth in order to support a theoretical agenda, whether conservative or radical. Ironically, in our popular and academic literature the cyborg figure of the 'post-God era' functions to make implicit or explicit claims for Christian precepts of spiritual transcendence.

The '60s Cyborg: McLuhan, Metaphorical Bodies and Human Spirit

In September 1960 the journal *Astronautics* published 'Cyborgs and Space' by Manfred E. Clynes and Nathan S. Kline, wherein the authors invented the term 'cyborg' to describe a theoretical human-machine system employing various homeostatic mechanisms to enable it to exist in outer space (Clynes and Kline, 1995). It was, not surprisingly, an article concerned with the body's material intake and excretion: regulation of body temperature, 'human "fuel" consumption', cardiovascular control, pressure and perceptual problems were all briefly considered as some of the 'psycho-physiological problems' of the cyborg. Fluid could be balanced, they suggested, by a shunt from the ureters to the venous [end of page 78]

circulation, while ‘sterilization of the gastrointestinal tract, plus intravenous or direct intragastric feeding, could reduce fecal elimination to a minimum, and even this might be reutilized’ (1995: 32). While the article dealt primarily with the material problems of body machinery, it was also rather carefully concerned with suggesting that the human spirit would be elevated by such reconstructions of embodiment. The purpose of the cyborg, the authors explained, is to ‘provide an organizational system in which such robot-like problems are taken care of automatically and unconsciously, leaving man free to explore, to create, to think, and to feel’ (1995: 31). Solving such ‘technological problems’ of the limitations of the human body, they concluded, ‘will not only mark a significant step forward in man’s scientific progress, but may well provide a new and larger dimension for man’s spirit as well’ (1995: 33). Admittedly a *reductio ad absurdum*, one might nevertheless follow this argument to conclude that the elevation of human spirit thus depends on ridding the subject of its most mundane physical needs to breathe, eat, sweat, evacuate. Stop shitting and you will be one step closer to spiritual enlightenment (or heaven).

What Clynnes and Kline echoed was a theme of spiritual transcendence that has been part of our literary tradition for centuries. But their article also addressed what were for them the real material problems of such transcendence – that is, it emphasized the centrality of the living human body in the idea of cyborg. Once it became a political trope, however, the matter of the body was written away. Twenty years after ‘Cyborgs and Space’, Haraway and Baudrillard formulated the two dominant theoretical paradigms for cyborg studies we inherit today: the cyborg as escape from the ills of materialist civilization, and the materialist cyborg as the ruin of civilization. Haraway’s ‘Cyborg Manifesto’, which first appeared in 1985 as ‘A Manifesto for Cyborgs’, suggested constructing new consciousness through the myth of a society without gender – an escape from the ‘mundane fiction’ of 20th-century industrial identities (1991: 180–1). The imagined freedom from ‘female embodiment [which up until now] seemed to be given, organic, necessary’ was based on access to the technology that overrides the function of the female reproductive system. Baudrillard’s ‘Ecstasy of Communication’ metaphorized the consciousness as astronaut in a satellite to describe an electronic ‘encephalization’ that relegates the body to useless, empty husk. Both Haraway and Baudrillard create a version of contemporary subjectivity based upon reproductive technologies but, as I will be discussing in more detail, Baudrillard’s, like many other media theorists, too conveniently equates textual tropes with actual embodiment. Also, the literary tradition that places human sexual reproduction in a tenuous equilibrium with human

(traditionally male) spirituality and rationality comes into play in the dystopian rhetoric of disembodiment. **[end of page 79]**

A central paradox in cyborg theory is that consciousness or soul is understood to be indelibly altered by technological changes to the body but is also contradictorily seen as distinct – even detachable – from the body. This formulation can be traced through a long history back to Descartes and before that to the early Christian ideals that suggested the immortal soul could be elevated only through denying or rejecting the body. In media studies, it can be traced to McLuhan's influential *Gutenberg Galaxy* (1997/1962), wherein he attempted to demonstrate that technology physically alters human physiology. 'If a technology is introduced either from within or from without a culture', McLuhan wrote, 'and if it gives new stress or ascendancy to one or another of our senses, the ratio among all of our senses is altered. We no longer feel the same, nor do our eyes and ears and other senses remain the same' (1997: 24). As Harold Innis had already convincingly demonstrated, changes in the material technology of communications have affected the cultural and literary conventions of societies throughout history; but to suggest that technology alters human physiology and consciousness as much as it alters cultural literatures, trends, norms and biases, is a highly problematic claim.⁶

To demonstrate that 'Literacy affects the physiology as well as the psychic life of the African' (1997: 33), for example, McLuhan included a quotation from the Kenyan East African Standard, 'How Civilization Has Affected the African'. Here the author, 'a missionary doctor', argues that the 'high qualities of the African untouched by missions or education' (for which he pays the 'penalty' of being 'incapable of filling any skilled post') are distorted when he is educated ('using this term for even the comparatively low standard achieved by the average African schoolboy'). This 'different mentality', the missionary wrote:

... may show itself in a shirking of work, trouble over food or in a desire to have his wife living with him however difficult for the employer. The reasons are clear; the African's whole capacity for interest, pleasure and pain are immensely increased through even a little education.... The new generation ... [deserves] a more sympathetic knowledge of their difficulties and their far greater temptations. African parents need to be taught this before it is too late so that they may realize that they are dealing with finer bits of mechanism than they themselves were. (in McLuhan, 1997: 33–4)

It is an astonishing piece of writing, presented uncritically by McLuhan, encapsulating ideas intrinsic to the theoretical conception of cyborgs: the disregard for the desires of lower-order working bodies by the privileged, literate intellectual; and the related notion that literacy/knowledge can be spiritually dangerous in the wrong hands – that while literacy makes one more ‘sensitive’, with a greater capacity for interest, pleasure and pain, there is also the potential taint of sin that **[end of page 80]** comes with knowing. The outcome of civilization then, according to such a tradition, is a refined mind/spirit challenged by increased temptations to fulfil bodily desires (to rest, to eat, to fuck, ‘however difficult for the employer’ [1997: 33]). That morals are compromised by technology’s presence is a version of the Edenic myth wherein the ‘natural’ state of God’s paradise, represented by the still untainted ‘Savage’, is threatened by eating the fruit of knowledge (bound up with connotations of sexual knowing). These thematic nodes have been retained in recent literature on cyborgs, which presents the denial or diminishment of embodied desires as a potentially dangerous and morally deprived state of virtuality, as well as a potentially elevated – spiritual or even angelic – human consciousness. And, as we shall see, cyborg knowledge is also tainted with gendered issues of sexual knowledge.

McLuhan produced a distorted version of human physiology to demonstrate supposed changes to human consciousness and relied upon such images of the illiterate ‘savage’ versus the literate ‘civilized’ postlapsarian human slowly evolving toward a new version of Edenic tribalism. ‘Far from being the normal mode of human vision’, he wrote, ‘three-dimensional perspective is a conventionally acquired mode of seeing, as much acquired as is the means of recognizing the letters of the alphabet, or following chronological narrative’, concluding: ‘It is the sense of sight in deliberate isolation from the other senses that confers on man the illusion of the third dimension’ (1997: 16). Certainly the interpretation of retinal images by the brain into three-dimensional perception is considered a learned skill, but like most predatory animals that need binocular vision and depth perception in order to hunt, human eyes are located on the front of the face. The ability to view the world as three-dimensional space is due to an evolutionary physical adaptation that occurred long before mankind was literate, or even ‘human’. Mistaking the intellectual expression of three-dimensional space for the physical perception of it, McLuhan scoffed:

Today, when the role of phonetic literacy in the creating of the techniques of enunciation of propositions (‘formal logic’) is well known, it is still supposed, even by some anthropologists, that Euclidean space and three-dimensional visual perception is a universal datum of mankind. (1997: 25)

McLuhan's analysis of the effects of technology on human consciousness was based upon such ethnocentric generalizations as "primitive" drawing is two-dimensional, whereas the drawing and painting of literate man tends towards perspective' (1997: 43). Another proof he offered was the 'three-dimensional' viewpoint of *King Lear*, compared to the absence of 'Euclidean space and threedimensional visual perception' in 'native art'. Our media theory is founded upon an untenable assumption that presupposes conventions of creative or intellectual [end of page 81] representation can be understood as physical perception. When he suggested that the ear was the predominant sensory apparatus of oral cultures and the eye the predominant sensory apparatus of literate ones, McLuhan privileged the significance of artistic representation over other aspects of our embodiment – as if the importance of three-dimensional vision in such activities as hunting (that is, feeding the body rather than nurturing the spirit) was irrelevant. McLuhan collapses the expression of perception with physical perception itself. Again, the point I am making is that our literary tradition is to metaphorize and abstract the physiological functions of the body in order to make religiously or politically motivated – and unproven – claims for human 'spirit'.

Although the validity of his claims was flawed by uncritical research-cum-proclamation that problematically exchanged metaphors for physiology, McLuhan's influence upon the discourse of cyborg is profound. More recently Kroker et al. have conflated metaphors of physics with actual human embodiment, writing of:

... the fateful discovery in contemporary physics that ninety percent of the natural universe is missing matter, just disappeared and no one knows where it has gone (physicists most of all)... [W]ith the triumph of science and technology as the real language of power in postmodern culture ... ninety percent of contemporary society is also missing matter, just vanished and ... no one knows where it is gone (sociologists most of all). (1989: 15–16)

The merging of language to describe both human and machine represents a disembodiment signalled by a paradigmatic switch from the early modern Newtonian world view to the postmodern one: 'If the Newtonian law of gravity could postulate a real body whose objectivity is established by its mass', Kroker, Kroker and Cook write, 'the (quantum) law of postmodernity eclipses this body by flipping suddenly from mass to energy'. They explain:

... the body simultaneously implodes into its own senses, and then explodes as its central nervous system is splayed across the sensorium of the technoscape. No longer a material entity, the postmodern body becomes an infinitely permeable and spatialized field.... Once the veil of materiality/subjectivity has been transgressed

(and abandoned), then the body as something real vanishes into the spectre of hyperrealism. (1989: 155)

Not only do the authors conflate Newton's term 'body' – a theoretical object with properties of mass and dimension – with the human body and individual subjectivity, but they also found their own theory on the assumption so frequently made, and ill-defined at best, in such explications of cyborg identity: that is, what 'human awareness', consciousness or identity was prior to our 'postmodern' era. Obviously, our understanding of nature and our ability to manipulate it is constantly reforming our explication of human identity; but our 'disembodiment' is largely in these cases a literary production. The notion of **[end of page 82]** cyborg disembodiment in our literature also arises from a western Christian literary tradition of regeneration, renewal and refinement of human spirit.

Of Sex and the Soul, or, Cyborgs and the Obsolescence of Semen

The semen is a drop of brain containing hot vapor within it; and this, when brought to the womb, throws out from the brain lymph, fluid and blood whence are formed flesh, sinews, bones, hairs and the whole of the body, while soul and sense come from the vapour within. (Diogenes Laertius, *Life of Pythagorus*, 1979: 28)

The most important Sumerian myths center on [Enki].... He fills the rivers, and the extensive Sumerian canal system, with his life-giving semen.... But from a modern standpoint, semen is just a carrier of information – both benevolent sperm and malevolent viruses. (Neal Stephenson, *Snow Crash*, 1992: 255–8)

If we were to consider a secretion spectrum, from the most base to the most highly valued bodily excretions, the highest forms of material emanating from the human body and the ones that have consistently been considered sacred in the history of our literary tradition are semen and immature human bodies (occasionally menses or milk) – the signs that populate our myths of fertility, regeneration and spiritual renewal. Based as it is in its irrefutable corporeality and spiritual profundity, the sexual act is centred in animal embodiment, animal pleasure, animal pain, and yet also the creation of a new human being, endowed with consciousness, identity, intelligence, a soul. Since ancient times, western culture has assigned a direct link between sexual reproduction of the body and the production of the human soul. The tradition of the ethereal spirits of the father's soul or mind

being distilled in the brain and piped via the spinal column and nerves to the penis, whence it is ejaculated as semen thus providing the newly formed child with a soul goes back at least to the Greek philosophers. Plato described the process in the *Timaeus*, and the association was commonly held through the Renaissance. Ambroise Paré, Leonardo da Vinci and René Descartes all reiterated the account in their treatises of the human body. The explanation of a direct link between the ethereal product of the mind and the material product of the sexual act was accepted in various forms up until the late 17th century when physiologists such as Regnier de Graaf began to characterize the spiritous seed not as a product of the brain but as a purification of the blood in the testes, in the same way that the ethereal spirits of the mind were purified from the blood in the ventricles of the brain.⁷ That is, the ethereal spirits that provided human will and intelligence were still closely related to those spiritous fluids that produce another little human with will and intelligence. Over time, of course, we have placed less emphasis on the notion of human seed as carrier of that [end of page 83] indefinable equality of human identity; but the mind/soul connection with the reproductive organs was by no means eradicated (the Roman Catholic Church has maintained that life should be created only through sexual intercourse between a man and woman who are married; and in many religious traditions there is debate about whether ensoulment occurs at the moment of [natural] fertilization). We might recall here that Haraway's manifesto noted that cyborgs are illegitimate offspring of militarism and patriarchal capitalism, but they can be unfaithful to these origins: 'their fathers, after all, are inessential' (1991: 151). McLuhan too had subtly undermined man's 'natural' reproductive role, claiming in his 1964 *Understanding Media: The Extensions of Man* that 'physiologically ... man is perpetually modified' by the normal use of technology or his extended body, and 'becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate' (1994: 46). What, then, might be the discursive outcome when the male seed is no longer sacred? In some theories such as those of Baudrillard or Kroker, it manifests as moral and political outrage (as opposed to those feminist approaches which celebrate the possibility of a postgender world); in our popular literature and film it tends to manifest as a reaffirmation of fertility myths and classical Romance literature.

The metaphorized connection between embodied fertility and human spirit is a dominant theme in the works of Baudrillard, who has claimed that 'our own body' seems superfluous, 'since today everything is concentrated in the brain and in genetic codes' (1983: 128–9). Baudrillard argued that the functions of the body, once signified by 'hot, sexual obscenity of former times.... organic, visceral, carnal promiscuity', have been replaced by the

‘cold and communicational, contactual and motivational obscenity of today’ (1983: 131). What he did not say in this earlier article he asserted more boldly in *The Ecstasy of Communication*, arguing that we have figuratively obliterated the soul from our definitions of being through the replacement of sexual procreation with mechanical-technological reproduction:

Electrocuted, lobotomized, the soul has become but a cerebral convolution.... The religious, metaphysical or philosophical definition of being has given way to an operational definition in term of the genetic code (DNA) and cerebral organization (the informational code and billions of neurons). We are in a system where there is no more soul, no more metaphor of the body ... (1988: 50–1)

Baudrillard immediately twists this notion of transformed textual definitions of body and soul to the notion that the body–soul connection has therefore been literally obliterated:

From a biological, genetic and cybernetic point of view, we are all mutants. Now, for mutants there can no longer be any Last Judgement, or the resurrection of the body, for what body will [end of page 84] one resurrect? It will have changed formula, chromosomes, it will have been programmed according to other motor and mental variables, it will no longer have any claim on its own image. (1988: 51)

Baudrillard reiterates this religious imagery in ‘The Hell of the Same’, arguing that bodies created or re-created by either genetic formulae or biochemical influences are ‘definitively removed from any possibility of resurrection’ (1988: 121). That is, the existence of spiritual rebirth is nullified because there is ‘no more mother, no more father: just a matrix ... which is destined to “give birth”, from now till eternity, in an operational mode from which all chance sexual elements have been expunged’ (1988: 115). Part of the horror of the mechanical matrix is that the union of father and mother – the idealized patriarchal family unit – is redundant.⁸

Rather than displaying the new cyborg post-human consciousness so many theorists have proclaimed, popular culture has also resoundingly re-affirmed literary traditions of Christian humanism. The most influential of these works in fact tend to reflect Baudrillard’s vision of a dystopian future where fathers are, regrettably, inessential; where machines create, re-create or enhance humans through the antiseptic and clinical conditions of the laboratory, surgery and computer simulation – where ‘the matrix’ is not a ‘natural’ female womb but a machine network. The cyborg figure reinforces Classical and Christian Romance themes – notably those associated with the fertility myth: darkness, sterility and chaos overcome by a male hero figure. We could use any system of classification of these mythic

structures: Northrop Frye's 'Theory of Myths' from his *Anatomy of Criticism* (1957) will do. Frye's Mythos of Summer or Romance comprises a quest resulting in 'the victory of fertility over the waste land' (1957: 193). Here 'the enemy is associated with winter, darkness, confusion, sterility, moribund life, and old age, and the hero with spring, dawn, order, fertility, vigor, and youth' (1957: 187-8). Often this story unfolds through the flood archetype, 'some cosmic disaster destroying the whole fictional society except a small group, which begins life anew in some sheltered spot' (1957: 203). The hero will take on attributes of divinity in contrast to the demonic qualities of the enemy: 'Hence the hero of romance is analogous to the mythical Messiah or deliverer' (1957: 187). The story begins with the land laid waste by a monster or dragon; in the Bible, for example, the leviathan is the source of social sterility of the fallen world, 'the blasted world of struggle and poverty and disease' (1957: 189). In many Romance myths we encounter a dark labyrinthine underworld full of monsters, with the hero going into the depths of the leviathan and returning victorious (as in the Harrowing of Hell). 'Lastly', Frye tells us, 'if the leviathan is death, and the hero has to enter the body of death, the hero has to die, and if his quest is completed [end of page 85] the final stage of it is, cyclically, rebirth, and dialectically, resurrection' (1957: 192). Other key elements are the lower world being inhabited by a prophetic blind sybil or oracle; the reward of the quest usually is or includes a bride. The plots of the most influential cyberpunk fiction and film encapsulate some or all of these elements.

We might here recall again the conclusion of Gibson's *Neuromancer* trilogy: order restored, the hero triumphing over destructive and chaotic elements in a battle that ends in death, spiritual renewal symbolized by the season of summer and flourishing vegetation, renewal and resurrection, a beautiful bride. Each of the works I am about to discuss opens in a world of darkness, chaos, sterility and disease; each is typified by a small alienated group attempting to rebuild order after the technological destruction of society. Each features a hero who wins the love of a beautiful girl, overcomes chaos and brings light and hope to society. The 1995 film *Johnny Mnemonic*, for example, is dominated by such symbolism. Evil here is embodied by the anti-Christ figure known in the script only as Street Preacher, a 'post-human' cyborg sporting an inverted cross and enhanced to superhuman strength by surgical implants: 'Motherfucker's got God and technology ass-backwards' (Gibson, 1995: 66), one character comments. The message here is clear: the plague of disease threatening society is caused by the technological recreation of humanity. 'If there was never such a thing as hell before, we surely invented it', claims Anna, founder and former CEO of the multinational *Pharmakombinat Industrie*, whose consciousness lives on six years after her

death as a 'persona' of Pharmakom's 'neural-net installation'. Johnny, however, in true heroic fashion will find a beautiful girlfriend and save human civilization from its corrupting disease up in 'Heaven', the makeshift town underneath a bridge which is the refuge of the small band of 'Lo Teks' from the corrupt technologized world. Johnny's ascent to Heaven, his near-death and his resurrection all reinforce the Romance theme.

Bruce Sterling's *Schismatrix* (first published 1985) depicts the extraterrestrial combat between factions of Mechanists (human-descended creatures augmented by mechanical components) and Shapers (engineered beings produced by cloning or DNA combination and manipulation, who consider the word born 'a deadly insult' [1996: 283]). The novel begins with the hero's exile to a 'soured' planet overrun with mutant fungi, dead vegetation attacked by rot, drying soil and mildew blossoming 'on dying fields and orchards, gray pinheads swarming into blotches of corruption' (1996: 12). It is a haven for outlaws; the only civil right is death. Lindsay pragmatically becomes the lover of the powerful Kitsune, a Shaper whose extreme potency is enabled by the fusion of non-reproductive sexual pleasure and rationality: 'They gave me to the surgeons', she tells him. **[end of page 86]** 'They took my womb out, and they put in brain tissue. Grafts from the pleasure center, darling. I'm wired to the ass and the spine and the throat, and it's better than being God' (1996: 34). Kitsune eventually reconfigures herself into an enormous building of smooth and voluptuous skin and sphinctered doors, complete with female pheromones and 'erototechnology' – beds of flesh for male visitors' comfort and pleasure – with the stipulation that 'male ejaculations become the property of the recipient ... [which is] an ancient feminine principle' (1996: 205). The terms of trade for this artificial female genius is the loss of humanity:

Shame. Pride. Guilt. Love. She felt these emotions as dim shadows, dark reptilian trash burnt to ashes in an instant by searing ecstasy. She was not incapable of human feeling; it was simply too mild for her to notice.... Her consciousness was an amalgam of coldly pragmatic logic and convulsive pleasure. (1996: 38)

While she is not depicted as an evil force, Kitsune is one of the more disturbing characters in the novel, and in part it is this union of logic and pleasure without love and fertility within the 'natural' organic matrix that registers Sterling's darkly ironic portrayal of a future post-human identity. Lindsay eventually realizes the dream of post-humans returning to a natural organic state through terraforming, a process of building a new ecosystem filled with natural living creatures from the earth's seas. It is settled by surgically transformed aquatic post-humans called Angels, who are self-sufficient and therefore 'are not forced to' sin (1996: 232). While the sea life reproduces naturally, Angels seem not to have sexual organs at all

(they can reproduce through genetic labs but reproduction is not necessary as Angels ‘last out centuries’). ‘Very elegant’, says one character viewing the brochure. ‘No intestines’ (1996: 232). The implied heaven, then, is an organic ecosystem in which humans become angels transcending all bodily needs. The novel concludes with Lindsay’s own disembodiment: as his spirit abandons his body, he feels ‘Stellar cold, a melting, a release. And all things were fresh and new’ (1996: 236). The joyful conclusion rests also on the discovery that Lindsay, who is an older Shaper model and not legally allowed to reproduce, has a child out of the union of his DNA with that of his long-dead first love. His daughter becomes one of the first Angels, signifying a heavenly regeneration, immortality and elevation of spirit above bodily desires – amidst a society resplendent with new organic growth and life.

More recently the film *The Matrix* (1999) presented a dire vision of a future where machines manufacture humans to exploit the powers of their cheaply available bodies, diverting them from reality by piping a virtual world through a coaxial cable directly connected to their brains. The matrix is a horrifying machine system of amniotic sacs hanging like petals from towering stems of [end of page 87] gleaming metal, pods for the human bodies it manufactures. The religious allusions throughout are heavy-handed: Zion (the City of God) is ‘the last human city’ in this dark world. The submarine-like hovercraft that the resistance leader Morpheus commands is the Nebuchadnezzar. Morpheus and Neo visit a sybil to determine whether Neo is ‘the One.’ Neo’s name recalls both the New Testament of Christ and the New Jerusalem referred to by Christ. His love interest, also recruited as a potential saviour, is Trinity, referring to Christianity’s threepersoned God; it is Trinity’s love that brings Neo back to life at the film’s climax. Christ-like, in bringing salvation to humankind he descends to the underworld in the ‘belly of the leviathan’ (Wachowski and Wachowski, 1998: 305), he dies and is resurrected. The film is also grounded, interestingly, in Baudrillard’s theory: ‘You have been living inside a dreamworld, Neo’, Morpheus explains. ‘As in Baudrillard’s vision, your whole life has been spent inside the map, not the territory’ (Wachowski and Wachowski, 1998: 310; cf. Baudrillard, 1983: 2). They view a televised image of the ruins of a city ‘protruding from the wasteland like the blackened ribs of a long-dead corpse’ (Wachowski and Wachowski, 1998: 310): ‘The desert of the real’, comments Morpheus (1998: 310), quoting Baudrillard (1983: 2).

The cyborg, by implication, has divorced reproduction from human emotion, and replaced the loving and sanctified sexual union with machine intelligence. The technological matrix threatens an ancient tradition of love and romance culminating in marriage. The sacred

union in love, the begetting of a new generation upon virgin territory, all that traditional understanding of patriarchal fertility and transcendent spirit, is irrelevant to cyborg reproduction. A significant portion of our cyborg literature betrays not only its non-post-human faith in mythic structures of Romance and messiah; it also betrays a dread (or celebration) of the obsolescence of sex, the obsolescence of the immaterial component in the material of sex. Kroker, Kroker and Cook's entry for 'Panic Penis' might be emblematic of anxieties in a theoretically post-human and actually over-peopled world:

Penis burnout, then, for the end of the world.... in all of the technologies of sex which make possible a sex without secretions (the computerized phone sex of the Minitel system in Paris; video porn for the language of the gaze; designer bodies; and gene re-reading), in all of these technologies of sex, the penis, both as protuberance and ideology, is already a spent force, a residual afterimage surplus to the requirements of thematic society.... The pineal eye and the solar anus are also always about an excremental sexuality as the third order of simulation into which sex vanishes after the disappearance of the organic and discursive sexuality, and after the fading away of the body as yet another afterimage of the postmodern scene. (1989: 180–1)

The entry reflects a now-familiar paradox in cyborg theory, both an anxiety over the loss or obsolescence of the body and, at the same time, a distaste for the physical functions of the body. Phone sex and video porn do not result in 'sex [end of page 88] without secretions', of course, and even postmodern masturbation results in material secretions, though these may merely anoint the furniture rather than the potentially fertile womb. Under the entry for 'Panic Ovaries', the authors ponder whether sex is no longer real or necessary: 'Is natural reproduction preserved intact at the end of the world or have we already entered into a darker region of the terror of the simulacrum?' (1989: 170), they ask. In the case of the 'hired womb', the 'Daddy surrogate ... always only present as a free-floating seed in a genetic mixing tube – is juridically renamed as the real, living father' (1989: 170). Similarly 'Panic Sex' in the 'age of the hyperreal' is characterized as disembodied, unreal, 'just at the edge of ecstasy of catastrophe and the terror of the simulacrum' (1989: 203). The myths of Romance and fertility, order and growth – what Frye called archetype and I have been calling literary tradition – are perceived to be endangered by the machine. The implication of what Kroker calls the 'excremental' sexuality of the post-human cyborg is that the patriarchal family union is obsolete: metaphorically, semen is reduced to data; materially it is mere excrement, as base as shit.

In these texts, the notion of disembodiment or the aversion to human bodies as simulacra arise from profound changes in our understanding of the reproduction of human forms – human creativity and human procreativity – as a wholly material process defined by human-readable and human-writeable codes. The exchanging of metaphors and bodies in theory, however, permits a superficial use of science, physics, history and anthropology to create a highly contestable history of ‘pre-modern’ or ‘modern’ bodies, already conveniently metaphorized so that the ‘postmodern’ human enters the scene of theory already divested of body, already situated in a context of abstraction. The postmodern abstraction of bodies has, in turn, been a pretext to serve a given political or religious agenda. But perhaps there are underlying motivations that return me to my earlier question: why have prominent theorists described the state of the so-called posthuman body as one of disembodiment or simulacrum when there are so many bodies populating and polluting the earth? There are at least a few blunt and impolite answers. First, there is the possibility that a certain millennial zeal encouraged writers to posit visions of the ‘end’ – a post-human, post-geological, post-gendered, post-industrial, post-apocalyptic, post-nature, post-whatever society. Second, and related to the first, is the drive to be at the forefront of intellectual pursuits, at the cutting-edge of postmodern thought, which appears to have obscured the fact that theories of disembodiment are so often only tangentially about live bodies. As we have seen, these extravagantly metaphorical claims about the disembodied post-human condition are offered as original contributions to academic discourse when in fact they reinforce the familiar old **[end of page 89]** stereotypes of the baseness of the body distinct from, and opposed to, the elevation of mind or spirit. Or third, perhaps the most cynical of explanations, the discourses of disembodiment have helped to earn recognition and reward in the academic world, where the perception of originality and relevance is strong professional currency. Careers are built upon such ‘innovative’ ideas which, in this case, recycle the old ideals of human spirit and body upon which early academic humanism was founded. These are not crippling ironies, perhaps, and it is good to have a job; but they do reveal the compromises made when theory chooses to forget the material realities of bodies and history, and its own reliance on literary traditions and tropes.

Notes

1. Examples in popular culture playing upon the imagined elimination or irrelevance of ‘natural’ bodies and human spirit or essence due to the union of humankind with

technology include, among many others, Philip K. Dick's apocalyptic *Do Androids Dream of Electric Sheep?* (1968), later adapted for film as Ridley Scott's *Blade Runner* (1982); James Cameron's film *The Terminator* (1984); Rudy Rucker's trilogy *Software* (1982), *Wetware* (1988) and *Freeware* (1997); Neal Stephenson's foreboding *Snow Crash* (1992), the film *Virus* (1999), as well as the works discussed herein.

2. Since the mid-1990s, such works as those by Featherstone and Burrows (1995) and Hayles (1999) have shrewdly problematized the metaphor of disembodiment or virtualization.
3. Gibson's subsequent loose-knit trilogy of *Virtual Light*, *Idoru* and *All Tomorrow's Parties* implicitly abandons the image of the human spirit uploaded to the machine, distinguishing clearly between human avatars communicating via the network and the newly wrought consciousness of the Idoru. When the character Laney immerses himself in cyberspace and neglects the needs of his sick body, he dies, and the last trace of his consciousness is clearly a memory from his own past rather than a disembodied identity within the network.
4. See Phillip Thurtle and Robert Mitchell, *Semiotic Flesh: Information and the Human Body* for a useful discussion of how 'signifying practice', or information, 'and embodiment are no longer conceptually or practically separate' (2002: 6).
5. While not speaking specifically of the human-machine amalgam of the cyborg, Gilles Deleuze and Félix Guattari's *A Thousand Plateaus* (1987), which suggested that the body must not let itself be reduced to the level of an organism but must become instead a *Body without Organs* – a desiring machine connected by physical, intellectual or emotional flow to other BwOs – has also had some resonance with speculations upon cyborg disembodiment.
6. We know different sensory processes arise from different parts of the brain; but as to whether using the eye more than the ear permanently alters ratios of sensory experience, as opposed to fleeting fluctuations in active and non-active areas of the brain, is another question that McLuhan does not address (or, for that matter, whether people did indeed use the eye more than the ear in the print-oriented culture prior to radio and television).
7. I owe these observations of the presumed relationship between the products of brain and testicles to Raymond Stephenson, who provides a brief history in his forthcoming work, *The Yard of Wit: Male Creativity and Sexuality, 1650–1750*, on 18th-century constructions of male creativity.

8. This theme of the horror of mechanical reproduction of human beings is also evident in earlier works such as Huxley's *Brave New World* and, further back, Shelley's *Frankenstein; or, The Modern Prometheus*. **[end of page 90]**

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