



Volume 6.2

A Manifesto for Cyborgs thirty years on:
Gender, technology and feminist technoscience in the
twenty-first century

ISSN: 1836-5132

PLATFORM

JOURNAL OF MEDIA AND COMMUNICATION

Volume 6.2

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ISSN: 1836-5132 online

Platform: Journal of Media and Communication Volume 6.2 has been edited by
graduate students at The University of Melbourne.
It is published by the School of Culture and Communication,
The University of Melbourne.

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Introduction

Thao Phan – University of Melbourne

thao.phan@unimelb.edu.au

It has been thirty years since Donna Haraway's iconic essay *A Manifesto for Cyborgs: Science, Technology and Socialist-Feminism in the 1980s* (hereafter Manifesto) was first published. Broadly acknowledged as the text that first introduced the cyborg into feminist theory, the Manifesto has had an influence and impact on feminism and other scholarship far exceeding its original contexts and intentions.

A notoriously dense text, the Manifesto is often labelled as a cyborg itself—a chimera of cybernetics, socialist feminism, information science and literary studies. Beginning as technoscientific creation myth, the Manifesto has its roots in the milieu of the early 1980s, more specifically in the heightened Cold War tensions resulting from the end of détente. It poached on C³I (command, control, communication, intelligence) Reaganite military rhetoric to write a cybernetic “common language” to resist “instrumental control” (Haraway, 2004a, p. 23). The cyborg was deployed by Haraway as feminist figure through which to critique persistent Western dualisms such as nature/culture, male/female, mind/body, and other binaries¹ that have historically structured systems of domination based on the delineation of an “other” as problematic mimesis of the “self.” The informational language of coding was here co-opted to undermine boundary making practices through the always mutable political identity of the cyborg. Additionally, the Manifesto worked to commensurate the tensions between current strands of American radical feminism² and military technoscience, which had both (though in separate ways) articulated women as tied to the organic and in opposition to the technological. In the case of the latter, such views were produced and reproduced through dominant narratives of masculinity and technology that fetishised progress, instrumental rationality, and an objective and expansionist view of science—oppressive rhetoric set forth in phallogocentric discourses, such as Enlightenment humanism and the scientific revolution, and have persisted as a habit of Western culture. In the case of the former, they were reinforced through tactics such as “strategic essentialism” and standpoint feminism to counter narratives of technoscientific determinism. Ecofeminism in particular deployed figures like Gaia, the female Earth-goddess, to combat the image of the polluted technological male. However, when coupled with imagery of masculine technoscience (like the Terminator, for instance), such figures accentuated the divide between nature/culture and male/female as antagonistic dualisms. Lastly, the Manifesto also helped to make visible the role of “women in the integrated circuit” (Haraway, 2004a). This strategy aided in diminishing the ideological categorisation of women's lives as either/or in public/private, instantiated in socialist feminist analyses that foregrounded “working-class life into factory and home, of bourgeois life into market and home, and of gender existence into personal and political realms” (Haraway, 2004a, p. 29). It also worked to critique radical feminist invocations of the “‘essential’ non-existence of women” as biological group (Haraway, 2004a, p. 19).³ These positions insisted on a reading of womanhood as founded in a common experience of disadvantage; an experience which in and of itself is constitutive of “women” as unified social class. Acknowledging the work of postcolonial feminism, the Manifesto was critical insofar as it helped to expose the limits of essentialism and the embeddedness of essentialist structures, even within discourse that it sought to critique. In this case, it was the participation of radical feminism in totalising rhetoric.

Reading wholes from parts

The richness of the text means that the Manifesto is a piece that is often read in terms of its parts. These parts are then fractured amongst fields, scholars, disciplines, geographies, temporalities and literacies.

¹ Specifically Haraway states: “Chief among these troubling dualisms are self/other, mind/body, culture/nature, male/female, civilized/primitive, reality/appearance, truth/illusion, total/partial, God/man” (Haraway, 2004a, p. 35)

² Exemplified states Haraway by Susan Griffin, Adrienne Rich and Audre Lorde (Haraway, 2004a, p. 31)

³ Haraway criticises Catherine MacKinnon and her brand of radical feminism as particularly guilty of this invocation

Some of the literacies can be traced to Haraway's own practice and lived experience, others are taken from broader frames. Reading the Manifesto as another kind of cyborg, we can see how the fecundity of the text means that it can be easily co-opted in service of whatever disciplinary machine the organicism of "theory" is called to lend credence. It has been deployed in screen studies, cultural studies, literary studies, posthuman studies, science and technology studies, media studies and more. As a practice in feminist technoscience, it is sometimes separated from this base and read in terms of either/or—*either* feminism, *or* technoscience. There is no shortage of cyborg figures invoked in the examination of women and other "constituted others" on screen, in literature, in the workplace, and in the digital world. Similarly, the cyborg is liberally read in varied imbrications between humans and technology. This is the reading of the cyborg that has successfully managed to escape the ivory tower and permeates popular discourse in science, film, art, discussions on ability/disability, prosthetics, and popular reporting of technological innovation. For this reason, the Manifesto can be considered as the most promising of monsters⁴.

What is ironic in these readings is the tendency to form ideological wholes from parts of the text—a manoeuvre which the Manifesto itself explicitly critiqued (see Haraway, 2004a, p. 9). The Manifesto, when understood as moral tale for the "you are cyborg"⁵ narrative, has proven irksome even for Haraway herself. As she states in one interview:

The reading practices of the Cyborg Manifesto took me aback from the very beginning, and I learned that irony is a dangerous rhetorical strategy... The manifesto put together literacies that are the result of literary studies, biology, information sciences, political economy and a very privileged and expensive travel and education. It was a paper that was built on privilege, and the reading practices that it asks from people are hard. (Haraway in Lykke, Markussen and Oleson, 2004, p. 325)

The difficulties in the text are, of course, also its blessings as it accommodates a continuous process of reading. There are no authorised routes, no beginnings nor ends, as there are multiple entry and exit points. What is less productive, however, is when the Manifesto is decoupled from the cyborg itself. When the context is elided in favour of a more literal reading of the cyborg. This is often the case when the Manifesto is mentioned as obligatory footnote that follows a definition of the "human" (defined in the broadest sense) in relation to some kind of "other" (also broadly defined) in some kind of "turn"⁶. This is most problematic in instances in which the cyborg is no longer understood as feminist figure—as something to think with—but rather as an example of the "always, already" aspects of human coevolution⁷. In these cases, the cyborg is used in service of what Jaron Lanier calls "cybernetic totalism"—the extreme cybernetic worldview that sees "cybernetic patterns of information [as providing] the ultimate and best way to understand reality" and that "describe[s] people as no more than [informational] patterns" (Lanier, 2000, p. 2). As with all totalising discourses, such a view trivialises difference, erases polyvocality, invokes essentialism, and reproduces the very structures (in service of the very structures) with which Haraway's Manifesto was designed to critique. Irony is, indeed, a "dangerous rhetorical strategy" in this instance.

Feminism with(out) cyborgs

In the spirit of Haraway, however, it is worth reminding ourselves of the fallacy of the modest-witness. That even in feminist practice, "we have nothing but non-innocent translations, all the way down" (Haraway, 2004c, p. 4). My own critique of cybernetic totalism itself exposes an investment and fetishisation of an originary meaning to figures and texts. Indeed, as Zoë Sofoulis' Guest Editorial in this issue notes:

⁴ See Haraway, D. (2004b). The promises of monsters: A regenerative politics for inappropriate/d others. In *The Haraway Reader* (pp. 63–124). New York and London: Routledge. Originally published 1992.

⁵ See Wired magazine's 1997 interview with Haraway titled "You are cyborg" (Kunzru, 1997)

⁶ For example, the non-human turn, the materialist turn, the affective turn and so on.

⁷ See cybercultures academic David Bell (2001), cognitive scientist Andy Clark (2003), and "cyborg anthropologist" Amber Case (2015)

“Most readings and quotes from the Cyborg Manifesto place much greater emphasis on the cyborg metaphor than on post-dualist, post-positivist ironic epistemology that it figures” (Sofoulis, 2015, p. 10) and my reading is certainly not innocent in this context either.

This issue is then an acknowledgement of non-innocent translation. A collection of papers, with the Manifesto as animating object, that asks readers to consider in each article the kinds of situated knowledges that each young feminist brings to their unpacking of the cyborg figure. If there is an advantage to editing a postgraduate journal, it is that postgraduates and early career researchers are accustomed to the humbling processes of making claims to knowledge. Impositions of universality or a single language are shook out early in the modern trial by fire of the tertiary institution. For women especially (of which the majority of contributors identify), their own knowledge and their own status as “condensed node in an agonistic power field” (Haraway, 1988, p. 577) is writ large in their candidature experience as biological specificities, we are told, should ideally be no impingement on candidature or career. It is ironically the rejection of biological essentialism, to which most young feminists are accustomed, that can hamper productive critique in this situation.

Remarking on the polyvalent responses that the Manifesto has garnered over the years, Haraway has stated: “I [find] myself to be an audience here. In this context, I am one of the readers of the manifesto, not one of the writers. I did not write that manifesto but I love reading it” (Haraway in Lykke, Markussen and Oleson, 2004, p. 325). The articles collected here are an attempt to join partial perspectives to facilitate new acts of interpretation, betrayal, trickery, apostasy, and irony in the act of reading and writing the Manifesto.

Zoë Sofoulis’ Guest Editorial opens the issue with aplomb. As the only contributor to be personally affiliated with Donna Haraway and the History of Consciousness (HoC) program at the University of California, Santa Cruz, she provides crucial perspective on the Manifesto’s germination, its cultural milieu, and the limitations of cyborgs without ironic epistemology. Her reflections on the HoC and the themes of the essay help to frame an Australian response to local social and political issues regarding relations of science and technology within communities and institutions. As she states “The cyborg was just one answer to that particular question of Haraway’s. It is up to us to formulate our own questions about our contemporary situation and to invent metaphors that answer those questions, or at least help us ask better questions” (Sofoulis, 2015, p. 11). It is with this provocation that she formally introduces the issue and it is with sincerest thanks that she provides this critical perspective.

Tarsh Bates’ article pounces on the themes of figuration, playful irony, and companion species present in not only the Manifesto, but in Haraway’s broader works. Thinking through and with the framework of cat’s cradle, Bates weaves together a rich representation of cultural relations between *Homo sapiens* and the fungal pathogen *Candida albicans* (also known as thrush). She ties together research and artistic practice to delineate a new ecology of companion species she calls *CandidaHomo* naturecultures—a companion species that demonstrates fascinatingly well the productivity of ironic epistemology and figuration to expose reductive boundary practices. Whereas Haraway’s cyborg was a situated critique of tropes of military technoscience and the language of C³I in the age of Reagan’s star wars, Bates’ *CandidaHomo* is a comment on the pathologisation of women as leaky bodies through metaphors of war, security and surveillance in the age of Global Terrorism.

Emma Wilson’s thorough analysis similarly maps a familial lineage between Haraway, technofeminism, and cyberfeminism with more emergent strands of thought, specifically *Accelerationism*. Abandoning the language of linear progress, Wilson instead constructs a “mutant politics”—an emergent phenomena when cyborg ontology is put into dialogue with other subjectivities and subject positions. Unsatisfied with merely mapping a moment, this article gestures towards further collaborations between *Accelerationism* and contemporary feminisms. Xenofeminism in particular is identified and engaged with as productive discourse for further incursions between *Accelerationism* and gender politics, and the paper asks what other possible dialogues might be had with further imbrication.

Gabriela Aceves Sepúlveda offers a valuable perspective on Mexican independent media producer and feminist artist Pola Weiss. Using the Manifesto as a framework to reflect and reconcile tensions between what she calls “distinct intellectual geographies”, Weiss announces a political affinity of cyborg practice outside of the white, US-led circles of feminism. This paper explores in detail Weiss’ video oeuvre as

feminist practice that precedes Haraway's essay and in doing so makes visible the totalising narratives which have themselves been written around the cyborg as "revolutionary figure" in western feminism.

Ruby Grant's article provides an intimate analysis of cyborg subjectivity through her study on prosthetics and female amputees. Reconciling metaphor with lived experience, Grant's research speaks more broadly to the effects of cyborg discourse outside of the temporalities and localities that are often taken for granted in discussions of the Harawayan cyborg. This pertinent work around metaphorical opportunism poses pointed questions around responsibility and choice, particularly in fields that blithely exploit phrases such as schizophrenia, disability, colonisation, and queer, too often without the acknowledgement that these terms are connected to real bodies with real lives.

Finally, Anna Helme's creative/essay contribution is a fusion of queer politics in artistic practice. A contribution that has been lovingly put forward in two parts: the first is Helme's short film *MyMy* (2014), a consciously queered science fiction narrative produced with an aesthetic of mystic technology; and the second is an intimate essay on identity, artistic process and queer politics. As a film, *MyMy* is a fantastic exploration of the aesthetics of alterity. Written and produced with the Manifesto in mind, *MyMy* similarly reimagines tropes of technoscience outside of the language of cold rationality and humanist progress. When tropes such as these are blended with human flesh in embodied visions of cyborgs—for instance, James Cameron's *The Terminator* (1984), or David Cronenberg's *Videodrome* (1983) or *Existenz* (1999)—they become necessarily abject. They are dehumanising, monstrous and violent. *MyMy*, however, posits an alternate cyborg fantasy, a fantasy which is intimate, affectionate, and that eschews essentialist tropes of gender and master/slave dialectics of technology.

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Thao Phan is a PhD candidate in the media and communications program at the University of Melbourne. Her research interests are in gender, technology and feminist-technoscience and her dissertation analyses the gendered dimensions of discourse in Artificial Intelligence.

Guest Editorial

The Cyborg, its Manifesto and their relevance today: Some reflections

Zoë Sofoulis – University of Western Sydney

z.sofoulis@uws.edu.au

Squirring Back into the Cyborg Manifesto

The mere presence of adoring fans has been insufficient to entice Donna Haraway to visit Australia. Only Helen Verran and postgraduates at Melbourne University's History and Philosophy of Science department managed to interest her once in the late 1990s. So as the first Australian with a doctorate co-supervised by Haraway at the History of Consciousness program at the University of California, Santa Cruz, I have occasionally been called upon to speak when the doyenne of cyborg feminism was, as usual, unavailable down under (Sofoulis 2003). The role of antipodean Haraway always made me uneasy. It is a mistake to project patriarchal (and oedipal) traditions of scholarly filiation onto feminists. In my observation, feminist supervisors rarely seek to turn out clones of themselves and feminist students do not usually aspire to replicate/replace their professors. Like cyborgs, feminist students can be "exceedingly unfaithful to" and quite uninterested in their origins (Haraway, 1991, p.151)¹.

But what really makes me squirm whenever I read the opening pages of the Manifesto or am asked to speak for its author, is how closely I recognise my (then) self in the feminist, and especially ecofeminist, tendencies that Haraway was railing against. In the four-part conference presentation where Haraway introduced her cyborg to US audiences, I went first because my view was more standard and even "retro" compared to where Donna wanted to take us. For I was one of those feminists reproducing all those dualisms of "white capitalist patriarchy"; I was on about the woman-nature / man-machine connections and angsting over the inevitability of C³I and the military logics of computing leading to the Star Wars apocalypse (Sofia, 1984). I wrote about "bisexuality, pre-oedipal symbiosis ... other seductions to organic wholeness" (150). With typical postgraduate self-centredness, I paid little attention to Haraway's cyborg while working on my own ambiguous metaphors and myths of high technology and science fiction like the brain-womb, the spermatic word, the penis-breast, the cannibaleye (Sofia, 1987). The bisexual / combined parent figure of the Uroboros, the serpent that feeds and fertilises itself, was one of my favoured metaphors that made Donna want to "regurgitate". I saw Frankenstein's monster and the cyborg as equivalent technosex fantasies, whereas Haraway placed them on different sides of her chart contrasting the logics of "white capitalist patriarchy" with those of "the informatics of domination".

Haraway's closely related later essay "Situated Knowledges" (1988; 1991) generously notes it was revised in relation to my doctoral work on the metaphors of vision in scientific discovery. What she doesn't say was that again, I was articulating the kind of position and interpretation that she was critiquing and improving upon. In short, I was pre-Harawayan and Haraway was post-Sofoulis².

"The machine is us, our processes, an aspect of our embodiment." (180)

Eventually I found my way back to Haraway, via Latour et al.'s actor-network theory and especially Don Ihde's phenomenology of technology (Ihde, 1990), introduced to me by my (then) postgraduate, Ingrid Richardson (2003, 2007). Playing "Donna Down Under" had forced me to reengage with Haraway's work. I had arrived at the History of Consciousness program already interested in the mythic aspects of

¹ All page references are to the version of 'A Cyborg Manifesto' in Haraway, 1991.

² Our disagreements were merely theoretical. Personally and professionally, Donna has been unfailingly conscientious, supportive, generous, inspiring and congenial.

high technologies but through Haraway became more intrigued by embodied relations with technologies, whether everyday domestic life, or, as I later explored, in encounters with interactive, electronic and installation artworks. This, coupled with my earlier interests in myth, technology and the pre-oedipal, led to the “Container Technologies” paper (Sofia, 2000), a pivotal point after which my concerns have centred on water infrastructures and interdisciplinary approaches to water management.

Ironic Epistemology

“Irony is about contradictions that do not resolve into larger wholes, even dialectically, about the tension of holding incompatible things together because both or all are necessary and true.” (149)

Nowadays, the aspect of the Manifesto that most strongly resonates with me is its ironic epistemology. Haraway’s approach helps me imagine a “knowledge ecology” as an alternative to the positivist fantasy of knowledge integration into a universal whole: a multiplicity of interacting knowledges, knowers and discourses, each with its own partial truths about the real world (Sofoulis, 2015b). This aspect is not uniquely Harawayan, but was co-extensive with the approach to knowledge cultivated in the History of Consciousness learning community. Group discussions conducted amongst former students held at the time of Haraway’s retirement celebrations in 2011 revealed many felt this interdisciplinary program had equipped them with interest and skill at identifying and negotiating between different types of knowledges and epistemologies.

The Manifesto’s opening paragraph announces its political intentions: to reinvigorate politics not by claiming an excluded identity, or fighting a hated enemy from *outside*, but by blaspheming—deploying irony—“humour and serious play”—from *within* where we find ourselves, including the all too serious strictures of US Christian, left and feminist political orthodoxies. The Manifesto aimed to replace political correctness with irony. As Hayden White, long-term head of the History of Consciousness program, had schooled us all, irony was the “Master Trope”, valued above others because it does not insist on smoothing over difference and assimilating the unassimilable.

In this epistemological relativism, positivist and faith-based notions of a singular “reality” or “truth” are displaced by the knowledge ecosystem notion that every standpoint and mode of knowledge had its own partial truths to contribute to accounts of reality. This relativism (or irony) made Haraway, and post-modern theorists generally, targets of a counter-attack from advocates of positivist science and sociology in the so-called “culture wars” of the 1990s³. The idea that reality emerges in interactions between matter and meaning-making activity (call it scientific practice, hermeneutics or semiosis) scandalises those with faith in Baconian science and erodes the epistemological foundations of the (old) modern disciplinary divide between sciences and arts, facts and values. The positivists and hyperrationalists fear that abandoning sacred notions of singular truth and unified knowledge will enmire us in an amoral orgy of semiosis, an excessively generative textuality unmoored from material reality or truth. Such catastrophising is found in positivist-dominated fields like water resource management, where there are anxieties that abandoning one-size-fits-all, top-down, efficiency-driven solutions centred on notions of average individuals, and instead working with models of social and technical heterogeneity, will plunge us into chaotic randomness, where anything goes and no control or oversight is possible.

“[...] we risk lapsing into boundless difference and giving up on the confusing task of making partial, real connection. Some differences are playful; some are poles of world historical systems of domination. ‘Epistemology’ is about knowing the difference.” (160-161)

Unfortunately, all too many of us on the cultural side of the culture wars revelled in the pleasures of semiosis and interpretive play, forgetting Haraway’s exhortations about the need to take seriously our responsibilities for boundary construction and the metaphors we let loose in the world. We helped stoke

³ For example, both sides the Sokal affair directly involved History of Consciousness faculty members, and adversely affected Haraway, the program and its graduates.

positivists' fears that an excess of meaning-making would lead to meaninglessness. Unafraid of indulging in elaborate textual play herself, Haraway has often been received as a proponent or example of the "textual turn", when in fact her "material-semiotics" positioned her against it, and the Manifesto reaffirmed commitments to (a social constructionist version of) epistemological realism.

In the 30 years since the Manifesto was first published, notions of complexity have become more familiar and make Haraway's ironic epistemology more legible and relevant. The alternative to the hyper-rational positivist ordering of truth and knowledge is not undifferentiated randomness but an intelligent responsible facility to negotiate across different knowledges of complex entities and phenomena and determine which ones matter most to guide effective actions (Ang, 2011).

Cyborg vs Manifesto (Or: Metaphor vs Irony)

"At the centre of my ironic faith, my blasphemy, is the image of the cyborg." (149)

Most readings and quotes from the Cyborg Manifesto place much greater emphasis on the cyborg metaphor than on post-dualist, post-positivist ironic epistemology that it figures. Readers can hardly be blamed, as Haraway more or less sets it up that way, and the opening and closing pages on cyborgs are much more exciting and poetic than many of those that fill out the body of the essay. Even the CFP for this issue reflects this tendency. It starts out being about the 30th anniversary of the Manifesto, but ends up being about the Cyborg: "what are new feminist observations about it; did it fulfil its promise; do we still need it or myths like it?" So compelling is the cyborg as a metaphor—for example, of the utopian potential for subjects of/in the informatics of domination—that it overwhelms the tropic work of the Manifesto as irony or blasphemy, a non-innocent and reflexive epistemology that acknowledges both the relevance and the limits of different knowledges and standpoints, including its own.

The rarely discussed sections of the Manifesto that follow the opening description of the cyborg illustrate some of the real-world considerations for a late-twentieth century socialist feminist: the conditions of work in electronics factories that replicate international gendered/race/class divisions of labour; the claims of marginalised and non-dominant subjects (especially what Sandoval was calling "US Third World Women"); developments across a range of cultural forms (in this case, feminist science fiction of the 1970s-80s); current political struggles (e.g. in the mid-80s, a resurgent anti-nuclear movement).

I have read many theses and chapters and articles (almost all by first world women) rhapsodising on cyborg subjectivity and the technologies and media interfaces that enable it, but few seem to follow Haraway beyond the metaphor, the science and the technology and pay attention to a materialist, socialist and feminist analysis of the labour, resources and institutions involved in the production of those interfaces and technologies, let alone a reflexive analysis of their own situation. If there is a legacy of the *Manifesto*, as distinct from the *Cyborg* metaphor, I hope it might be to challenge us to ground our rhetorical/political speculations in a realistic and complex grasp of our own conditions of writing/ knowing/living.

The Euphorics of Impurity

"Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves." (181)

For a creature that is supposedly outside of salvation history, it is ironic (in the Morissettian rather than Harawayan sense) how often the cyborg is regarded as a salvific figure. As Haraway hoped, the cyborg, with its euphorics of impurity and the non-innocent pleasures of the interface, has indeed rescued us from many of those nasty old enlightenment dualisms and dichotomies.

It's an exciting moment in a humanities postgraduate's journey when they make a leap from thinking in terms of simple opposites or dualisms, to appreciating how these dualisms construct (and/or deconstruct) each other, or a further expansion to some more complex post-dualistic standpoint. The cyborg figure facilitated those kind of conceptual leaps, preparing the way for other versions of socio-technical theory (such as actor-network theory, and more recently, practice theory) to gain a firmer foothold beyond

science studies, while providing an conceptual framework for a post-essentialist feminism. No wonder many an emergent scholar has fallen upon the cyborg as a figure that promises salvation or liberation.

The cyborg's liberatory post-dualist character makes it easy to equate it with other ambiguous figures, monsters, the abject, queerness, etc. etc. The cyborg metaphor was taken up as a feminist version of a Bakhtinian utopian semiotic fantasy that had been integral to the textual turn: that any figure which undoes, supercedes, or liberates us from categorical dualisms is somehow politically liberatory; that semiotic monstrosity equals political subversiveness. The Manifesto is not innocent of this fantasy, but it also touches on questions about political and epistemological responsibility: what kinds of knowledges about whose material lives and aspirations have input into formulating the metaphor? And what kind of political work do we want our cherished metaphors or monsters to perform? To whom and to what political and material realities are our rhetorical and political plays answerable?

Breaking the Metaphor Drought

"There is a myth system waiting to become a political language to ground one way of looking at science and technology and challenging the informatics of domination—in order to act potently." (181)

Colloquial Australian speech has no shortage of metaphors and similes—"flat out like a lizard drinking," "Dry as a dead dingo's donger," "Budgie smugglers," etc. But amongst the Australian intellectual elite we suffer a chronic metaphor drought, constantly recycling the few we have come up with ("a fair go," "the lucky country," "the fatal shore"), importing the rest from France or the US. Is there an element of cultural cringe in our preference for using outsourced metaphors as frameworks for interpreting other texts? Are we too lazy or unimaginative to stretch our imaginations and invent our own myths and metaphors? Could we blame our cultural context? Colonised during the Enlightenment, whose lands and peoples have been administered with ruthless and unsentimental pragmatism that allows about as much room for poetry as it does for compassion (that is, not much), our nation has valued technological innovation and sporting achievement far above social innovation and intellectual and artistic development.

No doubt the cyborg remains relevant as a metaphor for thinking about life in a post-dualistic, post-modern, informatised, hyper-mediatised globalised and messed up world. Even Frankenstein's monster continues to have resonance nearly 200 years later (*Rocky Horror Picture Show* being a case in point). The papers in this special edition indicate the continued relevance of Haraway's cyborg metaphor to contemporary early career researchers: whether as a source of terminology and concepts for interpreting technologically engaged feminist artworks (Aceves), an inspiration for making them (Helme), or even, as in Grant's nuanced exploration of the limits of the metaphor, a framework for an amputee's self-empowering new vision of her body and prosthesis. The ironic manifesto resonates with the anarcho-futurism of the accelerationists (Wilson) and investigations on the borders of art, science and the human microbiome (Bates). However, I'd suggest that what is most relevant about the Cyborg Manifesto today is not the cyborg figure but the kind of question to which it was posed as an ironic and blasphemous answer: what new myths and metaphors can help us frame our political languages and analyses of science of technology (and their associated conditions of production) in order to resist domination?

The cyborg was just one answer to that particular question of Haraway's. It is up to us to formulate our own questions about our contemporary situation and to invent metaphors that answer those questions, or at least help us ask better questions. It is not that any free-floating metaphor would do: consistent with Haraway's socialist feminist commitment is the demand that such figures have strong ties to analysis of social and material realities.

In my current reality some of the urgent questions concern a history of national and international impotency on coordinated responses to climate change, a disconnect between current ways of life and those geoscientists consider sustainable, and the widespread failure of Australian governments to protect land, rivers and aquifers and water from the depredations of foreign coal and coal seam gas miners, despite vociferous protests and unprecedented alliances between Greens and farmers.

These times call for their own metaphors. For example, in thinking about the temporality of the Anthropocene, and our current life in the unfolding climatic and environmental aftereffects of global resource exploitation, fossil fuel burning, habitat destruction, and loss of biodiversity, I have started to explore the zombie as a figure of “the aftermath”: of life going on in an damaged and imperfect world, in damaged and imperfect bodies. And in view of the dislocation between many contemporary industrial, agricultural and resource management practices and the actual and sustainable carrying capacity of the planet, and calculations that we currently consume 1.5 Earths’ output per year on Earth—estimated to rise to three Earths by 2030 without drastic reductions in resource consumption⁴—the figure of an extraterrestrial might well be an appropriate metaphor of those whose ways of life are not compatible with supporting biodiversity on this planet.

Science, Technology, Society, Policy: Some Questions

An ironic epistemology that can hold irresolvable contradictions in mind is not a luxury but a necessity when addressing contemporary issues around the social relations of science and technology in Australia. For example, there is urgent need to defend science research, universities, institutions like CSIRO and information channels like public broadcasters against huge budget cuts imposed by the climate-change denying, windmill-hating, coal-loving, and (thankfully) recently deposed Prime Minister Tony Abbott, whose successor has the challenge of restoring a twenty-first century orientation against the pull of such regressive views in his own party. In tension with this imperative to fight anti-science is the chronic longer term need to challenge the dominance of positivist approaches in policy-making across all fields from social policy, education, health and welfare through to economics, agriculture, industry, resource management.

The dominance of positivism is a legacy of a colony settled for social and commercial reasons as an exercise in rationalist terraforming during the height of Enlightenment optimism in science and technology (and before the Romantic reaction against industrialisation had kicked in). Neoliberalism (known here as ‘economic rationalism’) gave it an extra boost in the late 1980s-1990s, and was enshrined thereafter in the Productivity Commission (see Sofoulis, 2015a, p. 530 and *passim*). With a seemingly inexhaustible supply of anonymous economics consultants, it evaluates and/or produces policy proposals according to neoliberal economics principles that put markets and economic efficiency as prime considerations and promulgate neo-positivist views of citizens as *homo economicus*, customers to be understood through behavioural economics and population statistics. Unfortunately, Australia has not yet seen fit to replace the Productivity Commission with a “Sustainability Commission”, that would evaluate policy and development proposals with a view to the environmental and social considerations, not just economics.

Regular pronouncements by top scientists and research policy bodies address the urgent need to “integrate” humanities and social sciences with the scientific and technical knowledges that have so far failed to solve the complex and wicked problems of our time—many brought about (as Pope Francis has recently reminded us) through a combination of hypertrophied rationalism and a diminished care for the Earth in service of corporate greed to exploit it. But “integration” itself is a metaphor that implies a pre-existing and ongoing body into which some lesser body is assimilated. Where positivists dominate, this supposed “integration” often takes the form of a predatory act of “incorporation” where the richness of humanities and social sciences knowledge is ignored in favour of quantified social data that can be fed into the scientists’ modelling software, disappearing without a trace or any discernable effect on the incorporating body (Sofoulis 2015b).

Most Australian scientists and engineers have no training in the history and philosophy of their disciplines and do not even know they are positivists: positivist scientific method is simply “method” to them. In the resource management field, so assured are many positivist scientists in the universal adequacy of their knowledge that they confidently define the parameters of social research, the questions to be asked, and what will count as evidence. One resultant fact of research life for many Australian qualitative

⁴ http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/

social and cultural researchers in traditionally STEM (Science, Technology, Engineering, Medicine, Maths)-dominated fields (including resource management, transport, health and medicine) is being obliged to add a large-scale questionnaire into the research design in order to satisfy STEM experts and policy-makers who believe the only knowledge worth considering is quantitative, statistical, predictive and “objective”, and who dismiss everything else as “subjective”, anecdotal or a matter of values.

The political philosopher Boaventura de Sousa Santos warns of these tendencies to produce knowledge monocultures through “epistemological fascism” and he bemoans the “epistemicide” (Santos, 2009, p. 116) or loss of knowledge diversity that results when positivist science and its conventions of evidence and reporting take over most fields, to the exclusion of the unquantifiable insights, wisdom and problem-solving strategies that derive from interpretive and qualitative traditions (see also Sofoulis 2015b).

It is important to recognise how hard it is for positivist scientists to accept the validity of other knowledges they have been taught to disparage. An epistemological relativist finds coming to terms with a different standpoint relatively easy, like a polytheist adding another god or goddess to a pantheon. But the positivist is more like a fundamentalist monotheist for whom accepting another deity is apostasy: it shatters their established identity. A Harawayan question here might be: what figures, metaphors or narratives could help (and are already helping) positivist scientists become post-positivists who are open to accepting other kinds of evidence and knowledges that can't be presented in statistical tables and charts? One key to this answer has to do with replacing positivist arrogance with post-positivist humility.

The metaphor of a knowledge ecosystem or knowledge ecology is posited as one alternative to positivist dominance and “integration”. In a healthy knowledge ecosystem, predation and incorporation of less prestigious knowledges is not the only possible relationship. Different knowledges (and communities of knowers) can co-exist with each other in more cooperative and synergistic ways without needing to lose distinctiveness by being dissolved into the (pseudo-)universal epistemology of positivism.

A troubling feature of the relations between science, policy and society in Australia can be characterised by the metaphor of the eternal triangle, where classically A desires B who desires C, who desires A. In our tragic triangle, the people (A) look to governments (B) for leadership and decisive action on big issues like climate change, fossil fuel dependence and sustainability. In turn, the governments look to scientists (C) to tell them what to do, and seek to avoid political controversies by developing a series of technocratic processes that address the scientific issues (typically, environmental risks). But the positivist scientists have been trained to ignore the social and political contexts of their practice, and to think of themselves as disinterested and objective agents with no particular values or responsibility for how their knowledge is applied and used in politics and society. Having painted themselves into this corner all the scientists (C) can do is look to the people (A), and make arguments for democracy, participatory decision-making and public science education, on the grounds that if the public is more familiar with science (or the science on a particular topic) then it will elect politicians (B) who are favourable to science and will act on issues like climate change.

Meanwhile, between elections, the politicians press on. While drafting this piece, I heard both the federal environment minister Greg Hunt and the NSW premier Mike Baird express approval for a proposed massive expansion of the Shenua coal mine in prime agricultural land fed by sensitive aquifers on the Liverpool Plains. Hunt stressed they were already at stage 16 of a 17-stage technocratic process of scientific review, the final of which was state approval. Baird, whose government is stage 17, referred to the panels of scientific experts and the “smartest people” who had been brought in to assess it and impose strict environmental conditions. “The science was in” he resignedly proclaimed, implying that despite being the premier of Australia's most populous state, as a non-scientist he was powerless to dispute their conclusions that the risks feared by farmers and environmental advocates were exaggerated. There was no acknowledgement of the incapacity of mining and hydrological scientists to research, report on, or make recommendations about the real source of controversy here: the clash of values between those who want to preserve the state's foodbowl and secure pure water for generations to come, versus those who want to extract and profit from 30 years worth of coal exports to China despite the potential risks. “The science” (which any actual scientist will tell you is never all “in”) and technocratic procedures (such as environmental impact assessments) are being deferred to as excuses for government failures to deal with the politics of clashing values around coal versus land, food and water.

This situation leads me to wonder if more change couldn't be achieved faster if scientists acknowledge they did have values—such as in favour of biodiversity, human survival, and the desire to avoid catastrophic climate change—and could directly lobby and advocate for solutions that could be put to further debate, instead of relying on the public to elect representatives who might, fingers crossed, be more pro-science, and whose parties might permit them to publicly say so. Biologists and ecosystems scientists, it seems, are free to publicly express love for the critters and environments they study and want to help protect, but this freedom to be passionate does not seem to extend to physical scientists and engineers. A Harawayan question here has to do with further breakdowns in the old modern fact/values divide: how might positivists overcome their pretence that science is “value free,” positionless and outside of politics, and to instead publicly align themselves/their work with advocates for action on climate change, fossil fuel reduction, environmental protection, and sustainable city and country lifestyles, livelihoods and infrastructures? What myths, stories and metaphors might enable this shift?

There is increasing and deserved attention to the exciting prospects for engaging ordinary people in a range of “citizen science” projects, typically involving low-level data gathering and sorting. But what we need more of are “scientist citizens” who are willing to acknowledge their role as members of society and use their elite knowledges responsibly and directly for social and environmental good. In the spirit of Haraway's Cyborg Manifesto, a complementary injunction for humanities and social science scholars and researchers could be to temper the unfettered pleasures of semiosis with judicious doses of materialism, by paying critical and honest attention to the material conditions—whether technical, economic, political, cultural, geographic or climatic—of our own knowledge, writing and art-making practices. No matter from which side we chip away at the crumbling divide between facts and values, humility about the limits of one's own knowledge paradigms, and willingness to appreciate the worthiness of others, are necessary for fostering epistemological diversity.

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Dr Zoë Sofoulis is an interdisciplinary cultural researcher with an adjunct position at the Institute for Culture and Society, UWS. Through the Institute and its antecedents, she has undertaken applied projects on the social and cultural dimensions of complex 21st century problems, especially those where technoscientific approaches predominate. She has led projects on everyday water users and urban water industry managers, and co-designed 'Water Diary' exercises that have been adapted by household water researchers in Auckland, Canberra, and Lusaka. Her 2010-11 National Water Commission Fellowship *Cross-Connections* sought to expand the scope of social and cultural research that informs urban water management. She has contributed to organising events for water researchers from different disciplines and sectors, most recently *Tapping the Turn: Water's Social Dimensions* (ANU, Nov. 2012). Zoe is part of the ICS project *Knowledge Ecologies Workshop*, and her most recent article is 'The trouble with tanks: unsettling dominant Australian urban water management paradigms', published in *Local Environment: The International Journal of Justice and Sustainability*.

We have never been *Homo sapiens*: *CandidaHomo* naturecultures

Tarsh Bates – The University of Western Australia

natarsha.bates@research.uwa.edu.au

This paper responds to Donna Haraway's (2003) The Companion Species Manifesto: Dogs, People, and Significant Otherness, arguing that, Candida albicans, as opportunistic pathogens of humans, are—like dogs — “not here just to think with. They are here to live with.” This paper weaves a cat’s cradle of different cultural representations of human relations with Candida albicans, from public health, commodity culture, research science and art, in order to acknowledge my response-ability as an ecology of companion species. It is an embrace of the disturbing lacunae of CandidaHomo naturecultures; an attempt to grapple with the flesh of the more-than-human body.

In 2003, Donna Haraway released the humble, seemingly innocuous treatise, *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Although 18 years had passed since the release of “The Manifesto for Cyborgs,” the possibilities for living with the contradictions inherent in this “anti-essentialist and antihumanist” manifesto had barely begun to be untangled (DeKoven, 2006, p. 1694). At first glance, *The Companion Species Manifesto* (TCSM) seems to be just about dogs, an attempt at “dog writing¹,” where Haraway (2003) emphatically rejects the dog as metaphor, insisting that “dogs are not surrogates for theory; they are not here just to think with. They are here to live with” (p. 5). Indeed for the most part, TCSM traces the co-evolution of dogs and humans. However, TCSM addresses broader concerns: it is a pragmatic, poetic, and occasionally obtuse guide to how “an ethics and politics committed to the flourishing of significant otherness [might] be learned from taking dog-human relationships seriously” (Haraway, 2003, p. 3).

This paper embraces the guide demonstrated in TCSM and the 2008 elucidation of TCSM, *When Species Meet*, to tease out the exciting methodological possibilities opened up by Haraway’s writing for understanding the complexities of intra-specific relationships in general, and between *Homo sapiens* and the opportunistic fungal pathogen, *Candida albicans*, in particular. It describes two of Haraway’s analytical methods, figurations and the cat’s cradle, which are now almost invisibly embedded within her writings. These methods are synthesized with artistic research methodologies which make aesthetic aspects of naturecultures more explicit through affective encounters. A cat’s cradle (Fig. 1) performs Harawayan figurations in order to play in the naturecultures of *Candida albicans* and *Homo sapiens* and clarify how “diverse bodies and meanings coshape one another” (Haraway, 2008, p. 4).

¹ “Dog writing” clarifies the “practices and actors in dog worlds, human and non-human alike,” telling the story of doghuman co-evolution (Haraway, 2003, p. 3).

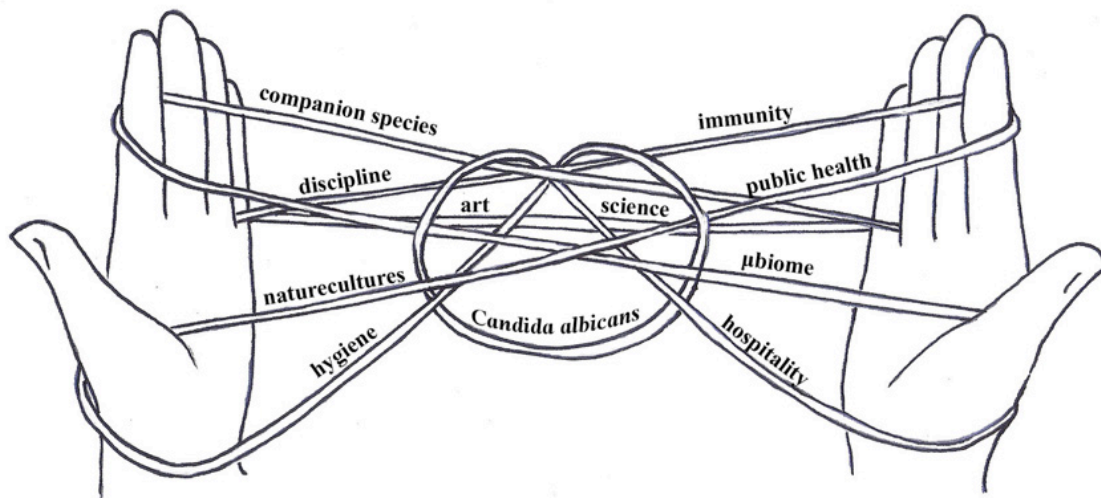


Fig. 1 “The Circle” string game of *CandidaHomo* naturecultures examined in this paper. Adapted from C. Furness Jayne (1906/1962/2009), <http://www.stringfigures.info/cf/circle.html>. Licensed under Creative Commons.

Public health, commodity culture, research biomedical science, immunology, and my own artistic research into *CandidaHomo* naturecultures are scavenged and gathered here as knots where the strings of the cradle rub together²:

Knot 1: The promise of figuration describes and discusses the potential of Harawayan figuration to resist determination to a certain form.

Knot 2: Cat’s cradles—seriously playful/playfully serious discusses the analytical method of the string game introduced in Haraway’s 1994 article “A game of cat’s cradle: Science studies, feminist theory, cultural studies.”

Knot 3: naturecultures and companion species discusses Haraway’s neologisms, “naturecultures” and “companion species.”

Knot 4: *Candida albicans* and unstable nomenclature describes what *Candida albicans* is and discusses difficulties tracing its historicity due to morphological and linguistic instabilities.

Knot 5: An ideal breeding ground considers the gendered nature of our entanglements with *Candida albicans*.

Knot 6: Uneasy seepage examines the intertwining of *Candida albicans*, leaky human bodies and disgust.

Knot 7: *Cum panis* ruminates the mysterious case of bread leavened with *Candida albicans* and “normal” baker’s yeast (*Saccharomyces cerevisiae*), which viewers were invited to eat. Such an artwork does more-than-textual work in the cat’s cradle, exploring the viscosity of *CandidaHomo* naturecultures

Knot 8: Resistance diffracts Haraway’s analyses of the militarisation of immunology through *Candida albicans*—*Homo sapiens* medical discourses.

Knot 9: Hosting the trouble is an imminent knot, dissolving in the formation of a new cradle. This knot discusses the possibilities of “hosts” in living as companion species.

² Haraway argues that these knots, which she calls tangles, are “necessary to effective critical practice” (1994, p. 69).

Knot 1: The promise of figuration

Haraway re-visions figurations in her 1992 article “Ecce Homo, ain't (ar'n't) I a woman, and inappropriate/d others: the human in a posthumanist landscape.” In its more traditional usage, “figuration” describes how figurative or allegorical representations are formed³. In “Ecce Homo,” such figuration is obliquely recognised as “determination to a *certain* form.”⁴ Haraway (1992) then usurps this understanding, offering the promise of feminist figuration to reconfigure such determinations, urging feminists to “resist representation, resist literal figuration, and . . . erupt in powerful new tropes, new figures of speech, new turns of historical possibility” (p. 86). Like the bowers of the male great bower bird, who “builds an avenue of twigs and collects stones, bones, shells and human-made objects... [grouping] different types of objects, he spends time each day arranging and rearranging his collection, renovating his bower” (Phillips, 2008), Harawayan figurations form from gathering, “arranging and rearranging” processes, investments, bodies, histories, languages. They are not allegorical, but reveal the diverse political and moral dynamics embedded within them, and call for renovation of understanding. The “cyborg” is one such figuration, “naturecultures” is another, as is “companion species,” as is “*CandidaHomo*.”

Environmental humanities scholar Michelle Bastian argues that Haraway’s

figurations provide a framework within which everyday decisions might be made differently. They suggest another way of orienting oneself within one’s environment by offering possibilities of understanding and acting... figurations are able to perform this work by revealing the underlying assumptions of specific discourses and showing the ways in which these discourses fail or contradict themselves. (2006, pp. 1029-1030)

However, Harawayan figurations do even more important work than Bastian suggests. Not only do they reveal underlying assumptions, failures and contradictions, they have also exposed (and continue to do so) the emergent effects of such discourses; that is, particular orientations are formed from the convergence of scientific, social, historical, physiological, genetic, economic, ethical, religious, spiritual, political, etc., discourses that are not possible singly. Hence, “renovating” these discourses enables their various combined effects (past, present and future) to be understood and re-visited. This paper attempts such a “renovation” of the relationships between *Candida* and *Homo*, arguing that, like dogs, *Candida* are “in the garden from the get go” (Haraway, 2003, p. 5).

Knot 2: Cat’s cradles—seriously playful/playfully serious

I am a scavenger: a feminist, an artist, a scientist. What, how, why, matter to me. Like an ant, I palp and stroke/sniff at the edges to discover what is good to take back to the nest. Like a cat, I bask in the fascinating and disdain the disinterested. Like a dog, I roll in the rotten and run off with thrown sticks. Haraway is an inspirational and generous scavenger. Her writings are laden bowers, bones buried by dogs, and tangled webs that give permission to build cradles as scientist, artist, historian, sociologist and cultural commentator. The string game of the cat’s cradle offers a seriously playful and playfully serious scavenging method. It maps the processes, discourses, matter and bodies that form a bower/figuration, attending to both the ostensibly significant and the profoundly frivolous, and tracing the material effects of political and ethical semiotics. Haraway weaves her cradle “not just to read the webs of knowledge production . . . [but] to reconfigure what counts as knowledge in the interests of reconstituting the generative forces of embodiment” (1994, p. 62). This paper weaves a *CandidaHomo* cradle, scavenging from public health, immunology, sociology, anthropology, aesthetics and art, and re-visioning the matter of these naturecultures.

The string of a cat’s cradle means that, like all Haraway’s figurations, it is both metaphor and matter. The game can only be played through bodily action, and is therefore a dynamic map that cannot trace a

³ OED <http://www.oed.com/view/Entry/70074>.

⁴ OED <http://www.oed.com/view/Entry/70074>; emphasis added.

single lineage. Each cat's cradle figure contains the same ingredients but materialises differently. Each knot is a figuration in itself, and they can be arranged and rearranged "to reconfigure what counts as knowledge" about *CandidaHomo* entanglements (Haraway, 1994, p. 62). Each figure is formed from another and is an immanent state of becoming. In fact, a figure is always present but is more-or-less resolved. The partners in these cradles "do not precede the meeting . . . [rather they are] figures that help grapple inside the flesh of mortal world-making entanglements" (Haraway, 2008, p. 4), which makes them particularly useful to trace the entanglements of *CandidaHomo* naturecultures.

Knot 3: Naturecultures and companion species

Feminist theorist Marianne DeKoven (2006) has argued that TCSM presents a "shift in emphasis or perspective rather than a move into a different theoretical terrain" (p. 1695). She supports this claim by arguing that "what is new in this manifesto is... 'naturecultures,' the primacy of ecological and interspecies considerations over ideas about technopolitics" (p. 1695). In fact, the figuration "naturecultures" subtly extends anthropologist Bruno Latour's understanding of "nature-cultures" from his 1993 treatise *We have never been modern*. With the use of the hyphen, Latour challenges the dualistic division of nature and culture that characterised modernism. "Nature-cultures" implies a dialogic relationship between the two notions and the plural suggests multiple influences and interactions. Similarly, Haraway's "naturecultures" suggest multiple understandings of the nature-culture relationship. However, by collapsing the two words into one, Haraway insists that naturecultures are not dialogic, but co-constitutive; mutualistic entanglements of all entailed by each. Although Haraway (2003) appears to agree with DeKoven's assertion that TCSM privileges nature over culture when she writes, "I have come to see cyborgs as junior siblings in the much bigger, queer family of companion species" (p. 11), the oblique power of TCSM (and *When Species Meet*) lies in Haraway's assertion of the entanglement of "biopower and biosociality, as well as of technoscience" (2003, p. 5). She complicates the naturecultures dyad by insisting on biotechnocultures all the way down:

Cyborgs and companion species each bring together the human and non-human, the organic and technological, carbon and silicon, freedom and structure, history and myth, the rich and the poor, the state and the subject, diversity and depletion, modernity and postmodernity, and nature and culture in unexpected ways. (2003, p. 4)

The figuration of "companion species" (which includes cyborgs) as simultaneously producing and being produced by biotechnocultures is complex and compelling, and has been discussed in myriad ways since its conception⁵. However, Haraway neglects the significance of micro-organisms as companion species, claiming the dog as her model companion species in biotechnocultures. Although she acknowledges the micro-organisms that live within and on the human body as "mess-mates" in *When Species Meet*, they only rate a brief mention in the introduction (2008, pp. 3-4)⁶. The Human Genome Project and the subsequent Human Microbiome Project have shown us however, that *Homo sapiens* evolved because of our complex microbial populations, which continue to evolve in response to its biotechnocultural ecology: us. We are always already profoundly and irrevocably non-human.

Knot 4: *Candida albicans* and unstable nomenclature

Candida albicans is one of the myriad species that inhabit the ecology that is the human body. The human microbiome has received a lot of attention in the last ten years, with claims that human cells are outnumbered ten to one by bacteria, fungi, arachnid, and insect cells, and an explosion of scientific research

⁵ For example, Tim Jordan (2011) asks, "Are technologies species? and the concomitant: Are species technologies?" and interestingly uses surfboards to prod at the complexities of companion species (p. 266).

⁶ Haraway also seems more interested in the transfer of DNA between *Homo* and *Canis*, rather than the extravagant polyspecific exchange of microbes and microbial DNA that also occurs. This may have been a tactical methodological consideration, as the familiarity of dogs in human biotechnocultures make the radical figuration of companion species more easily understood.

into the importance of such micro-organisms to human evolution and health⁷. Although we already knew that micro-organisms lived on and in us, the primary focus was on pathogens, and the relevance of the other critters to human health, wellbeing and identity was not really considered. Monica Bakke (2014) argues that “although [knowledge of our microbiome] usually does not really affect our self-recognition directly and is not a threat to our identity, an awareness of it definitely alters the way we think of our bodies, as they no longer can be perceived as sealed vessels, but rather as transspecies environments. This mode of being-in-the-world reconfigures traditional ontological hierarchies and values” (2014, p. 155). This knot considers how *C. albicans* challenges such ontological understandings.

C. albicans are yeasts, single-celled fungi (Fig. 2), that are both commensal members of the human ecology and opportunistic pathogens. Between 70 and 80 percent of humans are hosts to *C. albicans*, introduced into human ecosystems either at birth, during sex, or via medical devices and prosthetics. We are truly companion species, as *C. albicans* are not found naturally occurring in any other species. *C. albicans* are highly responsive to their environment, switching between benign commensalism and irritating, occasionally life-threatening pathogenicity in response to changes in pH, temperature, sugar concentration, other micro-organisms and immune health. Humans in turn, shift between unawareness of commensal *C. albicans* and irritation, discomfort, and even rage at the inflammation and discharge caused by the pathogen. Highly adaptive, it occupies almost every available ecological niche with the human biome. Formerly considered only “women’s business,” the species has received renewed biomedical attention due to our increased use of medical implants and prosthetics. It has adapted well to the novel conditions at the interface of moist human flesh, titanium and latex. Forming treatment resistant and often lethal infections⁸, it exemplifies the biotechnoculturality of companion species.

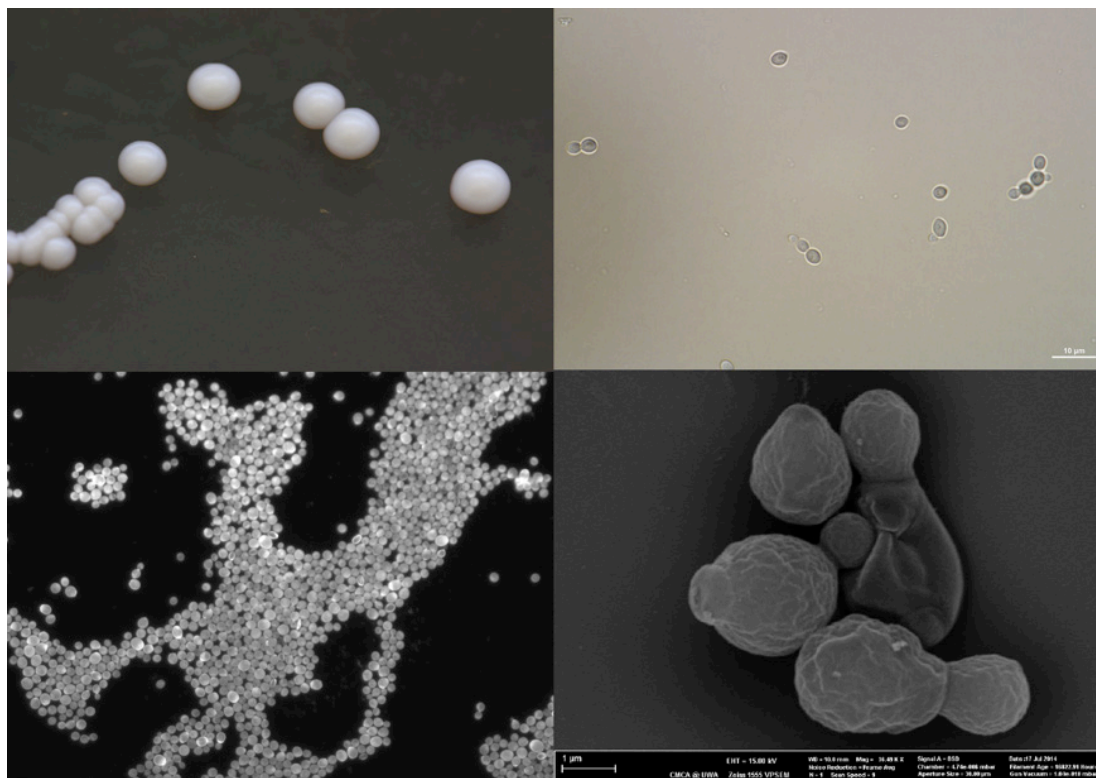


Fig. 2 Scales of *Candida albicans*: *C. albicans* colonies on agar; light micrograph of single cells; fluorescent micrograph of single cells stained with calcofluor white; scanning electron micrograph of single cells. Licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License: Tarsh Bates (2014).

⁷ For example: "Me, Myself, Us; the Human Microbiome" Regunathan (2012); Turnbaugh et al. (2007); Weintraub (2012)

⁸ Refer to Cauda (2009) for a review of the increasing importance of *Candida* species in hospital infections.

The first historical mention of thrush is thought to be by Hippocrates in 400 BC who described “mouths affected with aphthous ulcerations” (Edwards, 2015, p. 2879). A patient with “thrush” was mentioned in medical literature in 1665 and again in 1771⁹. Knoke and Bernhardt (2006) claim that surgeon Bernhard von Langenbeck wrote the first description of a candidal infection in 1839. In 1846, Berg concluded that thrush was caused by a fungus, having successfully introduced infections in healthy children. Charles Philippe Robin classified this fungus as *Oidium albicans* in 1853. Between 1853 and 1940, the organism was classified under 12 different genera, including *Candida* by Christine Berkhout in 1923, based primarily on reproductive strategy and phenotype. After Maurice Langeron and Paul Guerra (cited in Barnett, 2004) heralded Berkhout’s taxonomy as “the beginning of the rational systematics of the non-ascosporogenous yeasts” (p. 1159), *Candida albicans* was declared the official assignation by the Eighth Botanical Congress. However, 158 synonyms for this clinically important critter are still listed in the fifth edition of the text *Yeasts: A taxonomic study* (2011), and DNA-based studies have shown that phenotypic characteristics often do not correspond to the molecular phylogenetics (Guzmán, Lachance, & Herrera, 2013; Kurtzman & Robnett, 1994). In fact, Daniel, Lachance, and Kurtzman (2014) have recommended that species classified under the *Candida* genera be revised to better reflect the relationship between molecular and phenotypic characteristics. This recommendation relies on the valorisation of DNA as the “code of life.” Although it may appear to be useful for the taxonomic classification of phenotypically mutable microorganisms, such as *Candida*, the DNA of these critters is also highly fluid and adaptable¹⁰, making a reliance on DNA for species classification almost as problematic. The instability of our classification systems, their reliance on technology, and our inability to grasp the fluidity of companion species, are revealed by this indeterminate nomenclature. Haraway argues that such nomenclature should rest on the relation between bodies, not on a body itself:

Companion species is a permanently undecideable category, a category-in-question that insists on the relation as the smallest unit of being and of analysis. By species I mean . . . a kind of intra-ontics/intra-antics that does not predetermine the status of the species as artifact, machine, landscape, organism, or human being. (2008, p. 165)

Knot 5: An ideal breeding ground

While not many talk about it, thrush will affect 3 out of 4 women at least once in their lives.
—canesten.com.au

Although much has been written about *C. albicans* from an experimental microbiology perspective, very little anthropological, sociological or even public health research exists¹¹. In addition, despite the ubiquity of yeast infections in women, feminist historians and scholars of science have been silent, focusing instead on menstrual blood or breast milk. The historicity of *CandidaHomo* naturecultures is difficult to trace in large part due to the stigma associated with infections, the inconsistent attribution of cause to infections of different body parts, and to the “instability of nomenclature” for yeasts (Barnett, 2004, p. 1142). Infections caused by *Candida* species are called variously candidosis, candidiasis, moniliasis, and oidiomycosis. In the United States, oral infections are “thrush” or “aphtha,” penis infections are “candidal balanitis,”¹² and vaginal infections are “yeast infections.” In the United Kingdom and Australia, “thrush” is synonymous with vaginal infections. Vaginal infections caused by *C. albicans* may have been subsumed

⁹ OED <http://www.oed.com/view/Entry/201451>

¹⁰ The rapid evolution of vaccine and drug resistance in malaria and *Staphylococcus aureus*.

¹¹ Two rare exceptions are Jane Southwell (1996) and more recently Alissa Overend (2011).

¹² <http://www.medicalnewstoday.com/articles/246615.php>

under the condition leucorrhœa (aka *fluor albus*, the white flow, the whites, or “weakness”), which is an unattributed “thick, whitish or yellowish vaginal discharge.”¹³

Candidiasis is overwhelmingly portrayed in popular culture as a “women’s disease.” On the website of Bayer pharmaceuticals, the company who make the popular anti-fungal product, Canesten®, “[t]hrush” is synonymous with “vaginal yeast infection and “[t]he first warning of thrush is an irritation around your vagina.”¹⁴ No mention is made of oral candidiasis, which is common in both men and women, or of candidal balanitis (infection of the penis). Although some medical websites (and Wikipedia) acknowledge that both men and women can get candidiasis (some referring to oral thrush and penis infections), the majority imply a normative association with women, either through the dominant use of images of women, diagrams of uteruses. The terms “male yeast infection” and “male thrush” indicate the metonymy of “yeast infection” or “thrush,” and “woman.”

In a compelling study of self-identifying sufferers of systemic candida, sociologist Alissa Overend (2011) convincingly argues that there is a distinct gender difference in the way sufferers describe their experience of the illness, which aligns with other studies of gendered experiences of illness. In the last 30 years, “systemic candida” has become a popular “undefined disorder” (Malterud, 1992, p. 305). Proponents of this illness claim that *Candida* overgrowth “breaks down the wall of the intestine and penetrates the bloodstream, releasing toxic byproducts into your body and causing leaky gut” (Myers, 2013). Such overgrowth causes “a wide range of symptoms like digestive problems, headaches and recurrent yeast infections.”¹⁵ Attributed to “modern life,”¹⁶ these claims are invariably discussed in association with the offer of a unique and “simple 5-step program for beating *Candida* and eliminating those *Candida* symptoms for good.”¹⁷ This program (which can be ordered for only \$US37) involves purging sugar and other carbohydrates—not a “simple” matter for most. Although the presence of *Candida* in the human gut has been confirmed experimentally, biomedical practitioners are highly sceptical of chronic, systemic candida syndrome outside of the life-threatening candidemia that presents in immunosuppressed patients. The symptoms attributed to *Candida* by advocates of *Candida* syndrome are so varied and diverse that causality is impossible to determine. However, Overend (2011) found that men tend to describe their experiences of systemic *Candida* in discrete physiological terms and in ways that maintain the integrity of their bodies, whereas women are much more emotional and their descriptors suggest bodies that are leakier and more fluid. Please note that I do not want to suggest that these men and women are not ill. Rather, I am interested in the intersections between gender, aetiology and commodity culture that collapse on this critter.

Knot 6: Uneasy seepage

Monica Bakke claims that knowledge of our microbiome does not threaten our identity, although “an awareness of it definitely alters the way we think of our bodies, as they no longer can be perceived as sealed vessels” (2014, p. 155). However, Bakke’s claim ignores a long lineage of scholarship that shows that the perception of the body as “sealed vessel,” a “unified self,” has always been a fantasy. This is particularly true for women, as Margrit Shildrick (2001) has argued and is evident in Alissa Overend’s (2011, 2013) findings. Although not mentioned by scholars of leaky bodies (who focus largely on menstruation or milk), the white discharge and yeasty smell that signals candidiasis persistently disrupts the “sealed vessel” (Fig. 3). Candidiasis shows that a “unified self” has always been threatened by our microbiome, and that this threat is not merely cognitive, as Bakke suggests. Anyone who has had candidiasis under-

¹³ <https://en.wikipedia.org/wiki/Leukorrhœa>

¹⁴ <http://canesten.com.au/en/symptoms-of/thrush/index.php>

¹⁵ <http://www.thecandidadiet.com/an-introduction-to-candida/>

¹⁶ Which includes: eating a diet high in refined carbohydrates and sugar (which feed the yeast), consuming a lot of alcohol, taking oral contraceptives, eating a diet high in beneficial fermented foods like Kombucha, sauerkraut and pickles, and living a high-stress lifestyle (Myers, 2013).

¹⁷ <http://www.thecandidadiet.com/an-introduction-to-candida/>

stands immediately that cognition is embodied: the inflammation and uncontrollable itchiness of a *Candida* infection compels not just focused awareness of that area of the body, but intense emotions, and chronic and recurrent infections require urgent response to prevent madness.

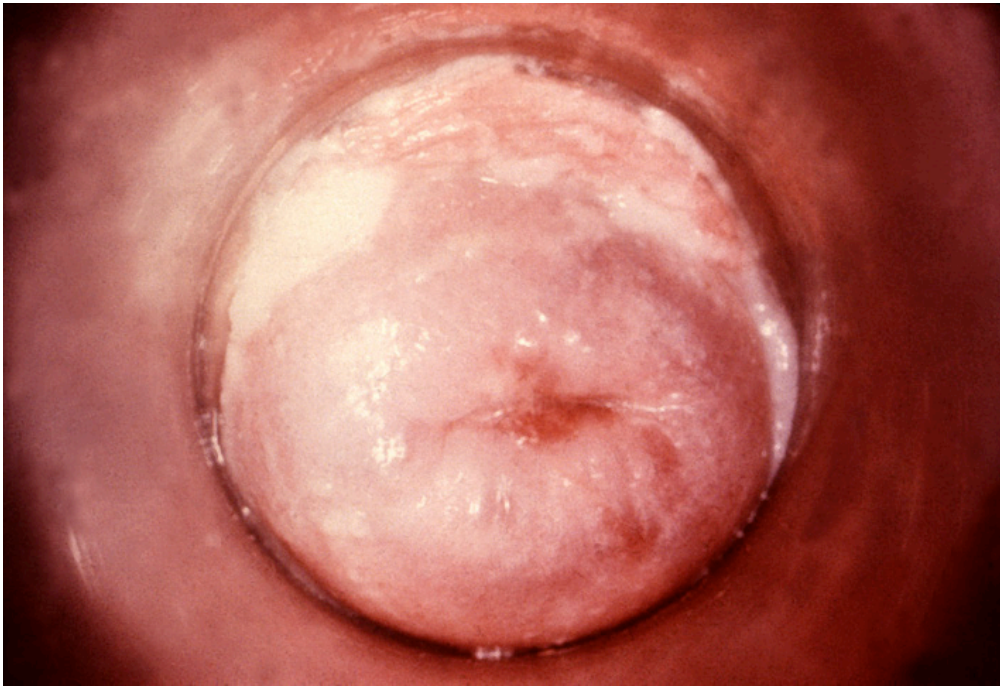


Fig. 3 *Candda albicans* infection of human cervix. <http://phil.cdc.gov/phil/details.asp>. This image is in the public domain and thus free of any copyright restrictions: Centers for Disease Control and Prevention (1970).

Andrew Shail (2007) notes that in the burgeoning days of public hygiene, menstruation became framed as unhygienic waste that needed to be privately contained and cleansed. It is not unreasonable to conclude that this was also true of *fluor albus* (leucorrhoea). This legacy is evident in the contemporary classification of tampons, pads and similar products as “sanitary pads” and “feminine hygiene products.” “Masculine hygiene products” are nowhere to be found, implying that men do not leak, or if they do, it is not a matter of hygiene. Shail convincingly suggests that Kotex was complicit in this framing of menstruation as “women’s oldest hygienic problem” during the 1920s, in order to promote consumption of disposable “feminine hygiene products” (2007, p. 79). Overend (2011) argues that the contemporary production of the “everyday liner” by Kotex and other producers of “feminine hygiene products” implies that women seep all the time, not just during menstruation (p. 107). Medical doctor Markus MacGill (2015) confusingly suggests that both poor hygiene and the use of too many cleansing products make candidiasis more likely.

Feminist scholars have long established that leaking, diseased and excessive bodies are considered morally deficient¹⁸. The assumption that a physically unclean body is also morally unclean is deeply culturally embedded and well-articulated by Virginia Smith (2007) in *Clean: A History of Personal Hygiene and Purity*. Elizabeth Grosz’s (1994) claim that “women’s corporeality is inscribed as a mode of seepage” (p. 203) intersects with Shildrick’s (2001) observation that “the outward appearance of an ailing body may be taken as the sign of an inner deficiency of will, or prior moral dereliction” (p. 72). As early as 1830, *fluor albus* was considered a sign of moral weakness. In his 1830 treatise on *fluor albus*, George Jewel explicitly states this, and notes that this phrasing is “an error in practice,” meaning that the assignation of

¹⁸ In particular, refer to Julia Kristeva for notions of abjection, Elizabeth Grosz and Margrit Shildrick for notions of volatile and leaky femininity.

weakness is unrelated to the physiology of the condition, implying instead a moral weakness¹⁹. As yeast infections are also associated primarily with women's genitals, sexual morality compounds that of the unclean and diseased body, necessitating the common correction. For example, in 2009, a young woman in Pennsylvania was repeatedly called “a bitch and a whore” by her classmates when they found out she had a vaginal yeast infection (North, 2012). Interestingly however, none of the participants in Alissa Overend's (2011) study indicated feelings of uncleanness or immorality in association with their *Candida* infections, possibly because these were not genital infections.

Of course leaky bodies require discipline. In the case of candidiasis, this usually involves anti-fungal treatments to discipline and contain the bodies of *C. albicans*. Home remedies include garlic or yoghurt pessaries, apple cider vinegar, olive leaves and cranberry juice, and various oils, including tea tree, coconut and oregano. The human body is also disciplined through a range of prophylactics, including diet, hygiene products, and probiotics²⁰. However, *C. albicans* rapidly develops resistance to treatment, and systemic infections are often impossible to treat.

Seeping *Candida* infections have a significant disgust aspect, collapsing all three categories of disgust models (Tyber et al. 2009): pathogen, sexual and moral. Recent studies show a clear, embodied relationship between morality, hygiene and disgust, and argue that disgust evolved as an evolutionary adaptation for food selection and disease avoidance (Curtis, 2007; Haidt, Rozin, McCauley, & Imada, 1997; Schnall, Haidt, Clore, & Jordan, 2008; Tobia, 2014; Tybur et al., 2009). Although most of these studies acknowledge a social aspect to disgust, it is usually couched in evolutionary terms, which assumes that all human cultures experience disgust in similar ways. However, Haidt et al. (1997) found significant cultural differences in disgust responses. They also inferred that since disgust is rarely experienced by young children, it must, at least in part, be taught, concluding that “[d]isgust may have its roots in evolution, but it is also clearly a cultural product” (1997, p. 111).

Knot 7: *Cum panis*

In eating we are most inside the differential relationalities that make us who and what we are... there is no way to eat and not to kill, no way to eat and not to become with other mortal beings to whom we are accountable, no way to pretend innocence and transcendence or a final peace. Because eating and killing cannot be hygienically separated does not mean that just any way of eating and killing is fine, merely a matter of taste and culture. Multispecies human and nonhuman ways of living and dying are at stake in practices of eating. (Haraway, 2008, p. 295)

Recently, as part of my artistic research that explores human relationships with *C. albicans*, I used *C. albicans* as a leavening agent for bread, in combination with “normal” baker's yeast, *Saccharomyces cerevisiae*. The bread was then offered to visitors to eat. This artwork, entitled *The unsettling eros of contact zones*, is a knot, a figuration, and a critical methodology, since art is able to navigate the wordless aspects of naturecultures, teasing out affective and tacit strands. The work was both an investigation of the materiality of the organisms and a gentle provocation to pay attention to the organisms that live within us, seep from us, or that we ingest with our food. Yeasts are some of our oldest “messmates” (Haraway, 2008, p. 4), having helped us to produce bread, beer and wine for millennia. In this artwork, “companions of all scales and times eat and are eaten at earth's table together” (Haraway, 2010, p. 54).

This artwork has elicited three responses from audiences that are particularly pertinent to this discussion: firstly, people are hesitant to consume the bread, even though the yeasts, including *C. albicans*, are killed during cooking by elevated temperatures and baking duration; secondly, when I presented bread that had been leavened only with baker's yeast at a recent event (Fig. 4), viewers were reluctant to consume

¹⁹ “for, if we investigate the pathology of leucorrhoeal discharges, we shall find them, most commonly, to have their origin in local excitement” (Jewel, 1830, p. 2). By “local excitement” Jewel meant what is now called inflammation, a symptom commonly associated with candidiasis.

²⁰ Alissa Overend (2013) discusses the role of food disciplining in *Candida* infections. Also refer to any of the myriad websites giving advice on eliminating/preventing *Candida*.

it, even though they knew it did not contain *C. albicans*; and thirdly, institutions have been reluctant to support the serving of *Candida*-leavened bread in an art exhibition, although any *C. albicans* are killed during baking.



Fig. 4 Visitors were unexpectedly reluctant to consume bread leavened with baker's yeast at a recent event. Licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License: Tarsh Bates (2015).

Why are people reluctant to consume bread leavened with *C. albicans*? The bread looks like “normal” bread, and there is no chance of getting an infection. Despite this, most common response has been immediate and intense disgust. Clearly, this is not just a case of an evolved pathogen disgust, as the bread does not possess any of the “visual, olfactory, tactile, or auditory cues that reliably indicated pathogen presence in our ancestral past” (Tybur et al., 2009, p. 105). Rozin and Fallon (1987) argued that the prospect of ingesting an offensive object causes revulsion and disgust, regardless of its pathogenicity (p. 23). They found that even brief contact with an offensive object causes normally acceptable food to be rejected—a corruption effect. Haidt et al. (1997) agree, suggesting that some “essence or residue is transmitted” (p. 110). *Candida*-leavened bread is an example of this “sympathetic contagion magic,” where “things which have once been in contact with each other continue ever afterwards to act on each other” (Frazer, 1890/1959, p. 35). The bread, having been in contact with an “offensive object” (living *C. albicans*), elicits a disgust response, even though the bread itself does not look disgusting. However, in keeping with Haidt et al.’s (1997) insistence on the naturecultures of disgust, an offensive object is more than just the immediate physical object. It is, to use Haraway’s term, material-semiotic and must be conceptually/socially/culturally offensive as well as materially offensive. Hence, the disgust experienced when faced with *Candida*-leavened bread is tightly woven with “sexual” disgust due to the metonymy of *Candida* and women’s genitals.

The reluctance to consume bread leavened only with baker's yeast is a more subtle manifestation of the material-semiotics of disgust. The bread was offered in the context of research about *C. albicans*, in an art gallery with other artworks about (although not containing) *C. albicans*, and the visitors knew that I intended to make other bread with *C. albicans*. It is possible that the proximity of the other artworks and my own experimentation with *C. albicans* caused a sympathetic contagion response as described above. However, I believe that the disgust response was not just about proximity, but the subtler, although just as affective, imaginative reaction triggered not by sensory cues or by contact with an “offensive” object, but by “ideational concerns about what it is” (Haidt et al., 1997, p. 109). Or put more simply, the possibility that *C. albicans* could be present in the bread brings about an immediate awareness of all living organisms within all bread. Our suspension of disbelief that we ingest fungi, bacteria, molds, etc, and that we are in turn consumed by such creatures, our messmates, fails in this moment, and all bread, possibly all food, becomes “unacceptable.”

Knot 8: Resistance

Of course, *CandidaHomo* naturecultures necessarily require a discussion of immunology. Both our innate and adaptive immune systems engage with *C. albicans*. Much has been written about the persistent conception of the immune system as a war zone, including by Haraway herself²¹. In “The Biopolitics of Postmodern Bodies: Constitutions of Self in Immune System Discourse,” she asserts that “[p]re-eminently a twentieth-century object, the immune system is a map drawn to guide recognition and misrecognition of self and other in the dialectics of Western biopolitics” (1991, p. 204). “Self” is crucial to immunological discourses, where “self” is understood to be any identifiable and necessary part contained by the stable boundaries of an individual and without which that individual could not exist. Consequently, “non-self” is that which disrupts these boundaries and must be defended against to maintain existence. The “good” immunological cells of “self” recognise and defend against “bad” colonisers and invaders. The metaphor of the immune system as a war zone has proven extremely persistent, naturalising conceptions that war and “survival of the fittest” as part of what it is to be human (Jamieson, 2015, p. 3).

Pop culture, public health and research science papers about *C. albicans* abound with militaristic phrases such as “immunological shields” (Gow & Hube, 2012, p. 408), “escape mechanisms” (Netea, Brown, Kullberg, & Gow, 2008, p. 74), “*Candida* evades the host defense armory” (Cheng, Joosten, Kullberg, & Netea, 2012, p. 1304), and “host defenses are essential for eradicating the infection” (Mima et al., 2010, p. 392). However, the cold war and nuclear imagery discussed by Haraway in 1991 has evolved into a more contemporary semiotics of terrorism and surveillance. “Clandestine sleeper cells” lurk, hidden, ready and waiting, necessitating constant vigilance: “[t]he ultimate outcome of fungal colonizations...is determined by the rate of elimination through host immune surveillance versus the fungal proliferation and dissemination into organs and tissues” (Bourgeois, Majer, Frohner, Tierney, & Kuchler, 2010, p. 401), “fungal pathogens have developed sophisticated means to evade . . . or even persist in the host despite normal surveillance” (Bourgeois et al., 2010, p. 401), and “*C. albicans* have developed strategies to mask . . . their detection” (Bourgeois et al., 2010, p. 402). Even papers discussing the complex, dynamic and interconnected nature of *Candida* infections persist in war rhetoric: “the fungus . . . must be able to counter the effects of the sentinel activity of mucosal immunity mechanisms, to compete with other microbes for space and nutrients” (Gow & Hube, 2012, p. 410). Similarly, Rizzetto and Cavalieri (2010) initially argue that “[i]nate immunity . . . is a complex network of interconnected pathways depending on many factors” (p. 762), but later state that “[f]ungal infections are the result of a coordinated battle between the fungus and its host” (p. 763).

As Haraway (2003) suggests, “[i]mmune systems are not a minor part of naturecultures; they determine where organisms, including the people, can live and with whom” (p. 31). Sociologist Myra Hird (2010) argues that “human cells must actually cooperate with the bacteria that enters the body:

²¹ In addition, refer to Tauber (1994) and Cohen (2004). Also refer to Sankaran (2012) and Jamieson (2015, p. 3) for excellent analyses of the history of critiques of immunology.

immunity turns out to be a conversation between bodies and microbes” (p. 740). I disagree: it is not a “conversation between bodies and microbes,” but intra-actions of “self” with “self,” as “bodies” and “microbes” do not pre-exist one another and are in constant flux²². Immunologists Carol Kumamoto’s and Jessica Pierce’s (2011) model of *C. albicans* as “farmers” and “adventurers” attempts to reconceptualise immunity relations in cooperative, or at least responsive, terms. In this model, most *C. albicans* cells within a human body are commensal “farmers” who “farm” their ecology by pacifying its immune response. “Farmers” become “adventurers” through “immunosensing”—sensing a change in the immune system of their host, “farmers” respond switching into “adventurers.” “Adventurers” interact more aggressively with the host, and are better able to adhere to and invade host cells. However, “adventurers” also stimulate an anti-*Candida* immune response and are more susceptible to this response than “farmers.” Describing *C. albicans* as “farmers” or “adventurers” engaged in less aggressive encounters with human bodies frames the metaphorical and material worldings of these companion species as more nuanced and responsive than merely combatants in a war zone. However, this framing is embedded in a historical tradition of “farmer” and “adventurer” as European, masculine colonisers of nature, which is still problematic for a companion species figuration. Additionally, both combatant and farmer/adventurer models are embedded within a neo-liberal capitalism that valorises individualism and sees social and cooperative assemblages as mindless, marauding hordes.

Philosopher Ed Cohen (2004) argues that the dichotomising premise that the immune system distinguishes “self” from “non-self,” may be applicable to infectious diseases that must be defended against (p. 7). However, it falls apart in the face of autoimmune disorders and *C. albicans*, which is both commensal and pathogenic, “self” and “not-self.” Immunologist Polly Matzinger’s (2002) “Danger Model” suggests that “the immune system is more concerned with damage than with foreignness, and is called into action by alarm signals from injured tissues, rather than by the recognition of nonself” (p. 301). The “Danger Model” does not deny “self”/“non-self” discrimination, but allows for a broader conception of “self,” where “self” includes “non-self” in “a shifting, signal-mediated definition of danger” (Weasel, 2001, p. 40). However, Matzinger’s model is still embedded in notions of a healthy unified body dependant on “balance” and “equilibrium,” similar to the ecological conception of “resilience” as the capacity of an ecosystem to rapidly return to its original state following disturbance. As Haraway argues, “[w]hat counts as a ‘unit’, a one, is highly problematic, not a permanent given. Individuality is a strategic defence problem” (1991, p. 204).

Although *C. albicans* has been shown to be present in 70 to 80 percent of the human population, usually from birth, these hosts rarely know the organisms are there. We have co-evolved; human bodies are the ecological niche of *C. albicans*. As a commensal of mucosal surfaces and the gastrointestinal tract, it benefits from us without damaging us (Gow & Hube, 2012, p. 406). Infection occurs only if conditions change and life-threatening disease occurs only in immunocompromised hosts. The complexity of the human immune system still evades us and the host-disease relationship between *Candida* and *Homo* is contentious and uncertain. Does the human immune system consider *C. albicans* “the commensal” to be “self”? Does *C. albicans* trick us into ignoring it, or is a ravaging beast kept at bay by a robust immune system and other microorganisms, as suggested by Gow et al. (2012) and the majority of experimental research papers? In fact, recent studies have shown that commensal *C. albicans* cells produce different proteins than cells that actively cause disease (Rosenbach, Dignard, Pierce, Whiteway, & Kumamoto, 2010; Thewes et al., 2007), suggesting a more active *C. albicans* than Gow et al. and others allow for. After all, engaging with a host’s immune system is highly resource intensive for both parties, and why not just hang out if you can?

Knot 9: Hosting the trouble

I’d been fighting this candida issue in my throat and I had to really change my diet and use different medication and it sort of seems to pop up and its [sic] kinda hilarious. It’s like I have this new neigh-

²² For discussions of intra-actions, refer to Karen Barad (1996).

bour that I have to sort of learn to live with. And obviously you know this fungus is inside all of us and it's never about eliminating it. You have to kind of just live with it.
— Björk (2011)

In this paper, a *CandidaHomo* figuration has been formed by playing a cat's cradle string game with some of the complex material-semiotics between *C. albicans* and *Homo sapiens*. Scavenged from public health, art, immunology, sociology, gender, and biological science, amongst others, this figuration has gathered and thickened some knots in the troubling cradle of *CandidaHomo* naturecultures. It has made explicit Haraway's analytical methodologies of figuration and the cat's cradle, and integrated them with the affective research methods of contemporary art, weaving a methodology for exploring naturecultures. It responds to Donna Haraway's compelling 2003 treatise, *The Companion Species Manifesto*, arguing that *Candida albicans*, opportunistic pathogens of humans, are "not here just to think with. They are here to live with" (p. 5) and that our "being depends on getting on together" (p. 50). It has traced the tangles of bodies, nomenclature, diet, discipline, seepage, discomfort and resistance to pay attention to and acknowledge response-ability as an ecology of companion species²³.

This cradle has vibrated with the ambiguous figuration of "host." A host is the animal or plant that is the environment for or sustains the life of a parasite or commensal organism. It is a marauding and invading swarm. It is one who provides food and shelter, and the sacramental bread of the Eucharist. Hosting entails a response-ability to the stranger. We are the environment for and sustain the lives of the commensal *C. albicans*, and the parasite *C. albicans* is a marauding swarm (although from the perspective of a *C. albicans* cell, our immune system is the marauding swarm); we provide food and shelter, and bread leavened with *C. albicans* is broken and shared to know and feel more, "including scientifically, about how to eat well—together" (Haraway, 2008, p. 295). In French, a host is simultaneously "host" and "guest"—are we host or guest? Which is *C. albicans*? In imminent dissolution, this cradle of *CandidaHomo* naturecultures is a provocation to "stay with the trouble," to break bread with our microbial messmates, and consider "how might an ethics and politics committed to the flourishing of significant otherness be learned from taking [*Candida*-human] relationships seriously" (Haraway, 2003, p. 3). If an ecology is the processes by which "home" is formed, then surely *Homo sapiens* are home to *Candida albicans*.

Acknowledgements

This paper was supported by an Australian Postgraduate Award and a UWA Safety Net Top-Up Scholarship. The author acknowledges the facilities, and the scientific and technical assistance of the Australian Microscopy & Microanalysis Research Facility at the Centre for Microscopy, Characterisation & Analysis, The University of Western Australia, a facility funded by the University, State and Commonwealth Governments. The author also acknowledges the support of SymbioticA, the School of Anatomy, Physiology & Human Biology, and The School of Pathology & Laboratory Medicine, The University of Western Australia. The author extends thanks to Audrey Appudurai, Dr Nina Sellars, and Dr Ionat Zurr for their feedback on the structure and ideas in this paper.

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²³ Here I adopt Astrid Schrader's (2010) notion of response-ability as both ethical responsibility and a practice that allows space for an organism or object of study to respond.

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- Fig. 1* “The Circle” string game of *CandidaHomo* naturecultures examined in this paper. Adapted from C. Furness Jayne (1906/1962/2009), <http://www.stringfigures.info/cf/circle.html>. Licensed under Creative Commons License.
- Fig. 2* Scales of *Candida albicans*: *C. albicans* colonies on agar; light micrograph; fluorescent micrograph; Scanning electron micrograph. Licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License: Tarsh Bates (2014).
- Fig. 3* *Candida albicans* infection of human cervix. <http://phil.cdc.gov/phil/details.asp>. This image is in the public domain and thus free of any copyright restrictions: Centers for Disease Control and Prevention (1970).
- Fig. 4* Visitors were unexpectedly reluctant to consume bread leavened with baker’s yeast at a recent event. Licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License: Tarsh Bates (2015).

Tarsh Bates is an artist/researcher. She has worked variously as a pizza delivery driver, a fruit and vegetable stacker, a toilet paper packer, a researcher in compost science and waste management, a honeybee ejaculator, an art gallery invigilator, a raspberry picker, a lecturer/tutor in art/science, fantasy, art history and gender & technology, an editor, a bookkeeper, a car detailer and a life drawing model. Tarsh is a candidate for a PhD at SymbioticA, UWA, where her research is concerned with the aesthetics of interspecies relationships and the human as a multispecies ecology. She is particularly enamored with *Candida albicans*.

Cyborg Anamnesis: #Accelerate's Feminist Prototypes

Emma E. Wilson – University of Queensland

maem.sonwil@gmail.com

Donna Haraway's "A Manifesto for Cyborgs: Science, Technology and Socialist-Feminism in the 1980s" remains a major reference point for twenty-first century cyber- and techno- feminists. However, its broader political and philosophical relevance has become increasingly obscured. The emergence of twenty-first century accelerationism, I will argue, calls for renewed engagement with Haraway's iconic text. Through bringing accelerationism into contact with cyborg ontology, I aim to show how accelerationism might benefit from further engagement with the history of technofeminist thought. Such engagement, I will argue, not only assists in clarifying what accelerationism is, but also contributes to developing what it might be, through providing productive responses to some of its major criticisms. In reconfiguring the cyborg as an "accelerationist prototype," I hope to contribute to the ongoing elaboration of accelerationist politics, as well as demonstrate the continuing and perhaps increasing efficacy of technofeminist philosophy in the twenty-first century.

Introduction

Accelerationism's technofeminist history is being made increasingly apparent. Both Laboria Cuboniks' "Xenofeminist Manifesto"—the latest in a string of techno- and cyber-feminist manifestoes dating back to that of Donna Haraway—and the recent publication of *Dea ex Machina*—a feminist genealogy of accelerationism incorporating texts from Shulamith Firestone, Haraway, Rosi Braidotti, Nina Power, and others—represent concerted attempts to re-situate accelerationism “within the rich and provocative context of nearly fifty years of feminist theorizing about sex, gender, and technology” (Avanessian and Hessler, 2015).

Although the ongoing influence of Haraway's cyborg ontology upon twenty-first century technofeminism remains widely acknowledged, her broader political and philosophical import is seldom taken seriously¹. The emergence of twenty-first century accelerationism², I will argue, calls for renewed engagement with her work³. Whilst Haraway's cyborg ontology predates accelerationism by almost 30 years, many of accelerationism's provisions are not only present, but explicitly theorised in her text. Both manifestoes represent a call to technological arms—a future-oriented optimism driven by an appreciation for our essential artificiality. The “illegitimate offspring” of capitalist hegemony, cyborgs and

¹ For an explanation as to why Donna Haraway's more recent work may have caused her to be (unjustifiably) dismissed politically, see Isabelle Stenger's "Wondering about Materialism." In L. Bryant, G. Harman, and N. Srnicek (Ed.s). (2011). *The Speculative Turn: Continental Realism and Materialism* (p. 371).

² Throughout this paper, the use of the word “accelerationism” refers specifically to the contemporary phenomenon of “Left accelerationism,” inaugurated in 2013 with the publication of Alex Williams' and Nick Srnicek's “#Accelerate: Manifesto for an Accelerationist Politics.” It refers neither to the 1970's French Hyperleft (Deleuze, Lyotard, Baudrillard etc.) identified as “accelerationists” by Benjamin Noys, nor to Nick Land's 1990's techno-determinism (and its evolution) which is sometimes referred to as “Right accelerationism.” See the section entitled Reorientation > Revolution for an explanation of the distinction between accelerationism and techno-determinism.

³ This emergence also calls for renewed engagement with the broader traditions of techno- and cyber- feminism—political/ philosophical traditions pioneered by feminists such as Shulamith Firestone, Donna Haraway, Sadie Plant, and Sandy Stone. Whilst Shulamith Firestone and Sadie Plant have been included in *#Accelerate: The Accelerationist Reader*, the selected texts are not representative of their more radical technofeminist tendencies. Firestone's analysis of the resemblance between the sex dualism and the two modes of cultural history (the technological mode and the aesthetic mode) is the closest we get to technofeminism in the reader. Plant only appears in collusion with Nick Land and the Cybernetic Culture Research Unit (CCRU), even though she has written her own book-length history of the intersections between women, feminism, machines and information technology. See Plant, S. (1997). *Zeros and Ones: Digital Women + The New Technoculture*. London: Fourth Estate.

accelerationists see themselves as neither innocent nor revolutionary. According to Haraway, as well as the accelerationists, appeals to nature, authenticity, and “original unity” are symptoms of an impotent left caught in a web of essentialism and fideism. By dispensing with such appeals, we can focus upon regenerating and re-engineering new futures.

Importantly, this paper does not undertake to “expose” (and thereby ordain) Haraway as *the* unavowed archetype of accelerationism—congratulating her for prefiguring a movement. Rather, it is an effort to construct a mutant politics—something which, I will argue, emerges out of the *interaction between* these two texts. What motivates this paper is the incapacity for either Enlightenment humanism or post-modern nihilism to reconfigure the future in the twenty-first century. Through bringing accelerationism into dialogue with Haraway’s cyborg ontology, I aim to show how these “mutants” might hold the key to such a reconfiguration. Of interest are not the endless analogies we could draw between the two texts, but rather, the “mutant insurgencies” they make possible—three of which will be explored in the latter half of this paper. In uncovering these operative philosophical processes, I hope to highlight the continuing (and perhaps increasing) efficacy of technofeminist thought and politics in the twenty-first century.

Reorientation > Revolution

Accelerationism is an attempt to reposition the Left with regard to rationality and techno-social development. Dissatisfied with established Leftisms, which continue to “hold to a folk politics of localism, direct action, and relentless horizontalism,” accelerationists seek to develop new macro-political strategies, capable of navigating and utilising “abstraction, complexity, globality, and technology” (Williams and Srnicek, 2014, p. 354). What distinguishes accelerationism from established Leftisms is the claim that, “the material platform of neoliberalism does not need to be destroyed,” but merely “repurposed towards common ends” (Williams and Srnicek, 2014, p. 355): the future depends upon reorientation rather than revolution. Instead of abjuring technological and scientific advances “tainted” by capital, accelerationists aim to take advantage of these developments and reprogramme them towards post-capitalist ends (Williams and Srnicek, 2014).

Naturally, accelerationism’s proposals have caused controversy. There is something immediately unsettling about the suggestion that we simply “commandeer” capitalist infrastructure and steer it towards newer and better ends. Apart from sounding like a return to naive humanism—the critique of which post-structuralists laboured over for decades—the injunction to “accelerate” elsewhere comes across as a nihilistic call to mindlessly escalate technological development. This latter reading gives rise to the mischaracterisation of accelerationism “as a kind of twenty-first century Futurism, concerned primarily with brute virility and machinic speed” (Avanessian and Hester, 2015). Whilst such characterisations are applicable to particular techno-deterministic variants of accelerationism—specifically the later writings of Nick Land—they cannot be so easily applied to the accelerationism put forward by Alex Williams and Nick Srnicek (2014).

Land’s “hypnotic” techno-determinism maintains “that capitalist speed alone could generate a global transition towards unparalleled technological singularity” (Williams and Srnicek, 2014, p. 351). However, as Williams and Srnicek (2014, pp. 351–352) argue, this kind of “speed” moves only within a “strictly defined set of capitalist parameters that themselves never waver.” Whilst neoliberal capitalism presents itself as the accelerationist system *par excellence*—its “essential metabolism” demanding economic growth, necessitating increased deregulation, and “setting free” social and technological innovation—Williams and Srnicek (2014, p. 355) maintain that capitalism actually *inhibits* acceleration: “patent wars and idea monopolisation,” they argue, “point to both capital’s need to move beyond competition, and capital’s increasingly retrograde approach to technology.” Instead of space travel, environmental innovation, and the exploration of the revolutionary potential of new technologies, “we exist in a time where the only thing which develops is marginally better consumer gadgetry” (Williams and Srnicek, 2014, p. 355). For them, the perceived “speed” of technological innovation under capitalism is nothing more than “the increasing speed of a local horizon, a simple brain-dead onrush” (Williams and Srnicek, 2014, p. 352).

Accelerationism can be distinguished from techno-determinism in the following way: whilst the latter takes capitalist acceleration to be inherently (or perhaps, inevitably) liberating, the former takes

acceleration to be a strategic process, necessitating socio-political action and technological experimentation. Whilst accelerationists acknowledge that technological development is necessary for addressing social conflicts, they also recognise that technology alone is inadequate for this purpose —“Never believe that technology will be sufficient to save us” (Williams and Srnicek, 2014, p. 356). Without socio-political action, both social *and* technological change remain foreclosed. For Williams and Srnicek (2014, p. 360), acceleration is not an inevitable “effect” of capitalism, but rather, the result of an ongoing “positive feedback loop of infrastructural, ideological, social, and economic transformation.” The point of accelerationism is neither to “halt” capitalist momentum, nor to mindlessly “unleash” it, but rather, to engage in a strategic process of reorientation with it.

According to accelerationists, progressive political discourse in the twenty-first century remains incapacitated in the face of the increasingly complex and abstract forces of globally-integrated capital. Up until now, Leftist reasoning has proceeded according to the assumption that “if modernity = progress = capitalism = acceleration, then the only possible resistance amounts to deceleration” (Avanessian and Mackay, 2014, pp. 5-6). Such decelerative reasoning tends to manifest in fantasies of “return”—“return” to Keynesian socialism, “return” to collective organic self-sufficiency, “return” to primitivist localism, etc. In opposition to this phantasmic horizontalism—which tends to fetishise the past and wait for the future—accelerationism attempts to reorientate the present. This necessitates utilising tools and processes ordinarily eschewed by the Left. As Williams and Srnicek write,

Quantification is not an evil to be eliminated, but a tool to be used in the most effective manner possible...The tools to be found in social network analysis, agent-based modelling, big data analytics, and non-equilibrium economic models, are necessary cognitive mediators for understanding complex systems like the modern economy. The accelerationist Left must become literate in these technical fields. (2014, p. 356-357)

Thus, “between the prescription [from the established Left] for nothing but despair and an excitable description [from techno-determinism] that, at most, contributes infinitesimally to Skynet's burgeoning self-awareness,” accelerationists maintain that “a space for action can be constructed” (Mackay and Avanessian, 2014, p. 35). Neither fideistic withdrawal, nor thanatropic ascension, signal a “way out” for accelerationists. It is only through *combining* socio-political action with technological experimentation that we can commandeer the “braindead onrush” of capitalist “progress,” and steer it toward “the universal possibilities of the Outside” (Williams and Srnicek, 2014, p. 362). This means preserving “the gains of late capitalism while going further than its value system, governance structures, and mass pathologies will allow” (Williams and Srnicek, 2014, p. 354).

Whilst accelerationism aligns itself with speculative philosophy—emphasising the importance of future-oriented inventiveness over revision and critique—its prescriptions are only comprehensible in terms of the dissolution of traditional political and philosophical dualisms: capitalism/anti-capitalism, humanism/anti-humanism, rationalism/post-structuralism. Accelerationists are often taken to be endorsing the former over the latter in each of these cases. Such misunderstandings arise from the reader's inability to see beyond polemical categorisations. If accelerationists seek to “preserve the gains of late capitalism,” they must be capitalists, if they advocate for “maximal mastery over society and its environment,” they must be naive humanists, if they promote rationalism they must be patriarchal proto-fascists, etc. Whilst Williams and Srnicek—eager to distinguish themselves from the “contemporary malaise” of the Left—condemn the fetishisation of direct action, openness, horizontality, and localism, they by no means abandon all hope in favour of a dystopian hyper-capitalist future. By contrast, accelerationists seek to develop a new Left hegemony capable of taking advantage of “the technological and scientific advances made possible by capitalist society” (Williams and Srnicek, 2014, p. 356). Such a prescription is only intelligible, however, in light of the dissolution of traditional political and philosophical dualisms. The first chapter of Haraway's *Cyborg Manifesto* enacts such a dissolution.

Invention > Identification

“From *One Dimensional Man*,” writes Haraway (1991, p. 154), “to *The Death of Nature*, the analytic resources developed by progressives have insisted on the necessary domination of technics and recalled us to an imagined organic body to integrate our resistance.” To Haraway’s disappointment, Leftist political discourse in the latter half of the twentieth century continues to rely upon creation myths that perpetuate phantasmic dualisms: nature/culture, man/machine, material/ideal. According to these myths, “human nature” in all its formulations, “bisexuality, pre-oedipal symbiosis, unalienated labour,” is inhibited by the prevailing power structures—i.e. those of patriarchal, colonial, capitalist hegemony (Haraway, 1991, p. 150). Under these circumstances, liberation consists in “unleashing” human nature—that constant source of negativity exceeding any system of oppression—and “harnessing” its transformative potential. Emancipation is thereby a moment of reconciliation, a return to “nature.” Revolution consists in remembering our origins so that we can (re)create, through our social and political institutions, the conditions necessary for the realisation of our original “essence.” The problem with such political discourse, for Haraway, is not *only* that it “misses most of reality” (1991, p. 150) but that it relies upon illusory distinctions—the illusoriness of which becomes undeniable toward the end of the twentieth century.

Leftist creation myths, or “myths of original unity,” rely upon three major dualisms. Namely, (1) the distinction between human and animal, (2) the distinction between organism and machine, and (3) the distinction between the physical and the non-physical (Haraway, 1991). By the late twentieth century, Haraway maintains, developments in science and technology have rendered these dualisms indefensible.

First of all, biology and evolutionary theory have thoroughly breached the boundary between humans and animals. “The last beachheads of uniqueness,” Haraway (1991, p. 152) writes, “have been polluted if not turned into amusement parks—language, tool use, social behaviour, mental events, nothing really convincingly settles the separation of human and animal.” The transgression of this boundary means that animals and humans can no longer be categorically defined in terms of “nature” and “culture.” This does not, however, resign us to biological determinism. The collapse of the nature/culture boundary, she insists, must not be understood as an appropriation or an incorporation of one category (i.e. “human” or “culture”) into the other category (i.e. “animal” or “nature”). After all, in order for an incorporation to take place, the two categories—and their distinctions—must endure. For Haraway, on the other hand, the collapse of the boundary between humans and animals renders both categories meaningless. What counts as animal and what counts as human is not only thrown into question, but this question itself is henceforth unintelligible—it can no longer be asked. As a result, space is opened up for new questions, new conceptions, and new configurations of life.

The second mythological distinction Haraway addresses is the distinction between organisms and machines. “Late twentieth-century machines,” she writes, “have made thoroughly ambiguous the distinction between natural and artificial, mind and body, self-developing and externally designed” (Haraway, 1991, p. 152). The traditional dialectic between idealism and materialism, between “spirit” and “history,” relies upon this dualism of man and machine—the collapse of which ostensibly leads to technological determinism. Again, Haraway refuses to see the transgression of this boundary as an incorporation of one category (i.e. organisms) into the other (i.e. machines). Instead, the collapse of the boundary between organisms and machines challenges oppressive dualisms that continue to pervade dialectical politics—e.g. agent/resource, maker/made, active/passive, master/slave. As Haraway (1991, p. 180) maintains, “the machine is not an *it* to be animated, worshipped, or dominated. The machine is us, our processes, an aspect of our embodiment. We can be responsible for machines, *they* do not dominate or threaten us. We are responsible for boundaries; we are they.” In other words, traditional assumptions regarding the distinction between humans and machine cannot account for late twentieth-century ontologies. Neither the glorification nor the demonisation of technology can assist in developing “a way out of the maze of dualisms in which we have [hitherto] explained our bodies and our tools to ourselves” (Haraway, 1991, p. 181). Most crucially, the mythical ideals of “organic” female embodiment or “natural” (unalienated) labour continue to prevent the responsible construction and deconstruction of new technologies, identities, and political possibilities.

Lastly, Haraway addresses the distinction between the physical and non-physical. “Modern machines,” she writes, “are quintessentially micro-electronic devices: they are everywhere and they are invisible” (Haraway, 1991, p. 153). The miniaturisation and mobilisation of technologies has not only made them portable, it has made them immaterial. “Our best machines are made of sunshine; they are all light and clean because they are made of nothing but signals, electromagnetic waves, a section of a spectrum” (Haraway, 1991, p. 153). In a world held together by electro-magnetic waves, distinctions between matter and form, physical and immaterial, break down. “Reality” no longer depends upon materiality—it is henceforth fluid, ubiquitous, and invisible. Such metaphysical developments confront politics with major challenges. As Haraway (1991, p. 162) argues, the “movement from an organic, industrial society to a polymorphous, information system” requires that we cease to think in terms of discrete objects, bodies, and spaces and begin to think in terms of “system design.” “In relation to objects like biotic components,” she writes, “one must think not in terms of essential properties, but in terms of design, boundary constraints, rates of flows, systems logics, costs of lowering constraints” (Haraway, 1991, p. 162). Old metaphysical categories must be abandoned if we are to be able to understand and respond to the new forms of domination we face.

The cyborg emerges out of the destruction of Leftist creation myths. Cyborgs are neither human nor animal, neither organic nor artificial, neither physical nor immaterial. In disrupting these distinctions, cyborgs undermine Western traditions of science and politics—i.e. “the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the production of culture; the tradition of reproduction of the self from the reflections of the other” (Haraway, 1991 p. 150). Rather than setting up a “border war” between organisms and machines, cyborg politics takes *responsibility* for the confusion and construction of boundaries. Cyborgs have loose political affiliations—with socialist feminism, with post-modernism, and with utopianism. However cyborgs are not ideological. They are immune from collective identification. They have no origin story and no predetermined destination. As Haraway (1991, p. 180) writes, “A cyborg body is not innocent; it was not born in a garden; it does not seek unitary identity and so generate antagonistic dualisms without end; it takes irony for granted.” On the one hand, cyborgs are the end of the apocalyptic telos of Western individualism. On the other, they are the beginning of the possibility for new lived social and bodily realities as well as new political affinities.

Mutant Manifestoes

Despite a thirty-year age gap, Haraway's manifesto resonates deeply with Williams and Srnicek's programme. Both advocate for a techno-literate incursion into capitalist hegemony—an incursion wrought by fragmented bodies and partial identities “spliced” into a collective will for self-mastery. At first glance, the figure of the cyborg looks out of place, even “monstrous,” amongst accelerationism's newly enlightened rationalists. Williams and Srnicek's (2014, p. 360) “positive feedback loop of infrastructural, ideological, social, and economic transformation,” seems eminently sober when juxtaposed with the “spiral dance” of the cyborg—an “infidel heteroglossia...building and destroying machines, identities, categories, relationships, space stories” (Haraway, 1991, p. 181). However Haraway's anti-goddess cannot be relegated to the “tired residue of post-modernity” against which accelerationism pits itself (Williams and Srnicek, 2014, p. 360). Nor can Williams and Srnicek be passed off as part of a new generation of totalitarian essentialists. Whilst Haraway's manifesto was written in the 1980s, at the height of post-structuralism, her reinterpretation of lived experience in terms of technological and scientific materialities—organisms and machines—subverts the tendency for continental philosophy to abjure science and technology. Likewise, whilst Williams and Srnicek associate themselves with enlightenment rationalism, their commitment to harnessing and reorienting the irrational “inhuman” forces of twenty-first century technological acceleration distinguishes their philosophy from “naive” humanism. Accelerationism and cyborg politics are best understood as philosophical anomalies—speculative constructions that break down philosophical border wars. “Mutants” of enlightenment humanism and post-modern nihilism respectively, accelerationists and cyborgs perforate classical political distinctions, disturbing entrenched dogmatism and providing new pathways for thought and action.

The remainder of this paper constitutes a map of “mutant insurgencies.” Both Haraway and Williams and Srnicek, I will argue, deploy conceptual constructions that forge philosophical fault-lines, allowing new political entities to emerge. Three of these “mutant insurgencies” will be considered. Firstly, “prometheanism,” a politics that subverts humanist/anti-humanist, rationalist/post-modernist debates. Secondly, “hyperstition,” a methodology that problematises the relationship between idealism and materialism, fiction and reality. Finally, “oppositional consciousness,” a mode of political identification that prevents essentialist totalisation. Each of these “mutant insurgencies” is made possible in the interaction between Haraway and Williams and Srnicek. Together, the two manifestoes, allow for the elaboration of a new kind of politics—a “mutational politics” that produces inconsistencies by problematising entrenched political and philosophical categories.

Prometheanism

“One is too few, and two is only one possibility,” writes Haraway (1991, p. 180). Cyborg politics replaces the dialectical model of historical transformation with a different model—a model of mutation. Broadly speaking, mutation is a process of permanent change. It is neither natural nor unnatural and consists in deletions, insertions, inversions, or translocations of structural components that produce inconsistencies in replication. According to Haraway, “holistic politics depend on metaphors of rebirth” (1991, p. 181). Cyborgs, she insists, have more to do with regeneration than rebirth. “Rebirth” involves the reification of oppressive essentialisms—not to mention the exploitation of reproductive resources. “Regeneration,” by contrast, is a permanent process of mutation, of change, that induces un-premeditated possibilities. The salamander becomes a kind of “mascot” for mutational politics:

For salamanders, regeneration after injury, such as the loss of a limb, involves regrowth of structure and restoration of function with the constant possibility of twinning or other odd topographical productions at the site of the former injury. The regrown limb can be monstrous, duplicated, potent. We have all been injured, profoundly. We require regeneration, not rebirth. (Haraway, 1991, p. 181)

Cyborg politics is about mutation. It is about disrupting processes of replication, rather than contriving fantasies of rebirth. “The future” will not be “reborn” out of the ashes of the present. In order for there to be a future, the image of the salamander must replace that of the phoenix.

Prometheanism—the political methodology proffered by accelerationism—is “salamander politics” *par excellence*. Abjuring attachments to ideal futures, prometheanism promotes “abductive experimentation” (Williams and Srnicek, 2014, p. 361). “Whilst we cannot predict the precise result of our actions,” Williams and Srnicek (2014, p. 361) insist, “we can determine probabilistically likely ranges of outcomes.” Cognisant of the contingencies involved in any form of political action, prometheanism combines rationality with speculative artistry in order to instigate social and political transformation. Prometheanism is both an attempt to move beyond enlightenment ideals of total mastery *as well as* post-modern contempt for all forms of authority. Instead of naively assuming complete control over political outcomes, or conversely decrying all forms of mastery as “proto-fascistic,” prometheanism aims to couple complex systems analysis with improvisatory practices in order to work out the “best means to act in a complex world” (Williams and Srnicek, 2014, p. 361).

Ray Brassier (2014, p. 470) defines prometheanism as “simply the claim that there is no reason to assume a predetermined limit to what we can achieve or to the ways in which we can transform ourselves and our world.” In advocating for a re-examination of Enlightenment prometheanism, Brassier attempts to counteract the post-metaphysical “fideism” that has pervaded continental philosophy since Martin Heidegger⁴. According to continental fideism, the idea of *remaking* the world, and *remaking* ourselves, “is routinely denounced as a dangerous totalitarian fantasy” (Brassier, 2014, p. 469). This is because there is a presumed to be a “fragile equilibrium” between what is *given* to human beings and what is *made* by them

⁴ For a similar, and equally compelling critique of this tendency in Continental Philosophy (since Martin Heidegger), see Meillasoux, Q. (2009). *After Finitude: An Essay on the Necessity of Contingency*. (R. Brassier, Trans.). London: Continuum, specifically the second chapter entitled “Metaphysics, Fideism, Speculation.”

(Brassier, 2014, p. 474). According to Brassier, this concept of “equilibrium” has its origins in the Kantian notion of finitude, which Heidegger ontologises. According to this notion, since human beings are the source and the condition for transcendence, we inevitably transcend every objective determination of ourselves. To understand ourselves like we understand other objects, “would require objectivating the condition of objectivation, which would be, as Arendt says, like trying to jump over our own shadow” (Brassier, 2014, 476). From this perspective, philosophers “who have claimed that human beings can radically re-engineer themselves can be denounced as metaphysicians reifying the transcendence of existence” (Brassier 2014, p. 476).

However, as Brassier points out, continental fideism leads to a political impasse. In claiming that all objectivation is savagery, and all “progress” inherently violent, fideism renders all savageries equivalent, making it impossible to discriminate between them. By contrast, “prometheanism denies the ontologisation of finitude” (Brassier, 2014, p. 478). That is, prometheanism destroys “the equilibrium between the made and the given—between what human beings generate through their own resources...and the way the world is” (Brassier, 2014, p. 478). Whilst Brassier (2014, p. 486) acknowledges that savagery is indeed recapitulated in objectivation, prometheanism maintains that “some savageries are better than others, and that it is not only possible but necessary to discriminate between modes of instrumentalisation and insist that some are preferable to others.” Rather than attempting to preserve what Brassier (2014, p. 486) terms “the theological equilibrium between the made and the given,” prometheanism is about reshaping the social and technological mechanisms that shape us—*it is about making (and remaking) the given*. From the point of view of prometheanism, rationality “is not a supernatural faculty”—an assumption that Heidegger and others rightly criticised—rather, rationality “is simply a rule-governed activity...the faculty of generating and being bound by rules” (Brassier, 2014, p. 485). Such rules are historically mutable insofar as “the ways in which we understand the world, and the ways in which we change the world on the basis of our understanding, are perpetually being redetermined” (Brassier, 2014, p. 486).

By recognising their “essential” illegitimacy, their artificial “nature,” cyborgs and accelerationists free themselves from ideological fideism. Mutational politics is about disrupting the present rather than preserving the future. This disruption is motivated by the fact that nothing is predetermined. There is no divine equilibrium governing technosocial development. All that endures is artificial and ever-changing. Unlike traditional emancipatory discourses—which bemoan the increasing colonisation or perversion of “human nature”—prometheanism is a permanent process of innovation and improvisation based on the knowledge “that science and technology are possible means of great human satisfaction, as well as a matrix of complex dominations” (Haraway, 1991, p. 181). Irreverent towards revolutionary discourses that presume innocence in the face of capitalist technological abstraction—prometheanism assumes “responsibility for the social relations of science and technology” (Haraway, 1991, p. 181). Prometheanism is about participating in the construction and deconstruction of boundaries and relations “without having to refer to a divine blueprint” (Brassier, 2014, p. 485). It is about shaping the things that shape us, despite the fact that the outcomes of our actions can never be pre-established.

Patricia Reed (2014) develops a detailed topography of accelerationist praxis. Dissatisfied with the ambiguous injunction to “accelerate,” which serves merely to popularise and polemicise the movement, Reed deploys seven alternative, and more modest, prescriptions which better characterise what accelerationism stands for. According to Reed, “accelerate” has become a buzz-word that serves to obfuscate the actual content of the texts and ideas associated with the movement. As a result, reactions to the manifesto have been hasty, plentiful, and largely superficial. Commentaries either “blindly champion #Accelerate (often by no other means than repetition of the tag), or condemn it as a ‘neo-futurist fascist travesty’” (Reed, 2014, p. 523). Reed sets out to rearticulate and respond to the ill-named “accelerate” movement with a series of seven prescriptions: reorientate, eccentricate, speculate, fictionalise, geometricise, commonise, abstractify.

Reorientation, she writes “is about directing existing energies in (as yet) inexistent directions” (Reed, 2014, p. 524). To *reorientate* is to anticipate “what could be” or “what ought to be” in order to reflexively restructure “what is.” *Eccentrication* refers to the creation “out-of-centre attractors,” that disrupt the centrifugal energies of normative processes (Reed, 2014, pp. 525-6). Eccentrication is designed to

demonstrate the contingency or mutability of particular trajectories and “magnetise” other points of orientation. To *speculate* “is to articulate and enable the contingencies of the given” to manifest themselves. Speculation consists in the sacrificing of a determinate political project or ideology, in favour of “an experimental responsiveness to epistemic, ontological and systematic variation” (Reed, 2014, pp. 527-8). To *fictionalise* is to break out of the “diagnostic register” of the Left and “acknowledge the power of belief that is necessary for the construction of speculative futures” (Reed, 2014, p. 528). To *geometricise* is to “engineer openings” in human perception. That is, to think outside anthropocentric spatio-temporal registers—even if we cannot completely overcome our phenomenological constraints. To *commonise* is to avoid totalising commandments and universalist claims. It is to create a commons, “a generic thought of value creation that formally morphs under localised, material modes of practice” (Reed, 2014, p. 534)⁵. And finally, to *abstractify* is to separate *what is* from *what could be*. It is to deny that abstraction is an inherently malevolent force—acknowledging it as a necessary part of forging new collectives and accommodating new ontologies “beyond the immediately perceptible” world-as-is (Reed, 2014, p. 535).

Reed’s (2014, p. 524) seven prescriptions not only provide us with a detailed topography of accelerationist praxis, they effectively “de/restructure the existent” through naming. Whilst the seven prescriptions pertain to an incredibly extensive range of philosophical and political questions, what they have in common is their mutational structure. In other words, each prescription—reorientate, eccentricate, speculate, fictionalise, geometricise, commonise, abstractify—designates a different mutational process, that transgresses traditional philosophical distinctions: human/nonhuman, material/ideal, real/virtual, natural/artificial. These processes attest to a greater mutational ontology wherein transcendental conditions and material entities are never permanent, fixed, or given, but always mutually transformative. Mutate-ability signifies something fundamentally different from the all-encompassing transcendental immutability of Being. Whilst the latter designates a divine equilibrium between the made and the given that must be “preserved,” the former refers to the perpetual plasticity and transmutability of both immanence and transcendence.

Hyperstition

“Hyperstition” was first coined by the renegade academics of the Cybernetic Culture Research Unit (CCRU)⁶. It combines the prefix “hype” with the word “superstition” in order to account for how fictional entities or “ideas” make themselves real by causally bringing about their own reality. “Hyperstition aims to flatten the transcendence of superstition,” emphasising the immanent effects wrought by fictions upon the world—for instance, the capacity for “hype” to shape and manoeuvre the market (Greenspan, 2004). Importantly, whilst superstition operates through diffusing belief, hyperstition functions by mobilising a positive un-belief, designed to de-programme ideology and potentiate mutations. According to the CCRU (2004, p. 276), fictions are not “transcendental screens” removed from the world; rather, they are sorcerous interventions, “active agents of transformation.”

Sadie Plant (1997) describes how the mathematical theorisation of the Difference/Analytic Engine actualised the future of digital technologies. Ada Lovelace’s nineteenth-century invention was destined to remain one of “pen, ink, and paper.” However, as Plant points out, its collateral effects upon the present were immeasurable. “While they may have left few trails of the kind which can easily be followed and packaged into neat and linear historical accounts, Ada and her software did not evaporate. The programs began to run as soon as she assembled them” (Plant, 1997, p. 21). In other words, whilst nineteenth century engineering lacked the technical capacity to “run” Ada’s software, her mathematical formulae were *already running*—inducing their own subsequent actualisation. For instance, Ada’s (and her collaborator

⁵ Importantly, this is something which Reed is not sure Accelerationism itself achieves, given its almost entirely “white-Euro-male-origins” (2014, p. 533).

⁶ These days the CCRU consists largely of a maze of dead hyperlinks. However, fragments of their writings continue to be exhumed from the internet. See Nick Land’s *Circuitries*; Sadie Plant and Nick Land’s *Cyberpositive*; the CCRU’s *Cybernetic Culture and Swarmachines*—all published in Avanesian, A. & Mackay, R. (Ed.s). (2014). *#Accelerate: The Accelerationist Reader*. Falmouth, UK: Urbanomic. See also Land, N. (2011). *Fanged Noumena: Collected Writings 1987-2007*. (R. Mackay and R. Brassier, Ed.s). Falmouth, UK: Urbanomic.

Charles Babbage's) ideas contributed to the standardisation of mechanised lathes leading to crucial advancements in engineering and scientific experimentation that would later influence computing itself. As Plant (1997, p. 22) maintains, "The Engine was assembling the processes and components from which it would eventually be built."

Plant's account of the conducive consequences of the Analytic Engine effectively demonstrates how hyperstition functions—how seemingly un-actualisable ideas bring about the conditions necessary for their own actualisation. According to the hyperstitional model of the universe, theories are neither ambivalent abstractions, nor mere adjuncts to *action*—they are themselves actors, *insurgent agents of actualisation*. For the CCRU (2004, p. 276), that "reality is composed of fictions" is not an epistemological stopgap. It is an affirmation of "the magical powers of incantation and manifestation," an argument for "the efficacy of the virtual." Rather than remaining isolated within the realm of the perceptual, "contained by a metaphysical frame," theories and fictions are imbued with causal efficacy—they populate the world, transforming its material constitution (CCRU, 2004, p. 277).

Employed in different ways by both Haraway and Williams and Srnicek, hyperstition couples analyses with artificial agencies, cultivating positive systems of unbelief conducive to political, scientific, and technological transformation. Whilst accelerationism—with its push to free the latent potentialities of technological acceleration—presupposes hyperstition⁷, Haraway's cyborg ontology is both an explicit theorisation and a self-conscious performance of it. In the opening to her manifesto, Haraway proclaims that the cyborg is, "a creature of social reality and a creature of fiction" (1991, p. 149). For her, social relations and lived experiences are "crucial" political constructions. They are artificial realities, hybrids of fact and fiction that intervene in the world, bringing about new incarnations. According to the manifesto,

Liberation rests on the construction of the consciousness, the imaginative apprehension, of oppression, and so of possibility. The cyborg is a matter of fiction and lived experience that changes what counts as women's experience in the late twentieth century. This is a struggle over life and death, but the boundary between science fiction and social reality is an optical illusion. (Haraway, 1991, p. 149)

Cyborg mythology is both an interpretive fiction and an interventionist tool. It is an attempt to alter reality by problematising it—a process that takes the imaginary beyond the bounds of transcendental apperception and into the material world. "The cyborg," Haraway (1991, p. 150) writes, "is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation." Fact and fiction, reality and mythology, mutually constitute one another. Together, science fiction and social reality make up the conditions for the emergence of new possibilities.

Mythos is neither the representation nor the misrepresentation of "reality" for Haraway. Strictly speaking, mythos *is* reality in that the two things cannot be separated out from one another. But this does not make them the same thing. In contrast to Guy Debord's "spectacle" or Jean Baudrillard's "simulacrum," Haraway does not interpret the dissolution of the boundary between reality and fiction to be one of incorporation or subsumption. Whilst many Marxisms refer to the capitalist "colonisation" of the real—a process that must be reversed by appealing to an authentic or non-fictional "outside"—Haraway insists that any formulation of "the real" is always already mythology—something that feminists are perhaps more attuned to. The idea that "the real" is always already mythology is very different from the idea that that reality has become incorporated into or colonised by mythology. Whilst the latter threatens us with subsumption and determinism, the former posits a dynamic interplay where reality and mythology mutually transform and reinforce one another—making possible new couplings, mutations, and the emergence of new entities.

Feminism has always been speculative: *it has to be*. In order to avoid reifying oppressive dualisms, feminists are forced to disrupt the present—to construct futures without reference to patriarchal pasts (or

⁷ The Publication of *#Accelerate: The Accelerationist Reader* is a self-professed instance of "hyperstition." In the introduction to the reader (p. 8), Robin Mackay and Armen Avanessian describe the book as an attempt "to participate in the writing of a philosophical counterhistory, the construction of a genealogy of accelerationism...at the same time producing accelerationism 'itself' as a fictional or hyperstitional anticipation of intelligence to come."

presents). Haraway calls the hyperstitional practices of feminist authors, “cyborg writing.” Examples of cyborg writing include the biomythography of women of colour and [the] monstrous imaginaries of feminist science fiction writers—which disrupt oppressive patterns of recognition and allow new non-essentialist identities to emerge⁸. Cyborg writing, Haraway (1991, pp. 175-177) maintains, is neither phallic nor innocent, it refuses to be reduced to dialectics. Instead, cyborg writing seeks to displace the “hierarchical dualisms of naturalised identities” that continue to oppress women, people of colour, first nations peoples, nature, workers, and animals. The reification of innocence, of originary wholeness, or oneness with nature are nothing but ideological resources for masculine autonomy—which takes respite in the wholesome bosom of the Other (Haraway, 1991, p. 177). Cyborg writing is about polluting “nature.” It is about breaking down clean distinctions between organism and machine, human and animal, civilised and primitive, whole and part, man and woman. Cyborg writing is about recognising “oneself as fully implicated in the world,” and as such freeing oneself “of the need to root politics in identification, vanguard parties, purity, and mothering” (Haraway, 1991, p. 176). A promethean praxis, rather than an ideological appeal, cyborg writing is about seizing the tools to mark the world that marks us (Haraway, 1991, p. 175). It is about rewriting bodies and social realities. Haraway’s cyborg writing is an insurgent political practice—a mixture of analysis and speculative artistry based on the knowledge that the actual and the virtual are always co-extensive. Thinking of the universe in these terms allows us to step outside of the antagonistic dualisms of dialectical politics and engage in imaginative reconstructions of the world—reconstructions which are always also reconfigurations.

Oppositional Consciousness

One of the most (if not the most) ubiquitous critique of accelerationism is that it reaffirms “grand narrative” politics. According to Suhail Malik and Armen Avanesian,

Cultural leftism's embrace in the 1990s of post-modernism, identity politics, and the turn to ethics (via the human rights settlements) as the primary organising determinants of a social justice agenda that militated against standardisation not only ruled out any appeal to the 'grand narratives' of modernity as the basis for leftism but, more actively, sought to delegitimise any such universalising criteria. (Malik & Avanesian, 2016, pp. 5-6).

Importantly, post-structuralism sought to combat oppression and political marginalisation by promoting the irreducible nature of different identities, discourses, and experiences. Tied to this acknowledgment of subjective irreducibility was an accompanying acknowledgment of the “singular, irreproducible, and even untransmittable” nature of particular political claims and social demands (Malik and Avanesian, 2016, p. 6). Through engaging in various practices of social, historical, and cultural deconstruction, post-structuralists sought to relativise, and thereby destabilise, the universal and objective status of particular discourses—e.g. scientific “truth” and instrumental reason. However, as Malik and Avanesian (2016, p. 6) point out, post-structuralism’s wholesale divestment from universal theorising “has resulted in social, cultural, and political assertions being formulated primarily in terms of subjectively-organised claims that caution against extending beyond themselves for fear of imposing a microimperialism.”

Accelerationism's perceived effacement of subjectivity, locality, and lived experience—in favour of abstract globalism—troubles feminists and postcolonial theorists in particular. It is doubtful to many critics whether Enlightenment values (truth, justice, rationality, self-mastery etc.) are extricable from the oppressions inherent in the original Enlightenment project (colonialism, patriarchy, slavery etc.) As such, many critics regard accelerationism's reaffirmation of rationality, universality and instrumentality to be reaffirming oppression—*cue accusations of imperialism, chauvinism, and proto-fascism*. However, such arguments—apart from overlooking accelerationism's *critical* engagement with the Enlightenment, embodied in their argument for historically mutable normative political schemas, rather than immutable

⁸ Haraway cites Joanna Russ, Samuel R. Delaney, John Varley, James Tiptree, Jr, Octavia Butler, Monique Wittig, Vonda McIntyre, Mary Douglas, Luce Irigaray, Susan Griffin, Audre Lorde, Adrienne Rich, and Cherríe Moraga as examples of cyborg writers.

metaphysical grounds or categories—often rely upon reviving essentialisms: universality is *essentially* absolutist, mastery is *necessarily* fascistic, rationality is *inherently* patriarchal, etc. Rather than entering into what has become a stifling political debate, I would like to propose Haraway's cyborg ontology as a model for political universality that not only avoids reaffirming oppressions, but also acts as a safeguard against them. This model, I will argue, is at once appropriate to accelerationism and useful for addressing its major criticisms in a productive way.

Unlike many of her post-structuralist counterparts, Haraway affirms essential artificiality. Whilst most established Leftisms interpret this artificiality as “the final imposition of a grid of control on the planet,” Haraway (1991, p. 154) sees it as the potential for new forms of political coalition based upon affinity. US Left movements and US feminism, she writes, have responded to the “painful fragmentation” of successive identity crises “by endless splitting and searches for a new essential unity. But there has also been a growing recognition of another response through coalition—affinity, not identity” (Haraway, 1991, p. 155). In order to explore the possibilities of political affinity, Haraway (1991, p. 155) examines the formation and history of the “women of colour” movement in America, arguing that the galvanisation of the women of colour movement can be thought of in terms of what Chela Sandoval coined “oppositional consciousness.” Oppositional consciousness is, broadly speaking, “the conscious appropriation of negation” (Haraway, 1991, p. 156). For women of colour, oppositional consciousness is the conscious appropriation of a *double negation*. Whilst, like others, they find themselves negated by white patriarchal colonial capitalism, unlike many others, women of colour *also* find themselves negated by privileged categories of the oppressed (“women” and “blacks”). “Woman of colour” thereby constitutes a political “identity” for those “refused stable membership in the social categories of race, sex, or class” (Haraway, 1991, p. 155). Importantly, whilst oppositional consciousness arose out of *necessity* for non-white, third-world feminists, Haraway's (white, first-world) redeployment of it—in terms of the cyborg—transforms oppositional consciousness into a universalist *strategy*. According to Haraway, “woman of colour” is a political identity constructed out of non-identities. As a result, it provides us with a model of political identity that avoids reifying oppressive essentialisms. Like the woman of colour, Haraway (1991, p. 155) maintains, the cyborg has no natural origin or essence—she is artificial. An illegitimate bundle of negations, she can appeal to nothing but her “otherness, difference, and specificity.”

According to Haraway, a cyborg kinship based upon oppositional consciousness would not rely upon “the logic of appropriation, incorporation, and taxonomic identification” (1991, p. 157) implicit in traditional revolutionary discourses. Such kinship forecloses the possibility for relations of domination (e.g. patriarchy, colonialism, capitalism) to be justified *or* challenged by way of appeals to totalising universalities or essentialisms. What distinguishes both cyborgs and women of colour from the traditional revolutionary “subject” is an appreciation for their essential artificiality. “With the hard won recognition of their social and historical constitution, gender, race, and class cannot provide the basis for belief in ‘essential’ unity” (Haraway, 1991, p. 155). Cyborgs regard themselves as neither innocent, nor revolutionary—they are painfully aware of their status as “the illegitimate offspring of militarism and patriarchal capitalism.” (Haraway, 1991, p. 151). However, as Haraway (1991, p. 151) insists, “illegitimate offspring are often exceedingly unfaithful to their origins.” Through dispensing with myths of original unity, cyborgs gain the capacity “to build an effective unity that does not replicate the imperialising, totalising revolutionary subjects of previous Marxisms and feminisms” (Haraway, 1991, p. 156). Instead of appealing to a naturalised identity, the figure of the cyborg engages in resistance through ongoing and ever-changing practices of artificial recoupling and mutation.

In constructing a universal political identity out of oppositional consciousness, Haraway provides a model for accelerationist subjectivity which not only avoids, but actively forecloses, imperialising oppression. Oppositional consciousness facilitates the formation of collective political affinities based on partial identities and shared struggles. Rather than appealing to metaphysical principles, or unifying essentialisms, Haraway seeks to create new futures by way of illegitimate couplings and potent fusions. Feminists—especially women of colour, as well as queer and trans* subjects—have long relied upon the production of artificial identities for survival. These acts of “personal and political pollution” are not symptomatic of atomised individualism, or a blind faith in technological development. Rather, they are concerted attempts to move beyond totalising essentialisms and open up new possibilities for politics.

Williams and Srnicek (2014, p. 360) insist that the Left must “move beyond the notion that an organically generated global proletariat already exists [and] instead...knit together a disparate array of partial proletarian identities, often embodied in post-Fordist forms of precarious labour.” Whilst Williams and Srnicek fail to develop a theory of the accelerationist subject, Haraway's cyborg—with its commitment to political coalition and collective self-mastery—represents an appropriate candidate. Furthermore, the figure of the cyborg (with its origins in the woman of colour movement) might encourage further engagement with questions concerning colonialism, race, sex, and gender and their relationship to global or universal anti-capitalist agendas—something decidedly lacking in the accelerationist manifesto. The use of the cyborg as a potential model for accelerationist subjectivity represents one of the many ways in which accelerationist politics could benefit from further engagement with the history of technofeminist thought—a history to which it, arguably, owes much of its existence.

Conclusion

Accelerationists tend to oscillate between championing Marxian orthodoxies, advocating planetary techno-transcendence, and invoking enlightenment rationalism. As Patricia Reed's article demonstrates, it is difficult to determine exactly what accelerationism stands for. The construction of a genealogy or an ontology appropriate to the movement seems eminently problematic. As Mackay and Avanesian (2014, p. 7) observe, the history of accelerationism consists almost completely of “isolated eruptions which each time sink without trace under a sea of unanimous censure and/or dismissive scorn.” Despite this, reconstructing accelerationism's genealogies is an effective way of exploring and assessing its possibilities—both as a philosophical configuration and a political proposition (Mackay and Avanesian, 2014, p. 7). The aim of this article is to contribute to the efforts of other feminist theorists currently working to re-contextualise accelerationism within the history of technofeminist thought. Accelerationism's current lack of association with technofeminist philosophers such as Haraway is to the detriment of both accelerationism and contemporary feminism. This is something that the editors of *Dea ex Machina* and the authors of the “Xenofeminist Manifesto” are attempting to combat. Whilst many have acknowledged accelerationism's potential usefulness for contemporary gender politics, we are yet to adequately acknowledge gender politics' usefulness for accelerationism. By showing how accelerationism might benefit from further engagement with Haraway's ideas, I have attempted to reorientate debates surrounding accelerationism—away from antagonistic impasses and towards constructive collaborations, artificial couplings, and potent fusions.

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Emma Wilson is a recovering Heideggerian and a MPhil candidate in Philosophy at the University of Queensland, Australia. She is currently exploring the political and philosophical implications of “post-phenomenological” realism(s). In 2011, Emma made a pilgrimage to UCSC in order to find Donna Haraway. Unfortunately she was too nervous to actually ever organise the encounter—nonetheless, her passion for Haraway's work continues to abound.

Imagining the cyborg in Náhuatl: Reading the videos of Pola Weiss through Haraway's Manifesto for Cyborgs

Gabriela Aceves-Sepúlveda – Simon Fraser University

gacevess@sfu.ca

By 1985, when Donna Haraway's essay, "A Manifesto for Cyborgs: Science, Technology and Socialist-Feminism in the 1980s," presented the cyborg as a hybrid between organism and machine and an alternative model of feminine subjectivity, the Mexican independent media producer Pola Weiss had been challenging normative female experiences and relations between self and technology through her video work for nearly a decade. In this article, I propose to explore Weiss's work through the lens of Haraway's in order to collaborate with recent efforts to locate Weiss's practice more meaningfully in the histories of media arts. By placing particular attention on Weiss's conceptualization of her camera as a hybrid coupling between organism and machine, I use Haraway's Manifesto for Cyborgs to suggest a frame in which to understand Weiss's practice as critique of the dominant intellectual traditions and conventions of representation that have produced and reproduced hierarchies of race, class, sex, and gender difference in Mexico. In doing so, I also explore how Weiss's experiments with televisual images challenged normative female experiences and relations between self and technology. Ultimately, in proposing Haraway's work as a vehicle through which to understand the work of Weiss, I also seek to find affinities between the two women as they inhabited parallel worlds and shared similar concerns.

Introduction

In the mid 1970s, when the Mexican television industry began to incorporate video as a broadcasting technology and video art was developing as a new artistic medium in the country, Pola Weiss began to experiment with video technology to propose new ways of thinking about televisual images and broadcasting. In 1978, she declared herself to be a teleasta, a producer of experimental televisual images (Weiss, 1978b), and from then until she took her own life in 1990, she produced a series of television programs and videos in which she experimented with live dance performance, visual poetry, music, and visual effects. She conceived each of her videos as an act of giving birth, and her camera as her daughter—her *escuincla* (from the Náhuatl word for daughter) (Mendiola and Moreno, 1999). By using the video camera as an extension of her body and adopting television broadcasting as a conceptual model to reach audiences outside of the art world circuits, Weiss developed a unique approach to video. She combined the predominant articulation of video art as a medium of self-knowledge (Krauss, 1976, pp. 50–64) with a concern for exploring video's relation to television broadcasting and the medium's aesthetic and technical qualities (Hernández et al, 2014, p. 15). Through this approach, Weiss sought to break with the media border—the separation between real experience and the reality structured by a medium (Spielmann, 2008, pp. 2–6)—in order to interpellate critical and embodied viewers (Garibay, 1984). Much like her contemporaries, including the US-based, Japanese-born artist Shigeko Kubota, Weiss was attracted to video because of its lack of history, which, as Midori Yoshimoto (2005, p. 187) has described, afforded many 1970s female artists a clean slate, allowing them to launch their careers without the burden of an existing male tradition or established categories and genres. Like Kubota, Weiss invented her own categories to explain her practice and self, which overflowed existing frameworks.

During her lifetime, Weiss participated in various international exhibitions in venues across Europe and the Americas (Torres, Exposiciones, 2013), and developed connections with several video artists, including Kubota (Fernández, 2005, pp. 16–17; Kubota, 1979). Despite these achievements, her work is relatively unknown both in Mexico and abroad. It has been only recently, in the context of the bequest of her personal archives to the Museo Universitario de Arte Contemporáneo (MUAC) in Mexico City, that various scholars have turned their attention to her work (Aceves, 2014; Giunta, 2013; Eder, 2010;

Hernández et al, 2014). In this article, I propose to explore Weiss's work through the lens of Donna Haraway's "A Cyborg Manifesto. Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (2000, pp. 291-324, hereafter *Manifesto for Cyborgs*), in order to collaborate with efforts to locate Weiss's practice more meaningfully in the histories of media arts. By placing particular attention on Weiss's conceptualisation of her camera as a hybrid coupling between organism and machine, I use Haraway's *Manifesto for Cyborgs* to suggest a frame through which to understand Weiss's practice as critique of dominant intellectual traditions and conventions of representation that have produced and reproduced hierarchies of race, class, sex, and gender difference in Mexico. In doing so, I also explore how Weiss's experiments with televisual images challenged normative female experiences and relations between self and technology. By providing a close reading of Weiss's embodied relation to her video camera, I suggest how she metaphorically transformed her creative process into an act of copulation with her *escuincla*, something akin to what Donna Haraway would label cyborg sex—couplings between organism and machine that transgressed any previous form of intimacy (Haraway, 2000, p. 292). For Haraway, the cyborg was a hybrid between organism and machine, "a matter of fiction and lived experience that changes what counts as women's experience in the late twentieth century" (2000, p. 291). As a critique of techno-scientific discourses, one of the central objectives of Haraway's *Manifesto for Cyborgs* is a call for a broader political project aimed at transgressing boundaries and undoing the dualisms and essentialisms in dominant intellectual and cultural traditions that have dictated the construction of hierarchies of difference. Following Haraway's call, I discuss how Weiss's act of naming her camera an *escuincla* and using it as a prosthetic to extend the vision of her white, middle-class female body could also be read as an act that speaks to an interest in undoing longstanding colonial racial and class hierarchies present in Latin American societies. The word *escuincla*, from the Náhuatl *itzcuintli* (a dog without hair, or a child) is commonly used in colloquial Mexican Spanish as pejorative term to refer to an indigenous or dark-skinned female street beggar or as shorthand for nuisance. As I will explain, Weiss's use of her *escuincla* as an extension of her own body was one of the strategies she used to break the media border, one that metaphorically allowed the Other to see and be seen. However, like any other attempt at representing or speaking for the Other (Spivak, 1988), Weiss's approach was not free from contradictions. Weiss's conceptualisation of her camera as her *escuincla* was an oppositional, ironical, and paradoxical strategy—not unlike that in Haraway's *Manifesto for Cyborgs*—through which Weiss challenged normative female experiences by developing a hybrid between herself, her camera, and the Other (both the object of representation and the indigenous Other).

In the context of the 30-year anniversary of the publication of Haraway's *Manifesto for Cyborgs*, my concern in this article is also to find "lines of force and affinity" (Sandoval, 2000, p. 4) between Weiss's work and Haraway's manifesto. While the trope of the cyborg is present in Latin American cultural production and, following Haraway's conceptualisation, has been used as a lens through which to analyse the cultural production of diverse Latin American artists (Brown, 2010; Arboleda, 2014), by proposing to seek lines of correspondence between Haraway and Weiss, I explore how they inhabited parallel worlds and engaged with similar problems. I endeavour to collaborate in reconciling tensions and boundary concerns within distinct intellectual geographies while simultaneously opening up the repertoire of female figurations that emerged in the late twentieth century—or, in Haraway's words, to explore "simultaneous breakdowns that crack the matrices of domination in order to open up geometric possibilities" (2000, p. 311). The objective is not, however, to position Weiss as *avant la lettre* in relation to any of the academic discourses to which the *Manifesto for Cyborgs* has given rise or to the manifesto itself. Rather, the purpose, in Chela Sandoval's terms, is to collaborate with projects that seek to end academic apartheid (2000, p. 3) by exploring how Haraway's contemporaries explored relations between self and technology as critique of dominant social structures during the last three decades of the twentieth century.

ArTV: The Birth of a Teleasta

Pola Weiss Álvarez was born in Mexico City in 1947, the elder of two daughters in a middle-class family. Her foreign last name came from her father, an engineer of Alsatian origin who may have immigrated to Mexico to escape the war; her mother, Emma Álvarez, was Mexican (Mendiola and Moreno, 1999). In

1975, Pola Weiss graduated from the Universidad Nacional Autónoma de México (UNAM), one of the most prominent universities in the country, with degrees in political science and communications, having produced Mexico's first thesis to incorporate video (Torres, 1997, pp. 61-63). According to her sister Kitzia, Pola became interested in moving images at an early age (Torres, 2012), however, Weiss came of age at a time when the television industry was being consolidated as the most powerful medium of communication, one that was transforming not only the way people communicated, but also intellectual and political fields of action (García, 1989). Weiss's interest in televisual images and the development of her unique approach to video need to be located in confluence with a local and international geography in which television broadcasting was becoming the predominant means of mass communication and the most effective means to influence public opinion and reinforce heteronormative gender roles.

Since its beginnings in the 1950s, the television industry in Mexico had been in the hands of the private sector. By the 1970s, the control of an industry that was becoming so influential had become a point of public debate. In 1972, the government of president Luis Echeverría Álvarez (1970–1976) launched a series of reforms to counter the growth of private investment in the sector. These reforms were part of a package of populist strategies aimed at re-establishing president Echeverría's popularity and that of the ruling party, the Institutional Revolutionary Party (PRI), as both had been severely damaged after the 1968 student massacre in La Plaza de Tlatelolco in downtown Mexico City. At stake was the role the state would play in the production of cultural and educational programming and its role in controlling private broadcasters' airtime and commercial and foreign programming (Miró, 1997, p. 66).

As a result of a complicated series of political manoeuvres, three main actors were consolidated as producers and broadcasters of television programming in Mexico during the 1970s: the state, through the purchase of television channel Canal 13 (1972); Televisa (1973); and UNAM, through TV UNAM, a closed network television production station that began to broadcast on an open network in association with Televisa in 1976 (Fernández and Paxman, 2000, p. 256). At the time, in Mexico, as elsewhere, advances in broadcasting technology such as satellite networks and the use of video technology, introduced to the country in 1968 and in 1970, respectively, expanded information's reach and the velocity through which it could be transmitted via television broadcasting (Fernández and Paxman, 2000, p. 196-197). The three main television institutions in Mexico were open to experimenting with the newly available video technology and eagerly opened their doors to a new generation of media professionals—including women (Aceves, 2014, pp. 102-113).

The inclusion of women in television broadcasting was inextricably related to the emergence of transnational second wave feminisms and the hosting of the United Nations first World Conference of the International Women's Year (IWY) in Mexico City in the summer of 1975 (Aceves, 2014, pp. 50-89). As early as 1971, several feminist collectives in Mexico City had taken to the streets to demand the decriminalisation of abortion and an end to the discrimination against women at all levels of society (Jaiven, 1987, p. 76). Like other second wave feminists, Mexican collectives also demanded a change in the ways mass media manipulated gender roles and objectified female bodies. In response to their demands, and a year prior to the hosting of the IWY conference, president Echeverría secured equal rights legislation for women in 1974. One of the resolutions of the UN's IWY celebration and the subsequent Decade of Women (1975–1985) was to promote the appointment of women to decision-making posts in the media industry in order to transform the ways in which the media tended to reinforce traditional attitudes and portrayals of women that were both degrading and humiliating (Aceves, 2014, p. 63).

In Mexico, these resolutions were partially implemented by both public and private broadcasters, which boosted the participation of women in the field. The recently established state-owned Canal 13 fostered the participation of women as anchors and producers (De La Lama et al, 2001, pp. 5-6). In the private sector, several female reporters gained popularity as television personalities during the 1970s (González de Bustamante, 2012, p. 200). Simultaneously, as mentioned earlier, feminist activists in Mexico, as elsewhere, made the demystification of mass media representations of female bodies one of their main targets (Aceves, 2014, pp. 131-169). Although Mexican television broadcasting was still a masculine field in the 1970s, women's participation in mass media radically increased during that decade; in the aftermath of the IWY conference, women in Mexico were not only accessing political posts across

different political parties (Jaiven, 1987) but also gaining leadership positions in various professional fields, including mass media.

While Pola Weiss never joined a feminist collective nor declared herself a feminist, she chose the production of televisual images as her medium to re-write, re-tell, and displace normative representations of the female body and the legacies of colonial conceptions of race and class difference, and to propose alternative uses of television broadcasting. As a student, Weiss began to collaborate with both the state-owned Canal 13 and Televisa. In 1974, she travelled through Europe to visit several broadcasting companies—including the BBC in England, VPRO in the Netherlands, OFRATEME in France, and RAI in Italy—to research the artistic and experimental uses of television (Torres, 1997, pp. 61-63). This research trip influenced Weiss's thinking on the possibilities video afforded to television broadcasting. For instance, in her bachelor's thesis, she proposed the use of video in the production of television programming outside the commercial parameters that defined Mexican television at the time. She believed:

The televisual order that had been mostly used to manipulate and alienate human consciousness could equally be used in the opposite manner; that is, by using the same technology, to slowly invert the meaning of the messages and eliminate the ideological alienation that such messages produced by making efficient use of the marginal spaces opened up by mainstream, academic and state media corporations. (Weiss, 1975, p. 10)

In seeking to take advantage of the spaces already opened up by television broadcasting and using the same technology to counter ideological alienation, Weiss's approach was different from other critiques of media in the region. At the height of the Cold War, commercial television was predominantly viewed in Mexico—as in the rest of Latin America—as a weapon of American imperialism (Dorfman and Mattelart, 1973). Unlike in Euro-North America, where video technology was affordable and provided a direct means of documenting a range of oppositional movements (Drew, 2007; Dougherty, 1998; Jean, 2011), most independent media collectives that emerged in Latin America at the time adopted film and photography to produce a range of documentary productions (Burton, 1999, pp. 3-5) to unveil the workings of imperialism. Following the tenets of Getino and Solana's Third Cinema (Martin, 1997) many of these collectives proposed to use film and photography as communication tools to raise consciousness about social issues. They conceptualised these media as “weapons of social transformation” (Mandoki, 1981, pp. 41-42). Such weapons, however, were often wielded in highly gendered ways. Whereas the vast majority of images and films produced by this generation of committed artists (for example, the work of filmmakers Getino and Solanas, *Coperativa de Cine Marginal*, or the photographs of Nacho López) glorified the masculinity and heroism of revolutionary fighters or portrayed the miseries and precariousness of Latin American realities; women were mostly represented as companions of revolutionary leaders, as sexualised ethnic beauties, or as victims of class and racial disparities. An exception was the work of *Colectivo Cine Mujer*, a Mexican feminist film collective established in 1975 that produced 16 mm films addressing sexual and domestic violence against women (Aceves, 2014, pp. 328-348). Weiss' approach broke with the conventions of representation established by these independent media collectives. She did so not only by working closely with both private and public media corporations, but, as I will explain, by producing images and representations of female bodies that challenged normative conventions of representation. For instance, her video *Ciudad-Mujer-Ciudad* (1978), shown at the *Nuevas Tendencias February Biennale* held at Mexico City's Museo de Arte Moderno (MAM) and proposed for broadcasting, was not only censored for commercial television, but also surprised the emergent artistic community with its frontal female nudity (Carrasco, 2011). In *Ciudad-Mujer-Ciudad*, Weiss superimposes images of a nude female body with urban scenes. The body of Vivianne Blackmore, the model, is seen from the front; her breasts are exposed, and she is performing undulating movements that vary in speed according to the rhythm of the soundtrack (Fig. 1).



Fig. 1 Pola Weiss, *Ciudad-Mujer-Ciudad*, 1978.
Courtesy of Fondo Pola Weiss, ARKEHIA, MUAC- UNAM.

Mónica Mayer, a young and self-identified feminist artist at the time, recalled years later:

I was surprised by the fact that [*Ciudad-Mujer-Ciudad*] showed a real woman, with scars and cellulite. It made me laugh to see her breasts bouncing to the sound of the bells, and I was surprised to see the frontal shots of her pubic area. (Mayer, 2009)

Rather than presenting female bodies as victims of oppression or objects of representation, Weiss produced televisual images that showed how women could take pleasure in the act of looking and being looked at. As a self-identified middle-class televisual producer (*teleasta*), her incorporation of nude, dancing female bodies, which at times blended into images of herself through chroma-key and layering effects—see, for example, *Autovideoato* from 1979 (Fig. 2)—playfully mocked Mexican media censors, who, at the time, identified the difference between pornography and eroticism as whether a nude female body was shown moving or still (Bustamante, personal communication, August 6, 2010).



Fig. 2 Pola Weiss, *Autovideoato*, 1979.
Courtesy of Fondo Pola Weiss, ARKEHIA, MUAC- UNAM

Moreover, at a time when feminist critiques of visual representation hinged on Laura Mulvey's (1989, pp. 19-25) conceptualisation of the male gaze as a fixed subject position which objectified women's bodies, and feminist anti-pornography debates equated desire with "a male trap that automatically objectifies and oppresses women" (Dolan, 2012, p. 80), Weiss's video explorations went beyond the fixed binary construction of the object/subject of representation and idealised depictions of female sexuality. For instance, other female artists who, at the time, were also questioning the fixed subject/object relation in the process of representation (for example, Leslie Labowitz and Hana Wilke) evaded the question of male desire and sexuality by equating the female body with nature and spirituality (Dolan, 2012, pp. 78-80). Weiss did not avoid a confrontation with sexuality; rather she confronted it through a constant blurring of subject/object positions. In shifting positions as both the subject that produces images of nude female bodies and her own body, Weiss evoked pleasure and desire in the act of looking and as constitutive of the act of representation while, at the same time, dismantling essentialist and heteronormative gendering of sexuality. Through these constant shifts of subject/object positions, Weiss explored multiple, intersectional, and relational forms of representing the self, pointing to what Amelia Jones describes as "the failure of representation to offer up the self as a coherent and knowable entity" (Jones, 2006, p. xvii).

These constant shifts of subject/object positions also led Weiss to create alternate televisual realities where couplings of self and Other shifted and alternated. For instance, in her videodanzas, which consisted in live events in public spaces in which she combined performance and video, Weiss transformed her video camera into an eye or a limb as she danced with it in her hand, filming her movements. Simultaneously, her camera broadcasted her movements through video signals transmitted to monitors and reflected through mirrors. During these videodanzas, the interplay of projections and reflections from monitors and mirrors fractured the spatial and durational sequence of Weiss's performances. At the same time, through visual effects and the incorporation of live feedback, Weiss alternated positions between the subject who produced the images and the object represented in those images, and between her camera, her body, and the bodies of the spectators caught in the act of looking (whose images were reflected in mirrors and incorporated into the video through live feedback). Weiss'

blurring of the locations of the object and the subject created simultaneous lived experiences: her body dancing and filming, her movements being reflected in mirrors and projected back to monitors through live feedback, and spectators filmed in the act of viewing her performance and being integrated into the video performance through live feedback and reflections in mirrors. By merging her body with that of the spectator through the use of live video feedback and visual effects, Weiss altered not only the subject/object relation in the matrix of representation, but produced, in a cyborgian fashion, an alternate televisual reality in which couplings of self and Other shift and alternate. In doing so, Weiss follows one of the boundary breakdowns Haraway distinguishes in the *Manifesto for Cyborgs*—“the boundary between the physical and non-physical” (2000, p. 294)—by creating an analog virtual screen space in which the object and subject of representation can co-exist and be merged into one through analog visual effects. Weiss’s videodanzas were events during which the separation between mind/body, and between subject/object, could be suspended momentarily.

Before I turn to a close reading of Weiss’s conceptualization of her camera as her daughter, I would like to briefly discuss Weiss’s encounter with Japanese-born, U.S.-based Shigeko Kubota and trace some important correlations between the work of the two artists. On July 17, 1975, while Weiss was finishing her bachelor’s thesis on the uses of video as an alternative medium to commercial television broadcasting, she met and interviewed Kubota at her home studio in Mexico City (Fernández, 2005, pp. 16-18; Weiss, 1975). It is not clear what brought Kubota to Mexico City that year. Conflicting information exists as to whether her presence was related to the UN’s IWY celebration in Mexico City in the summer of 1975, or whether it was related to her participation in one of the video art exhibitions organized in Mexico City at that time. As mentioned earlier, Weiss’s approach to video was developed in confluence with the development of video art as a discipline. Although video technology in the 1970s was out of reach for the majority of artists in Mexico, the art community organised several efforts to introduce the emergent medium of video to young generations of artists outside the television industry in Mexico City. Two exhibitions in particular—Video Art Nueva Estética Visual, an exhibition held at MAM in 1973, and the “IX Encuentro Internacional, I Encuentro Nacional de Videoarte,” held at Museo de Arte Carrillo Gil (MACG) in 1977—introduced the vanguard of US-based video and experimental television artists and Latin American video producers to Mexican audiences, including Ed Emschwiller, William and Louise Etra, Nam June Paik, and Shigeko Kubota. Weiss was involved and actively participated in the 1977 exhibit organized by the Argentinian Jorge Gulsberg. In the show, Weiss exhibited *Flor Cómica* (1977), a playful experiment with visual effects to the rhythm of Chick Corea’s “Return Forever.”

The meeting with Kubota marked an important transformation in Weiss’s approach to video (Aceves, 2014, pp. 371-385). The video recording of the interview produced by Weiss (Weiss, 1975) already shows her particular interests in exploring and contesting the limits and possibilities of video and television broadcasting. With an audience present, Kubota and Weiss spoke about different approaches to video making (video art and video installation) and about Kubota’s experience as a female artist in Japan and New York. However, beyond disseminating Kubota’s experiences, Weiss used the interview to present her own views about video and television broadcasting to a Mexican audience—mostly UNAM students. During the interview, Weiss interrupts the conversation to ask the audience if the recording of the interview is playing live in the monitors placed behind Weiss and Kubota. She asks someone (an assistant, perhaps) to distort the image so that the intended viewer thinks that his/her television is not working properly. Then the camera focuses on Weiss, who talks to the viewer (not the live audience, but the intended viewer of the recorded interview) and explains that video art consists of distorting images (the clear image that the television decodes and presents to the viewer). Video art, she continues, consists of creating feedback, image distortions, and colour alterations by playing with brilliance and contrast (Weiss, 1975).

Weiss travelled to New York City in the summer of 1976 to learn more about video art in the United States. It is not clear whether she met Kubota in New York, but there is some evidence that they remained in touch (Kubota, 1979), and, as discussed elsewhere, Weiss’s and Kubota’s work shared similar concerns (Aceves, 2014, pp. 371-385). Both artists were invested in developing categories to understand their media explorations. While using video’s capacities to mix and fuse a wide range of practices and conventions of representation, they also transformed traditional female forms of expression. For instance,

following their interests in using video as a tool for self-knowledge, they both championed video as a medium akin to diary writing, what Kubota labeled videodiary (Yoshimoto, 2008, pp. 186) and Weiss referred to *Autovideoato* (1979). In using video to transform the female experience of diary writing, they transgressed traditional gendered conceptions of technology as male and diary writing as female (Sargent-Wooster, 1991, p. 28). Most significantly, both artists feminized the process of art-making by conceiving their production as an embodied act akin to that of giving birth (coincidentally, both artists had miscarriages and as a result were unable to have children). They did so not only by adopting the video camera as a prosthetic of their own bodies but also by conceptualising the camera as daughter and using video as a tool for female empowerment. Most famously, in 1975, Kubota declared “video [to be] the vengeance of the vagina” (Jacob, 1991, p. 6). In her *Video Poem* (1969–1976), a video installation which incorporated parts of Kubota’s personal and professional lives, she stated: “I travel alone with my *Portapak* on my back, as Vietnamese women do with their babies” (Roth, 1991, p. 74). As I will discuss, Weiss, like Kubota, claimed her vagina as the site of video production, linking her experience as a televisual producer with female bodily experiences and video-making as a female task. In convergence with Kubota’s development of hybrid categories to name her practice, such as *videosculture* (Jacob, 1991, p. 6), Weiss would go on to develop a range of hybrid genres and metaphors to describe her practice. Through playful neologisms and metaphors, she conceived of herself as an audiovisual guide—a “*Venusina*”—whose mission was to “*extraPOLAte*,” or make the viewer see images, “*interPOLAte*,” or interrupt the viewer to disrupt the narrative, and “*POLArize*,” or invite the viewer to reflect on what he/she saw (Weiss, 1981). Throughout her career, Weiss produced scripts and documentaries for television and private clients in combination with more experimental video and performance work. At times, these different approaches to video making were indistinguishable. At other times, she made clear attempts to construct a vocabulary to understand different approaches and uses of video and television broadcasting through different neologisms like *autovideoato* (self-portraits), *videodanza* (video dance performances), and *artVEing* (video interviews).

The Cyborg in Náhuatl

When she returned from New York, Weiss established her television production company, *arTV* (1978). In that same year, she declared:

Television is the mother of video ... It is proper then to conceive of television as art, an art television, televisual art, or, as I have decided to name my productions, thanks to their mass communication capacity: *arTV*. (Weiss, 1978, pp. 19–20)

With this declaration, Weiss outlined her approach to video as oriented toward both an exploration of intimate and personal aspects and the medium’s undeniable relation to mass media and its public (Hernández et al., 2014, p. 21). However, Weiss’s declaration also included a perhaps more revealing, and controversial, conceptualization of how she envisioned her *arTV* project. *ArTV*, Weiss said, was an art form fostering large-scale transformations that would shape a new man: “*ArTV* is an instrument for today’s man; the cosmic man” (Weiss, 1978, p. 20).

Some years later, Weiss would further elaborate on her concept of the “cosmic man” as an embodied critical media viewer in touch with his/her feelings—a sensorial being that further complicated dominant regimes of visuality that separate the act of viewing from other sensorial experiences (Garibay, 1984). However, in adopting this rhetoric, which at first glance aligned her with the male heroic avant-gardes, Weiss was simultaneously provoking the predominant masculine orientation of the art world in the same manner in which she had pushed the boundaries of female representation by showing an undulating nude female body. In order to understand Weiss’s practice as a powerful critique of dominant intellectual traditions and conventions of representation that have produced and reproduced hierarchies of difference in Mexico, I now turn to a close reading of Weiss’s participation in the 1978 February Biennale at MAM in Mexico City and suggest that her use of the cosmic man also points to her interest in developing a critical approach to video through her freestyle, and at times problematic quasi-ironic, reliance on an

avant-garde tradition of looking at the past to develop an artistic discourse that will internationalise the local.

Weiss's concept of the cosmic man is reminiscent of the term "cosmic race," coined by the Mexican post-revolutionary intellectual José Vasconcelos (1882–1959) in his essay *The Cosmic Race: The Mission of the Iberoamerican Race* (Vasconcelos, 1925). Written in the 1920s, at the beginning of the post-revolutionary period, Vasconcelos' essay foretold the coming of a spiritual and aesthetic new age in Latin America in which racial barriers would lose their force and ongoing racial mixture would lead to the cosmic race. Vasconcelos' concept of the cosmic race was related to the nationalist project of indigenismo, a set of reforms and practices that attempted to integrate indigenous cultures in the development of a national narrative in order to construct a modern national identity (Lomnitz, 2001). As many have argued, indigenismo was a process of internal colonisation and expropriation, whereby the image of the Indian emerged as the source of mythical originality and the basis of national identity (Warman, 1975; Lomnitz, 2001). Indigenismo glorified indigenous cultural heritage as a relic of the past and erased the living indigenous communities. At the heart of indigenismo was the concept of mestizo, a hybrid race constituted through the mixture of Amerindian and European races, or, in the words of Vasconcelos, the cosmic race. Vasconcelos's cosmic race, as many have argued, was a response to the Darwinian and Spencerian racial orthodoxy espoused by the defeated Porfirian regime (1876–1911) (Alonso, 2004, p. 464). Vasconcelos proposed to embrace the potential of the hybrid by following Mendelism, which he viewed as a more appropriate "biological philosophy" (Alonso, 2004, p. 464). As secretary of education from 1921 to 1924, Vasconcelos played a crucial role in the construction of a national imagery based on the promotion of what Alonso (2004, p. 463) calls "mestizo aesthetics," encouraging the development of public art and the Mexican heroic avant-garde—the Mexican School of Muralism—which in turn helped to visualize and promote the values of indigenismo.

Technologies of vision and the emergent discipline of anthropology also played a key role in the promotion of indigenismo. After the emergence of anthropology as both an academic discipline and an amateur practice of many local and foreign intellectuals and artists, the post-revolutionary government set out to civilize indigenous communities and teach elite sectors of society to revalue their Indian heritage (Warman, 1975). To this end, anthropological expeditions were organised to all regions of the country in order to photograph, study, and educate indigenous communities. Anthropology became the scientific discourse that legitimised and underwrote the post-revolutionary project of national construction through shifting discourses of indigenismo (Warman, 1975; Lomnitz, 2001). Photography and cinema not only visualised and gave material weight to this anthropological discourse, but were also the most effective means through which these discourses were popularised. Photographs and films were circulated widely, and their creators not only reproduced anthropological discourse, but also actively participated in the construction of a sense of national identity based on the folklorisation of indigenous culture and the erasure of living indigenous communities. By the 1970s, television broadcasting was seen by both the private and the public sectors as the most effective means to influence public opinion and reinforce heteronormative and folkloric imaginaries of national identity (Soto, 2007).

Read in this context, Weiss's use of the term "cosmic man" to predict the coming of age of a new sensorial being through arTV is a utopian re-engagement with the indigenista tradition. However, it is also a powerful and ironic provocation aimed at the masculine intellectual genealogy that crafted and dictated the state policies of indigenismo and one of its most iconic conceptual offspring, the cosmic race. In using the term, Weiss sought to position her work as a valid intellectual undertaking—an endeavour which she also pushed for after her appointment as a professor at the faculty of communication and journalism at UNAM, where she supported and fought for the production of several video-theses (Naranjo et al, 1977).

To fully understand her concept of the cosmic man as another strategy through which she attempted to update conceptions of hybrid couplings (*mestizaje*) by proposing an embodied relation with technologies of vision—or, in Haraway's terms, a hybrid coupling between organism and machine—it needs to be read in the context of her conceptualisation of her camera as her *escuincla*. It is perhaps in her graphic manifesto printed in the catalogue of the 1978 February Biennale at MAM that accompanied the

exhibition of her videos *Ciudad-Mujer-Ciudad* and *Somos Mujeres* that Weiss mostly clearly and openly describes her embodied relation to her camera.

In the graphic manifesto, Weiss claims the vagina as the site of video production through wordplay and image collage and declares her self-sufficiency and independence as a female video producer. On the first page of the graphic manifesto, we see the silhouette of a woman (clearly Weiss) carrying a camera and videotaping another woman (also Weiss), who stands with her legs open. The phrase, “I inscribed poems in her body, and in her vagina I ejaculated images” emanates from her vagina (Fig. 3).

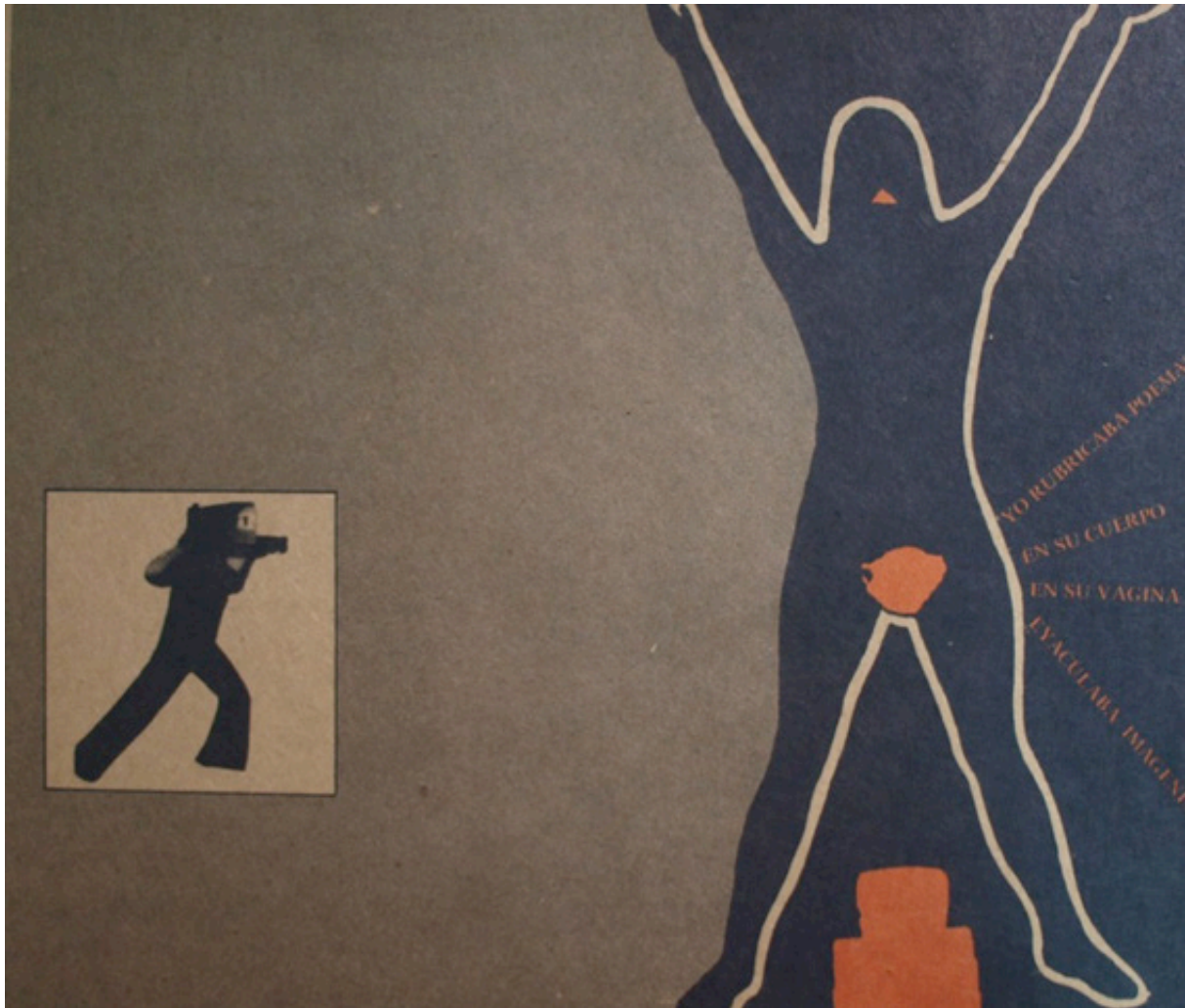


Fig. 3 Salon 77 Bienal de Febrero Nuevas Tendencias, 1978
Courtesy of Mónica Mayer.

Below, on the floor, another camera films the letters coming from the vagina. In this visual poem, Weiss is the artist, the object, and the subject of the gaze. She claims complete authorship of both the inspirations (the poems) and the creative production (ejaculation of images). The following and last page of the manifesto is an image of Weiss carrying a television monitor with the logo of her company, arTV, with a typographical composition as background that reads: “city, women, analogy, city.” This last page serves to frame the videos Weiss included in the exhibition, which were meditations on the relations between different kinds of feminine bodies and the urban landscape (Fig. 4). As discussed earlier, her video *Ciudad-Mujer-Ciudad*, in which she merged images of a dancing nude female body with images of the urban landscape, was not well received in commercial television broadcasting circles and surprised the emergent generation of feminist artists. In *Somos Mujeres*, which, in response to the theme of the

Biennale was also a response to the effects of urban development in people's lives (MAM, 1978), Weiss also proposes a strategy that clearly puts her in dialogue with the policies of indigenismo and speaks of another strategy through which she attempted to break the media border by blurring the distinction between object and subject of representation.

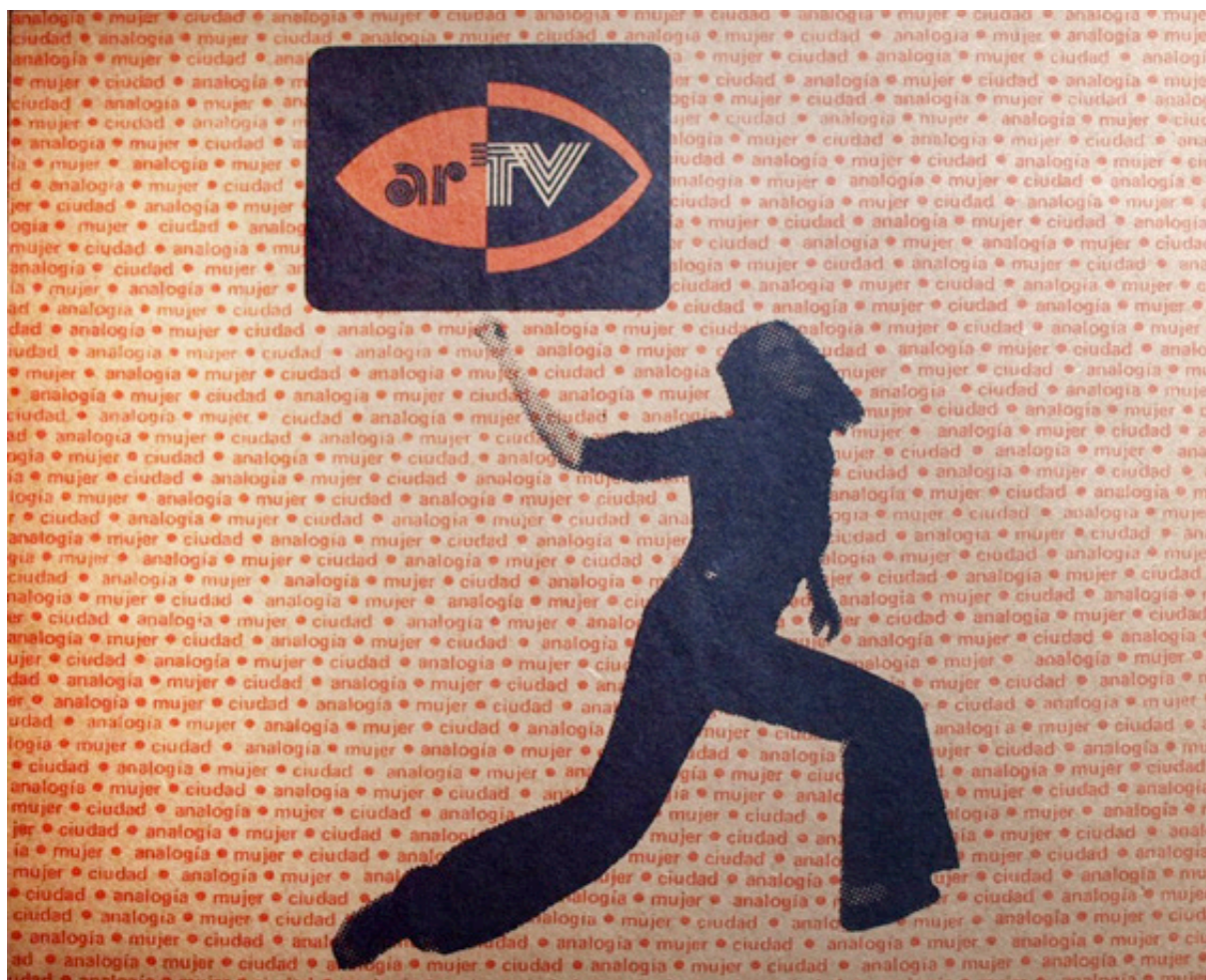


Fig. 4 Salon 77 Biental de Febrero Nuevas Tendencias, 1978
Courtesy of Mónica Mayer.

In *Somos Mujeres*, Weiss's psychedelic video effects blend images of modern buildings with those of poor women begging on the streets holding children in their arms. The soundtrack intermixes dialogues in indigenous languages with the weeping sounds of women and children. One camera takes the point of view of a child being carried on her mother's back. By using a tilted angle and subjective camera perspective, Weiss places the viewer in the position of the indigenous child, the *escuincla*. By allowing her own *escuincla* (her camera) to act as a prosthetic device for multiple bodies (hers, the spectator's, and the Other's)—in this case, the indigenous child—Weiss went a bit further than previous attempts at developing hybrids (*mestizos*). She gendered the process of *mestizaje* as female by merging her female body and that of her daughter (an *escuincla* rather than *escuincla*, the male form of *escuincla* in Spanish).

A reading of *Somos Mujeres* and Weiss's graphic manifesto in relation to her concept of the cosmic man casts Weiss's strategies, like Haraway's cyborg (2000, p. 295), as perverse and dangerous fusions that are both unfaithful to their origins and not afraid of their contradictory standpoints. By using the word "man" in her conceptualisation of the embodied being that would emerge through her approach to televisual images, by appropriating the verb "ejaculate" to describe her process of creation, and, last but not least, by making a technological device an integral part of her hybrid coupling, Weiss creates a hybrid

that looks more like a monstrous cyborg in which all elements can shift positions regardless of their gender, nature (organism/machine), social class, ethnicity, or position (subject = object = camera). Weiss' monstrous hybrid coupling suggests a way out the maze of dualism through which we have explained our bodies and ourselves (Haraway, 2000, p. 316). Weiss's attempts at breaking the media border by creating embodied hybrid media producers are not free from contradiction. Like any other attempt at speaking for or representing the Other, Weiss's attempts are only oppositional inasmuch as they are located vis-à-vis other oppositional projects of her time that, in seeking to end the dominant patriarchal and imperialistic structures, were invested in sustaining fixed subject positions. In this light, video technology provided Weiss with an alternate space in which a utopian project abolishing class, ethnic, gender, and racial divisions could be realised—albeit according to her own desires. Weiss's attempts to break the media border and interpellate the viewer were at times patronising and idealistic experiments. Nonetheless, Weiss' approaches to video offer not only an alternative to dominant expressions of Latin American utopian impulses, but also an alternative to late-twentieth-century female figurations. Weiss' figuration is contradictory. It unsettles the binaries that once connected man to technology and woman to nature. It avoids any direct affiliation to feminism or to an artistic discipline or movement. It proposes a different way of conceiving intellectual activity through moving images and television broadcasting. Hence, Weiss' figuration is not unlike the oppositional consciousness that Chela Sandoval ascribed to “women of colour” (Haraway, 2000, p. 296) which Haraway likens to the political identity of the cyborg and thus the basis for the development of political kinships constructed from affinities rather than natural identifications (Haraway, 2000, p. 296). For Haraway, by way of Sandoval, the political identity of “women of colour” unlike the category of women “marks out a self-consciously constructed space that cannot affirm the capacity to act on the basis of natural identification, but only on the basis of conscious coalition, of affinity, of political kinship” (Haraway, 2000, p. 296). Weiss' oppositional consciousness, like that of women of colour, is not based on natural or fixed political identifications, but rather constructed through an ongoing search for a new way of being in the world by developing contradictory fusions using the tools that mark her as other. (Haraway, 2000, p. 311).

Since the publication of *Manifesto for Cyborgs*, Haraway's oeuvre has been concerned with the articulation of a kinship of feminist figures “that could guide us to a more liveable place, one that in the spirit of science fiction” Haraway has called “elsewhere.” (Haraway, 2004, p. 1). In a similar fashion, Weiss imagines this elsewhere in Náhuatl by creating a hybrid coupling with her escuincla and carving a space of opposition to patriarchal structures and fixed binaries outside the realm of US academia or US women of colour. In doing so, Weiss' figuration anticipates Haraway's revolutionary cyborgian logic in as much as it opens up the realm for locating and imagining political kinships outside the predominant Euro-US centric spaces articulated in *Manifesto for Cyborgs*.

Conclusion

In *Methodology of the Oppressed*, Chela Sandoval (2000, pp. 2-3) searches for lines of force and affinity—that is, an impulse to decolonize sex, gender, race, and ethnic hierarchies—between the work of what she calls “postcolonial US third-world feminist criticism” and canonical Western postmodern cultural theorists, including Haraway. In this paper, I attempted to move further by moving outside the US as the focus of academic production and legitimisation, whether postcolonial, decolonial, feminist, or postmodern. As Marsha Meskimmon (2007, p. 325) put it, in order to decolonize the impact of feminism(s), the development of a critical geography that links geopolitical networks of exchange with the movement of concepts, ideas, and aesthetic agency in, of, and from time and space is needed as a strategy that makes it possible to both expand our knowledge of the global parameters of “feminist [art]” and interrogate the concepts through which we define its limits. Following Sandoval's and Meskimmon's methodologies, in this article I mapped out lines of force and affinity between Haraway and Weiss. By reading Weiss's videos alongside Haraway's cyborg manifesto in the context of the 30-year anniversary of its publication, I explored how Weiss's approach to video resulted in productive experimentation that altered what counted as female experience in 1970s Mexico and opened up the repertoire of female figurations that emerged in the late twentieth century.

Weiss's embodied relation to her escuincla was not only incestuous, a metaphorical mother-daughter transgression, but also, read alongside Weiss's other strategies to break the media border, an implied act of miscegenation with the Other and a powerful critique of the dualisms that characterised Western thought. Naming her camera her escuincla, and endowing it with an indigenous identity, Weiss showed that she was invested in making the Other see while pointing to the potential to see like the Other offered by video. And while Weiss's strategies were as idealistic and patronising as deep-rooted Mexican practices of seeing, her attempts did result to some extent in productive experimentation that altered normative female experiences while launching a powerful critique of patriarchal and heteronormative values. Weiss' experiments with video evoke the existence of fractured identities, shifting subject/object positions, and potent mixtures between self and Other. Much like Haraway's cyborg, Weiss' embodied relation to her camera was a messy and contradictory project. It pointed to the creation of utopian televisual realities in which shifting couplings between self and Other, machine and organism, could co-exist in and through the same mass-media technology invested in producing heteronormative values. Weiss' act of endowing televisual images with the power to call forth a new "cosmic man" needs to be understood as part of her project of re-conceptualising and transgressing established hierarchies of difference through the production of arTV. Weiss' oeuvre is a situated exploration of the potential of technologies of vision to transgress established hierarchies of difference and, as I attempted to show in this paper, is in dialogue with Haraway's cyborg.

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Gabriela Aceves Sepúlveda is a media artist and cultural historian with a research focus on Latin American feminist media and contemporary art and design history and practice. Her current research examines the effects of digital technologies on the archival practices of female activists and artists across the Americas and traces the histories of transnational artists' networks forged outside the dominant centres of the western art world during the second half of the twentieth century. She is an assistant professor at the School of Interactive Arts and Technology in Simon Fraser University where she teaches interactive arts, video art and design.

www.gabrielaaceves.com

Going Commando: Prosthetics and the Politics of Gender

Ruby Grant – University of Tasmania

rfgrant@utas.edu.au

In light of cultural discourses that position femininity at odds with technology, I was inspired by the work of Donna Haraway to examine how women amputees experience and negotiate feminine embodiment with prosthetic limbs. In her seminal Manifesto for Cyborgs, Haraway theorised the cyborg as a feminist symbol of a utopian “post-gendered world,” asserting that techno-hybridity has the potential to destabilise embodied gendered subjectivity—prompting a rethinking of sex, bodies, gender and humanity. In this paper, following a critical discussion of Haraway’s work, I argue that the cyborg continues to be a provocative concept in feminist sociologies of the body, enabling us to explore the complex new subjectivities that are made possible through feminine techno-embodiment. Through an empirical exploration of women amputees’ experiences of living with prosthetic limbs, I found that women can embody and incorporate prosthetic technologies into their feminine selves in multiple, complex, gendered ways. My findings indicate that cyborgian hybridity may have the potential to destabilise some aspects of gendered embodiment and performance for women with prosthetic limbs, which can be experienced as both limiting and liberating.

Introduction: Situating Haraway Thirty Years On

In 1985, Donna Haraway (1991, p. 150) theorised the cyborg as a feminist symbol of a utopian “post-gendered world,” asserting that techno-hybridity offers possibilities for a rethinking and expanding of sex, bodies, gender and humanity. Influenced by Haraway, Kull (2002, p. 285) argues that “when technology intersects with the body, the basis of gendered subjectivity crumbles.” Haraway’s seminal cyborg manifesto sparked my interest in the ways in which technology can be experienced as gendered. Specifically, I questioned how women relate to and embody technologies traditionally associated with masculinity. How does this shape their construction and experience of embodied self when they come into close contact with these technologies? While representations of man-machine hybrids are commonplace in Western popular culture, from Arnold Schwarzenegger as the Terminator to Robert Downey Jr. as Iron Man, woman-machine hybrids are less compatible with Western social constructions of gender and technology (Balsamo, 2000). In light of these cultural discourses around gender, bodies and technology, I was inspired to examine how women amputees experience and negotiate feminine embodiment with prosthetic limbs.

In this paper, I will explore Haraway’s notion of the cyborg as post-gendered drawing on feminist, qualitative interviews with a small sample of Australian women amputees with prosthetic limbs. I ask: if “femininity is culturally imagined as less compatible with technology” (Balsamo, 2000, p. 151; see also Cockburn, 1983; Wajcman, 2009), then how do women amputees construct and experience feminine selfhood with prosthetic limbs? And what does this mean for the significance of Haraway’s concept today? In the first section, I contextualise my study through a critical review of Haraway’s theory, followed by an analysis of existing empirical research into women’s gendered experiences of disability, amputation and prosthetics. The latter part of the paper details the methodology, method and research findings, concluding with a discussion of the significance and contribution of Haraway’s work in relation to my study. Throughout this paper, I approach Haraway in the spirit of the “faithful acts of disobedience” that Braidotti (2006, p. 203) suggests her work calls for: critical, yet also recognising the nuances and possibilities of her theory, as reflected through my findings.

Donna Haraway’s work as a feminist historian of science not only aims to stretch the imagination beyond Western dualist ontologies, but, through the writing of her texts, she similarly critiques and subverts disciplinary boundaries between the natural and social sciences. A product of her Marxist feminist and poststructuralist influences, Haraway’s work is political, emotional and irreverent, actively

questioning the very framework in which her ideas are situated. With a background in biology, Haraway's work can be theoretically located within feminist science and technology studies (Gane, 2006, pp. 135-136; Hayles, 1999, p. 288). In congruence with Haraway's methodological commitments to complicating dualist boundaries, her work itself exists in a "monstrous discipline" between the "hard" sciences and the "soft" humanities (Lykke, 2000, p. 77). Like other feminist critics of science, Sandra Harding, Evelyn Fox Keller and Carolyn Merchant, Haraway argues that "there is a relation among the desire for mastery, an objectivist account of science and the imperialist project of subduing nature" (Hayles, 1999, p. 288). The multifaceted nature of Haraway's writing style contributes greatly to the sociological significance of her work, as she not only subverts boundaries and de-centres humanist unity in the context of her writing on hybridity and post-humanism, but also in the linguistic innovations of her "distinctive and idiosyncratic style" that forces readers to "re-adjust or perish" (Braidotti, 2006, p. 204). While Haraway is not unique in this post-structuralist project, her incorporation of interdisciplinary thought has cemented her status as an influential cultural and feminist science studies scholar.

Haraway (1997, p. 52) seeks to "refigure provocatively the border relations among specific humans, other organisms, and machines" and, in doing so, open up the "leaky distinctions" between society, nature and culture (Turner, 1992, p. 46). Drawing upon the simultaneously science fiction and increasingly science *fact* of "cybernetic organisms," Haraway (1997, p. 51) creates a futuristic figure with which to question the boundaries of organisms and techno-bodies. For Haraway (1997), the implosion of boundaries between nature, culture, human and non-human, produces new possibilities for Western thought and mobilises technology as a potentially emancipatory source for women, animals and non-human actors traditionally oppressed by hierarchical dualist structures. In keeping with feminists who have claimed the locus of women's oppression can be found within the female body (e.g. De Beauvoir, 1949; Firestone, 1970), for Haraway (1991, p. 151) cyborgian hybridity allows possibilities for destabilising dichotomous patriarchal sex/gender subjectivities, complicating bodily boundaries and fundamentally reconfiguring humanity.

The Gendered Cyborg? A Brief Consideration Of Feminist Perspectives On Science And Technology

Haraway's work can be situated within a broader context of diverse and intersecting feminist perspectives on science and technology (Cockburn, 1983; Harding, 1991; Plant, 1998; Wajcman, 1991). There has been enduring feminist efforts to demonstrate that the Western association of masculinity with science and technology is not due to innate, biological, sexual differences, but is, instead, a social construct embedded in gendered power relations (see Cockburn, 1983; Harding, 1991). From the earliest foundations of Western thought, dichotomies have been established between men/women, mind/body, reason/emotion, with masculinity/mind/reason being valued over femininity/body/emotion in patriarchal cultures (see Spelman, 1999). Sherry Ortner (1974) argues that universal female subordination can be explained by women's historical association with nature and the body. For Ortner (1974, p. 75) the "woman's body seems to doom her to mere reproduction of life; the male, in contrast, lacking natural creative functions, must (or has the opportunity to) assert his creativity externally, 'artificially,' through the medium of technology and symbols." Men and masculinity have therefore been associated with culture and technology, due to their lack of childbearing capabilities (Ortner, 1974, p. 75). Following this, radical and socialist feminist perspectives have held that Western constructs of masculinity are strongly associated with science, reason and technical prowess, positioning technology as a site of patriarchal power over women (see Spender, 1995; Wajcman, 2009). Haraway's work, however, can be positioned alongside cyberfeminist approaches that are more optimistic, believing in the potential for new information and communication technologies to destabilise binary sex/gender subjectivities, creating a new techno-spaces for women (see Plant, 1998; Spender, 1995).

Radical feminists have critiqued Haraway's poststructuralist cyberfeminism, arguing that in an apparently uncritical optimism, Haraway ignores the importance of corporeality for feminist theory and politics (see Klein, 2000). Furthermore, some feminists have argued that Haraway's utopian "techno-fetishisation" obscures the fact that technology is a patriarchal social construct that is never neutral, and therefore cannot exist in a post-gendered sphere (e.g. Balsamo, 2000; Wajcman, 2009). Balsamo (2000, p.

150) argues that far from destabilising gender binaries, cyborgs reinforce traditional gender stereotypes, as “cyborgs and men are compatible images which mutually support cultural associations among masculinity, rationality, technology and science.” However, for Balsamo techno-feminine hybrids are much more complex, as in Western culture “femininity is culturally imagined as less compatible with technology” (2000, p. 151). Resulting cultural representations of the feminine cyborg depict a monstrous, dystopian boundary creature, either strictly conforming to traditional feminine stereotypes or radically subverting them by peeling back synthetic flesh to reveal the hard machine beneath. Contemporary theorists have been more nuanced in their engagements with Haraway, recognising the significance of her work, while simultaneously being critical of its shortcomings, for example, the extent to which sexism still exists in virtual worlds despite Haraway’s visions of post-gendered potentialities in cyberspace (see Braidotti, 2006; du Preez, 2009; Kafer, 2013).

“Paraplegics And Other Severely Handicapped” Cyborgs: The Cyborg In Feminist Disability Studies

Like feminists, disability scholars have taken a range of perspectives on technologies and the politics of the body in their field (see Alper et al, 2015; Ellcessor, 2010; Kurzman, 2001; Moser, 2006; Sobchack, 2006). While Haraway only mentions disability once in her cyborg manifesto, some disability scholars have explored this direction of her theory, considering the cyborg as a useful lens for conceptualising the new subjectivities made possible through technology (see Apelmo, 2012; Carlson, 2013; Kafer, 2013; Norman and Moola, 2011). Haraway (1991, p. 170) argues that the proliferation of technoscience into everyday life has positioned anyone who engages with information technology and modern medicine as a cyborg, yet she specifically considers “perhaps paraplegics and other severely handicapped people can (and sometimes do) have the most intense experiences of complex hybridisation with other communication devices.” Some feminist disability scholars have deployed the cyborg as an empowering symbol for women with disabilities, arguing that as “a female figure who questions the normal,” Haraway’s cyborg metaphor can facilitate the destabilising of sexist, ablest stereotypes of women with disabilities, using techno-hybridity as a “sock in the eye” of both the objectifying male gaze and the “ableist stare” (see Apelmo, 2012, p. 406; Carlson, 2013).

In contrast, other disability theorists are critical of the reductionist ways in which women with disabilities have been represented in relation to technology, often being positioned as either the passive victims or beneficiaries of technological advancement, with little further analysis of their gendered embodied realities (see Kafer, 2013; Moser, 2006). The use of people with disabilities utilising and embodying assistive technologies as metaphors for “real life” cyborgs has prompted some disability theorists to critique Haraway’s concept of the cyborg as ableist (see Betcher, 2001; Jain, 1999; Kurzman, 2001). This has been referred to as “metaphorical opportunism” (see Jain, 1999; Smith and Morra, 2006). The act of metaphorical opportunism assumes the “cyborg experience” of people with disabilities using assistive technologies, and in doing so, “others” their experiences, exoticises their impairments and fails to take their lived experiences into account (Kafer, 2013, pp. 105-106). While I sympathise with the emancipatory potentialities of Haraway’s cyborg that are shared by some scholars, I believe it is important to recognise these criticisms voiced by disability scholars who live with impairments themselves and whose lived experiences of disability directly inform their scholarship (e.g. Betcher, 2001; Kurzman, 2001; Sobchack, 2006).

Queer feminist disability theorist, Alison Kafer (2013, p. 106) argues that “rather than abandon the cyborg because of its ableist rhetoric and manifestations, I [call] for a continued struggle with the figure.” Taking Kafer’s (2013, p. 106) project on board, in this article, I too struggle with Haraway’s elusive figure. Approaching my own research, I deeply considered the extent to which exploring the relations between gender, bodies and technology through an analysis of women with prosthetic limbs’ lived experiences could perpetuate metaphorical opportunism. Thinking reflexively, I considered my researcher standpoint as white, young, queer, feminist academic living without physical disability and what it meant for me to be conducting this research. In early attempts to reduce the potential for metaphorical opportunism, I prioritised an ethical and sensitive approach to the research. When I disclosed to the interviewees that I was not an amputee myself, all were enthusiastic about my interest in their experiences and found

thinking about their prosthetics as gendered intriguing. Yet, in writing this paper I remain conscious of the use of Haraway's theoretical concept to consider complex lived experiences of people with disabilities, and question, as Kafer (2013, p. 105) does, whether the cyborg's usefulness is tied to its status as a metaphor or whether Haraway intended it to be approached more literally; a question I leave open for consideration. In the following section, I will provide a critical review of existing research on women's lived experiences of disability, amputation and prosthesis in order to provide a context and rationale for this study.

The Spoiled Body: Women's Gendered Experiences Of Disability, Amputation And Prosthetics

Despite evidence of gender-specific experiences among amputees, there is a dearth of qualitative sociological research specifically engaging with women's subjective experiences of amputation and prosthesis. Notably, there is no Australian qualitative sociological research on gender, amputation and prosthetics, with most of the literature being British or North American. The majority of existing research on amputees is quantitative and medical/psychological, often aggregating men and women's experiences (e.g. Legro et al, 1999; Katon and Reiber, 2013). The only current Australian social research on amputees is a survey conducted by advocacy organisation, Limbs 4 Life (2011). While this study garnered important results, its lack of attention to gendered experiences perpetuates the homogenisation of disabled people's subjectivities and continues trends of viewing people with disabilities, particularly women, as asexual and gender-less.

Most social research on amputees has studied war veterans' physical adjustments to prosthetics (e.g. Dougherty et al, 2010; Katon and Reiber, 2013). This research tends to be produced by North American scholars studying Vietnam veterans and returned military personnel from Afghanistan and Iraq, the majority of whom are men (for an exception, see Cater, 2012). While some quantitative research has indicated gender differences in experiences of prosthetic limbs, many studies have either not assessed these directly or employed little in-depth analysis of those findings (e.g. Dougherty et al, 2010; Holzer et al, 2014; Legro et al, 1999). Katon and Reiber's (2013) secondary data analysis of a clinical survey of key issues for returned US service members with traumatic limb-loss indicates clear gender differences among men and women amputees. They found that women amputees experienced higher rates of depression and body image issues, which translated to lower levels of prosthesis satisfaction (Katon and Reiber, 2013, p. 180). Legro et al's (1999) survey found similar gender differences, with women participants reporting significantly higher concerns about body image and prosthetic appearance. British studies have also found that women amputees experience higher levels of body-image anxiety and depression than male amputees, score lower on emotional adaptation to role changes, and are much more likely to report lower levels of satisfaction with their prostheses (see Gallagher and MacLachlan, 2001; Horgan and MacLachlan, 2004). Furthermore, while a number of studies have indicated that family and emotional support networks are crucial to physical, psychological and social rehabilitation post-amputation (see Horgan and MacLachlan, 2004), women amputees experience higher rates of relationship break-down post-amputation than male amputees (Mathias and Harcourt, 2014).

Western media representations of women with disabilities typically perpetuate stereotypes that their bodies are unattractive, abnormal and outside feminine beauty norms (see Kafer, 2003; Shildrick, 2007; Women with Disabilities Australia [WWDA], 2014). For instance, Wendell (1996, pp. 43-44) observes that "physical imperfection is more likely to be thought to 'spoil' a woman than a man by rendering her unattractive in a culture where her appearance is a large component of a woman's value." Previous research in North America and Britain has shown that body image and appearance are significant issues for many women with physical disabilities (Cater, 2012; Gallagher and MacLachlan, 2001; Horgan and MacLachlan, 2004; Murray, 2009), suggesting, as Wendell (1989, p. 113) does, that "disabled women suffer more than disabled men from the demand that people have ideal bodies, because in patriarchal culture people judge women more by their bodies than they do men."

Thus for many women amputees, the factors impacting on their recovery and life post-amputation are social: negotiating fashion practicalities linked to feminine identity, like wearing dresses and high-heels; navigating relationships; and re-imagining the feminine self (see Gallagher and MacLachlan, 2001;

Horgan and MacLachlan, 2004; Manderson, 1999; Mathias and Harcourt, 2014). Mathias and Harcourt's (2014) qualitative study of North American women amputees found that "creating a feminine body image [was] a priority for female amputees." This research is significant in its subversion of stereotypes that desexualise disabled women, exploring the gendered experiences, concerns and desires of young amputee women in the context of heterosexual dating. Participants expressed concerns about their ability to embody normative feminine sexuality as amputees, worrying that they could not physically perform sexiness while wearing prosthetics or that revealing their amputation and prosthetics might be a "turn off" for men (Mathias and Harcourt, 2014, p. 398). Participants reacted to perceived failures to conform to feminine beauty standards by compensating for their flaws in exaggerating other aspects of their appearance (Mathias and Harcourt, 2014, p. 397).

Fashion was a similarly important way of constructing and presenting feminine selfhood for both Gallagher and MacLachlan (2001) and Murray's (2009) female participants. Gallagher and MacLachlan (2001) used focus groups to explore Scottish amputees' adjustments to their prosthetics. Women expressed greater anxiety about maintaining femininity as amputees with prosthetic limbs, discussing both physical and perceived inability to wear dresses and high-heels (Gallagher and MacLachlan, 2001, p. 94). Murray's exploratory study of British amputees' experiences of prosthetic limbs garnered similar findings, with women placing a higher emphasis on "being normal," not wanting to "look disabled," and wanting to "maintain femininity, elegance and grace" (2009, p. 578). Murray (2009, p. 578) also found that, for some women amputees, the visible display of prosthetics was a politicised act of resistance against the stigmatisation of disability, while others found more empowerment in "passing" as "normal." In this paper I fill an important gap in the literature by extending qualitative sociological and feminist scholarship around gender, bodies, and technology through exploration of female amputees' gendered embodiments of prosthetic limbs.

A Feminist Approach To Researching Prosthetic Experiences

In empirically investigating women's lived experiences with prosthetic technologies, I reflect on the contribution of Haraway's cyborg manifesto to understanding gender, bodies and technology in contemporary societies. This research employed a qualitative feminist methodology to explore women's gendered experiences of prosthetic limbs. A qualitative approach allowed for addressing the predominance of quantitative medical approaches in existing research on amputees. Feminist methodologies aim to understand the subjective experiences of women and other oppressed groups whose voices are often marginalised, producing research that promotes social justice and change (see Hesse-Biber, 2007, p. 115; Reinharz, 1992). Feminist researchers have traditionally taken a qualitative methodological approach, in conjunction with the feminist theme of viewing the "personal as political" (see Ezzy, 2002; 2010; Marshall and Rossman, 2006). A hallmark of feminist research is its commitment to challenging traditional power relations between the researcher and the "researched" in interview settings, empowering participants as active members of the research process (see Oakley, 1981). Investigating lived experiences was important for this study in order to challenge the tradition of metaphorical opportunism that has been employed when examining experiences of people with disabilities using assistive technologies in their daily lives (Moser, 2006). Instead, a feminist narrative approach was adopted in order to allow for the participants' voices to "speak" through the research (Riessman, 2008). By listening to the participants stories I was able to see how Haraway's concept of the cyborg as a metaphoric figure may be useful for conceptualising some individuals' experiences, but not all.

Six participants self-selected into the study, responding to research advertisements on the Facebook page for Australian amputee advocacy organisation *Limbs 4 Life*. By inviting participants to self-select via social media, I connected with women who were actively interested in discussing and sharing their experiences. An in-depth, semi-structured interview was conducted via telephone or Skype with each participant. Interviews lasted from 50 minutes to one hour. In keeping with a feminist approach to interviewing, open-ended questions were used to allow for participants to discuss their experiences freely (Hesse-Biber, 2007). Participants were asked about their experiences of growing up and daily life as amputees, body image, negotiating social situations and their relationship with their prosthetics.

Interviews were audio recorded with the informed consent of participants. The university's Human Research Ethics Committee approved this study. This research was conducted in line with the committee's recommendations for protecting participants' confidentiality and anonymity in the collection and analysis of data. Pseudonyms chosen by the participants are used throughout this article.

As a result of the sampling strategy, participants were a small, non-representative, group of confident women who had been amputees for at least five years. Participants were between the ages of 37 and 57, with a mean age of 40.6 years. Four participants were born in Australia, one recently migrated from India and one migrated from Poland as a child. All participants were university educated and engaged in part-time or full-time paid employment in addition to receiving disability support pensions. Four participants identified as heterosexual, one lesbian and one pansexual. Half the participants were mothers, with an average of three children each. The majority of participants were lower-limb amputees (two bilateral [DBK], two unilateral [BK] and one upper and lower-limb transverse [AK/AE]). One unilateral upper-limb [BE] amputee also participated in the study. Half the participants were amputees from birth or a young age due to congenital limb loss, two lost their limbs as a result of motor-vehicle trauma, and one suffered a rare bacterial infection.

Following data collection and transcription, thematic data analysis was conducted. In the first stage of analysis I inductively surface read transcripts, highlighting striking words and phrases, locating possible themes in each transcript. In the second stage, I analysed the transcripts with specific themes in mind (Fraser, 2004; Riessman, 2008). Finally, individual stories were compared and thematic patterns across the entire data set were identified (Miller, 2014).

“It’s Not The Skirt, It’s Me”: Body Image, Embodying And Performing Amputee Femininity

The embodiment and performance of normative femininity were priorities for all my participants. All the women discussed a wish to be “normal” or “like everyone else,” which correlated with being a “normal woman” and being “feminine.”

I guess for women... We just want to be seen as *women*. As *normal*. (Lara, 43, DBK)

Because I was born like this...This *is* my normal, but I’m aware 100 percent of the time how *abnormal* I am. (Kanga, 53, AK/AE)

Although normality held different meanings among participants, it centred on a stereotypical hyper-feminine identity, exemplified by Schippers' (2007) notion of “hegemonic femininity.” In line with Murray's (2009) findings, part of being “like everyone else,” for my participants, was being able to “pass” as “normal” by not “looking disabled.” When discussing feminine body image, my results align with Mathias and Harcourt's (2014) study, finding that women amputees experience pressures to conform to social constructions of conventional femininity and beauty. For instance, two heterosexual lower-limb amputees acknowledged that having “good legs” was something perceived to be typically feminine and attractive to men, which was something they lacked and envied:

I don't see [my body] as attractive. I definitely get a lot of *leg envy*. (laughs) Other people's legs, particularly during summer, when people wear sandals and shorts and things like that. (Lara)

There were times where I did feel less attractive than other women with both legs. When my partner and I see a woman with a weeny skirt and great legs and heels, I'm actually the one being like ‘Oh my god, check out her legs!’ (laughs) (Anna, 37, BK)

Participants discussed having to reconcile their lived realities of living with disability with conventional femininities. One participant illustrated this, stating:

There was this skirt that I bought and it was very nice and I wanted to wear... but it was very tight

and I can't walk with it... and I just thought, 'oh well, the skirt is too tight and that's why I can't walk with it'. But then I saw somebody wearing it on TV and she was walking very nicely with it. So I realise it's... Not the skirt. It's me. (Saanvi, 43, DBK)

While participants strove to be “normal women” by attempting to conform to conventional femininity, as Saanvi indicated above, this was not always possible, suggesting that the participants performed “pariah femininities” rather than the hegemonic form of normative femininity (Schippers, 2007).

As in previous studies (e.g. Gallagher and MacLachlan, 2001; Horgan and MacLachlan, 2004; Mathias and Harcourt, 2014; Murray, 2009) the strategic use of clothing was important for my participants to cover their prostheses and “pass” as normal in public:

I was never really a high-heels girl, but I do get dress envy! (laughs) I mean, my choices of clothing are very conservative now in that you wouldn't be able to see I have prosthetics unless you were to look very closely. (Lara)

I made sure I was wearing trousers. I *would not*... I guess I was sensitive about it, I didn't want the world to see... But I want them to focus on what I'm doing with them, rather than what they're seeing... (Jill, 57, BK)

If I'm going out in a social environment, if I'm having a really bad day, I just, I don't want people's attention that way, I just want people to leave me alone and let me be. I get sick and tired of people looking at me! (Anna)

Here, participants discuss feeling uncomfortable with the attention they received from people when their prosthetic legs were visible, preferring others to see them for themselves, rather than defining them by their disability. These common feelings of wanting to appear normal to avoid the gaze of others reflect the extent to which disabled bodies become a public spectacle and how people with disabilities are stigmatised as “other” in ableist societies (see Hannabach, 2007; Overboe, 1999; Shildrick, 2007; Smith, 2006; Wendell, 1996).

Participants' discussions of femininity and dress provide evidence for the ways in which some women experience their prostheses as being at odds with their femininity. Prostheses were described as being “not aesthetically attractive,” “ugly,” and even “horrific.” While some lower-limb amputees had the “passing privilege” of being able to hide their disability by covering their prosthetics, this was difficult for Ando as an upper-limb amputee:

I just can't pull off... like... a nice pretty dress...The arm...Just doesn't go. It ruins the look. Because no one's looking at the dress – It's the arm they're looking at. (Ando, 54, BE)

Ando had a difficult time reconciling her feminine identity with her prosthetic arm, recalling that, without the passing privileges of lower-limb amputees, as a child she was teased at school, being called a “one armed bandit” and “Captain Hook.” These remarks are arguably gendered, disassociating prosthetic limbs from femininity, a trend reflected by the cultural association of technology with masculinity. In the following section I expand this exploration further through a discussion of participants' experiences and relationships with their prosthetic limbs and the impact embodying prosthetic technologies has had on their gendered subjectivities as women.

“Going Commando”: Prosthetics And The Politics Of Gender

Beyond Murray's (2009) observation that women amputees were more likely to want prosthetics that looked realistic rather than mechanical, existing studies have not directly examined gendered relationships with prosthetics. In light of Haraway's (1991) suggestion that techno-human hybridity could complicate future gendered subjectivity, I was eager to investigate the validity of this claim in practice. Asking women

about their relationships with prosthetic limbs, I was interested in their stories of reconciling embodied femininity with technologies often perceived as masculine.

For some participants, often depending on the cause and type of their amputation, the incorporation of their prosthesis into their feminine body image was difficult. The language they used to refer to their prostheses could gauge the participants' relationships with their prosthetics. The two participants who saw their prosthetic limbs as part of themselves referred to them as "my leg/s," whereas the four who distanced themselves from the prosthetics would refer to them more as "the leg/s," "the arm," or "it." Jill saw her leg merely as a "tool," "no different from putting on [her] glasses." Lara discussed how she "hate[d] putting the legs on in the morning," reflecting how she had not incorporated them into her sense of self:

Lara: I mean I don't know, but I might not feel so... um... Self-conscious, if I had one real leg. One good leg. So I could sort of show that... This is what... This is what the *real me* looks like...

Ruby: So you don't sort of see your prosthetics as the real you?

L: Oh no, I don't think I do, no... no I don't... no... I think, I think I'm still kind of clinging on to the... Me before this happened.

Lara experienced prosthetics as a "veil over [her] embodied suffering," merely creating a façade of her former self (see Betcher, 2001, p. 41). Much of Lara's difficulty adjusting to her prosthetics drew from viewing them as "ugly," masculine, medical tools that did not fit with her day-to-day feminine self-concept. For these reasons, Lara often chose to conceal her prosthetics with strategic clothing choices to pass as "normal."

Participants all referred to wearing prosthetics without cosmetic covers as "going commando," perhaps a cultural reference to being naked or exposed. For Betcher (2001, p. 43), while conventionally beautiful women with cosmetically realistic prosthetics leave "nothing jarred loose in the social psyche," she argues that "there is a point at which the machine/female interface may be transgressive—namely, showing my thighs of steel, revealing the black reptilian carbon-fibre endoskeletal frame as opposed to veiling the machine with a cosmetic cover." Most participants were opposed to "going commando," preferring to maintain cosmetic covers to conceal the mechanical componentry of their prosthetics. When asked about this, they stated that the "Terminator look" was "shocking," "confronting," and, significantly, "*not very feminine*" or "attractive." Thus, participants' remarks were in line with Betcher's (2001, p. 43) observation that techno-feminine hybridity is culturally positioned as "transgressive." When asked to elaborate on why she thought men might be more comfortable with this "Terminator look," Lara explained that:

With a lot of the men [amputees] I met there was this kind of a need to show that they were still a real man, and for them the toughness of an exposed, metallic limb demonstrates strength. Whereas I think in general women are looking for the next best thing to a real leg. You know, softness, soft covers, rounded edges, um... create that sense of femininity.

Here, Lara's comments reflect gender stereotypes of masculinity and femininity as binary opposites, with masculinity defined by "hardness," strength, and stoicism, and femininity associated with "softness," emotionality, and the beautiful body. Lara also illustrates the notion that female amputees with realistic cosmetic covers on their prosthetics can perform normative femininities by veiling the machine and conforming to cultural ideals that disassociate techno-hybridity from femininity. I argue that Lara's discomfort with her prosthetics as "not very feminine" illustrates the extent to which Haraway's notion of cyborgian techno-hybridity may trouble binary notions of masculinity and femininity, natural and artificial, self and other, as Lara experienced her prosthetic limbs as at odds with, and hence troubling, her "authentic" feminine identity.

Like some participants in Murray (2009) and Cater's (2012) studies, who deliberately chose not to conceal their prosthetics as a conscious act of subverting gendered and ableist stereotypes of women with disabilities, Kanga was the only woman in my study who went "commando." Unlike other participants, Kanga did report experiencing her embodiment of prosthetic technology as a "cyborgian interface." Kanga often employed the posthumanist language of cyborgs throughout our interview, reporting that she saw

her prosthetic as “an extension of [her] self,” and that she had “expanded [her] neural network to incorporate non-human technology.” Thus Kanga’s relationship with her prosthetic leg hints at posthuman experience in her “extension of her self” to include the prosthetic as part of her identity. In line with Haraway’s (1997) understandings of hybridity and kinship, Kanga discussed this as a process that involved a rethinking and expansion of, not only the boundaries of herself and the prosthetic as “other,” but between the masculine and feminine.

Because of the cultural association of mechanical prosthetics with masculinity and the remaining stigma around physical disability, especially for women, being able to “go commando” involved a “journey” of self-acceptance for Kanga, as a woman amputee:

I wasn’t really comfortable with it until I went up to the Northern Territory. And this group of Aboriginal kids were kind of dealing with my arm, and they were really shocked by it at first it... I had to get access to this community... I was in there as a journalist, so I had to get people to talk to me, so I had to really work the kids, you know, establish something there. So I built a relationship with these kids really quickly, and they got used to my arm, but I had to show them my leg, and I was just thinking ‘Oh my God! I’ve got to show them my leg! If they find out they’re just going to be really freaked!’ but so, I went ‘oh, look, I’ve got something I’ve got to show you’ and I lifted up my pants and... This kid just looks at my leg and he just goes “Cool!! Terminator!” And it was then... My life changed at that moment...

Kanga’s anecdote closely mirrors amputee academic, Vivian Sobchack’s (2006, p. 30) experience wherein “before the cosmetic cover was added [to her prosthetic leg] I remember an eleven year old boy coming over to me to admire it and crow: ‘Cool... Terminator!’” In both cases, it was children, not yet fully socialised into hetero-patriarchal gender norms, who assisted Sobchack and Kanga to move beyond gender (and perhaps nature-artifice) binaries and accept their visible prosthetics as “cool” or positive, a conclusion of which Haraway would arguably approve.

Kanga’s terminator anecdote reflected a positive development in her “prosthetic journey” towards self-acceptance and body positivity. Garland-Thomson (1997, p. 29) argues that women with disabilities have been negatively positioned as the “opposite of the masculine figure, but also imagined as the antithesis of the normal woman, the figure of the disabled female is thus ambiguously positioned both inside and outside the category of woman.” By appropriating masculine technology and the “Terminator” label as a symbol of strength, Kanga’s prosthetic experience subverts these cultural positionings of women with disabilities as weak, vulnerable and broken: inside, yet outside normative gender expressions. By “going commando,” a prosthetic style popular among young male war veterans (see Cater, 2012), Kanga could be seen as performing a form of, what Halberstam (1998) refers to as “female masculinity,” a subversive feminine appropriation and performance of the typically “masculine” qualities of strength, “hardness,” and aggression. Therefore, while “going commando” primarily refers to being naked or exposed, it could also be interpreted as a reference to a possibility for military-grade strength and resilience for female amputees. Kanga’s “prosthetic journey,” then, may illustrate Haraway’s intentions for the potentiality of the cyborg as a subversive feminine boundary figure that questions and expands the normal.

Concluding Discussion

Nearly twenty years ago, Brasher (1996, p. 811) claimed that Haraway’s cyborg was “a term of and for our times.” Since then, the infiltration of technology into daily life has only advanced, with even more technoscientific developments being made. When Haraway was writing at the denouement of the twentieth-century, posthumanity seemed a clear direction for social theory to take, as the “exhilarating cyborg experiences” of cyberspace promised a “technological purification of dirty materiality” (Becker, 2000, p. 362). However, in the decades since the vitalisation of Haraway’s cyborg there has arguably been a shift away from the use of cyborg theory in mainstream sociology. It seems contradictory that at a time when techno-human hybridity should be at its peak, Haraway’s theory can be read as retro-futuristic; a

result of the fact that the future in which Haraway's cyborg was situated either never eventuated, or has been and gone.

I was conscious about the potential for metaphorical opportunism in drawing influence from Haraway's theoretical figure while examining the lived experiences of women with disabilities. I agree with Kafer's (2013, p. 118) claim that "a non-ableist cyborg politics refuses to isolate those of us cyborged through illness or disability from other cyborgs. Disabled people can no longer be cast as modelling a cyborg experience non-disabled people are yet to achieve." Reflecting on Haraway's later works (1997; 2003), in this paper I consider the cyborg metaphor to be more of a starting point for reconfiguring our ontologies than a literal figure in the social world. By shifting focus from hybridity to kinship, most notably in *Modest_Witness@Second_Millennium* (1997), Haraway arguably seeks to no longer perpetuate the previous reductionism and fragmentation through the concept of cyborgs. Instead, Haraway allows both aspects of "mixed beings" their own subjectivity and agency within affectionate relations, as "*affinity is precisely not identity*" (2004, p. 92, italics added). Thus rather than reduce participants' experiences to "prove" or act as metaphors for cyborgian realities, through this research I have found that while Haraway's concept may suggest nuanced ways of articulating gendered experiences of techno-human hybridity, it is important to allow the lived experiences of women with disabilities to speak.

By exploring participants' embodied relationships with their prosthetics, it became apparent that their gendered experiences as women with disabilities simultaneously complicated and reinforced Haraway's (1991, p. 150) understanding of cyborgs as symbols of a "post-gendered world." While Kull (2002, p. 285) argues that "when technology intersects with the body, the basis of gendered subjectivity crumbles," my research found that, in reality, this is not always the case. The prosthetic technologies intersecting with participants' bodies did not completely crumble their gendered subjectivities. Rather, participants constructed and performed alternative femininities despite the ableist desexualisation of women with disabilities and masculine cultural perceptions of prosthetic technologies. However, as the majority of participants discussed prosthetics as being at odds with their perceptions of normative femininities, all were forced to rethink and expand their conceptualisations and embodiment of gendered identity, with some deconstructing the boundaries between masculine and feminine, self and other, through their own experiences and using the language of cyborgs to articulate them.

In using the language of cyborgs and techno-hybridity to describe her personal experiences, one participant demonstrated how Haraway's cyborg could be a meaningful way for some to understand and theorise hybridised experience. Kanga's discussion of her own empowering "cyborgian" experience of "going commando" reflects the potential that Haraway (1997) imagined for hybridity to be more than a cobbling of two separate parts into a new entity, but a friendly accumulation of difference and an expansion of dualist boundaries. The participants' experiences with prosthetics raised important questions around the performance and embodiment of gender for women with disabilities that, while beyond the scope of this paper, will be important to consider in future research. In light of the dearth of qualitative Australian sociological literature on this topic, I encourage future empirical research in this area to further explore the complex relations between disability, gender, technology and the body, while inhabiting the spirit of the "faithful acts of disobedience" that Haraway's work calls for (Braidotti, 2006, p. 203).

Acknowledgments

The author would like to acknowledge Dr Meredith Nash and Dr Felicity Picken for their guidance and supervision through the planning, data collection and write up of the thesis on which this paper is based, and for their helpful comments on earlier drafts of this manuscript.

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Ruby Grant is a PhD candidate at the University of Tasmania. Her research interests and areas of expertise include feminist sociology of the body, gender, sexuality, lesbian studies and queer theory. Her current research seeks to explore queer women's embodied experiences of gender, sexuality and sexual health in Tasmania.

Academia.edu: <https://utas.academia.edu/RubyGrant>

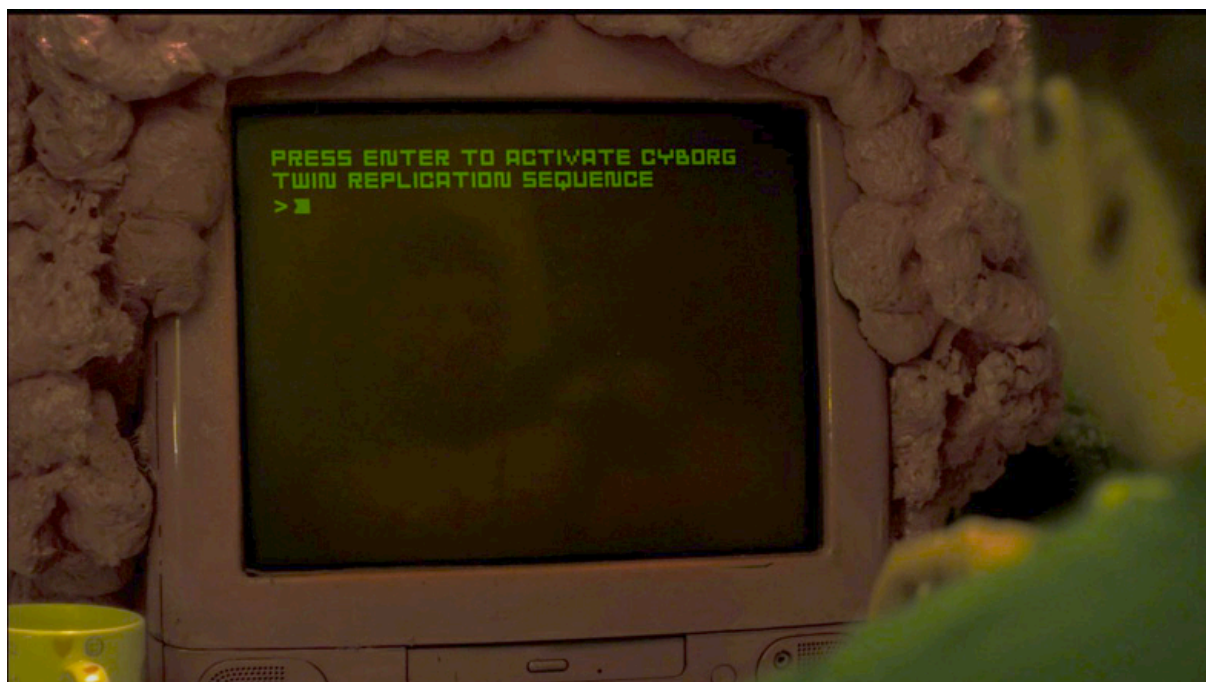
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Researcher ID: <http://www.researcherid.com/rid/G-8559-2015>

Queer Science: Queering the Cyborg in MyMy

Anna Helme – Victorian College of the Arts

<http://annahelme.com/contact>



Synopsis: A lonely young man feels something is missing in life, so he uses a techno-magick cyberfeminist CD-ROM to create himself a cyborg twin. But there is an error, the cloning process is flawed, and his other self isn't quite identical, and has a will of its own. What is at first a gentle platonic romance, an awkward getting-to-know-you of the self, becomes fraught as difference within the selfclone emerges. Will he destroy the parts of himself that shift beyond his control, or embrace the liberatory potential of his constructed, plural identities?

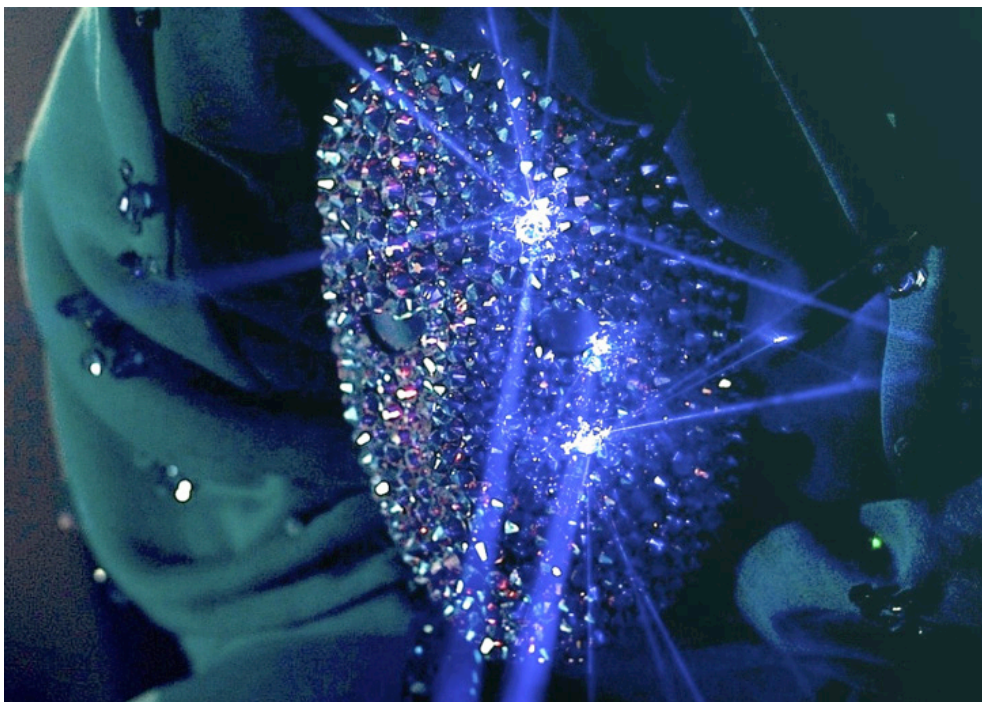
Introduction

MyMy (14mins, 2014) is a hybrid of science fiction narrative, documentary process and video art techniques. The film was a product of my Honours artistic research project at the Victorian College of the Arts, University of Melbourne that examined identity, role-play and performance from a queer and feminist perspective. My artistic research method was to form a synthesis of my backgrounds in technology and media activism, video art and performance, and narrative and documentary film practice, and then to use this hybrid moving image making practice in combination with queer and feminist theory as a method of investigating themes of identity and affinity. In this paper, I will outline the influence of Donna Haraway's *A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the 1980s* (Haraway, 1985) (hereafter *Cyborg Manifesto*) in particular, and how her ironic myth of the cyborg intersects with queer theory, politics and community in both the process of making the film, and in the film which emerged from it.



Still from MyMy: Jackson (right) and his cyborg twin Vincent (left)—Image credit Anna Helme

In the film I draw from both cyberfeminism and queer praxis to explore a cinematic vision of how technology has the potential to liberate queer bodies from essentialist identities, both metaphorically and physiologically, as humans transcend the boundaries of biology. I will reflect on my decisions to extend this metaphor into a de-naturalising of identity in general, beyond sex and gender, and to embody it within two characters in the film – a loveable yet uncontrollable cyborg twin (normalising the Other), and a post-human creature who beckons us into a future beyond earthly flesh and blood (rejecting the normal and embracing what is alien).

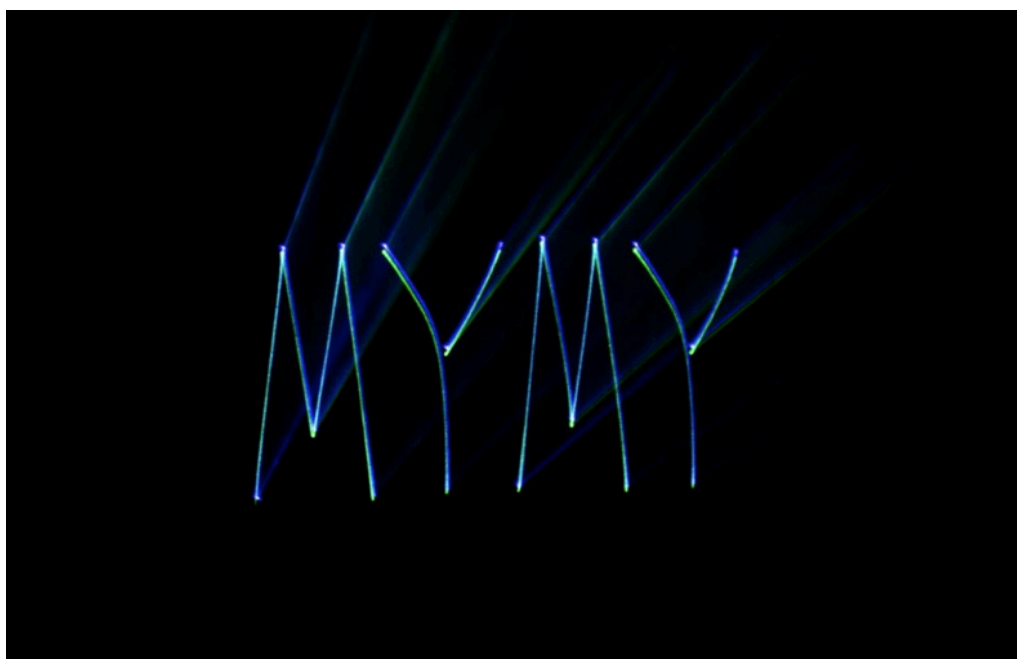


*Still from MyMy: the MyMy, an apparition of monstrous post-human possibility appears as an ambiguous guide figure
—Image credit Anna Helme*

I will extend on my Honours exegesis in exploring how Haraway's essay, along with queer culture and theory, are imbricated within my work, and give insights into this contemporary articulation of the cyborg from an artist researcher's position.

As the writer and director of *MyMy*, I'd like to acknowledge the generosity of Jackson Stacy and Vincent Silk, in presenting otherwise private knowledges and images of their lives, both in the film and in the academic writing surrounding it, within a hybrid of fiction and documentary that can be (intentionally) confusing to audiences in understanding what is real life and what is fantasy. The opinions I share about their queer political, artistic and personal practices come from my own observations, and shouldn't be read as their own points of view. Though my other key cast member, Justin Shoulder, wears a masked costume and is thus less identifiable, I also want to acknowledge the intimate aspects of himself and his work, which he shared with me throughout the filmmaking process¹.

MyMy



Still from MyMy – titles created with laser special effects – Image credit Anna Helme

MyMy is about the radical potential to create ourselves. It is about how we perform ourselves in the everyday, create micro-narratives of the self to construct identity, and how this process relates to identities formed in relation to the rest of society. It is about how queer bodies relate to the heteronormative status quo, and how campness and radical queer sensibilities provide a potential for truth in artifice. How self-consciousness around the constructed nature of identity, when you are deemed an outsider, can lend itself to a playful attitude to creating the self, and the philosophical, political and creative potentials inherent within it. It is inflected with my many years of experience working in free open-source software development projects aiming to radically democratise media production and distribution—both politically as the film hinges on the liberatory potential of technology, and in the aesthetics of computers and code, deployed here as a retro 1990s cyberfeminist look and feel.

It is also a film about cyborg twins 🧑🏻‍🧑🏻

¹ I encourage anybody interested in the film or the research surrounding it to discover each of their individual art and writing practices.

The opening titles of the film feature a strange creature (the *MyMy*) which unfurls itself and faces the audience. The figure shimmers outside of itself, it cannot be contained within the bounds of its own body. Magick symbols swirling around it. The audience is provided no context or explanation.



Still from MyMy: the MyMy creature appears with magick symbols animation illustrated and created by Lachlan Conn—Image credit Anna Helme

As the film proper opens, it is morning in a young (trans)man's trailer caravan, littered with artefacts of obscure artistic rituals, decorated with items that reflect a bent self-conscious take on adolescence, crammed with toys, photos of twins, a matching set of children's clothes. It is clear that this guy constructs himself in a very playful queer manner. We are aware from his demeanour, and these few strange clues, of a sense of longing.



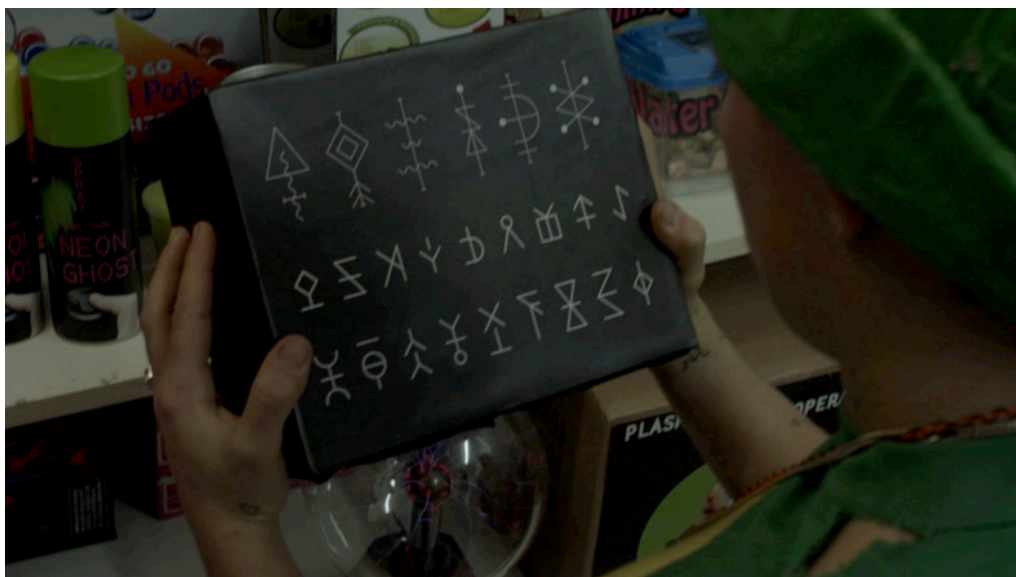
Still from MyMy: Jackson wakes as the film begins—Image credit Anna Helme

Something, or someone, is missing. He expresses (without dialog) a general feeling of loneliness, alienation and frustration. Dressing in his favourite teenage mutant ninja turtles outfit seems to allay this feeling for a moment, though his next attempt to relieve his frustration (by jerking off) proves futile. He heads to the corner store to buy some peanut butter cups.



Still from MyMy: Jackson in TMNT costume, going to the shops—Image credit Anna Helme

There, browsing a shelf of products that enhance the body or seem to uncannily transgress the boundaries between the supernatural and the technological (including a neon ghost in a spray can) he is intrigued enough to buy a kit, inscribed with magick sigils by its makers, the CYBERFEMINIST IDENTIKIT DISASSOCIATION, that appears to offer him the ability to MAKE YOUR OWN CYBORG TWIN.



Still from MyMy: a kit to make your own cyborg twin—Image credit Anna Helme

Inserting the CD-ROM disc into the personal computer in his trailer, he follows the instructions to make a life-size doll of himself, and then run a computer program on the command line.

The story that follows is of the making of his cyborg twin and the touchingly awkward relationship that forms between them, told in a disjunctive, impressionistic narrative that blends documentary and fiction modes. Jackson (the protagonist) and Vincent (his cyborg twin) slip in between playing a character version of themselves in a lo-fi sci-fi parallel universe, and their own queer selves.

Jackson and Vincent are not actors. The matching trailer caravans they occupy in the film, were their real homes at the time of production, in the backyard of a big queer sharehouse in an old nunnery in Sydney called The Dirty Habit. Many of their rituals are taken from daily life—buying some peanut butter cups, swimming at Bronte beach, playing with the chickens in the yard. My choice as a director was to shoot without rehearsal, just a simple walk-through of blocking for camera. Most of the actions performed by the two of them are behaviours I observed in them in their everyday performances of self, but de-contextualised, and placed into a fictional sci-fi narrative.

One scene was filmed as a 45-minute improvisation on camera, where I asked Jackson and Vincent to ask questions (which they posed themselves) of each other either in character, or out of it, which related to the film and its themes. This scene was then edited into the film as the first-ever verbal conversation between my protagonist and his twin.



Still from MyMy: Vincent and Jackson's immediate intimacy—Image credit Anna Helme

The only sequence performed by Jackson and Vincent that had any rehearsal process was the dance scene, where the two meet for the first time, after the cyborg twin appears. We rehearsed this on the day, and shot it immediately, choreographing the scene simply by linking dance moves that had evolved between the two of them over the course of their friendship while at the club, or from ritualistic movements they had developed in their everyday lives, usually in this very backyard the two of them shared as a living space.



Still from MyMy: the first conversation, conducted in movement—Image credit Anna Helme

The sci-fi plot is very simple, but the film’s themes are also explored in abstract, allegorical performance art sequences in an otherworldly cinematic space which presents a techno-mythological visual context for a re-imagining of queer subjectivity as an embodied presence (the MyMy) which has the power to (re)generate itself. The MyMy, performed by Justin Shoulder, is a fantastic creature who fits into the queer bestiary of Justin’s compelling and visually stunning costume/performance art practice. The creature wears a mask of Zwarovski crystals, and a costume modelled as another kind of twisted doppelganger identity based on both Jackson and Vincent. The body is made of the same teal tracksuit material as worn by my protagonist and his twin (also everyday outfits worn by Vincent and Jackson at the time). The head is an exaggerated tracksuit hood, out from which extends a long rats tail hair extension, modelled on the rats tail worn by both young men, made of the same crystals and colourful string/rope which Vincent used to make his own jewellery at the time (also worn by both Vincent and Jackson in the film).

The gender of the MyMy is deliberately indistinct; the costume was deliberately constructed to obscure physical sex markers. The MyMy appears to exist in a space technologically and temporally beyond our current conceptions of gender, but this is not presented as the pot of gold at the end of the LGBTQI+ rainbow, or a natural place to end up at the end of a logical argument about the problematics of gender². At one point this space appears as the familiar cinematic trope of the “dream sequence” though without clear definition of itself as dream or nightmare, and thus utopian or dystopian, but as a space for generative possibility, as it is during this screen time occupied by the MyMy that the cyborg is created.

The MyMy’s sequences explore in mythological visual metaphor, references to divine twins and digital avatars, blending mysticism with techno-utopian visions of creating a physical self outside of a “natural” biological paradigm. It mirrors itself, it fractures, it multiplies. The MyMy seems to have a generally benevolent role as a guide, yet its presence is still dark and unsettling. My protagonist and his twin directly replicate some of the MyMy’s movements and gestures in an echo of the twin dance (though these movements are drawn biographically from Jackson and Vincent, so in fact, the MyMy’s dance is an echo of themselves, a fact which the audience would not be aware of).

² As Haraway has reflected on the genderedness of her cyborg “I have trouble with the way people go for a utopian post-gender world—‘Ah, that means it doesn’t matter whether you’re a man or a woman any more.’ That’s not true. But in some places of fantasy and worlding, it actually is true, both for good and bad reasons” (Gane, 2006, p. 137).



Still from MyMy – the MyMy and its mirror – Image credit Anna Helme

The MyMy and its reflection move between perfect and imperfect sync with one another, foreshadowing the psychic break the cyborg will make from Jackson, later in the film.

Processor Interrupts

During the screenwriting process, I was interrupted, rather like a computer program which might be interrupted as it chugs through lines of code when “triggered by some sort of sensor, or input like a button, or even internally triggered” (Dee, 2012). I had been pondering role-play in the digital age, and the social avatar creation of my film’s subjects, when I remembered an artwork by cyberfeminist Francesca da Rimini. This work, situated within a text-based online Multi-User Dimension (MUD), was an online role-playing game, collaboratively produced by its users in the 1990s and beyond. Francesca, also known by her other *nicks* (Internet Relay Chat nicknames) GashGirl and Doll Yoko, is a member of seminal cyberfeminist group VNS Matrix. This online space, where users can invent their own identities and attributes and collaboratively construct the world around them, was the impetus for cyberfeminism, and Haraway’s cyborg, to become a major influence on the film.

By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs... (Haraway, 2013, p. 150)

On re-reading Haraway’s *Cyborg Manifesto*, the queer cultural practice evident in my community, of destroying, creating, and subverting identities, seemed so analogous to Haraway’s metaphor for a future beyond fixed notions of gender, and humanity in general, grounded in myths of the natural (Haraway, 1985). The ironic and humorous ways that my queer friends play with roles, the very serious ways that my transgender friends enact and defend gender identities seemingly counter to biology from a heteronormative or essentialist perspective, the outsider ethos of the radical queer community, how integral online identificatory practices were becoming to these parallel processes, all found relevancies in her essay pointing out our cyborgness and advocating the confusing of identities, in order to avoid the inevitable marginalisation of non-conforming Other identities that arises through defining a feminism based on very narrow and fixed notions of the female at its centre. Finding strong feminist currents to run against the still flowing tide of Trans-Exclusionary Radical Feminism is a matter of survival for transgender lovers and friends, and imperative for our whole community in supporting transgender inclusion and in

justifying a continuing incorporation of feminism into our politics. I am sure there are diverse trans perspectives on Haraway's work, and it was not my intention to use her essay in relation to transgender experience directly (as I'll explain in detail later) but more as a generalised queer disarticulation of identity. Her essay represents a key break from second-wave feminism towards the third-wave, which itself became so embedded in the queer, and to me her cyborg myth was so useful in challenging the dualistic construction of identity politics at its core, the breakdown of this offering so much inclusive potential for humanity.

So my cyborg myth is about transgressed boundaries, potent fusions, and dangerous possibilities which progressive people might explore as one part of needed political work. (Haraway, 2013, p. 155)

The literary nature of the text was another seductive pull for me to use it to form a key basis of my own subversive myth-creation in my film, informed by the politics and poetics of Haraway's essay.

Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum, and these machines are eminently portable, mobile... People are nowhere near so fluid, being both material and opaque. Cyborgs are ether, quintessence. (Haraway, 2013, p. 153)

The essay held within it a call to action, which cyberfeminists before me, such as da Rimini, had heeded³.

Who cyborgs will be is a radical question; the answers are a matter of survival. (Haraway, 2013, p. 155, italics added)

Into my creative process, I absorbed the Cyborg Manifesto along with other materials including first-person interviews about identity and roleplay that I conducted with members of my community and potential subjects/performers in my film, observation of my subjects in my daily life and via their Instagram feeds and public performance works, general reading around performance studies, and myriad other more obscure influences. However, Haraway's text became deeply embedded in my consciousness, and then this absorption became some of the genetic material that in an unconscious way I re-engineered in the story of the film, and can now unpack more precisely in this paper.

Queer bodies and the cyborg

Donna Haraway reflects on the legacy of her manifesto for cyborgs in an interview published in 2006, that (rather than her essay being the final word on creative approaches to political identities) "other people are doing a better job on a whole lot of this work than I am, and it's a collective project" (Gane, 2006, p. 144). She herself has since moved on from the cyborg into exploring human-animal relationalities in her *Companion Species Manifesto* (2003). Feminists have obviously continued to develop ways to interrogate political identities in various directions, and so have queers.

Being queer means leading a different sort of life. It's not about the mainstream, profit-margins, patriotism, patriarchy or being assimilated. It's not about executive directors, privilege and elitism. It's about being on the margins, defining ourselves; it's about gender-fuck and secrets, what's beneath the belt and deep inside the heart; it's about the night. (Queer-Nation, 1990, p. 1)

This is the kind of conception of queer that informs MyMy—identity as method of revolt, not just against sexual norms, but as a radical politics of resistance to systems of domination including capitalism and the state, which has been partly formed by a personal experience of survival in a state of oppression. You can

³ As indicated by Haraway's prime place on the list of the VNX Matrix's homage to inspirational women including Ursula Le Guin, Shulamith Firestone and others in their recent keynote for Disruption Network Lab's CYBORG: Hactivists, Freaks and Hybrid Uprisings held in May 2015 in Berlin (Barrett and da Rimini, 2015, p. 3).

see a very literal, explicit statement of this survival in the last line of text in *MyMy*, a line of text typed by a queer cyborg on a cyberfeminist computer terminal: “I am a beautiful miracle.” This is meant as bitter-sweet humour, a form of ironic hyperbole that can also be read absolutely at face value, and came from an early interview I conducted with Vincent as research before writing the film. It was a mantra of survival he had the practice of repeating to himself over and over at this point in his life.

Adding to Haraway’s conception of the cyborg, queer breaks down stable notions of not just gender identity, but the self as a whole. Judith Butler gives a queer perspective on self:

[W]e must recognize that ethics requires us to risk ourselves precisely at moments of unknowingness, when what forms us diverges from what lies before us, when our willingness to become undone in relation to others constitutes our chance of becoming human. To be undone by another is a primary necessity, an anguish, to be sure, but also a chance—to be addressed, claimed, bound to what is not me, but also to be moved, to be prompted to act, to address myself elsewhere, and so to vacate the self-sufficient “I” as a kind of possession. If we speak and try to give an account from this place, we will not be irresponsible, or, if we are, we will surely be forgiven. (Butler, 2005, p. 136)

I take Butler’s words to mean that it is not just gender, not even merely identity, but also the self that is up for grabs when we take a queer approach to ourselves. Her metaphor of being “undone by another” touchingly refers to the practices of intimacy and communality, how desire for another and the bruising and tender rubbing up against each other can change the self and broaden the self’s desires to include another’s, and thus she is imbuing queer identity with a sense of community at its core. But she is enticing us to displace ourselves, which is perhaps one method of radical empathy. Can it be possible to walk in another’s shoes, if we cannot vacate our own?

In *MyMy* I am playing with these porous boundaries of self that open up mechanisms for intimacy and community to leach in, through the metaphor of the self/Other of the cyborg twin. And in a way, I am suggesting that a queer sense of identity, albeit in some messy and forever contested way, incorporates others with whom you find affinity. In the film, this plays out in a way that is akin to the values a traditional love story, but without the hetero/homonormative insistence on sexual union. In this case, the relationship is platonic, though still somewhat romantic.

Haraway’s cyborg myth is “about transgressed boundaries, potent fusions, and dangerous possibilities which progressive people might explore as one part of needed political work.” (Haraway, 2013, p. 154) This subversive potential finds strong parallels in radical queer culture and politics. Adjunctive to Haraway’s insubordinate identity of the cyborg, Butler says this about the queer tendency towards trouble-making in the preface to her 1990 book *Gender Trouble*:

[A] phenomenon gave rise to my first critical insight into the subtle ruse of power: the prevailing law threatened one with trouble, all to keep one out of trouble. Hence, I concluded that trouble is inevitable and the task, how best to make it, what best way to be in it. (Butler, 1990, p. vii)

One of the most important ways the cyborg is queered, is in how important queer communities of resistance are to the very existence of the film. What very few audience members realise is that the film contains substantial elements of documentary in its hybrid form. The locations, costumes and set dressings are nearly all simply the real places and things inhabited by the characters, and the characters are just a slight sci-fi twist on the real people in the film. None of the performers in the film are actors, and the single person who is performing a “creature” is just as likely to embody this creature (or its sibling) on the dance floor of the club, as on a stage.



Still from MyMy: the dance conversation—Image credit Anna Helme

The self-conscious nature of physical performance within parts of my film, such as the dance conversation between Jackson and his newly created cyborg, also rehearse, in a very knowing way, Butler's concept of performativity. In this scene, the cyborg and his maker (my protagonist and the extension of his self) are together producing the new cyborg's identity, indeed both of their identities (suggesting my protagonist is coextensively in a constant state of becoming) and also the materiality and performed ritual of their affinity. Butler describes gender as a conformity that conceals the inherently unstable and contradictory nature of gender (Butler, 1990). In performativity, qualities of masculinity & femininity are learned and performed along regulated lines prescribed by society, the performance of which itself continuously produces these notions of gender. She clarifies that "performativity is not a singular act, but a repetition and a ritual" (Butler, 1999, p. xv) (in masculinity these acts may include getting a cut-throat razor shave, polishing boots, putting on a tie—all repeated actions that reinforce his role, in a normative binary gender scheme, as a man). The concept becomes interesting in terms of the potential for gesture in cinema, even beyond those that produce gender identification. In this scene, Jackson and his cyborg through a choreographic re-enactment of ritualistic movements, are *producing themselves*. Rather than in dialog, their first ever "conversation" articulates the kind of signification and identity that physicality can embody.

In terms of other queer ideas intermingling with Haraway's cyborg, it is important to note Lee Edelman's conception of the queer body as an irreconcilable outsider identity that is oppositional and, potentially fatally, subversive to the status quo (Edelman, 1998). There is some incorporation of this politicised dystopian vision into the future cinematic space where the MyMy creature dwells. In this space, the queer body exists alone in a void, that could be read as nihilistic or annihilated, and yet it is this visionary space that paradoxically or perversely births (through technological means) a queer body in the cinematic space of the "here and now." Perhaps this is one anarchic vision of creation, in which there must first be a phase of destruction, as opposed to gestation.

This is not a trans film

It is important to state as a filmmaker that I do not share the experiences of transgender people, which it must also be said are varied and cannot be summed up here. My own experiences as a gender variant person have informed the film, and are intertwined in a complex way with my own understanding of queer (I personally embrace "genderqueer" as descriptor for my own approach to gender identity), yet I do not mean to in any way equate this with, or attempt to overlay it upon, the experiences or identities of my subjects.

The film features two subjects who were assigned female at birth, who are considered transgender by a gender-normative society, though they may or may not personally or politically identify as such. How my subjects, or characters, identify exactly is not a matter of concern for the film, or this paper. This is not a film centrally about trans* experience, it is a queer film about identity, friendship, acceptance, intimacy and the self that happens to feature two young men, their trans* status being of lesser relevance here. Trans* people are forced to answer unwanted questions about their gender identity on a regular basis, which forms one means of Othering trans* people by the rest of society. In this film, those questions are not demanded of my subjects and the space for having other questions to ask is opened up.

The subjects in my film identify with the term queer in terms of the way they engage with the world around them, the politics they embody. This, rather than what gender they may be, contains a methodology for deconstructing some universal experiences of selfhood within the film, and is much more relevant for this reason. This paper is not about “transgendering the cyborg,” and neither is my film. Rather, it is about “queering the cyborg”⁴.

In understanding how transgender relates to Haraway’s cyborg in *MyMy*, it is clarifying to note Haraway’s assertion that her usage of the term “post-gender” within her cyborg manifesto was intended as a provocative tool, rather than a simplistic utopian aim. She, in reference to the term post-gender, has said “Just because you or your group got at how it works doesn’t make it go away, and because you get that it is made doesn’t mean to say it’s made up.” (Gane, 2006, p. 137).

My understanding of Haraway’s position on post-gender is that the concept of being beyond gender operates like much of science-fiction, as a site of possibility, rather than a blueprint for the future, and in no way is she instructing transgender people who may personally prefer to inhabit fixed gender identities, nor to bother asserting their gender identities, nor is she invalidating their identities and experiences. The desire to problematize gender, even to the point of imagining futures beyond our current rather limited cultural understandings of it, is a world away from the desire to annihilate it, or from a practice of denying it⁵.

Cyborg consciousness and queer avatars



Emoji: boy—Image credit Apple Inc.

⁴ It is important to state here, that the intention of my usage of Haraway’s cyborg in a film featuring transgender subjects was not to undermine any of my subject’s gender identities, which in any case I don’t believe it does, though I do wish to problematise gender, along with other political identities, a goal shared by most people involved in the making of this film.

⁵ In any case, my stance on my performer’s gender identities in the film was to respect, accept and honour them, as I would do with any person, while feeling perfectly free to problematise notions of gender and all aspects of identity on my own terms.

Haraway advocates for the cultural practice of irony thus:

Irony is about contradictions that do not resolve into larger wholes, even dialectically, about the tension of holding incompatible things together because both or all are necessary and true. Irony is about humour and serious play. (Haraway, 2013, p. 149)

MyMy depicts some of the ways in which Vincent and Jackson indulge in fantasies of identity—some of this is role-play and some of this is real, and all of it is both. All of it is ironic in a sense of being uncomfortably both heartfelt and disingenuous. As Vincent says, he likes to “tread a fine line between bullshit and genius.” Within the culture of this small group of friends, as within other queer micro cultures I have been a part of, an idea can be taken up for its political usefulness, flipped around and indulged in for pleasure and humour, and then set aside.

So, the blend of real-life and fictional characters you see in the film are ironic queer avatars in the process of self-creation. The first example you see in MyMy of ironic queer self-identificatory processes is when Jackson dresses himself in a TMNT (teenage mutant ninja turtle) costume.



Still from MyMy – Jackson dressing as a TMNT – Image credit Anna Helme

This can also be understood as an example of Muñoz’s *disidentification*, which he describes as “the survival strategies the minority subject practices in order to negotiate a phobic majoritarian public sphere that continuously elides or punishes the existence of subjects who do not conform to the phantasm of normative citizenship” (Muñoz, 1999, p. 4).

Jackson, in real life, has a kind of fanboy/fetish relationship to TMNT that involves dressing as one himself, and sometimes encouraging other people to do the same, as you can observe in this pod of peas:



Instagram pic: Queer family / teenage mutant ninja turtles—Image credit Jackson Stacy

The identity of the TMNT is remixed and repurposed, in order to enact Jackson's somewhat obscure personal and playful desires, re-positioning TNMTs within Jackson's own homosocial/homosexual fantasy, but also queering these rebellious and (literally) underground characters who formed us as children and teenagers of the 1990s as much as any other cultural role-models.

The next example is when Jackson follows instructions from the cyberfeminist CD-ROM to sew a life-size doll version of himself (that presumably will somehow come to life):



Still from MyMy: Jackson wonders if his doll has come alive yet—Image credit Anna Helme

This doll (a more traditional avatar) is also drawn directly from Jackson's own life/practice, based on a doll he constructed of himself to keep his girlfriend company when he went overseas:



Photograph from Jackson Stacy's collection, Jackson holding doll he made of himself—Image credit Jackson Stacy

In a tender sequence the film, Jackson inscribes upon his doll the same tattoos he has given himself using the DIY “stick n poke” technique (a handmade tattoo technology that doesn't require a tattoo gun), re-enacting this intimate practice of body-modification. In this case, a classic example of ironic imagery—the

smiley face, which can neatly flip between ingenuous remnant of the good vibes of raver culture, or painfully deep sarcasm.



Still from MyMy: Jackson “tattoos” his doll just as he has tattooed himself—Image credit Anna Helme

The most realised metaphor of ironic self-creation in the film comes next, when Jackson’s cyborg comes to life. He emerges from a trailer caravan called Sweet Dreams that has materialised (or landed?) in the yard, that is a twin of Jackson’s own trailer Cheap Thrills. Vincent looks almost the same, just a slightly corrupted copy. He wears the same sort of teal tracksuit, and also sports a rat’s tail.



Still from MyMy: Vincent emerges from Sweet Dreams—Image credit Anna Helme

From a documentary perspective, it becomes complex within a hybrid film such as MyMy to consider the layered interrelation of the subjectivisation and self-identificatory techniques of the subjects with the

process of enacting character. From a narrative perspective, characterisation can be understood in relation to sci-fi tropes and is also informed by Haraway's own political myth-making. Yet, across all these real-life and fictional processes of characterisation, it is possible to track the cultural trope of the Trickster.

The archetypal figure that Haraway has chosen to affiliate with the cyborg is the folk icon of the Trickster. The Trickster is a shape-shifter, jokester, idiot-savant, deviant oracle, perverse prophet. The Trickster embraces chaos and ambiguity and constantly reminds the Modest Witness that nothing is as it seems. (Scott, 1997, para. 1)

As representations of a hybrid monster of self/Other, both the cyborg (Vincent) and the MyMy creature play this Trickster role in the film, as echoes of each other.

Eve Sedgwick's description of an aspect of queer as "the open mesh of possibilities, gaps, overlaps, dissonances and resonances, lapses and excesses of meaning when the constituent elements of anyone's gender, of anyone's sexuality aren't made (or can't be made) to signify monolithically" (Sedgwick, 1993, p. 8) can also be considered as a means by which character is queered in *MyMy*. In this case, queer characters, and thus queer cyborgs, and queer tricksters, can also be hybrid, mutable, and permeable.



Still from MyMy: Vincent utters the single word of dialogue written in the screenplay, "My."
—Image credit Anna Helme

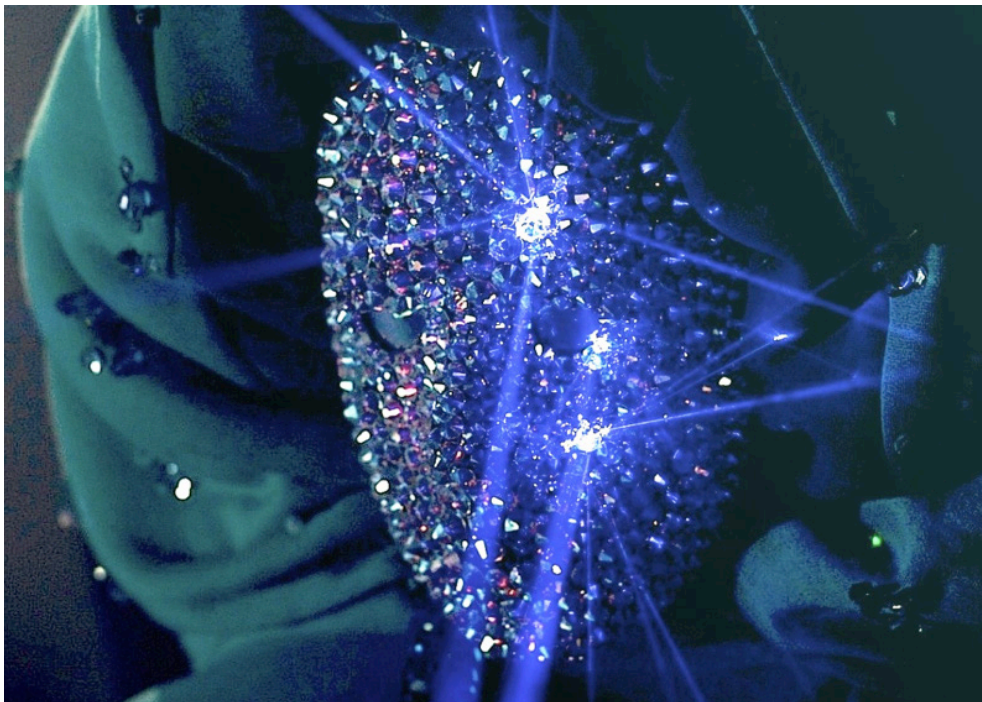
After their initial dance conversation, shy curiosity quickly gives way to rapid intimacy and queer family connection, and Vincent utters of the first word in the film (and the only word of dialog in the script, as all other dialog was improvised), the simplest statement of queer belonging: "my" (a word frequently spoken by these friends as a way of claiming each other at the time, and also a word which is tattooed onto Vincent's arm, a dictum of self-ownership).

Vincent is Jackson's cyborg twin—so though they've never apparently met, they know each other quite well. The two share a bath together and discuss the biomechanics of the situation. "Are you a robot?" "Yes! Oh... I don't... no?" "Are you a human boy?" "Probably I'll feel more and more like a human boy... don't you think?" "Probably."



Still from MyMy: “Are you a human boy?”—Image credit Anna Helme

There is a scene of conflict in which the cyborg twin begins to rebel against Jackson’s increasingly controlling directions, and Jackson must decide whether or not to delete his creation. But by the end of the film, Jackson accepts this replication of both the self (a clone) and the Other (a clone who is not actually identical, a most frustrating kind of otherness). However when Jackson and his cyborg go to sleep again at night, the “second ending” of the film suggests that things might not be this simple. We see an image of the MyMy creature, whose mask is fractured into multiple laser beams. This is visual metaphor representing the multiplying of identities, but also the darkness, subconscious, the selves we haven’t met yet, the parts of ourselves we can’t control or write a happy ending onto—the other side of Sedgwick’s “*open mesh of possibilities*” (Sedgwick, 1993, p. 8) hovering just below the surface of our eyelids.



Still from MyMy: final image from the film—Image credit Anna Helme

Conclusion

As Haraway notes, “Contemporary science fiction is full of cyborgs—creatures simultaneously animal and machine, who populate worlds ambiguously natural and crafted,” (Haraway, 1985, p. 149). MyMy takes inspiration from Haraway’s cyborg manifesto in resisting predominately masculinist, militaristic and capitalist manifestations of the cyborg. MyMy gets involved in this struggle, from a queer perspective, though it also toys more light-heartedly with cultural phenomena such as the monkey-wrenching of queer avatars within narcissistic feedback loops of postmodernity. The film queers what was seemingly an already very proto-queer cyborg in Haraway’s essay, through expanding its ironic narrative possibilities, but also through rooting the process of making the film firmly in contemporary queer politics, queer community and queer performance practices.

It seems Haraway’s Cyborg Manifesto and cyberfeminism in general is having a resurgence at the moment, being taken up by various people and re-purposed in interesting ways. As in MyMy, cyberfeminism collides with queer explicitly, in Laboria Cuboniks’ Xenofeminism, where I have been excited to recently find a renewed feminist rebellion against naturalism and essentialism, and a more detailed geeky platform (Laboria Cuboniks, 2015, p. “0x10”) for action than could be found in Haraway’s ironic myth-making. In my ongoing dual life as a technology and media activist in parallel to my praxis as an artist, researcher and filmmaker, Xenofeminism strongly appeals to me as a galvanising and rather more pragmatic, updated, contemporary vision for feminist action via technology, though as an artist I do miss, a little, the humour, irreverence and irony of cyberfeminism that is to be found in Haraway and the VNS Matrix’s poetics.

Through the making of this film, it seems clear to me that re-visiting Haraway’s ideas can be very useful to contemporary radical queer communities. We often have trouble resolving internal conflicts that are still negotiated based on some very out-dated threads of identity politics. Though largely we have gifted ourselves the project of dismantling global systems of domination beyond the borders of our own communities, discriminations people experience within our communities are of course very real, and the internal politics of queer and feminism are clearly very important also, and we tend to engage in the same level of in-fighting as occurs in any space within the radical left, and often still turn to essentialist, narrow, biological and fixed notions of identity, even within very supposedly queer circles, for lack of a more nuanced shared understanding of identity and subjectivity. In her later essay “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective” (1988), Haraway extends upon her concept of a cyborg/subject free of innocence in the Cyborg Manifesto. She offers us a more complex way to navigate truths, oppressions and privileges than we can often seem capable of handling individually, as we all experience, on a very personal level, oppressions and privileges, to considerably varying degrees.

There is good reason to believe vision is better from below the brilliant space platforms of the powerful. But here lies a serious danger of romanticizing and/or appropriating the vision of the less powerful while claiming to see from their positions. The positionings of the subjugated are not exempt from critical re-examination, decoding, deconstruction, and interpretation; that is, from both semiological and hermeneutic modes of critical inquiry. The standpoints of the subjugated are not “innocent” positions. On the contrary, they are preferred because in principle they are least likely to allow denial of the critical and interpretive core of all knowledge. (Haraway, 1988, p. 583)

I find this passage vital for queer communities in unlocking a method of hearing a diversity of voices, and speaking from our multiple subject positions that lie within a complex entanglement of various vectors of privilege and oppression, and in assisting us in the aggregation of experiences in the ongoing contested spaces of community. This can help create a more nuanced space outside a totalising binary choice that appears to me to be between: power and privilege is the only truth (because social supremacies seemingly demand it) and lack of privilege and power is the only truth (because social justice seemingly demands it).

The mythologising of the oppressed as innocent, creating competitive hierarchies of oppression and the ensuing conflict between individuals experiencing different oppressions, is one thing that presents problems inside queer communities, and a related issue is the fixed borders we draw around oppressed

identities (often, in queer communities, our own identities). Krista Scott describes a key problem for the project of community based on essentialist or monolithic identity politics, as raised by Haraway's cyborg myth, as a continuous problem of definition between an "us and them," and that only a fragile conception of collectivity can be based on such classifications, as aspects of ourselves inevitably drift between the two definitions, given that our unruly identities seldom follow strict or fixed rules (Scott, 1997).

This problem is very much alive in the queer community from which MyMy emerges, and radical left communities worldwide. It is referenced in the Xenofeminism Manifesto as a "puritanical politics of shame—which fetishize oppression as if it were a blessing, and cloud the waters in moralistic frenzies... we want neither clean hands nor beautiful souls, neither virtue nor terror" (Latoria Cuboniks, 2015, p. "0x0c"). In my experience, all of us in queer communities take part in the ongoing formation and re-formation of "not-them" groups as a practice of self-formation that is even more seductive when our identities and bodies are in a constant state of erasure, and as a matter of survival in an environment of violent oppression, while simultaneously finding the problematics of this positioning endlessly frustrating on a personal, political and social level (especially when we are thrust into the "not-us" camp by our peers, or aspects of ourselves drift into the "them" camp guiltily, as Scott suggests, but also as a generalised problem as our communities fracture along the lines of endless split hairs). Haraway offers hope by envisioning that "a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints," (Haraway, 2013, p. 154). This practice of conceiving kinship beyond immediate biological relation, as deployed in MyMy's techno-mythology, is closely related to (the practically imperfect projects of) the anarchist practice of affinity, the socialist practice of solidarity, and the queer practice of creating chosen families, all of which I believe are threads contributing to the potential to overcome our divisions.

With MyMy I aimed to trouble notions of identity and the self, and re-centre notions of affinity within debates about identity, but also to contribute to the utopian project of Haraway's "world-changing fiction" (Haraway, 2013, p. 149), and Muñoz's analogous queer "world-making" (Muñoz, 2009, p. 35) whilst embracing elements of the more frightening possibilities offered by psychoanalytic queer and feminist theory—a contradictory approach which queer science fiction seems entirely capable of embodying. My cyborg is (self-)programmed to be a cyberfeminist agent within science fiction cinema, and within feminist, anti-capitalist and queer movements for social change, "a fiction and fact of the most crucial, political kind" (Haraway, 2013, p. 149).

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Anna Helme is a filmmaker, video artist, media activist and artistic researcher. Her shorts have featured in festivals internationally including Frameline, Outfest, and the Melbourne International Film Festival, and she won Queer Screen's Emerging Filmmaker Award in 2013. She has exhibited installation work at Sydney's MCA and MIX NYC, is co-founder of not-for-profit organisation EngageMedia working with social justice and environmental video and open-source software in the Asia-Pacific, and has co-directed collaborative documentaries about fat politics and indigenous cultural connection to water. She's currently undertaking an artistic research PhD in queer moving image making practices at the University of Melbourne.

The Age of Sympathy: Re-examining discourses of Muslim terrorism in Hollywood beyond the ‘pre-’ and ‘post-9/11’ dichotomy

Jay Reid – University of Adelaide

jay.reid@alumni.adelaide.edu.au

The events of September 11 did not herald a new age of terrorism, for terrorism had been primarily fuelled by religion since the 1980s; however, the 9/11 attacks did herald changes in the representation of terrorism in Hollywood cinema, with an increased frequency of Muslim antagonists, more sinister and deadly than their pre-9/11 compatriots. While pre- and post-9/11 images have been investigated in previous studies, the continued evolution of Middle Eastern characters in the decade since the attacks has rarely been discussed. This paper examines six Hollywood action films released between 1991 and 2011 (a decade prior to and after the attacks) through an Orientalism critique, investigating how representations of Muslim terrorists in Western popular culture have evolved. The findings support earlier research on a discursive shift immediately post-9/11, but also reveal a second shift in representation, occurring approximately half a decade after the attacks. Cinematic representations immediately after the attacks positioned Muslim terrorists as sympathetic individuals seduced to commit acts of terrorism by religious fundamentalism. However, from 2007 onwards, representations again change, framing onscreen Muslim terrorists as willing participants in violent activities motivated by Islamic fundamentalism, with an absence of the earlier sympathetic positioning. This research builds on existing studies into cinematic representations of terrorism and extends our knowledge of the cinematic discourses of the Hollywood Muslim terrorist, a subject to which continued media and public attention is directed.

Introduction

When hijacked commercial aircraft crashed into the World Trade Centre in New York City on September 11, 2001 (9/11), the world of terrorism did not change. Religion-fuelled acts had been the dominant form of terrorism since the 1980s, replacing those driven by leftist ideologies (Rapoport, 2004). However, the 9/11 attacks *did* change popular Western media representations of terrorism.

From the moment they occurred, the 9/11 attacks and Hollywood were intricately connected. The attacks, seen as “the largest human-made intentional disaster in U.S. history” (Fairbrother et al., 2004, p. 1367), affected Hollywood unlike any other event in human history (Pollard, 2011), with Hollywood described as “the locus for America’s negotiation of September 11 and its aftermath” (Schoop and Hill, 2009, p. 13). Hollywood productions have considerable potential to inform audience understandings of significant public events, including terrorism, given they are not only consumed in the United States, but exported to media markets around the world. As Riegler notes, “cinema is often overlooked... Filmmakers play a key role in the creation of ‘history’ as the past is imagined, imitated, and envisioned on screen” (2011, p. 155).

The changing nature of cinematic terrorism, particularly terrorism conducted by Muslim antagonists, has been thoroughly studied since the attacks. This literature (e.g. Ivory et al., 2007; Pollard, 2011) finds that 9/11 brought about changes in the representations of terrorism in Hollywood cinema, with an increased frequency of Middle Eastern antagonists who are more sinister and deadly than their pre-9/11 predecessors. However, this body of research focused primarily on the immediate pre- and post-9/11 dichotomy of imagery, and not on addressing the manner in which media images of Muslim terrorism have continued to evolve. This evolution is important because, despite over a decade elapsing since the 9/11 attacks, terrorism is still prominent in the media and the minds of citizens around the world. Further, Muslim terrorist characters continue to occupy an important position in American culture

(Ashcroft and Ahluwalia, 2009), with terrorism “still popularly understood to be a Muslim phenomenon,” (Torres, 2013, p. 171) and seen as an obstacle to global security (Aly, 2014).

This paper reports an exploratory study examining six Hollywood action films released between 1991 and 2011—a decade prior to and after the attacks—and argues that while dominant media imagery of the Muslim terrorist shifted significantly in the aftermath of 9/11, it has undergone a further evolution in the decade since the attacks. After establishing a baseline of dominant pre-9/11 discourses of Muslim terrorism, characterised as one-dimensional ‘baddies’ who are motivated by revenge rather than religion, this paper discusses through an Orientalist critique how initial post-9/11 imagery was framed with a discourse of sympathy: Muslim villains were established onscreen as innocent victims of circumstances beyond their control, seduced by the Muslim faith to commit terrorism to give their life meaning. However, around 2007, Muslim characters became willing participants in acts of terrorism, with their motives for carrying out these attacks framed as fundamentalist interpretations of Islam. This more recent imagery calls back to pre-9/11 imagery of Muslim terrorism, where characters are willing participants in the acts they commit. The findings of this paper provide a re-examination of how Hollywood has represented the Muslim terrorist in the decade since the 9/11 attacks, moving beyond the “pre- versus post-9/11” dichotomy of images that have been the focus of previous research in this field.

9/11 and the Muslim Hollywood Terrorist

Following the 9/11 attacks, academics very quickly began to examine the effect of these events on the production of popular culture. By the end of 2001, researchers were beginning to explore how Hollywood would respond to the attacks (Aretxaga, 2001). Research has examined the effects of 9/11 on a broad range of media texts, including newspapers and news reporting (Altheide, 2006; Aly, 2007; Bossio, 2007; Gerhards and Schäfer, 2013; McGregor, 2013; Reid and Cover, 2010; Sanz Sabido, 2009), television programs (Alsultany, 2013; Andrejevic, 2011; Torres, 2013), music, children’s literature and comic books (Schoop and Hill, 2009). Numerous studies have examined the impacts on Hollywood across genres, including horror and science fiction, studying analogical explorations of 9/11 (e.g. Dixon, 2004a, 2004b; Erickson, 2007; Flynn and Salek, 2012; Holland, 2012, Kellner, 2010, Muntean, 2009, Sánchez-Escalonilla, 2010; Stockwell, 2011). Films such as *Munich* (2005, dir. Steven Spielberg) and *United 93* (2006, dir. Paul Greengrass), which portray real world terrorist attacks, have also been a strong focus of study (Dodds, 2008; Pollard, 2011; Schoop & Hill, 2009).

Despite being the focus of sustained academic scrutiny, research gaps persist in our understanding of the evolution of post-9/11 Muslim terrorism imagery in Hollywood. Ewart and Halim (2013) note the continued research gaps around the interplay between the media and 9/11 and the lack of longitudinal studies in the field over a decade since the attacks.

This paper reports an exploratory study examining six Hollywood action films released between 1991 and 2011. While images of Muslim terrorists are not confined to Hollywood and feature commonly in many media products, Hollywood films were selected as the research focus as they are seen to dominate the creation of discursive myths in Western culture (Shaheen, 2003a). In the US, the number of viewers of major studio films is higher than for political news channels such as C-SPAN (Schollmeyer, 2005). Outside the US, these productions are exported to media audiences in over 150 countries around the world where they are consumed more readily than local film productions, with the US the world’s leading exporter of screen images (Shaheen, 2003a, 2008).

While there is no clear figure for the number of appearances of Muslim terrorists in Hollywood films in recent years, Cettl (2008) identifies over 285 terrorist-themed films released between 1960 and 2008, while Shaheen (2001, 2008) identifies over 1000 appearances of characters he codes as Arab in Hollywood over the last century, with over 100 since the 9/11 attacks took place. These studies of cinematic terrorism examine large numbers of films, demonstrating repetition in Hollywood’s imagery of the Muslim terrorist. Shaheen (1987, 2001, 2003a, 2003b, 2006, 2008) examines onscreen appearances of Arab characters in Hollywood films dating back over a century, isolating filmic tropes that are commonly repeated in these productions. Within these images identified by Shaheen, the practice of the Islamic faith is omnipresent, and frequently linked to acts of violence. Similarly, Cettl (2009) provides an analysis of all terrorist-

themed Hollywood films released since the 1970s. Collectively, these studies demonstrate the limited variety in Hollywood representations of terrorism, particularly those featuring Muslim terrorists, though they stop short of examining why such limited imagery exists.

Within the scope of this research it would be impossible to investigate all appearances of Muslim terrorists in Hollywood films during this period. However, as Yin (2002) notes, case study research, while not providing statistical proof, is able to support certain theoretical predispositions. Six films released between 1991 and 2011, identified in Table 1, were selected to enable close readings of a cross-sectional representation of dominant discourses across the studied period. The 20-year period of study was designed to fully capture the influence of the 9/11 attacks as Hollywood productions have a significant lead in time from conception to release. Six films were chosen as this was considered to be a manageable workload; Daniel (2012) notes within discourse analysis, clear variations can be observed in small samples sizes, and large sample sizes can make studies unmanageable without adding to analytic outcomes.

The films were selected following the initial meta-analysis of existing literature to identify productions which are significant contributors to the discourse during this time, a sampling strategy recommended by Jorgensen and Phillips (2002). While all films of this genre are the product of real-world inspiration, a decision was made to avoid examining films that reproduced well-known terrorist acts, such as *United 93* (2006, dir. Paul Greengrass) or *Munich* (2005, dir. Steven Spielberg). This allowed for the selected texts to be studied without the need to engage with the filmmakers' interpretation of events, and instead, to study films that were not constrained by mediating events well known to the audience. The meta-analysis sampling strategy was complemented by a keyword search of film database IMDb for terms such as "terrorism," "terrorist," and "insurgent," an approach adopted in previous similar studies (e.g. Ivory et al., 2007), to ensure all significant Hollywood films dealing with terrorism were captured in the sample. Finally, the presence of well-known Hollywood stars and commercial box office success were taken into account in determining the final sample, with the results of this analysis presented in Table 1.

Title (released) Director	Notable cast members	Significance
<i>True Lies</i> (1994) Dir.: James Cameron	Arnold Schwarzenegger; Jamie Lee Curtis	\$146 million at box office, 3rd highest grossing film of 1994 ¹ Numerous awards, including special effects, Golden Globe for Jamie Lee Curtis Tie-in video game across four popular platforms “Quintessential 1990s Hollywood counterterrorism fare” ²
<i>Executive Decision</i> (1996) Dir.: Stuart Baird	Steven Seagal Kurt Russell Halle Berry	\$121 million grossed worldwide ³ First film to re-imagine 1970s sub-genre of aircraft hijackings ⁴
<i>Syriana</i> (2005) Dir.: Stephen Gaghan	George Clooney Matt Damon Jeffrey Wright Chris Cooper	\$94 million at box office ⁵ Cast of famous Hollywood actors George Clooney won Academy Award and Golden Globe Critically praised for non-stereotypical exploration of Middle East ⁶
<i>Rendition</i> (2007) Dir.: Gavin Hood	Jake Gyllenhaal Reese Witherspoon Meryl Streep	\$27 million at box office ⁷ First film to explore effects of post-9/11 Bush doctrine ⁸
<i>The Kingdom</i> (2007) Dir.: Peter Berg	Jamie Foxx Chris Cooper Jennifer Garner Jason Bateman	\$87 million at box office, ranked second in opening week, considered a commercial success ⁹ Described as genre re-defining, and inspiration for later films ¹⁰
<i>Body of Lies</i> (2008) Dir.: Ridley Scott	Leonardo DiCaprio Russell Crowe	\$108 million at box office, considered a commercial success ¹¹ Well known director of <i>Alien</i> (1979) and <i>Blade Runner</i> (1982)

Notes:¹ Shaheen (2001, pp. 500-503); Vanhala (2001, p. 235)² Boggs and Pollard (2006, p. 340)³ IMDb (n.d.)⁴ Cettl (2009, p. 117); Pollard (2011, p. 162); Shaheen (2001, p. 189)⁵ Pollard (2011, p. 115)⁶ Pollard (2011, p. 72); Pomerance (2009, p. 43); Shaheen (2008, pp. 169-171)⁷ BoxOffice (n.d.)⁸ Cettl (2009, p. 224)⁹ Box Office Mojo (n.d.), Prince (2011, p. 4), 293; Shaheen (2008, p. 128)¹⁰ Cettl (2009, p. 225); Prince (2011, p. 293)¹¹ Cettl (2008, p. 51); Pollard (2011, p. 129); The-Numbers (n.d.)

The films were initially analysed through a discourse analysis framework and Orientalist critique to detect key discursive elements around their framing and characterisation of Islamic terrorism. Close readings of the films were then undertaken to determine how each film engaged with these discursive themes. This methodology was employed to examine the intertextuality of the films, exploring the repetition, emergence or disappearance of conflicting discourses. As Jorgensen and Phillips (2002) note, this is the clearest way to study the production and evolution of discourses. The close readings were conducted alongside a review of existing literature to determine the film's reception by critics, academics and the general public. Finally, wider historical trends, such as the impact of 9/11 and its continued mediation in the decade since the attacks, were researched to determine how, if at all, real world events had contributed to the changing discourses detected in the films.

Previous research has focused on the changing nature of Muslim terrorist imagery in Hollywood pre- and post-9/11, identifying the attacks as a discursive change point. This article locates a second change point around 2007, suggesting that the discourse has undergone further evolution. Dominant pre-9/11 discourses in the films studied in this research offer no sympathy to onscreen Muslim villains: such characters are dangerous individuals driven by hatred or revenge, who do not hesitate to hurt innocent bystanders to achieve their goals. Post-9/11 attacks, the films represent young Muslim men as inherently innocent and seduced to Islamic terrorism by factors beyond their control. These characters are given a backstory of sadness and loss, always hesitating in the final moments before carrying out their deadly acts. However, from 2007 onwards, such sympathetic framings disappear in the Hollywood films examined, with characters returning to characterisations more closely aligned to those pre-9/11. Rather than acting in revenge, they are represented as acting as agents of Islamic militancy.

Dominant pre-9/11 imagery (1991-2001)

Since 9/11 there has been an understandable interest in charting the changing discourses of Hollywood terrorism, with little focus on how terrorism developed before the attacks. Vanhala (2011) addresses this deficiency by examining pre-9/11 terrorist films within the wider environment that shaped their construction. She groups her films around common filmic tropes of representation and narrative, identifying commonality in films released around the same time. Noting that "Hollywood and its cultural products are central in the creation of consensus and political mentality in society" (Vanhala, 2011, p. 3), she demonstrates how real world terrorist events, such as the fall of the Iron Curtain and the 1968 hijacking of El Al Flight 426, have shaped Hollywood's onscreen depictions of terrorism. This grouping of films around common release dates and common filmic traits allows industry trends to be identified, and the rationale behind such developments to be explored in their historic context. This paper expands on Vanhala's works, extending this type of analysis beyond 9/11, the event she uses as a sampling endpoint.

Pre-9/11 imagery of the Muslim terrorist is demonstrated in *Executive Decision* (1996, dir. Stuart Baird), where terrorist Nagi Hassan (David Suchet) hijacks a passenger plane en route to Washington to force the release of his leader. A special operations team is inserted mid-flight to regain control of the aircraft, and through Nagi's interactions with them, we observe the pre-9/11 simplistic, unsympathetic and violent imagery of Muslim villains who are driven by secular motives. This dominant imagery is likewise found in *True Lies* (1994, dir. James Cameron), where Muslim terrorist Salim Abu Aziz (Art Malik) smuggles nuclear weapons into the US, holding the country to ransom. Collectively, repeated imagery such as this, as Said (2003) notes, serves to imbue audiences with the belief that all Middle Eastern men are characterised by their love of violence and their involvement with terrorist activities.

While Nagi claims he has captured the plane for hostages, he has smuggled nerve gas on it and is planning a deadly attack on the US. His motivation is signposted through the moniker he uses during negotiations, "Al Thar," which is translated onscreen as Arabic for "revenge." He is not driven by religious motives, and beyond a quick glimpse of his Quran, Islam is not invoked throughout the time. Learning that he plans to sacrifice the plane and all on board, his fellow terrorists accost him, arguing that "this is not Allah's will. You're blinded by hatred." Rather than religion, fighting for freedom or justice, Nagi's terrorism is driven by hatred of the West. Combined with the potential scale of destruction of his plan, little sympathy can be directed toward him.

At the film's climax, when commandos reclaim the aircraft, Nagi does not hesitate and opens fire, killing passengers and soldiers alike. In his final moments he shoots dead the pilot, dooming all on board. The violence perpetuated by Nagi is excessive, unbridled and without hesitation; no one is safe from him, not even his own men whom he kills if they stand against him. While Hollywood imagery following the 9/11 attacks features sympathetic terrorists who are prone to hesitation, pre-9/11 Hollywood Muslim terrorists are all too comfortable with violence.

Just as with Nagi, Aziz in *True Lies* (1994, dir. James Cameron) is given very little in the way of background information. Intelligence agencies profile him as “really hardcore; highly fanatical. The man’s a real psycho,” responsible for dozens of bombings across the globe. He started his own terrorist splinter group—Crimson Jihad—because he believed existing groups were not violent and fanatical enough. He employs torture, beats women and children, and does not hesitate when killing. This, however, is the summation of his background provided throughout the film. He has no cause, no hardship or fundamental injustice that drives him, and he is not even given a country of origin. Religious motivations are absent beyond the term jihad in his group’s name. His terrorism, like that of Nagi, is framed as meaningless, excessive and unjustified.

Regardless of the text, the Middle East—a vast region of varying cultures and customs—is reduced to a singular entity, one stuck in the past and strongly linked to terrorism (Said, 2003). Rather than being granted a nuanced backstory, Muslim villains are portrayed as one dimensional and driven by revenge or anger rather than Islamic fundamentalism. Few are given a country of origin, rather they simply come from an ubiquitous and abstract “Middle East.” While such Orientalist notions strongly influence both pre- and post-9/11 discourses of Muslim terrorism in Hollywood action films, this unbridled violence imbued so readily in characters prior to the 9/11 attacks is absent in similar individuals in the years after the attacks.

Sympathetic post-9/11 imagery (2001-2007)

Terrorist films released since 9/11 are a frequent topic of academic study. Pollard (Boggs and Pollard, 2006; Pollard, 2009; Pollard, 2011) has contributed significantly to this study, examining Hollywood's exploration of what he terms “the spectacle of terrorism” since 9/11. He argues that films have become more violent and realistic, seeking not to comfort audiences but to confront them (Reid, 2012). Similar studies, such as Meeuf (2006) and Dodds (2008), demonstrate that Hollywood's engagement with terrorism, particularly that hailing from the Middle East, adheres to a limited number of discursive images. However, gauging the direct discursive impact of 9/11 is problematic when not engaging with texts before the attacks.

While Pollard (2011) argues that post-9/11 cinematic terrorists are more dangerous and threatening to Western society than those pre-9/11, films released in their immediate aftermath do not fit this mould. Frequently the scale of the attacks decreased; widespread nuclear annihilation seen in *Executive Decision* (1996, dir. Stuart Baird) and *True Lies* (1994, dir. James Cameron) gives way to small-scale suicide bombings. Cinematic terrorists post-9/11 are not framed as willing participants, but rather innocent Muslim men caught in situations beyond their control and seduced to Islamic militancy.

In *Syriana* (2005, dir. Stephen Gaghan), Wasim (Mazhar Munir), an out of work Pakistani oil worker, is taken in by a Muslim cleric and indoctrinated through extremist religious interpretations to carry out a suicide attack. Similarly, in *Rendition* (2007, dir. Gavin Hood), Khalid El-Emin (Moa Khouas), a poor teenager from the local slums, is enticed by his local mosque to carry out an attack against the local chief of police who supports the CIA. Throughout both films, the Middle East is established through juxtaposition against the US as a desolate and hopeless space void of opportunity, a realm where young, innocent and down on their luck men are seduced to undertake terrorist activities to give their lives purpose. This notion of the Middle East as a primal site, unable to develop or provide a comfortable living for its inhabitants, has long been a central motif and generalisation used in Western representations of the Middle East (Said, 2003), despite the lush and pristine environments that the region holds. Wasim and Khalid are not violent and blood thirsty as pre-9/11 villains were, rather they are tragic figures of a hard upbringing, enabling a sympathetic framing to be applied to their characterisation.

The opening scenes of *Syriana*, set in the Middle East, feature solidarity figures wandering vast and barren desert landscapes attired in dirty, tattered clothes. Pakistani workers frantically crowd onto buses, desperately seeking employment to avoid deportation, and hoping to earn enough money to allow their families to join them. The film shifts to a Senator's garden in Washington, DC and then to an oil company boardroom; in both locales powerful Western men casually discuss how they steer the course of history in the Middle East from half a world away. Within minutes of the film opening, the divide between the haves (West) and the have-nots (East) is clearly established.

In *Rendition* (2007, dir. Gavin Hood), Washington, DC is positioned as a clean and ordered landscape, one lit with calming blue light, subtle autumnal colours and beautifully appointed houses. Juxtaposed against this imagery of “the American dream,” Khalid lives in a garbage-filled slum among farm animals. The Middle East in *Rendition* is loud, unkempt and chaotic, with bright lighting building a barren and harsh atmosphere, evoking the common imagery of the Middle East and its inhabitants as stuck in a primal state and unable to advance (Said, 2003). According to Pomerance (2009), the desert in *Syriana* is a locale without civilisation or form, a site troubled spirits are drawn to, and such analysis could be applied to the Middle East in *Rendition*. This sense of emptiness and destitution paves the way for Wasim's and Khalid's recruitment into Islamic terrorist organisations, who take advantage of their situation to mould the innocent boys into terrorists.

Described as a “naïve, brainwashed victim” (Shaheen, 2008, p. 170), in *Syriana* Wasim is recruited into a terrorist cell in his Muslim school by a cleric who claims that, “we are all brothers; we're one family.” Slowly the cleric gains his trust, teaching him to read and write so he can get a job and help his mother immigrate. Wasim remains unconvinced of this cause throughout his indoctrination, and even seconds away from carrying out his attacks, his self-doubt and hesitation are obvious, and his demeanour is resigned rather than fanatical as he triggers the explosive. Similarly, in *Rendition* Khalid, spurred on by memories of his brother who was killed by the police and his father who abandoned him, is recruited by a local mosque to conduct a suicide attack. Like Wasim, at the last moment he hesitates, forcing those running the operation to detonate his vest. For both characters, their fall to terrorism is framed with clear sympathy. Far from willing participants, both are innocent patsies seduced to carry out terrorism when their situation appears to have given them no other choice. Their seducer, as with other images of Muslim terrorists from this period, is personified Islam, a religion long generalised as being strongly linked to terrorism and conflict (Said, 2003).

Given its visual spectacle, from the moment 9/11 occurred American popular culture and mass media explored the implications of attacks for Western society (Schoop and Hill, 2009). In the wake of the attacks a concerted effort was made to not declare war on the Middle East as a whole, only the terrorist elements that inhabited it. Addressing the Congress on September 20, 2001, then-President of the US George W. Bush iterated to the Muslim world that:

We respect your faith... its teachings are good and peaceful, and those who commit evil in the name of Allah blaspheme the name of Allah. The terrorists are traitors to their own faith... The enemy of America is not our many Muslim friends... Our enemy is a radical network of terrorists, and every government that supports them.

Hollywood followed suit. Holland (2012) observes that post-9/11 Hollywood cinema has worked to create positive Muslim imagery, with Alsultany (2013) noting, “If a TV drama or Hollywood film represented an Arab or Muslim as a terrorist, then the story line usually included a ‘positive’ representation of an Arab or Muslim to offset the negative depiction” (p. 161). Early interrogations of 9/11 were analogical, addressing its impact through genres such as science fiction. This demonstrates hesitancy by Hollywood to directly address the events, likely out of concern that audiences would no longer find such themes palatable.

When terrorism was directly engaged with, as in *Syriana* and *Rendition*, there is an underlying current of sympathy for the terrorists who are manipulated to carry out attacks by forces beyond their control. While the depictions noted above are not strictly “positive Muslims,” they are clearly delineated from the Muslim villains of pre-9/11 Hollywood who were driven by revenge or anger. Such sympatric imagery

represents the dominant framing used in the films in this study immediately after the attacks until around 2007, when a second discursive break is observed.

Return to pre-9/11 imagery (2007-2011)

Previous research in the field of Hollywood terrorist representations has focused on the differences across pre- and post-9/11 productions; this dichotomy of imagery is supported through the differing representations observed in the films examined in this paper. Few studies have sought to explore changing media representations of Muslim characters in Hollywood terrorist films both before and after the 9/11 attacks. Semmerling (2006) extends the work of Shaheen, examining six Western films produced between 1973 and 2002 to explore changing media images, though his sample is skewed toward a pre-9/11 exploration of media images, with only one post-9/11 film examined. Similarly, Prince (2007) charts the historic evolution of the terrorist film across multiple genres and in television and documentary, providing links between historical events and their impacts on Hollywood. Ivory et al. (2007) examine pre- and post-9/11 film trailers, noting the changing nature of villains and the acts they commit over time. Collectively, these longitudinal studies argue in favour of 9/11 as a change point in Hollywood representations of terrorism, noting an increase in the frequency and violence of Arab and Muslim characters.

However, rather than undergoing only one change following the attacks, this paper argues that dominant representations of these characters have undergone a more evolutionary process, with a second discursive shift around 2007. Around this time, the sympathetic positioning of Muslim villains in Hollywood action films disappears, and Muslim terrorists return to being one-dimensional characters without backgrounds, who are motivated by fundamentalist Islam. Again, we observe the melding of Middle Eastern characters into a single, unified character trope (Said, 2003).

Such representations are observed in *Body of Lies* (2008, dir. Ridley Scott), where the CIA tracks terrorist leader Al-Saleem (Alon Abutbul) across the Middle East, and *The Kingdom* (2007, dir. Peter Berg), where the FBI hunt Muslim terrorists under the leadership of Abu Hamza (Hezi Saddik) who has bombed a US housing compound in Saudi Arabia. In both films, released after 2007, the perpetrators' motivations or backgrounds are not explored as they would have been between 2001 and 2007. Rather, they are simply introduced as anti-Western villains who "want to go back in time to a purer Islam," intent on inflicting as much pain as possible on their victims (Schack, 2009), with the noted absence of the previously explored sympathetic framings found in early post-9/11 films.

The Arab peninsula in *Body of Lies* is a hive of violence and terrorism; while this is by no means an addition to the discourse and has long been a hallmark of the Middle Eastern characters in Western media (Said, 2003), the removal of the sympathies previously afforded to the inhabitants of these lands is notable. Al-Saleem's followers launch attacks in England and Europe, killing innocent bystanders. They are said to be unwilling to negotiate with the West, calmly detonating suicide vests when they are about to be captured and, unlike Wasim and Khalid, do not hesitate to kill. An informant is shot by the CIA when he is about to be captured; it is better to be killed by your own side than left in the hands of violent militants who frequently record and publicise the torture of their captives. Unlike earlier post-9/11 representations, terrorists of this era are given no sympathetic backstory or justification for carrying out their attacks, rather, they are simply motivated by fundamentalist ideologies.

Far from living in a cramped and garbage-filled hovel as Wasim and Khalid did, Al-Saleem resides in an opulent mansion, complete with plush furnishings, beautiful gardens, and a loving family. He is a man who has done well for himself, educated in some of the finest schools and universities in the West. Beyond these most basic details, however, no background is provided for Al-Saleem, and he lacks the sympathies observed in Khalid's and Wasim's stories. As with pre-9/11 imagery, and indeed dominant discourses of Orientalism (Said, 2003), Al-Saleem's lack of backstory contributes to his positioning as simply a Muslim, and nothing more. He is a mastermind of the terrorist group, and could hardly be further from the impoverished Arab youth who are manipulated into carrying out attacks as seen in earlier films. While Wasim and Khalid are the personification of the terrorist foot soldier, the young men recruited to terrorism due to their unfortunate situations, Al-Saleem is the embodiment of an Osama bin Laden-esque

character, an all-knowing terrorist mastermind who is not a victim of his circumstances but rather a willing antagonist, who describes his acts as “the punishment for a non-believer.”

Again unlike Wasim and Khalid, the terrorist leader Abu Hamza in *The Kingdom* (2007, dir. Peter Berg) is a willing participant. He is given no onscreen background or justification for carrying out his attacks beyond a fundamentalist Islamic hatred for the West. Like Al-Saleem, he is surrounded by his family, but takes this one step further, engaging his sons to assist him during the attacks. A man who uses his own children in attacks while killing innocent American families is a far cry from the misguided youth who were Hollywood’s Muslim villains in the years immediately following 9/11. Like Al-Saleem, Abu Hamza is a terrorist mastermind, a man fully aware of his actions and committing them without onscreen reason or justification. Unlike earlier post-9/11 Muslim terrorists, he has no redeeming qualities, no justification for what he does, and is afforded no sympathy in his representation; a clear return to pre-9/11 imagery, and indeed, dominant Western representations of the Middle East (Said, 2003).

While 9/11 had an instant impact on Hollywood, including the cancellation or delayed release of films and the editing of others to remove the World Trade Centre (Ansen et al., 2001; Bell-Metereau, 2004; Cettl, 2009; Dixon, 2004a; Markovitz, 2004), Hollywood itself was unsure how to respond. Initial explorations of terrorism were conducted through analogical genres because the events were still “too raw, too hard to grasp...an unsuitable theme for mere entertainment” (Riegler, 2011, p. 163). When terrorism was addressed, as in *Syriana* or *Rendition*, the antagonists were given backstories and justifications for their actions, typically driven by unfortunate situations and powers beyond their control. However, the emergence of this second discursive shift around 2007 is likely due simply to the passage of time; over half a decade had passed since the 9/11 attacks, giving the West and Hollywood an opportunity to come to terms with the events of that day. From this point on, terrorists in the films in this research return to doing what they did best, that is, to be self-aware and willing antagonists. Rather than being “seduced” by Islam, they are willful agents of its fundamentalist interpretation.

This continued representation of Muslim terrorists in Hollywood films as willing and active participants in acts of terrorism motivated by religion, just as with earlier images which framed them as sympathetic victims, reshapes dominant discourses around such characters in Western popular culture. These Hollywood productions operate as what Foucault terms a “surface of emergence,” societal objects whose consumption and interaction creates fields of knowledge around a subject (Danaher et al., 2000; Horrocks and Jevtic, 1999). The repetition of these images in Hollywood action films constructs the notion that their content is “truth,” acting on and influencing the surrounding social consciousness through the discourse’s construction and dissemination, even in the absence of supporting evidence (Mills, 2004). Rather than shown as multilayered individuals with unique backgrounds, personalities and aspirations, the simplistic Hollywood imagery adheres to Said’s (2003) notions of the generalisation of Middle Eastern characters, who are imbued with overwhelmingly negative traits. While this paper only examines six films across two decades, the common imagery in the films based on their release dates suggests that real world events and the public’s fears have acted on and played a role in the ways Hollywood has elected to represent the character of the Muslim terrorist over the past two decades, particularly between 2001 and 2007.

Conclusion

When the Twin Towers fell on September 11, 2001, many aspects of Western society were irrevocably altered, among them, popular culture. The events of that day were unlike anything contemporary Western society had witnessed, with academics (Dixon, 2004a; Giroux, 2004; Riegler, 2011; Young, 2007) arguing that the cultural impact of the attacks split the Western world into a pre-9/11 and post-9/11 history. As previous studies have demonstrated, the nature of Muslim terrorism onscreen underwent an instant discursive change, with characters becoming more sinister and dangerous than their pre-9/11 compatriots. This article supports this assertion, but further argues that beyond this simple pre- versus post-9/11 discursive break there has been a continued evolution in the dominant imagery of the Muslim terrorist in Hollywood action films since 9/11, with a second discursive break around 2007.

Some of the first action films to explore Muslim terrorism after the attacks, *Syriana* and *Rendition* among them, created sympathetic backstories for their antagonists. Framing them as innocent individuals driven by poverty or the loss of loved ones, these young men are recruited onscreen by Muslim clerics to take up arms against the West. While their attacks are deadly, in their final moments they hesitate; they are tragic figures who easily engender sympathy. However, when sufficient time had elapsed since the attacks, from 2007 onward, such discourses disappeared and a return of the willing and unsympathetic Muslim terrorist is observed, individuals who are not seduced by Islamic fundamentalism but are rather agents of it. Herein is the final achievement of what academics have described as the transformation of the pre-9/11 terrorist into his post-9/11 self.

This study by no means is a census of all appearances of Muslim villains in Hollywood, with only six films released between 1991 and 2011 examined. Furthermore, to confirm the date of 2007 as the second discursive shift requires further research; in this study two films with vastly different representations were released in that year, suggesting that this second discursive break was not as sudden as 9/11, but rather an evolution in dominant imagery. The images of Muslim terrorists are by no means confined to Hollywood productions, and there is a need for additional research into portrayals of such characters in other mediums, such as indie/semi-independent films, television, video games and comic books. Beyond the creation of discourses examined in this paper, there is an opportunity for future research interrogating audience receptions of these images, expanding on the work of those such as Hensley (2010).

Despite continued efforts by governments to build positive relationships and images of Middle Eastern communities, Muslims are still often the antagonists in cinematic acts of violence and terrorism (Aly, 2014). While efforts by Western media to avoid victimising Middle Eastern characters in recent years has been previously explored (Alsultany, 2013; Holland, 2012), this paper represents the first time such discourses of sympathy have been explored around Muslim terrorists in Hollywood actions films following 9/11. It is hoped that this exploratory study will open up new ways of considering Muslim terrorist representations in Western popular culture, with further research needed across additional films, genres and platforms.

Acknowledgements

Prue Robson (University of Newcastle), Peter Pugsley (University of Adelaide), Rob Cover (University of Western Australia), and Ros Prosser (University of Adelaide).

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Jay Reid is a higher degree by research graduate of the Department of Media at the University of Adelaide, currently working as a research officer for the Australian Government in Canberra. His research interests include media representations of terrorists and terrorism, and the Australian embedded journalist experience. He was the Postgraduate Representative for the Australian and New Zealand Communication Association (ANZCA) from 2011 to 2012.

Game Studies, Aesthetics, and Active Objects: An Interview with Graeme Kirkpatrick

Benjamin Nicoll – University of Melbourne

bnicoll@unimelb.edu.au

*Graeme Kirkpatrick is a leading theorist in the field of game studies. His research traverses multiple theoretical and disciplinary terrains, most notably the philosophy and social theory of technology. His 2011 book *Aesthetic Theory and the Video Game* offers a genuinely novel take on the phenomenology of video gameplay, while his more recent books, *Computer Games and the Social Imaginary* (2013) and *The Formation of Gaming Culture* (2015), provide incisive accounts of how gaming culture carved out space for itself in the wider social world. In this interview, Kirkpatrick reflects on the humanistic impetus underlying his aesthetic approach to videogames, and offers his thoughts on the “non-human” turn in game studies and media theory more broadly. He introduces the idea of “active objects” as a way of assigning an active role to videogame objects whilst also retaining a “minimal humanism.” Kirkpatrick also discusses his recent research on the formation of gaming culture, including the techniques he employed in order to analyse 1980s gaming magazines, and how his findings relate to recent events such as the “gamergate” controversy.*

Graeme Kirkpatrick is Professor in Media Arts, Aesthetics and Narration in the School of Informatics at the University of Skövde. He completed his undergraduate studies at York and Bradford, and was awarded his PhD at Birkbeck in London. Much of Kirkpatrick’s research focuses on the philosophy and social theory of technology, though he is perhaps best known for his contributions to the field of game studies. He has published three major works on videogames, each of which has offered important and unique interventions in the field. His strength as a researcher lies in his ability to explicate phenomena and occurrences in videogame culture that have gone surprisingly under-analysed in the scholarly literature—for example, his critical analysis of videogame controllers in *Aesthetic Theory and the Video Game* (2011), or his investigation into the origins of the terms “gamer” and “gameplay” in *The Formation of Gaming Culture* (2015). Kirkpatrick’s analysis is often couched in a diverse (and refreshingly unorthodox) set of theoretical traditions—many of which have been under-represented in the broader field of media studies.

Ultimately, what Kirkpatrick’s approach amounts to is a profoundly humanistic way of understanding videogames—one that is often at odds with much of the current research in game studies and media theory more broadly. Kirkpatrick’s main theoretical influences—aesthetic theory, Frankfurt School critical theory, and French sociology among them—enable him to position videogames as what he calls a “deeply ambivalent” medium. In some respects, his approach recapitulates familiar tropes from game studies’ formative discourse, such as the incentive to “defend” the study of games from disciplinary colonisation, and to maintain the view that videogames are somehow “different” to other media. This kind of thinking has, of course, fallen by the wayside in recent research. In a recent editorial for the open-access Web journal *Game Studies*, Espen Aarseth (2015, n.p.) makes a bold declaration: “game studies is a success. We did it.” In essence, what he means by this is that the study of games has become successfully standardised, no longer defined by its difference within the academy but instead by its normalcy. Few would argue that this is a bad thing—after all, it means that videogames are no longer cordoned off into their own special domain, their own “magic circle.” In fact, games are now studied from a diversity of disciplinary frameworks, and as a result, the field has shed many of its pre-occupations with, for example, formalism. But if anything has been lost in this shift towards normalisation—this homogenisation of game studies—it is that games have forfeited their status as an inherently “awkward” or, in Adorno’s terms, “enigmatic” cultural form. This awkwardness, however, is something that Kirkpatrick’s work has continually sought to maintain. In the interview, Kirkpatrick reflects on the critical implications that the above processes have had not only for game studies but also for the state of humanities today. For Kirkpatrick, it is in a somewhat surprising place—aesthetic theory—that we might find the resources necessary to forge a path through these disciplinary tensions.

One of the recurring ideas in this interview is the notion of “active objects.” In media theory today, we are witnessing a decentralisation of the human’s privileged position in the study of technology, in accordance with what Levi Bryant calls a “flat ontology.” The traditional human-machine dichotomy has been collapsed such that all the “objects” and interactions that constitute media assemblages—whether humans can relate to them or not—are given equal consideration. This “nonhuman turn” has had clear reverberations in game studies scholarship. For instance, the notion of player embodiment—an issue that was once a core concern for game studies scholars—has been reconfigured to more adequately account for the game’s “experience” of the player as well as the various “effects” forged at the interfacing of the human and the technical. Kirkpatrick’s research has exhibited an ongoing concern with these issues—his critical analysis of videogame controllers sheds light on a set of objects that are typically ignored both in gameplay and scholarly writing, and his study of the “gamer habitus” reveals how humans and gaming objects are “disposed” to one another in complex ways. In this interview, Kirkpatrick draws on Adorno’s reflections on mimicry and non-human agency in *Aesthetic Theory* in order to discuss videogames as “active objects.” As active objects, videogames are capable of destabilising our sense of subjectivity. In fact, as Kirkpatrick highlights, aesthetic experience often entails a kind of “forgetting” of our own humanity—“perceiving it as absent,” as he puts it. Yet this forgetting is not associated with a diminishing of the human, but instead with an understanding that an alternative future, in which the subject and the object are reconciled, is possible. In this sense, the “agency” of videogame objects corresponds to a more general reformatting of what it means (or could mean) to be human. Playing games means creating new possibilities, perhaps, for envisioning alternative futures in this way.

This interview was conducted by Benjamin Nicoll in April 2015. It was recorded at the University of Melbourne while Kirkpatrick was visiting as part of a fellowship program arranged by Melanie Swalwell of Flinders University. The interview recording was transcribed and Kirkpatrick was given the opportunity to revise the text. The interview begins with a discussion of aesthetic theory and its place in Kirkpatrick’s approach to videogames. It then focuses on Kirkpatrick’s defence of humanism, especially in the context of game studies. In the second half of the interview, Kirkpatrick discusses his recent research on the demarcation of videogames as a social field. Finally, the interview touches on a fundamental tension in Kirkpatrick’s work, which relates to thinking of videogames as both aesthetic objects and “ideal commodities” of information capitalism.

Benjamin Nicoll (hereafter BN): Firstly, I’d like to ask you some questions about your writing on aesthetics. Much of your work draws on ideas from the sociology and philosophy of art, specifically from theorists like Theodor Adorno and Jacques Rancière. It wasn’t until after I read Adorno’s *Aesthetic Theory* that I realised just how immanent his thought is to your analysis in *Aesthetic Theory and the Video Game*. As a discipline, aesthetic theory remains a largely untapped resource for media theory, perhaps because many scholars find it out-dated and unworkable in a contemporary context. So, intellectually speaking, what draws you to aesthetic theory – specifically to writers like Adorno, whose thought occupies a somewhat ambiguous position in contemporary media theory?

Graeme Kirkpatrick (hereafter GK): I was interested in Adorno long before I began to study videogames or media. I never was drawn to media theory and, as you imply, aesthetic theory is really a very different approach. Often media theorists misrepresent Adorno’s work as involving a “hypodermic” approach to media, while presenting their own work as much more attentive to users and to the meanings they make from their interactions with media. That probably helped to make him unfashionable but, in fact, I’m not sure how unfashionable he is now because scholars have started to ask what active role media objects might play in those interactions and Adorno’s studies of music in particular have inspired developments in the sociology of art for that reason.

I’ve always been sceptical about the whole emphasis media theory places on media as “ideology machines.” In the British context it grows out of Stuart Hall and British cultural studies, I think. You get this whole emphasis on language and structuralist or post-structuralist methods, which are used to read politics into each and every use of media. The focus is always on textual meaning and the analysis aims at subverting hegemonic readings with reference to users and their articulations. I think that’s clearly not

applicable to computer games simply because there the meanings are often not textual and they're not where we expect to find them.

In the early years of computer game studies, when I went to conferences in 2002 and 2003, you had a lot of people who were very knowledgeable in areas like film studies—particularly film studies—and people who used media theory to decode or deconstruct traditional media in this way. And they were just bringing that methodological apparatus to the field of game studies because they found there was something new to write about. And some of them really liked games, to be fair, but this is what they were doing, academically. But, to me, it was just obvious that the theory didn't connect with the object so I was really dissatisfied with that. I thought some of the analyses I was hearing were... shallow would be a polite way of describing them. And so I wanted to provide a more appropriate account of what's really going on when people are playing computer games.

I thought that the aesthetic ideas I had been looking at clearly gave better purchase on this object—these kinds of objects—than the theories that were being put forward that were, as you say, more fashionable. So I decided to draw on Adorno and Benjamin to write about computer games. Of course, you can't just “apply Adorno” to computer games, that's too crude and mechanical, and very un-Adornian! What you have to do is to bring the theory into dialogue with this form and see what happens, including asking “does the theory gain anything?” from this engagement.

I think a fundamental point here, which brings aesthetic theory to bear upon games, and I think means that aesthetic theory can say more about them than media theory can, is the element of play. Once you have something that is so obviously working with the human desire to play, and the human faculty for play and imagination, you've created an opening—not just for Adorno, but for Kant, Schiller, the whole aesthetic tradition starts there. So taking that approach opens up a distinct perspective on games. I'd say in media theory they've tried to address some of these issues through notions like affect, but that's really a superficial add-on concept in a lot of cases. What really matters, or a better way to explore what games feel like is actually made possible by these concepts, especially the ideas of play and form.

Because if we focus on what players actually do with games we don't find that they interpret a story, recognise their role in it and act that out in a meaningful way. Playing a game requires a concerted physical and intellectual effort to hold multiple, often disparate experiential elements together in a single, more or less pleasing, coherent experience. There are multiple planes, if you like, including visual information on screen, manual operations with a controller, all informed by an idea of story or plot. Your role as the player is to maintain their unity in a kind of mobile point of intersection. And the unity of that point is inherently unstable and prone to collapse, after which it has to be re-built, re-learned and established all over again. This corresponds more or less exactly to Adorno's analysis of form in musical experience: it's there in the music as a kind of challenge and only active, intelligent listening pulls it all together and produces the meaning.

And actually, you refer to the sociology of art, and I think one of the interesting things that's happened in the sociology of art, perhaps partly in response to the digital is that after years of looking at how social processes “construct” the artwork—which tends to reduce it to its discursive or social context and makes it all nicely amenable to questions of linguistic meaning and interpretation—after years of that, there is now a new attitude that says the object is active in this situation. In this context Adorno has become a key reference point, and less unfashionable! I think, in a way, aesthetic theory is coming in through the back door, because once you acknowledge that the work is active in this way you've returned to the question of form.

BN: So, there's a tension between Bourdieu's idea that art is just socially constructed, and Adorno's idea that there's something intrinsic to art that makes it special or “active”?

GK: Yes, but I think we can draw on insights from each approach. One of the things I was reacting against in *Aesthetic Theory and the Video Game* was probably the attitude implicit in the scholarship that I encountered at the beginning of games studies, which was, we have media theory and sociology for games, and then we just don't really talk about them as art or address their relation to art. That seemed to be quite a common attitude. It's like sociology for games, philosophy for art. I wanted to treat these objects,

computer games, from the standpoint of aesthetic theory, without making any prior judgement about whether they were art or not, or what kind of thing they were. The materials of art don't enjoy any special status—Adorno is very explicit on this point. He even comments in *Aesthetic Theory* that work in electronics might be the basis for new experiments, new kinds of artwork. Art can be made out of any substance, so we should be open-minded. And so I took my cue from there, and I wanted to assess computer games in that way.

This led me to focus on their intrinsic, formal capacities, perhaps too much because in *Aesthetic Theory and the Video Game* I think I abstracted too far from games playing as a social activity. The point is that computer games are not entirely “what we make of them” because they also act. But the actions they perform and the things players do that they accommodate and provoke only take on significance in specific social contexts. Computer games are not completely neutral, blank slates open to any interpretation but they also don't mean anything in abstraction either. They have to be instantiated in social contexts by humans—and perhaps other creatures and objects—and then they can have effects; they can participate in producing meanings.

This view isn't as antithetical to Bourdieu as a lot of sociologists seem to think, by the way. In his late study, *The Rules of Art*, he is strikingly ambivalent about form, which in earlier work he more or less dismissed as a kind of necessary illusion of art appreciation. The main idea I took from Bourdieu was the notion of a habitus that is essential to appreciating and playing games. Habitus is a kind of embodied disposition that equips us to operate in a given domain. People who don't have this in connection with computers and games struggle to make their actions comport with what happens on screen, while those who do will find it easy to relate to games and even feel that playing them is “natural,” or “comes naturally.” I think this is an important idea for video game aesthetics and it illustrates well how formal properties of games limit, constrain and even script human actions, but can only do so under specific social conditions.

BN: One thing I find interesting about your work on aesthetics is that you seem to uphold many of the central tenets of ludology, as against what you call the “flimsy conceptual apparatus of media studies” (Kirkpatrick, 2011, p. 54). Many scholars have abandoned the idea that games are an inherently unique media form, and in so doing, they have subjected the medium to broader ideas from media theory, including post-humanism and affect. By contrast, your work seems more intent on maintaining somewhat unorthodox notions of humanism, so as to situate games in relation to deeper theoretical lineages and practices surrounding play. Is this an accurate assessment, and if so, could you explain why you feel such an approach to games is necessary?

GK: I think that's an accurate description. As far as the humanism question is concerned, I view that in political terms. So it seems to me that capitalism has always wanted us to treat other people as if they're less than human, so to have theoretical post-humanism come along and say, “yeah, that's ok,” feels like capitulation; I think it's important not to embrace anti- or post-humanism partly just for that reason.

But on the other hand, I understand the critique of traditional humanism, or at least I think I do. Traditional humanism was shot through with prejudicial notions, exclusionary values. So, in the eighteenth century to be human was defined in terms of being fully rational. Women and colonised peoples were excluded because they were too emotional or their inferior levels of development showed they had failed at science. On that basis they weren't included in the “human” because they were supposedly less rational, and that was supposedly fundamental to the human. I think Mark Poster's critique of humanism in his work on new media is very good on that, and those questions are well raised.

But the problem here is not identification with the human as privileged in our thinking about the world, it's a biased inflation, or inflection of what the human entails. The danger is the very obvious one that you throw out the proverbial baby with the bathwater. I think that there is a minimal humanism that should be retained, just the same way that there is a minimal specification of rationality, which isn't the grand metaphysical system of Kant or Hegel with its exclusionary implications, but something much more simple.

The alternative is quite disturbing. The post-human scenario where genetic engineering is all okay, and we just accept technologies and forms of social organisation that modify humans and blend them in with other categories of object—this is a kind of post-democratic, post-human scenario that I think is complicit at a deep level with the contemporary drift towards totalitarianism. It's a subject for another conversation, but I think contemporary capitalism, specifically neo-liberalism, is a totalitarian project.

The aesthetic represents an area that is concerned with human experience. I think Adorno's aesthetic theory supersedes post-humanism by encompassing its main ideas. When he opposes the mimetic response of the subject to the constructed character of the artwork he presents a scenario in which the two poles get entangled and modify one another. To be authentic the constructed work has to take on something of the character of the subject; it takes on a constructed appearance in so far as it reflects the absence of the human yet, as such, it reflects the presence of its human recipient. And from the other perspective, the human who "moves with" the artistic object gets immediately folded into a constructed sequence of responses, extending into embodied actions and behaviours in the case of computer games. So the human element becomes machine-like and precisely in so far as this is the case, appreciating the work involves perceiving our own humanity as absent, yet determining the whole process and therefore present. Adorno identifies a "pointing beyond" here, to a different reality, if you like, another world where we can be reconciled with the thing that is absent yet curiously affirmed here in the authentic experience of the artwork.

This idea of authentic experience is an inherently humanist one. Even if animals or machines can be said to have experiences I don't think it makes much sense to speculate about whether and how they judge those experiences to be authentic. They lack criteria for such because they cannot imagine another world in the light of their struggle with this one. In other words, humanism relates to form, because humans are the creatures that appreciate form. There are clear connections here between the idea—which we find in Schiller but also in contemporary thinkers like Rancière—that the aesthetic opens onto discovery of what we always knew: that we *are* freedom, that we are equal.

Applying aesthetic theory to video games becomes political for this reason.

BN: And regarding the idea that games are an inherently unique media form, fundamentally different to other technologies. Could you reflect a bit on your "defence" of ludology?

GK: I think we need the clash between ludology and narratology more than we need either of those perspectives as such—which is fortunate because there are very few people who would actually identify with either of them. Ludology guards the space around games but it doesn't actually know what that space is; it doesn't understand its own activity. So ludology is important in so far as it repudiates the textual-meaning orientation of media studies in connection with computer games. But the mission of ludology—to say "we'll just study these things as games"—is a bit hopeless, actually, because there simply isn't enough conceptual resource there, in the theory of games, to mount a proper analysis of computer games. So, as soon as Jesper Juul defines a game, which I think he does brilliantly well, he then has to add to the model with all these bits and pieces of narrative and media theory, because what we're confronted with here is something more than just a game. So, I think he and the other ludologists are correct to say that there's something very specific about this cultural form, whatever it is, and that simply coming at computer games with existing media theory, and all that stuff that I talked about before, is shallow and misses the point in a lot of cases. This is about recognising that games are active and their meanings aren't one-sidedly determined by the player or the social context, or whatever.

So I can agree with all of that, but I don't agree that analysing them as games will be sufficient either. And this of course courts the danger that Espen Aarseth will turn around and say, "you're just applying another alien conceptual scheme, because you're using aesthetic theory the way those people use narrative theory." I don't think that's true, because there is convergence among the two perspectives, particularly on the issue of form. Once you start to analyse games as potentially complex and sophisticated things, you immediately run into, or start clarifying the kinds of form they generate, and once you're doing that you're already in the area of aesthetic theory. I think that in Aarseth's recent work he's running up against the lack of a properly aesthetic theory. So, now he's talking about the degraded character of signification in games

in order to say that they can't cause or promote violence. But trying to understand that purely in terms of their "gameness" doesn't work, not least because some traditional games are actually very precise in their textual or representational meaning-content. You need a theory that positions formal aesthetic structures specific to video or computer games in social and historical context to make an argument about their referential capacities: you need aesthetic theory.

I agree with nearly everything ludologists say when they are repudiating narratology. But as long as they try to hang their analyses on "gameness" and then supplement this with other theories, essentially media theories, I think that's not really going to work.

Ludology also played an important part in establishing the new academic discipline of computer game studies. I used to think that the fierceness of ludology's polemic was indicative of the kind of rupture that we often find in the history of science when a new paradigm asserts itself and new set of questions, or problematic, is established. I've changed my mind about that, though. If there's a claim for any new discipline at the moment it should be made in a pretty cautious way, because in contemporary academia everything's blending and melding in with everything else anyway. We're getting strange hybrid "disciplines" that combine traditional humanities with technologies and technical skills training. In this context, which is largely being shaped by the politics I mentioned previously, we need to be careful. That might mean stepping back and thinking about what we want people to be studying and why. What are the relevant disciplinary boundaries? This is a political question because there are powerful interests at work that would quite like to draw the disciplinary boundaries in ways that subserve corporate interests, like the need for suitably trained workers who lack critical skills, for example. And the wider ideological issues here concern the neo-liberal project of reconfiguring of what it is to be human, if it's to be anything at all. Given this, disciplinary boundaries are actually quite important and shouldn't be changed just because it seems expedient for realising short-term goals like attracting investment or seeming to be "up to date."

BN: I'd like to turn now to some of your more recent work, which has focused on analysing the discourses in early gaming magazines as a means of identifying the social processes that were involved in the demarcation of gaming as an autonomous "field." What led you to pursue this line of inquiry, and how did you gain access to the archive of gaming magazines you analyse? And can you talk a bit about the methods and techniques you employed in order to read, catalogue, and analyse the content of these magazines?

GK: I think it's well known that when home computers were marketed for the first time in the late 1970s and early 80s no one knew what they were for. I've been interested in this for a long time—I did a comparative study of home computing in the UK and Poland in 2006. It became apparent then that people referred to printed sources, as well as TV, films and radio, for inspiration and practical ideas on what to do with the machines. I think some of my UK interviewees mentioned that they had read magazines about programming and learnt to enter games programs into their computers this way. So I looked for examples online and found scanned issues of *Computer and Video Games* and *Commodore User* on the web. I found this guy in the UK, Stephen Stuttard, had actually scanned back issues of several gaming magazines from the 80s. So, it was a simple matter just to contact him and buy the DVDs from him. I have no idea who else is buying them from him.

It's perhaps worth saying that I didn't read these magazines myself back in the day. I had friends who used computers in the early 80s, but it was not part of my life, so I had no idea what to expect. And when I looked at them, I found that they were overwhelmingly technical in their content. Something like 20-25% of the pages were just full of lines of code. And there were lots of articles—even in the ones that said they were about games—about technical paraphernalia, technical processes, that were talking about technology in a non-fetishistic way, a way that wasn't to do with commodities or gadgets. The approach the early issues took reflected a kind of hobbyist, bits-and-pieces, or *bricoleur* type mentality—"you can take this if you can get one, and you can put it together with this, and you make the machine do that"—that was the kind of thing that they were sharing through their pages. And so, I started by reading the early issues, starting from about '81-3. And the change that happens in 1984-5 is quite striking. You have to

read them attentively to see it, but once you do, it becomes really apparent that there's a break here—a new departure in the way that games are discussed and in the kinds of people that are discussing them.

So once I registered that fact, I drew up a content analysis that was initially just focused on how the magazines talked about, how they described games. What did they mean by a “game,” how did they single games out from this mass of technical paraphernalia and objects? How and when exactly did games begin to become more salient in this world of programs, code and technical protocols? And then what values and criteria did they apply to the games in order to talk to each other about them? I developed a content analysis that counted occurrences of specific ways of talking about and evaluating games programs. This ranged from how “well programmed” they were to attempts to grasp what they “felt like to play” and their quality as games.

So that was the content analysis part. But mostly my analysis was focused on the discursive character of the magazines: the way they present games; the readership they anticipate; their tone and ethos, if you like. I also developed a kind of technical timeline, to see if I could identify correlations of hardware or new technology with the changes I was finding at the discursive and cultural level. There were no correlations like that, in fact. There was no real technological innovation that I could find in that crucial period in the '80s that corresponded to the discursive shift I was seeing in the magazines. So, that's quite satisfying for a non-technical determinist. It seems like there was something in the culture that happened. It wasn't driven by anything. It was associated with some ingenious programming. People working with these little computers who managed to create games that gave people feelings, sensations associated with computer games that hadn't been there before—they had been there, perhaps, in the arcades, but not on the little computers. And that seems to be closely bound up with the cultural change I'm talking about. This effort of programming to create big effects, if you like, on small computers is or was itself part the cultural change I'm describing, rather than its cause. And once the dynamic is established, the two things begin to be mutually reinforcing.

So the research shows that there's a shift in focus in the mid-80s from how well programmed a game is, how well it runs on your computer, how long it takes to start up, what does the documentation look like—these things are really important early on. And then after 1985 it becomes playability. Gameplay becomes a thing. The feel of the game becomes far more important than these technical questions. Whether a game is addictive or not becomes really key to the appraisal of games and central to the way people talk about them. And once that shift has occurred everything else—all the things we tend to think of as “gaming culture”—sort of falls into place. The idea of the “gamer” appears. In the early magazines we have references to kids playing games, but also a lot of discussion directed very much at adults. Then we get reference to “gamesters,” which I think is a sign that the kids are being assigned a more central role in connection with games. And after '85 “gamers” is the dominant term. So, the discursive shift is part of a concrete change, in a sense it produces a concrete change in lived experience—people can self-identify as gamers for the first time.

Methodologically the study is quite genealogical, because I think that what you can see is a completely new way of talking, a new configuration of language from 1985, which exists in connection with these objects and this practice of playing games. For example, you get this phrase “depth of gameplay,” which to someone in 1978 just wouldn't have meant anything. I'm not sure what it means now. But it meant something in the second half of the 1980s because all the magazines talked like that and it made sense to their readers. So there's a web of meaning that was spun around those objects at that time. I'm not sure just when or if it unravels, but if there ever was a time when “gamer” was an identity in the sociological sense, I guess it was then in the late 1980s and early 1990s.

In *The Formation of Gaming Culture*, the discourse also looks at the relationship between this evaluative scheme and wider questions and at how the process of establishing a way of talking about games also involved positioning them in the wider culture. The new identity has to be made “normal” and acceptable. And in the process of establishing these things gamerdom became increasingly exclusive to teenage boys, excluding older people and females.

BN: Your analysis relies primarily on UK magazines, and you seem to emphasise the importance of this British context in providing an alternative perspective to the often-U.S. centric narratives surrounding videogame history. What do you feel that the British context offers in this regard? And is there any scope in your future research for extending this analysis to other countries or regions where the magazine culture has been quite prominent?

GK: That was the original plan. In about 2011, I put together a proposal for an international study, because when I started doing the magazine research, I thought “it can’t only have been Britain.” And what was really interesting was that the computer game is seen very much as a global commodity. I think Stephen Kline, Nick Dyer-Witheford, and Greig de Peuter¹ actually call it the ideal commodity of global capitalism. And, you know, wherever games go, they seem to be the same, they’re part of the technological imaginary—technology is uniform, it’s driving all the changes, it’s bringing the world together in this global unity that it hasn’t experienced before. And, that’s obviously not right. Technology is disparate; it takes different forms in different places, and people do things with it, and people are different in different places and they have different ideas and purposes. So, we can break down that imaginary, and looking at it in detail, we’ll find that it’s actually local uses, local cultures of use that are shaping how people are involved in it. So there’s a history, I thought, that involves moving from local phenomena like magazines, and a local appreciation of things like games, to this situation where digital technology seems to be constitutively global, and games are a global commodity.

I wanted to explore that history and my first idea was to do a comparative study based on gaming magazines around the world. I thought, if I can contribute the UK bit, then I’ll get other people in other countries to do the rest. And so I wrote a proposal based on that, and I circulated it to people who I knew were interested in game history around the world, including Australia. As I mentioned, I’ve also done other work on the history of computing in Eastern and Central Europe, and some of that work had been published. I had contacts approaching me from Poland and other places saying that they were interested in that and that they wanted to collaborate on more of it. So all of that has been going on since about 2007.

I definitely wanted the comparative angle, but one of the things that I found was that in most of these places—a lot of them, anyway—the UK magazines had been there as exports, but there wasn’t anything similar published there until the late 80s, in other words after the break I just talked about had happened. So it seemed as if the British magazines were important outside Britain as well. For example, *Computer & Video Games* magazine reports in one issue that, of their regular 80,000 monthly sales, 2,000 went abroad. And talking to people in Scandinavia and elsewhere, I confirmed that a lot of them showed up there. There were vibrant local cultures of computing, and even locally produced computers (in Poland they had the Meritum and in Australia it was the Microbee, and so on) but people were often reading British magazines, initially at least, to make sense of them.

There was a magazine in the US that ran from October 1981 until 1985, called *Electronic Games*, but it coincided with the crash that affected the games industry there from Christmas 1982. The well-known histories of games generalise that crash onto the whole world, but that’s wrong. Elsewhere in the world this was the time when gaming culture was really born and the US was very much a spectator rather than a player, if I can put it that way.

And in Britain as well, there just seems to have been a lot of these funny little computers. I think I give a number in the book, like 20 of these more-or-less locally produced digital devices, home computers and other gadgets, and that’s an unusual concentration. I don’t really know the reason for that. There was a lot of focus on computers in Britain, around about 1980-81, and I think there was a kind of ideological drive to get people to use computers, which was studied by Les Haddon². So, the answer seems to be that there is something distinctive about Britain in those early years. But I don’t have any nationalistic investments

¹ See Kline, S., Dyer-Witheford, N., and de Peuter, G. (2003). *Digital Play: The Interaction of Technology, Culture and Marketing*. Montréal, Canada: McGill-Queen’s University Press.

² See Haddon, L. (1988). The Home Computer: the making of a consumer electronic. *Science as Culture*, 1(2), 7-51.

in this. In fact, I was as surprised at it as anyone. There seems to have been a lot of writing there about computers and then games.

BN: Drawing on Pierre Bourdieu, you write that the consolidation of gaming’s field was marked by “symbolic violence” to the extent that only those with the “embodied perceptions and skills necessary to play games” were included in the field, while everyone else—most notably women and older people—were aggressively excluded. You suggest that these tensions and formal contradictions still remain unresolved today. So, in your view, how are these tensions expressed today? And do you see any evidence that videogame culture might be outgrowing its formative phase?

GK: I think field is a useful concept to grasp the way that gaming discourse framed the activity and enabled people to make sense of their own experiences. But it can become a bit heavy-handed, a bit insensitive to the way people actually live, and especially to the degree of reflexivity that people apply to themselves and to their own investments in activities, ideas about them, and so on. But nonetheless I do think that we need some way of talking about how cultural practices are framed, so that some aspects of computing were pushed to the fore, while others became less important. One reason we need that is that these processes involve social exclusions of various kinds as well: some people get foregrounded and others are made invisible in relation to a practice.

Recalling what I said previously about habitus, it’s clear that people acquired new dispositions, physical propensities, as they learned about computers and started to play games. The extent to which this change in the way we use our bodies was a reflexive process probably varied. Gaming discourse developed in and through the conversations people had about their activities, we can see this in the letters pages in the magazines, and as it establishes itself it becomes something objective, a structure that people refer to in making sense of their practices.

In places Bourdieu is too structuralist about this, so it seems as if the discourse is all-determining but, as I was saying earlier, I think his later work allows for more nuance, whereby people explore discrepancies between habit, sensation and sense-making possibilities in their language and culture, and this is more realistic. In the magazines we can see a culture in which people familiarise themselves and each other with “gameplay” and so on, but also tease each other and even taunt and insult non-gamers. This is experimental play, if you like, in the space between habituated behaviour and discursive sense-making: it’s the stuff of gaming culture. This activity, though, can take on an aggressive, exclusionary dynamic. In 1985–6 gaming separated from technical hobbyist culture, with articles and letters in the magazines deriding “tech heads” and “board game nerds” for being “too old” or stupid to “get it” about computer games.

In *The Formation of Gaming Culture* I argue that gaming discourse becomes overtly gendered in the course of 1987. I call this the “gendered articulation” of gamer discourse. The authentic gamer is increasingly described in terms that emphasise the masculinity of virtuoso gameplay and gaming is aligned with other youthful “male” pursuits. We can see the effect of this new articulation in things like the disappearance of female journalists from the magazines, the increased salience of objectifying images—usually cartoons—of females and in references to girls as non-gamers, people who do not read the magazine.

So, has that gone away? Well the schema that was superimposed on games and gave us the computer game held this technology—this set of sensations, this habitus, et cetera—held it in place for a certain period of time, and to some extent it still does. And we know that it still does because of gamergate. There are people out there who feel invested in what they see as established gamer values, the gamer identity, and who retain some of the attitudes that circulated in that gaming culture, including the misogyny. So we know it’s still there and for them, presumably, it still serves to tell them what an authentic game is. But the fact that we have had that episode, I think, is already suggestive that something is unravelling.

To return to your question, then, what I think is happening is that bits and pieces of “gameness” are detaching themselves, and they’re kind of floating off into other practices, other areas. And they’re taking on new significance, and doing different things. This is one of my current areas of research: the interaction of games and established arts. To some extent people will still talk about computer games as games, or

game elements. So, in contemporary theatre, we're seeing more and more of this kind of interactive experience that's very game-like. People in theatre—designers, choreographers, and other people—are using game rules to generate experiences and to create experiences that people play with. These things are not computer games—no one thinks they are. But we can discern a connection. And the people making the objects, they all both recognise the connection, and eschew any intent to, or any association with making computer games as such. I think it's that kind of thing that's going to happen more and more.

It's not really gamification, it's more interesting than that. And I think that, actually, the sociology of art, including the ideas that I talked about earlier, I think they're very useful in understanding these developments, since what we're seeing is active objects. We need to trace how they move into different social and cultural domains, and see what kind of work do they do there, what sense they enable people to make with them.

BN: Increasingly, scholars are looking at the way games are entangled with processes of exploitation, gamification, and affective labour, perhaps as a response to the often-celebratory nature of early games scholarship. You contribute to this dialogue in *Computer Games and the Social Imaginary*, where you describe games and gaming practices as symptoms of, for example, the blurred boundaries between work and leisure in neo-liberal society. Your body of work as a whole, however, seems to oscillate between framing videogames as paradigmatic of new developments in the culture industries, while also maintaining the view that games do offer us some semblance of an escape hatch from the totally administered society. How do you reconcile these two perspectives—that, on the one hand, videogames are exemplary of neo-liberal processes of exploitation and “playbour,” while on the other, games are a kind of call to the emancipatory potential of aesthetic experience?

GK: Well, I think games are deeply ambivalent and that's what my analyses try to show. For a long time it was taken for granted that the counter-culture, or bohemia, or the left or whatever you want to call it kind of “owned” play. The “system,” what Adorno called the “totally administered society,”³ embodies seriousness, imposes order and rules, while anti-system elements subvert that with play and fun. But we don't live in the totally administered society anymore, so the analysis has to move forward from that, and it has to acknowledge the way in which play has become part of the psycho-social infrastructure of an exploitative, manipulative social formation.

I've tried to highlight this through my idea of ludefaction. The point is that play is not inherently positive or “natural”; its significance has to be understood relationally. In our context it works for exploitation by aestheticising labour processes and even technological systems. These systems are not “gamified,” they are subject to ludefaction: the energies of play are harnessed through them to service the system. This is one way that immaterial labour eats into our collective capacity for imagining alternatives; it channels our impulses to freedom and tempers our very dreams to serve the interests of power. But notwithstanding this, the imagination still needs play to get going. Play in this sense is about shaking off the world of the “sensible,” the authoritative representation that keeps us from believing the world can be any better, or that any world other than this one is possible. Thinking this through is also very serious, of course, but play makes it happen by separating us from this world and enabling us to look again.

Turning to games, I think this means that we have to assess computer gameplay according to where it leaves us in terms of this political-aesthetic problematic. At the end of a sequence of play does the game leave you wanting to play more? Is it boring but you want to play it more just to complete it? Was it shameful to win? Did it leave you with a sense of wonder? Reflection on the subjective effects of gameplay enables us to position the game, aesthetically speaking. Broadly speaking I would suggest that there are three kinds of outcome, each with its own, specific temporal mode. Two of these are ideological but one of them is more authentic and it's the latter that we should seek in good games.

Sequences of play that result in failure and leave us with a burning desire to attempt them again involve an attitude or belief that things will be better if we just try harder. This is the attitude of the

³ See Adorno, T.W., and Horkheimer, M. (2002). *Dialectic of Enlightenment* (E. Jephcott, Trans.). Stanford, CA: Stanford University Press.

addict. You can see that it's ideological: things will not get better if we carry on as we have in the past, however hard we try. We can see why this is so specifically in connection with games by turning to the second outcome, which corresponds to in-game success, or victory. This also leads to a desire to carry on playing but this time in the guilty, resigned way of the player who has mastered the game and found that, in the process, it has ceased to be that meaningful. Just as with drugs, the experience of taking them doesn't really change anything, it leaves us where we started out but a bit poorer. The compulsive play of the winner also involves a distinctive attitude towards the future, which says that things will not change but we will carry on anyway for want of any other option: the future can only be like the past. This is also ideological in a wider sense because the future will in fact be different, however resigned we may be to things staying the same.

The third subjective disposition that can arise from gameplay is one of inspired reflection, in which we may or may not decide to play again. Here the experience of play is one that raises questions in the mind of the player concerning in particular what the game and its experiences might have been like for other players. I think the encounter with another player in *Journey* (That Game Company, 2012) is emblematic of this kind of experience. When we meet another player in that game we cannot communicate with them in words, only by playing alongside them. We are left not knowing anything about them other than that they were someone who was there too. In that case we must wonder about their experience as well as our own. This attitude creates an authentic opening to the future because thinking along these lines at least raises the possibility that we might collaborate with others and make the world different than it has been in the past and is now. This is authentic because it is true: what we do, in collaboration with others, will make the world different in the future. The only issue is the extent to which we exercise conscious control over that process.

In other words, we need to place games according to how their particular experience of play affects us and how our altered subjective condition positions us in terms of temporal mode, or orientation to time. This is a function of both their formal aesthetic properties and our social and historical context, which is where we started our conversation!

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Benjamin Nicoll is a PhD candidate in the Screen and Cultural Studies department at the University of Melbourne, Australia.

Platform: Journal of Media and Communication
Volume 6.2

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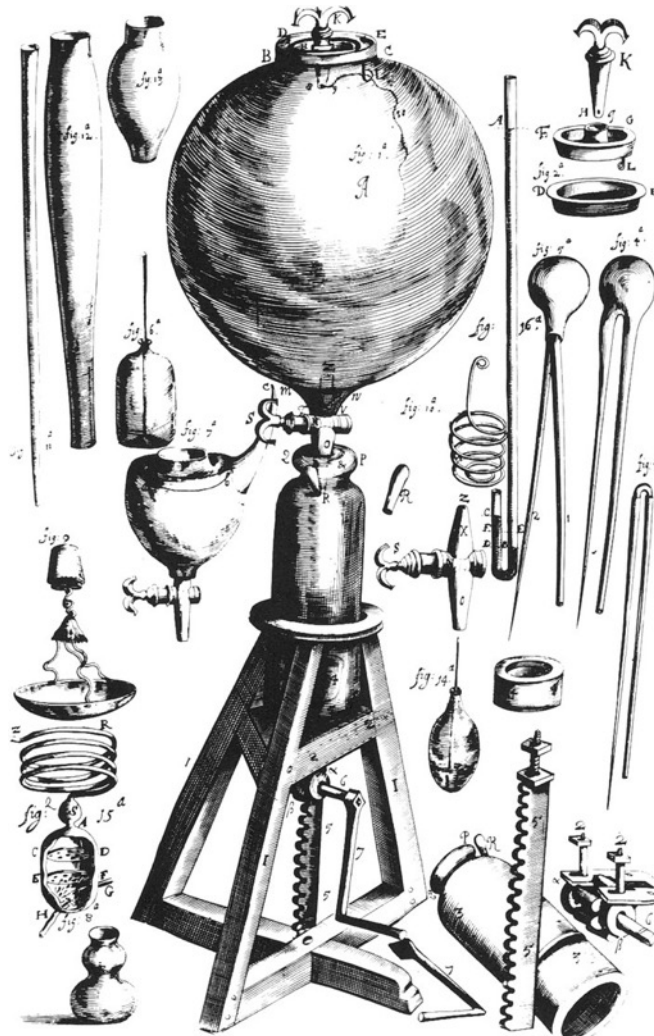
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Volume 6.2 A Manifesto for Cyborgs thirty years on: Gender, technology and feminist-technoscience in the twenty-first century

ISSN 1836-5132

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