

Bad Girl Versus the Astronaut Christ: The Strange Political Journey of the Cyborg Hari Kunzru

It's well over a decade since Donna Haraway first formulated her theory of the cyborg.¹ During that time the figure of the "cybernetic organism", networked flesh subject to rational control, has morphed from a technical into a political category, a change which continues to surprise the cyborg's scientist parents.

At its origin in the US Airforce research programmes of the nineteen-fifties and sixties, the cyborg seemed to carry an uncomplicated meaning, the same meaning coded into the cold war slew of pulp space travel stories or the arcing rear fins of a Chevrolet convertible. Man, said the cyborg, the Chevy, the Ace paperback, was about to transcend all limitations. Born out of the desire to adapt human systems for survival in space, the cyborgised man would transcend the constraints of Newtonian physics by breaking free of gravity and going to the stars. At the same time he would transcend his own physical boundaries, entering a control and communication feedback-loop with his environment. The skin, that ultimate boundary between fragile self and hostile world, would become gloriously permeable, permeable not in a vulnerable way, but in a manner which would mystically transform messy, poorly-understood human biological processes into the exact, measurable, predictable processes of technology. Man thus penetrated by the machine would become an "augmented", "adapted" or "amplified" man², functioning according to the protocols of technoscience. As science improved, so would man. He was, in short, upgradeable. No outer limit seemed to be fixed for this augmentation. Cyborgised man could potentially expand towards infinity, perhaps even attaining the sublime.

Certainly, it seemed that with human biological functions regulated by machines, man would be freed to explore not only the physical expanses of space but the spiritual ones of his own being. Governing the body's homeostatic processes appeared to this first generation of cyborg researchers to require effort, to divert energy that would be better used for self-evolution or spiritual exercise, as if the business of having a body was somehow distracting, time-consuming, laborious:

If man in space, in addition to flying his vehicle, must continuously be checking things and making adjustments merely in order to keep himself alive, he becomes a slave to the machine. The purpose of the Cyborg, as well as his own homeostatic systems, 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.³

Though the backdrop for this struggle against slavery was space, the same hopes and fears held true for life in postwar America. Cyborgisation was produced as a labour-saving process, the big boy's version of the dishwashers and frigidaires they bought for wives back home on earth. But unlike the kitchen of the future, whose technology bought time for female leisure or beautification, the cyborg had a higher purpose. The implication voiced again and again in early cyborg technical papers is that by relinquishing the labour of bodily regulation, man could attain a higher level of spiritual discipline. The cyborg, in short, was designed to engineer man closer to God.

The engineers and airforcemen who made up the first generation of the cyborg's acolytes were in no doubt that they were on a spiritual mission. "Where are we, where are we going, and how do we get there?" asks Major Jack E. Steele, using this uncontextualised and apparently

metaphysical question to open a 1960 presentation to a space research symposium at Wright airforce base. He goes on to describe a coming generation of "bionic" humans, the "great and distant" goal towards which he and his audience are working.⁴

The pilgrim's progress, spiritual journey as mirror of a physical journey, was always one of the ideological motors of American expansion, from the moment the first boatload of seventeenth-century dissenters began the task of inscribing their struggle to reach God onto the seemingly-blank landscape of the "New World". Cyborg research can be seen as the inheritor of this move, continuous with the pioneers' journey Westwards and the puritans' interior journey towards God. The cyborg represented the ability, through science, to take an active role in evolution, bringing recalcitrant human biology under the sway of reason and morality, all put into the service of state expansion.

The human to be rationally evolved was almost invariably an airforce pilot, and archive images of pilots undergoing grueling physical tests and wearing a variety of prosthetics are among the most potent images of the early cyborg era. Shackled into exoskeletons, suffering inhuman (or maybe just posthuman) forces, responses altered with intravenous injections of drugs, the fighter pilot becomes America's cyborg Christ, the sufferer whose passion redeems his nation. All-American boy, chosen for his physical and mental perfection, transfigured by the machine, sent above and beyond, suffering and questing for the people whose votes and taxes sent him there — apex of hope and probe-head of the superpower's cold-war psyche. In a mirror of this obsession the postwar USSR, which itself was a vast cybernetic project, a huge experiment in rational control, produced its own cult of the cyborg Christ in the Yuri Gagarin industry whose support extended to the state-sponsored production of quasi-religious icons.

Perhaps Donna Haraway's achievement has in part been a therapeutic one. In excavating the unconscious of this pumped-up sky pilot, she has unearthed the anxieties, the sexual and spiritual ambiguities, the night terrors of one of the defining figures of postwar technocultural certainty. Yet her analysis has also been deliberately disruptive, a critical virus introduced into a loop of signification which appeared too closed and too perfectly regulated to admit any variation or opposition.

Historically, it did not take long for the human body's permeation by networks and machines to produce alternative visions to the joyous liberation from the flesh envisaged by the USAF geeks. A previous generation of technological nightmares had already centered on humans becoming automata. The ergonomically-governed factory worker, disciplined by the twin mass mechanisms of industry and war, was in the inter-war years of the twentieth century figured as the robot (Czech for "slave labour"). Just as in a still-earlier phase of industrialisation workers had been metonymised into "hands"⁵, they became pistons and flywheels, moving parts in vast machines. The image of Charlie Chaplin caught in the cogs of some huge engine⁶ is the era's defining image of recalcitrant humanity, comically refusing the rhythms of the factory.

Yet in the 1930's the little tramp's skin still formed an impermeable barrier to the system which oppressed him. In the 1960's, when the first generation of Christ-pilots underwent augmentation, this ceased to be the case. The rupture of the body's membrane (by prosthetics and implants, astronautical stigmata) released far more than expected. From classical times onwards, the West had made a huge investment in the opacity of the body. From the Apollo Belvedere to National Socialism, the closed, impermeable body was valued as morally continent, aesthetically pleasing, epistemologically single and secure.

By contrast, when the body exposed its workings, allowed its orifices to be penetrated, its interior humours to seep forth, this invariably signified the inversion of order, the coming of chaos, horror and decay. Whether this inversion was figured by the gluttonous, shitting, fucking grotesques of the Renaissance carnival, by Nazi racial science's physiognomy of the Jew, with its slack lips and protruding nose, or Neoclassicism's mingled desire and revulsion for female flesh, it always carried the same meaning. The classical body has for two thousand years stood sealed (inside and out) against a torrent of disproportionate, irrational, exaggerated physicality, which, were it to escape, threatened to sweep away the very foundations of civilised society.

So the cyborg body, penetrated by reason itself, presents an irresolvable paradox — the body must at all costs preserve its boundaries against the deluge of unreason, but must also reveal its mystery in order to allow reason to transcend physical limitations. Otherwise the body will present an obstacle to reason, and find itself once again the source of irrationality. Catch-22 for the flesh. This is the eternal tragicomedy of Western thought of the body, a thought which cannot incorporate itself, cannot think within the body, must always attempt to think through it, to penetrate it from the outside.

The cyborg produced a crisis in technoscience, even as it promised fulfillment of technoscience's most secret desires. It was a radical moment, and one which Donna Haraway has fully exploited, using this paradox to lever open both scientific discourse, and the varieties of feminist discourse which were constituting themselves in naive opposition to it. Yet though the cyborg's brand of disruption is radical, it is not unprecedented. Perhaps its closest cultural ancestor can be found in the growth of scientific dissection during the Renaissance. Here too was a discourse which opened up the body in the name of knowledge, which literally dismembered corpses to produce truth. The dissected figures depicted in woodcut illustrations to the works of the Flemish anatomist Andreas Vesalius⁷, display themselves, sometimes literally holding aside veils of flayed skin to allow the gaze of the student to penetrate the secrets of their bodies. In this and other Renaissance anatomical texts, complicated pictorial allegories are used to justify the practice of anatomy, which produced deep cultural anxiety, presented an identical problem of bodily integrity, and which (in one of those "what-if" games which make joining the dots of intellectual history fun) one can imagine some seventeenth-century Haraway using to blow "Natural Philosophy" wide open.

In 1997 economies of signification analogous to those circulating in Vesalius's operating theatre are played out across cinema and TV screens. After a rapid process of popularisation, originally associated with space programme fundraising, the cyborg became a mainstream cultural figure. Inevitably the crisis in science's relationship with the body rapidly produced a slew of dark-side popular imagery. These days there is a veritable industry of cybernetic terror. Tetsuo, the overworked Japanese "sarariman" whose body becomes bloated and finally ruptured by nasty biomechanisms, Star Trek's Borg, whose predatory networked consciousness threatens to destroy bodily integrity and personal identity (Trek's cherished twin pillars of morality), Johnny Mnemonic's memory-bank brain, where images of childhood have been seared away to make room for valuable corporate data. Even the out-of-control dinosaurs of Jurassic Park are quintessentially cyborg constructions, having been reanimated by a network of capital, biotechnical research and fossil DNA.

The cyborg's current cultural role as vehicle for popular unease about science makes Haraway's deployment of it not merely an oppositional trope, but a positive one, even more startling. Haraway's cyborg is affirmative, celebratory, even sexy, which is something of a miracle when you consider that previously it was either a technoscientific religious fantasy, or

a pop science-fiction nightmare. This new cyborg's origin in feminist debate about overturning the classic hierarchical binary oppositions (man/woman, reason/emotion, culture/nature and so forth) is well understood. The cyborg body is a constructed one, and hence can potentially be reconstructed, a proposition which makes the feminist project a matter of research, rebuilding and redefinition, rather than a metaphysical struggle against a protean foe, or a quasi-spiritual refusal of masculinised reality. The cyborg, in short, makes change realisable.

However, beyond semiotics, beyond even the terms of the feminist debate into which she first introduced it, Haraway's cyborg has the potential to change the way in which we think about bodies, networks, power and machines. By reframing cultural debate in radically material terms (cybernetic mechanisms of communication and control operating through assemblages of bodies, technology, and social protocols) the cyborg makes possible a type of thought unavailable to the dominant crop of semiotically-based theories.

For semiotics, materiality is an unattainable horizon, the gap between signifier and signified, a gulf whose resistance to rhetorical bridging produces feelings of loss, entrapment and despair. Poetic mourning often becomes itself the focus of critical energy, leaving other problems to fend for themselves. The cyborg's response to this semiotic melancholia is to utilise shock tactics — reaching inside its stomach and pulling out a handful of guts, lifting flaps of skin to show the bloody servo-mechanisms swarming beneath.

The cyborg forces us to situate thought in the body, and in turn to situate bodies in networks which contain elements of biology, politics, desire and technology. It produces continuities between these disparate strata, allowing us to think what would otherwise be unthinkable.

Of course, asserting some uncomplicated notion of "the real" or "the material" against language was, once upon a time, the tactic of thinkers (on left and right) who wished to preserve certain sacred spaces, free of interpretation. Marauding linguistic post-modernists could invariably be sure that in these priest-holes, these secret stashes, they would unearth the fetishes of power. God, Man, Woman, the Law, the State — hiding places of the unanswerable, the unquestionable. However this process of questioning, once so vital, has latterly become a mainstream cultural industry. In so doing it has been corralled, recuperated by the system it set out to deconstruct. The cyborg's messy physicality signals another phase of oppositional cultural politics, a phase beyond the sovereignty of language. Yet Cyborg materiality isn't silent, isn't unquestionable. It's not the smooth, homogenous, impenetrable body of yesteryear. There is nothing classical about it. It is constructed, heterogeneous, multiple, shot through with code, sticky to the touch, and as Donna Haraway reminds us, it can always be reconstructed. As the title of a Philip Dick novel has it: "We can build you." One might add that we can also build ourselves.

So we discover that we are all cyborgs. It is an eerie realisation, a fascinating moment of alienation in front of the mirror. But perhaps the all-too-human narcissism of this moment obscures aspects of the cyborg which need to be restated. The literal penetration of the skin by technoscience, whether in the form of antibiotics, agrichemicals, prosthetics or information technologies, is only one aspect of our cyborgisation.

Fascination with the permeability of the body, indeed fetishisation of that permeability such as one finds in the gothic prose beloved of many cyborg-groupies, diverts energy from the central realisation that the cyborg is a networked entity. The cyborg cares little for the barrier of the skin, because it does not recognise that barrier. The crossing and recrossing of that

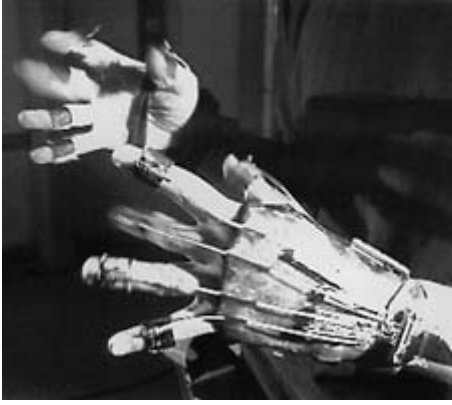
boundary, so fascinating for humans who associate the move of rupture with death, is, to a cyborg, merely incidental, an unmarked point in a circuit which may pass through several bodies, widely distributed in space and time. Indeed the hard-bitten academic rhetoric of flesh and metal, drawn more from pop-cultural cyborg iconography than political theory, may be starting to cloud the issue.

Cyborg networks incorporate flesh, but above all are distributed objects, which bring flesh into relations with all kinds of heterogeneous codes, products, forces. Surgery is not required. Haraway's own recent work, which moves away from the cyborg, towards networks such as the human immune system and the masculine protocols of scientific objectivity, underscores this.

In an interview I conducted with her, Haraway remarked "My cyborg is a bad girl." By introducing the lighthearted image of the cyborg as a tear-away teen, breaking rules, cutting through fences, bringing the wrong kind of people home to bed, she highlights its primary function — as a transgressive figure. The cyborg operates by transgressing the regimes of signification which deny links between bodies, power and technoscience. These splits, by which word is separated from world, scientific objectivity from experimental fallout, are one of the main ways in which power maintains itself. When technoscientific discourse is deliberately disconnected from the economic operators which govern it, and when experimental results are separated both from the consequences of their use and the messy realities of their production, then it requires transgressive thought to produce critical accounts of science. The cyborg is useful as long as it retains its power to transgress, and does not recede into a conventional articulation of anxieties about plastic surgery, AI, wetware and the like.

At the moment the cyborg is still the baddest girl on the block. The structures revealed by her transgressive linking of supposedly-separate domains are precisely those which are most unpalatable to the vested interests of technocapital. The cyborg reminds us that Bhopal and Chernobyl are connected to university laboratories and boardroom meetings, that a naked human body might be networked to gene patenting, Nike marketing strategy, pesticide research, antibiotics and international tourism. The cyborg is still saying what was previously unsayable. She has certainly come a long way from DARPA's astronaut Christ.

1. Donna Haraway, "Manifesto for Cyborgs: Science, Technology and Socialist Feminism", in: *The 1980's Socialist Review* 80 (1985)
2. All terms from Johnsen and Corliss, "Teleoperators and Human Augmentation", in Gray, Chris, (ed.), **The Cyborg Handbook**, London, Routledge 1995
3. Clynes and Kline, "Cyborgs and Space", in: Gray, op. cit.
4. Jack E. Steele, "How do We Get There", in: Gray, op. cit.
5. See for example the descriptions of factory workers in: Charles Dickens, **Hard Times**, first published 1854
6. *Modern Times*, dir. Charlie Chaplin (United Artists 1936)
7. *de Humani Corporis Fabrica*, Leyden, 1543



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