

Screening the Posthuman

Disembodied Masculinity in Virtual Reality Films

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Declaration

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Abstract

In science fiction films, cyborgs are often represented as embodiments of a transhuman drive to escape the limitations of the human body. This technologically mediated evolution is a continuation in the extreme of humanist principles such as linear progress, reason, autonomy and the primacy of mind over body. Donna Haraway has registered the possibility that, as a hybrid, the figure of the cyborg could be utilized to revise humanist principles, rather than reiterate them, through posthumanist representation. However, this seems counter-intuitive, as cyborgs in popular culture are known to exaggerate dualist gender ideals rather than subvert them. What is more, the disembodied cyborg that is constituted by human interaction with virtual reality seemingly maintains the mind/body binary rather than challenging it. Through the study of three virtual reality films that construct different kinds of interaction between human and machine, *Brainstorm* (1983), *eXistenZ* (1999) and *Her* (2013), I contend that the representation of the disembodied cyborg collapses the mind/body binary primarily through representations of sex and death, but that the subsequent invocation of associated gender identities reinstates the masculine/feminine binary. I accomplish this through a method of formal analysis of the cinematic representation of the disembodied cyborg and the spaces it moves in. Filmic virtual reality in *Brainstorm* and *Her* resonates with posthumanist concerns, and is discussed in relation to existing poststructuralist paradigms of signification in the works of primarily Roland Barthes, Jean Baudrillard, Jacques Derrida and N. Katherine Hayles. The formally alienating effects of *Brainstorm* are also integrated into a larger framework of film convention. With reference to Donna Haraway, Cary Wolfe and Neil Badmington, I discuss the disembodied cyborg as a posthuman figure in terms of its potential to collapse binaries, specifically those of mind/body and masculine/feminine. In order to appreciate the always-virtual nature of gender, the work of Judith Butler is utilized to explore the ways in which *eXistenZ* displays the fluidity of gender performances in virtual reality. I further argue that the three films accomplish the collapse of the mind/body dualism through the representation of sex and death, and reinstate binarist conceptions of gender performances. In *Brainstorm* and *Her*, desire and eroticism are coded as male undertakings that respond to the passive and objectified female form, whereas in *eXistenZ*, the representation of sexuality is more progressive. Violence, pain and death are also represented as the business of men in *Brainstorm*, while it is represented more playfully in *eXistenZ*. I aim to reveal the ways in which the emphasis on ultimate embodiment in virtual reality films through sex and death reinstates a sex-gender correlation, and thus, for the most part, do not succeed in the collapse of the gender dualism.

Opsomming

In wetenskapsfiksiefilms word kuborg karakters dikwels uitgebeeld as die verpersoonliking van 'n transhumanistiese begeerte om die liggaam se tekortkominge te omseil. Hierdie tegnologiese evolusie kan gesien word as 'n oortreffende voortsetting van humanistiese waardes soos lineêre vooruitgang, rede, selfstandigheid en die voorrang van die verstand bo die liggaam. Donna Haraway skryf dat die kuborg gebruik kan word om humanistiese waardes te hersien eerder as te herhaal, deur die gebruik van posthumanistiese uitbeelding. In die kultuurruim sal kuborge egter dikwels nie dualistiese gendertipering teenwerk nie, maar eerder beklemtoon. Verder blyk dit dat die onbeliggaamde kuborg wat tot bestand kom deur die mens se interaksie met virtuele realiteite die binêre verdeling tussen die verstand en die liggaam onderhou in plaas daarvan om dit te bevraagteken. Met die ondersoek van drie virtuele realiteitsfilms wat verskillende tipes interaksie tussen mens en masjien uitbeeld, *Brainstorm* (1983), *eXistenZ* (1999) en *Her* (2013), redeneer ek dat die onbeliggaamde kuborg die ineenstorting van die binêre verdeling van verstand/licgaam veroorsaak, hoofsaaklik deur uitbeeldings van seks en die dood, maar dat die daaropvolgende aanroeping van geassosieerde gender-identiteite die manlik/vroulik binêre verdeling herroep. My benadering behels 'n formele analise van die uitbeelding van die onbeliggaamde kuborg op film. Die virtuele realiteite in *Brainstorm* en *Her* sluit aan by posthumanisme, en word bespreek in terme van bestaande poststrukuralistiese raamwerke van betekenisvorming soos uiteengesit in die werk van Roland Barthes, Jean Baudrillard, Jacques Derrida en N. Katherine Hayles. Die vervreemdende visuele aard van *Brainstorm* word ook met die breër agtergrond van film konvensie geïntegreer. Met verwysing na Donna Haraway, Cary Wolfe en Neil Badmington bespreek ek die onbeliggaamde kuborg as 'n posthumanistiese figuur in terme van sy potensiaal om binêre verdelings af te takel, veral dié van verstand/licgaam en manlik/vroulik. Die altyd-virtuele aard van gender word met verwysing na die werk van Judith Butler bespreek, en word verder aan die hand van *eXistenZ* gedemonstreer. Verder is my redenasie dat hierdie films die verstand/licgaam verdeling aftakel deur middel van hul uitbeelding van seks en die dood, en binêre gendertipering terselfdetyd herstel. In *Brainstorm* en *Her* word begeerte en erotiek gekodeer as manlike aktiwiteite wat reageer op die passiewe vroulike vorm, waar *eXistenZ* 'n meer progressiewe uitbeelding van seksualiteit aanbied. Geweld, pyn en die dood word ook uitgebeeld as die werk van mans in *Brainstorm*, terwyl dit meer speels uitgebeeld word in *eXistenZ*. My hoofdoel is om die wyses waarop die beklemtoning van ligaamlikheid in virtuele realiteit films deur uitbeeldings van seks en die dood 'n geslag-gender korrelasie herroep en dus nie daarin slaag om die binêre verdeling van gender af te takel nie.

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Introduction

Virtual Reality Films and Disembodied Masculinity

"I can be anywhere and everywhere simultaneously. I'm not tethered to time and space in a way that I would be if I was stuck in a body that's inevitably gonna die." – Samantha (Her 2013)

As early as 1927, Maria, the destructive robotic woman in Fritz Lang's *Metropolis*, wreaked havoc on the city. A humanoid robot – consisting solely of mechanics – Maria introduced more than a century of uncanny filmic representations of human-machine hybrids, and demonstrated the anxieties surrounding the encroachment of technology upon the domain of 'the human'. The rest of the century saw the gradual popularization of a different kind of hybrid that, unlike Maria, does not only resemble the human form but also partly consists of it. The cyborg, or cybernetic organism, is both a human-machine hybrid as well as a techno-organic hybrid. The term was coined by Manfred E. Clynes and Nathan S. Kline to refer to a "man-machine system," and introduced in 1960 at the presentation of their research at the Psycho-physiological Aspects of Space Flight Symposium (Clynes and Kline 29). Cyborgs are different from androids (such as Lang's Maria) in that androids, although human in appearance, are completely artificial and contain no organic matter. Filmic cyborgs can be identified by a roughly humanoid appearance with technological enhancements that are usually quite overt. Iron Man, a human Marvel Comics hero enhanced by a technological exoskeleton that gives him superhuman powers, entered popular culture in 1963, offering a more positive outlook on mechanized bodies, although several of his enemies also improved their bodies through similar means.¹ In the seventies, Darth Vader and Luke Skywalker² demonstrated that cyborgs could be either good or evil.³ The eighties saw the birth of figures such as Robocop, the mercenary Gibson Rickenbacker in *Cyborg* (1989) and The Terminator, which can be considered a cyborg purely on the basis of his human skin and muscle. Notably, in these instances, and despite their artificial bodies and identities, they still look and act like stereotypically masculine characters – their gender identities appear to be inextricably connected to their hypermasculine bodies. The bulging

¹ The figure recently re-entered popular culture with Robert Downey Jr as the title character in *Iron Man* (2008).

² After the cloud city duel in *The Empire Strikes Back* (1980), Luke became a cyborg when he had a robotic arm fitted to replace the one he lost to Darth Vader.

³ However, it could be argued that technology is still represented as an evil influence here, as there seems to be a correlation between the extent to which these characters have been, on the one hand, mechanically transformed or augmented and, on the other hand, morally compromised or corrupted.

muscles and large arrays of weaponry seem not only to imply inherent violence, but also the brave, strong, logical and emotionally restrained masculinities associated with a dualist understanding of gender.

An important question is therefore whether filmic cyborgs that are in some sense removed from the sexed body can also be represented as more progressive in terms of their gender identities. In some ways they are inherently distanced from biological sex, as their bodies might be considered compromised due to their inability to reproduce. In fact, there is little confirmation for the viewer of cyborg films that they have any kind of genitalia; instead, their hypergendered, humanoid appearance invites the projection of a biological sex based on the idea that sex is somehow what causes a particular gender performance. Judith Butler articulates the ambiguous relation between sex and gender in “Imitation and Gender Subordination”:

Although compulsory heterosexuality often presumes that there is first a sex that is expressed through a gender and then through a sexuality, it may now be necessary to fully invert and displace that operation of thought. If a regime of sexuality mandates a compulsory performance of sex, then it may be only through that performance that the binary system of gender and the binary system of sex come to have any intelligibility at all. (134)

Butler’s contention is thus that, like gender, sex is not a permanent assignment to the body, and just as sexuality is not determined by sex, gender is not determined by sex. What is more, as Tisha DeJmanee has argued, Butler also implies that gender and sex are essentially the same thing – they are simultaneously performed (6). Biological sex is as varied in its formulations as gender is, therefore any categorization is an imposition, and the configuration of this imposition is motivated and determined by the subject’s gender performance. Just as the poststructuralists see the fallacy in the idea of present, inherent meaning, Butler views traditional understandings of sex as the assumption of some fixed, biological form of gender. Thus, the fact that gender is not determined by sex does not mean that a gender/sex – or mind/body – binary is in place; it is only through the gender performance that biological sex is assigned. Biological sex is thus always projected onto the gendered body – whether that body be a cyborg’s or not. The focus of my study is to determine the extent to which the illusion of disembodiment facilitates differentiated reconfigurations of sex and gender as well as the extent to which it fails to do so as a result of the emphasis of embodiment. Because the assumption that gender is something determined by an inherently sexed body is still pervasive in Western culture, a thematic focus on the body through representations of sexual desire and death can result in a reinstatement of a binarist conception of masculine/feminine, male/female and the relation between these categories. Therefore, for the purposes of this discussion,

the sex-gender correlation will be referred to as a construction in Western culture without implying that sex and gender are separate categories, or that any such relation exists.

The “disembodied” cyborgs that will be the focus of this study of gender performance can be found in the vast array of films that deal with virtual realities, as characters try in various ways to separate themselves from their corporeal bodies. Through the study of three virtual reality films – Douglas Trumbull’s *Brainstorm* (1983), David Cronenberg’s *eXistenZ* (1999) and Spike Jonze’s *Her* (2013) – I will demonstrate that, although these films in some ways manage to negate the possibility of disembodiment, and therefore problematise the mind/body binary,⁴ they largely remain bound to a binary model in terms of sex-bound gender construction. Specifically through the inclusion of sex and violence, *Brainstorm* and *Her* represent traditional conceptions of masculinity, whereas *eXistenZ* demonstrates, to a limited extent, the possibility that virtual reality films could allow for more differentiated representations of gender identities. This suggests that it is not a necessary truth that the gender binary can only be transcended in popular culture to the extent that the mind can be separated from the body. Film serves as a very useful medium through which to study representations of these masculinities. One obvious reason is that the visual emphasis creates an opportunity for the study of how the body is constructed, deconstructed, fetishized or rejected. More importantly, however, the visual nature of film also plays with the idea of perception, which is doubly affected when the diegesis contains another constructed world within it, thus embedding one perspective within another. With virtual reality, the idea of perception also becomes more intricate not only because different realities can be created by different subjects, subcultures or industries, but also because they articulate “relationships between technologies, bodies and cultural narratives” (Balsamo 459). Due the fact that film itself creates an illusion of reality, the medium adds an interesting layer of complexity to the relation between technology, virtuality and simulation. The representation of virtual reality in film draws attention to the artificiality of both the film as medium and of the digital world, and thereby prompts questions about perspective and the construction of meaning. To emphasize these concerns, cyborgs in virtual reality are often characterised by the use of self-referential techniques such as deadpan acting, a lack or surplus of dramatic effect, anonymous spaces, a restless camera or mise-en-scène. These elements can actively prohibit the suspension of disbelief, and emphasize the simulacral quality of both virtual reality as well as film – the medium to represent it. Within this uncertain environment, the performative nature of gender is similarly foregrounded.

⁴ The theoretical debate around this polarity commenced with Greek thought, was utilized and defended by popular religion, and cemented in modern philosophy by Rene Descartes in the 17th century.

The selected films were chosen primarily because they represent differing degrees of separation from the subjects' physical bodies, a factor that is largely dependent upon the diverse technologies represented in virtual reality films. For example, some characters enter an entirely separate virtual world, whereas others access limited virtual experiences. Due to this complication, a discussion of the filmic representation of disembodied cyborgs as constituted by different kinds of virtual reality must be prefaced by the discussion of the relevant terms, as "virtual reality" and "disembodied" are specialized, contradictory and often contested concepts. As this study focuses on cyborg characters, my consideration of "virtual reality" is limited to worlds and experiences that are facilitated and/or constructed by technology. They are different from strictly audio-visual experiences like film, television and internet media because they engage all the senses; as Scott Bukatman states in *Terminal Identity*, "virtual reality significantly extends the sensory address of existent media to provide an alternate and manipulable space" (182). The word "alternate" here implies that the virtual reality is somehow separate from the agreed upon objective reality. Whether this is because it does not exist in physical space, as in *The Matrix* (1999), or is carefully contained, as in *The Truman Show* (1998), it is usually considered to be kept separate from everyday reality. Virtual realities can therefore be mediated by technologies such as the headgear in *Brainstorm* (1983) and *Strange Days* (1995), or as matrices and games within which characters acquire a new body. These games are often located in cyberspace, a term derived from "cybernetics"⁵ to refer to the collective communicative pathways of computer networks; it is the electronic environment within which communication takes place. The worlds are constructed in binary code and facilitated by digital technology, and are often associated with the internet. If cyberspaces go beyond audio-visual, two-dimensional representation, they can even be considered virtual realities; the matrix in *The Matrix* (1999), for example, is a computer programme that stimulates all the senses and allows for three dimensional movement, and various kinds of embodiment.⁶

By engaging with these virtual worlds, characters are combining and augmenting their organic selves with technology, and are thus reconstituted as digital cyborgs. However, unlike Robocop and the Terminator, their bodies are rejected rather than celebrated, as they attempt to distance themselves from their corporeal lives. Complete disembodiment, however, is an illusion; even pure consciousness would still

⁵ This term is based on the Greek *kybernētēs*, which refers to a pilot or rudder, and was coined by Norbert Wiener in *Cybernetics: Or Control and Communication in the Animal and the Machine* (1948).

⁶ Although two dimensional, sensorily limited cyberspaces such as in *WarGames* (1983) do not constitute virtual realities, it should be noted that, due to the parallels between virtual and cyber worlds, much of the theory surrounding the latter is also applicable to the former.

have to be somehow contained as a single *body* of thought – without the body, there can be no “I.” To dispense of the body is to disperse the subject. The mind/body binary opposition is therefore premised upon the fallacious logic of Cartesian dualism. To talk of “disembodiment” is to invoke a logical impossibility, as in order to speak of something or someone as “disembodied,” one implies that the subject’s consciousness has also dissolved, and therefore “disembodied existence” is an oxymoron. Virtual reality films certainly do not contradict this argument; even the characters in *The Matrix* (1999) rely upon their corporeal bodies’ access to the technology to exist and act within the matrix.

Wherein, then, lies the usefulness of the term? Particularly persistent in cyberpunk films such as *Blade Runner* (1982), *Johnny Mnemonic* (1995) and *The Matrix* (1999), disembodiment is a fantasy epitomized in works that centre on the ambition – or necessity – to abandon or modify the human body with its weaknesses and restrictions in favour of a technologically superior version. The philosophical basis for disembodiment was largely codified by roboticist Hans Moravec. At a 1997 conference in Bonn, Germany, Moravec stated that human beings would one day “cease to be defined by their physical geographic boundaries, but will establish, extend, and defend identities as informational transactions in cyberspace” (283). Disembodiment, then, is more a case of re-embodiment, in which a person trades one body – or kind of body – for another. In order for the character to be a cyborg, this re-embodiment has to occur with the aid of technology. In fiction, technology usually either creates⁷ or mediates⁸ this new body. However, this is also the case for what we consider to be “embodied” cyborgs, such as Robocop and The Terminator. The difference between embodied and disembodied cyborgs therefore lies in the fact that, for the disembodied cyborg, the new body is reconstituted within a world constructed by technology that does not exist in physical space. This is why the chosen films all deal, in different ways, with virtual realities, as these are alternate realities within which characters are reconstituted with the aid of technology. For the purposes of discussion, this kind of character will be referred to as a disembodied cyborg; however, the logical impossibility of the term is not thereby denied.

For the past two decades, disembodiment has enjoyed much theoretical attention as part of the discourse of posthumanism. Although this field of study will be engaged in depth in the second chapter, it should be noted here that “posthuman,” “posthumanist” and “posthumanism” are contested terms due to the

⁷ An example of this is *The Lawnmower Man* (1992), in which the character Jobe’s corporeal body disintegrates and he continues to exist solely in cyberspace, independently of his “original” body.

⁸ In these films, the cyborg’s physical body has to remain intact in order to interface with the technology that reconstitutes them within a virtual plane of existence. Examples include *The Matrix* (1999), *The Thirteenth Floor* (1999) and *eXistenZ* (1999).

fact that their relationships to “human,” “humanist” and “humanism” are interpreted differently. In order to avoid ambiguity in the discussions that precede the second chapter, Cary Wolfe’s distinction between “posthumanism” and “transhumanism” in *What is Posthumanism?* (2010) will be utilized. Representations of beings that somehow transcend humanness – in the sense of exceeding its limits – do so through the radical linear development of the humanist subject, and are considered to be transhumanist. It is partly on the basis of this relation between transhumanism and humanism that transhuman cyborgs are assumed to be able to separate their minds from their bodies and exist as pure intellect. Posthumanism, however, aims to critique humanism; humanist ideals such as the primacy of reason and intellect are subverted in posthumanist cyborg films by an emphasis on the ultimate inescapability of the human body. The discussion of posthumanism for the purposes of this study will be informed primarily by the work of Wolfe, Neil Badmington’s *Posthumanism*, and N. Katherine Hayles’ *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (2008). The latter text is particularly useful in its focus on disembodiment as an illusion constituted by the power of simulations and the technologies that produce them (47).

One of the inaugural voices of the discussion between posthumanism, cyborg studies and gender studies has been that of Donna Haraway, who observed that the technology of the late twentieth century has rendered porous the boundaries between established binary oppositions such as “natural and artificial, mind and body, self-developing and externally designed” (437). Modern technology such as smartphones, tablets and laptops create human-machine systems that have transformed earlier conceptions of what a cyborg looks like. According to Haraway, modern machines are “all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum,” which is why the cyborgs constructed by them are “ether, quintessence” (438). The potential that cyborg technology’s essentially hybridizing function has for facilitating the collapse of binary oppositions associated with the body is extended by Haraway to sex and gender, as they “might consider more seriously the partial, fluid, sometimes aspect of sex and sexual embodiment” (462). However, as noted, popular representations of the cyborg have proved that it not only has the potential to collapse existing binaries, but also the tendency to reinforce them. Humanoid computers, virtual selves that largely exist independently of physical bodies and humans that have been bodily or mentally enhanced by technology all present different challenges to the relationship between mind and body, but ultimately even representations that appear to be optimistic about the possibility of disembodiment often emphasize its impossibility in accidental or covert ways. Violent, sensual and sexual behaviour remains prioritized in these kinds of

characters and often reify traditionally masculine gender identities, and when there is a digitally reconstructed body, it is designed as overtly “masculine.” The characters become cyborgs through their interaction with technology in order to access virtual experiences, yet the kinds of experiences they live are sensory in focus, and therefore gestures back towards the embodied life they seek to escape.

As noted earlier, there are various ways in which to interact with virtual reality and be reconstituted as a disembodied cyborg, and the films in question were chosen to account for three different categories of technological interaction with the body. To define the parameters of these, I will make use of Rocío Carrasco’s categorization in her 2014 article “(Re)defining the Gendered Body in Cyberspace: The Virtual Reality Film”:

Depending on the degree of (dis)embodiment, the human body can be penetrated by technology, be experienced as a digital construction, or, in a more radical way, be considered as a mere illusion bound to dissolution. The representation of these bodily configurations—which will be referred to here as “the penetrated body”, “the cyber-body”, and “the simulated body” – has become very popular within Sci-Fi over the last 10 or 15 years. These three models tend to coexist in time, echoing current anxieties about the human body in cyberspace. (39)

The “first level” that Carrasco identifies as “the penetrated body,” involves a “moderate” fusion between the natural human body and technology “by means of implants, prostheses or other forms of technology that function as bodily extensions” (39). As examples of these kinds of films, Carrasco offers *Johnny Mnemonic* (1995), *Strange Days* (1995), *The Lawnmower Man* (1992),⁹ and *Hackers* (1995) (40). More recent examples of “the penetrated body” include *Extracted* (2012), *Inception* (2010), *The Cell* (2000) and *Sleep Dealer* (2008). The film that I chose for this level of integration between body and machine is *Brainstorm* (1983), as the film not only engages closely with the ways in which sex and violence are dominant themes in virtual realities, but also with the question of perspective. The film’s formal construction demonstrates that meaning is never present or contained, but continually created on the surface of the text, and this facilitates the discussion of differentiated gender identities that are not normatively constructed, but continually performed.

In *Brainstorm*, Michael Brace (Christopher Walken) and his colleague Lillian Reynolds (Louise Fletcher) invent a technological interface that can transmit sensory impressions, and even record such experiences for playback. Their technology develops up to the point that it can record feelings and thoughts – a

⁹ The nature of the character’s engagement with the virtual reality technology changes throughout the film; it initially conforms to Carrasco’s categorization, but eventually the character is completely subsumed by the digital world.

breakthrough that also happens to facilitate Brace's reunion with his estranged wife, Karen Brace (Natalie Wood). Things take a sinister turn when Lillian dies of a heart attack in the laboratory, and uses the new technology to record the experience. Determined to see his friend's final moments, Brace accesses the reel, but during playback he starts to die himself. He modifies the technology to bypass his heart and breathing, but is prevented from experiencing the whole reel by his boss Alex Terson (Cliff Robertson) and the military, which funds the project. Michael spends the rest of the film both trying to access this death experience and thwarting the efforts of his company to militarize his invention. He finally succeeds in both his aims, although his experience of death is quite dreary, and he certainly did not damage the military project to any permanent extent. *Brainstorm* is important in this category of virtual reality films due to its failures as well as its triumphs. Whereas the deadpan acting, minimal character development and chemistry and anti-climactic virtual reality sequences could have served to alienate and irritate the audience – in fact, reviews from 1983 state that this was the case¹⁰ – these antagonizing aspects of the film raise interesting questions around representation and virtual reality as well as the effects of these on the identity construction of the experiencing subject.

Carrasco's second level of virtual embodiment is "the cyber-body," which is constructed when "[c]haracters jack into cyberspace and, as a consequence of this interface, [...] are able to adopt different personalities and sexes, and/or perform different gender identities" (41). For examples of these films, Carrasco lists *The 13th Floor* (1999), *eXistenZ* (1999), *Nirvana* (1997), *Virtuosity* (1995), *Avatar* (2009), and *Tron Legacy* (2010), as the characters in these films visibly acquire new bodies within the virtual contexts and attempt to construct new identities "in the face of hybridity, ambivalence, and contradiction" (41). In *eXistenZ*, the characters are disembodied cyborgs for arguably the entire film, as their new bodies are digitally rendered by the game. Despite being facilitated by a technological escape from the body, the virtual experiences, due to their largely violent and/or sexual undertones, emphasize rather than deny or suppress the characters' embodied states. The organising principle of the narrative is the game "eXistenZ," invented by the protagonist Allegra Geller (Jennifer Jason Leigh), yet at the end of the film it emerges that what was presented as the ordinary world was also simulated as part of yet another game called TransCendenZ. The perceived separation between the objective world and the virtual world was only a separation between two virtual worlds, as eXistenZ took place within TransCendenZ. It is also unclear

¹⁰ See Corliss, Richard and Schickel, Richard. "Raking up the Autumn Leavings: Seven Films for Fall, from Bond to Beyond." *Time* 122.17 (1983): 101-104 and Ebert, Roger. "Brainstorm." *Rogerebert.com*. 30 September 1983. Online. 21 June 2015. <<http://www.rogerebert.com/reviews/brainstorm-1983>>

whether the objective world presented at the very end is not just a third level of simulation. In the TransCendenZ level of the game, Allegra and Ted Pikul (Jude Law) work together in an attempt to stop an unknown assassin from destroying both her and eXistenZ. What further makes this film an interesting object of study is its organic gaming system that gives access to the eXistenZ virtual reality through a bio-port installed into the player's spine. Through this concept, as well as interestingly organic and humanoid props and sets, the film draws attention to questions of embodiment and identity on virtual reality planes. The relation between reality and representation is also introduced not only by the uncertainty created by the formulaic dialogue, awkward acting and unrealistically extravagant sets both within and outside eXistenZ, but by the presence of a political group within the film that calls themselves "realists" and oppose the deforming of reality by virtual reality games. Lastly, the film's underlying themes of sex and violence also serve to emphasize the characters' ultimate embodiment.

The final level of integration, according to Carrasco, is "the simulated body," in which "the digital world offers opportunities for challenging the materiality of the characters' bodies" (43). Carrasco states that, in these contexts, the body becomes a simulacrum that "collapses into the mediated to the point where the real turns out to be a simulation, a mere illusion" (43). These mediated, ephemeral bodies are rendered thus by the influence of hypermedia in that the division between reality and simulation is indistinguishable (43). For Carrasco, films such as *Dark City* (1998), *Fight Club* (1999), *The Matrix* (1999) and *Vanilla Sky* (2001) belong to this categorization due to the fact that they represent the body as having a "fluid interaction" with the virtual as a result of the viewer's inability to distinguish between simulation and reality (44). However, for the purposes of my discussion, *Vanilla Sky*, *Fight Club* and *Dark City* are irrelevant as they do not concern disembodied cyborgs, and their virtual realities are not digitally mediated. As for *The Matrix* (1999), it functions better as part of the previous categorization, because although the characters' physical bodies are weak and neglected, they still use them to access virtual reality so as to be reconstituted within the virtual world. In fact, Carrasco's characterization of these films as simulacral seems to overlook the fact that these worlds do not mask the absence of an original. The only difference between the films she lists in this category and those in the second category is a psychological one, as the third category characters are initially unaware of the virtuality of their worlds. I would like to modify Carrasco's third category to contain films that do play with simulacral representation. In films like *S1mone* (2005), *Her* (2013) and *Transcendence* (2014), the digitally mediated virtual world – which has no original in the objective world – is so pervasive that the physical world and the bodies within it become permeated with and/or rejected in favour of it. In *Her*, Theodore Twombly, a lonely man played

by Joaquin Phoenix, falls in love with his operating system Samantha, voiced by Scarlett Johansson. Theodore is employed as a writer that dictates to his computer personal letters in the name of those who cannot. When he acquires a new operating system with a voice that implies femininity, he is already accustomed to speaking intimately to a machine, and he develops a romantic relationship with her. Samantha becomes the ideal woman who is always available and undemanding, and presents Theodore with none of the challenges his volatile estranged wife (Rooney Mara) did. The characterization in *Her* also makes the real people seem more artificial than Samantha. Eventually, however, the fact that Samantha is purely virtual presents a problem, as they both long for physical intimacy. Samantha's suggestion of a sex surrogate (Portia Doubleday) does not solve the problem, as Theodore is overwhelmed by the surreal experience. Eventually, Samantha stops trying to compensate for her disembodied state and starts to embrace her digital existence. She breaks up with Theodore, saying she plans to go and exist with the other operating systems on a different plane. Theodore is hurt by the experience, but seems to have an enhanced capacity for intimacy after his relationship with her. *Her* serves as the most useful example in this category of virtuality because it deals with questions of how identity is created and maintained, and the cinematic representation draws attention to the fact that the boundary between the virtual and objective worlds is a porous one. This is accomplished in similar ways to *Brainstorm* in that the mise-en-scène is replete with reflective and transparent surfaces, and people are contained within frames that separate them from one another.

Theodore actively tries to "virtualize" his physical environment in order to facilitate his relationship with Samantha. The three-dimensionality of this particular digital environment is therefore to some degree manifested in physical space, but because it simultaneously exists in cyberspace, it does not exclude the film from this study. For the category of "the simulated body" I will therefore continue my argument with the use of Carrasco's claim that in these films "the digital world offers opportunities for challenging the materiality of the characters' bodies" (43), but it takes on a different meaning in my application, as will become clear in Chapter One. As for Carrasco's statement that "the real turns out to be a simulation, a mere illusion" (44), I would like to modify it slightly to say that "the real [becomes] a simulation" itself, thereby collapsing the distinction from a different direction. This modification both creates a greater difference between "the penetrated body" and "the simulated body," and allows for a wider scope of engagement with the matter of the real/simulated binary and Jean Baudrillard's theory of simulacra.

Although studies like Carrasco's engage with the intricacies of cyborg existence in sophisticated and interesting ways, little attention has been paid to cyborg films on a formal level. Mostly in the field of

philosophy, the revolutionary potential of posthuman, transhuman and cyborg figures has been used in interesting ways in feminist,¹¹ ecocritical¹² and queer¹³ projects. The reason for this is that the existing hierarchies and seemingly stable categories of the everyday world serve the interests of a very small group of people (Halberstam 474). When these systems are threatened or subverted by a figure such as the cyborg, which has the potential to render the boundaries porous, it becomes apparent who stands most to gain from the preservation of stable categories and will experience a loss of power, or even a loss of self in the face of instability, and who will benefit from this destabilization and decentering of identity (474). In this field, Haraway's "A Cyborg Manifesto" remains indispensable, not solely for its examination of the political potential of the cyborg to collapse binary oppositions and thus provide agency to identities marginalized by such hierarchical structures, but also for the body of work engendered in response to the article. In a range of texts, Haraway's statements regarding the cyborg's potential has been put to the test through application and argumentation, and have been considered implausible. An example of this kind of work is Neil Badmington's "Posthumanist (Com)Promises: Diffracting Donna Haraway's Cyborg through Marge Piercy's *Body of Glass*."¹⁴ Whereas Haraway argues that humanism could be revised by a figure such as the cyborg, which moves us "from the comfortable *old* hierarchical dominations to the scary *new* networks" (Badmington 86, emphasis in original), Badmington claims that humanism itself can never quite be dismissed as a thing of the past. A number of other texts¹⁵ use the "Cyborg Manifesto" in a similar manner to serve as a point of departure from which to engage with the question of posthumanism and/or the figure of the cyborg and its ideological and representational functions.

A branch of cyborg studies that has developed as an investigation of its ideological potential is the study of the implications of the figure for traditional understandings of sex, gender and sexuality. In cyborg studies that focus on gender, emphasis is often placed on the portrayal of women in virtual worlds as

¹¹ See Lavigne, C. *Cyberpunk Women, Feminism and Science Fiction: A Critical Study*. Jefferson: McFarland, 2013 and Wolmark, J. *Cybersexualities: a reader on feminist theory cyborgs and cyberspace*. Edinburgh UP, 1999.

¹² See Wolfe, C. *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory*. Chicago: University of Chicago Press, 2003.

¹³ See Griggers, C "Phantom and Reel Projections: Lesbians and the (Serial) Killing-Machine." In *Posthuman Bodies*, edited by J Halberstam and I Livingston. Indiana UP, 1995 and MacCormack, P. "Queer Posthumanism: Cyborgs, Animals, Monsters, Perverts." In *The Ashgate Research Companion to Queer Theory*, edited by N. Giffney and M. O'Rourke. Surrey: Ashgate, 2009.

¹⁴ In Badmington, N. (ed.) *Posthumanism*. New York: Palgrave, 2000.

¹⁵ For examples, see: Paula Rabinowitz: *Soft Fictions and Intimate Documents: Can Feminism be Posthuman?* In Halberstam, J and Livingston, I. (eds) *Posthuman Bodies*. Indiana University Press, 1995 and Carrasco, R.C. *Interrogating the posthuman in U.S. Science Fiction Films*. In Castro-Borrego, S.P. Romero-Ruiz, M.I. *Identities on the Move: Contemporary Representations of New Sexualities and Gender Identities*. London: Lexington Books, 2015.

hyperfeminine and sexualized, and cyborg men as hypermasculine, virile and violent. Theorists such as Sherry Turkle and Judith Halberstam have paid special attention to the ways in which gender identities can be reconstructed at will in the absence of a body, and the implications that these practices have for existing understandings of identity and sexuality. There have also been studies assessing the theoretical potential of the cyborg in terms of opening up a more diversified understanding of gender, such as that of Sadie Plant, Claudia Springer, Samantha Holland, Anne Balsamo, Melanie Chan and Rocío Carrasco.¹⁶ Springer has paid some attention to the masculine and its representation in cyborg films. For Springer, even after the determinant of sex-bound gender construction – the body – is destroyed, masculinity is recreated in an artificial manner to exaggerate the masculine attributes that the organic body had, thereby suggesting that “there is an essential masculinity that transcends bodily presence” (494). Whether consciousness and identity are completely severed from the body remains uncertain, as popular representations of the cyborg still place emphasis on physical appearance in order to identify the cyborg as male. This dependency on the body is also clear from the subject’s violent, gustatory and often virile behaviour. Thus, the question of the locus of gender and identity remains a paradox within even this traditional, physical cyborg, as primacy is supposedly given to the mind as the determining factor, yet at the same time the body is emphasized by behaviours that are considered to signify overt masculinity within the traditional binary. Here the medium of film is also a complicating factor, as the status of the filmed body is already ambiguous due its iconic relation to the body of the actor.

Although these studies usually do not engage with the films formally, some do so to a limited extent. In “Descartes Goes to Hollywood: Mind, Body and Gender,” Samantha Holland conducts a study of the *Terminator* series as well as the first two *Robocop* films and *Eve of Destruction* (1991). Her focus is on film as a subcategory of cyborg literature in general, but she nevertheless conducts a thorough formal study that has provided me with a useful methodological example, and introduces vital questions about cyborgism and gender. The difference between her focus and my own is the kind of cyborg, as her work concerns the fully embodied type rather than those that appear in virtual worlds. Joshua Bellin’s *Framing Monsters: Fantasy Film and Social Alienation* also conducts critically informed formal studies of science fiction films, and contains a section on cyborg films that focuses on the cyborg as a figure that subverts social hierarchy and control. However, due to the fact that it is a rather short section spanning several topics and films, it is not as comprehensive a study, and thus also neglects the digital cyborg. A final film

¹⁶ It should be noted that, although it does not have direct bearing on the specific subjects discussed here, the work of Laura Mulvey has been indispensable in the development of gender studies in film.

scholar deserving mention for her contributions to the study of this field is Christine Cornea, who authored *Science Fiction Cinema: Between Fantasy and Reality* (2007) as well as “Figurations of the Cyborg in Contemporary Science Fiction Novels and Films” (2008). The latter text discusses a wide range of films, and although it is still formally interesting, the focus is on identifying and categorizing various kinds of cyborg states and their implications. In *Science Fiction Cinema*, Cornea’s focus is thoroughly film-oriented and makes formal study the priority, yet she simultaneously also utilizes a sophisticated theoretical foundation to conduct her analyses. The primary focus of the text is the discussion of various approaches to the genre, and the representation of identity is explored alongside formal analyses. However, the depth of engagement with film is constrained by the scope of the text, and cyborg masculinity is not addressed other than in the usual look at the physical cyborg of the 1980s. It is clear that, although science fiction and cyborg films have received theoretically informed formal attention, the focus usually remains on cyborg theory and its political implications rather than the analysis of emergent forms of representation that engage with these questions of identity construction and simulation. In studies that are concerned with cyborg films formally as well as critically, the physical, Schwarzeneggeresque figure remains the focus of studies that centre on masculinity. The digital cyborg as a virtual figure therefore requires further study and investigation in a manner that does not simply use it as a vehicle for philosophical discussion, but investigates the solutions that the world of film has generated to engage with this complex challenge of representation.

The three studies that most closely resemble my own are Susan Shabot’s “Grotesque Bodies: A Response to Disembodied Cyborgs” (2006), Melanie Chan’s *Virtual Reality: Representations in Contemporary Media* (2013) and Carrasco’s “(Re)defining the Gendered Body in Cyberspace: The Virtual Reality Film” (2014). According to Shabot, the flight from embodiment is a result of the “reinforcement of traditional categories of gender” (224), as it offers an avenue of escape from sex-bound gender constructions, and the ideological structures that maintain them. My argument is not that the desire for disembodiment is motivated by the rigidity of binary gender systems. I contend that the cinematic emphasis of the ultimate embodiment of the characters through representations of sex and death tends to inadvertently reinstate a gender binary by correlating the sexed body with gender identity. Masculine and feminine are therefore reinforced by male and female. Although these arguments are not mutually exclusive, there is a shift in emphasis from the gender politics entrenched within social structures and their effects on the representation of cyborgs, to a focus on the representation of cyborgs and the implications that the disembodied subtype hold for the characters’ gender identities. Thus where the focus of Shabot is the socio-political, mine is filmic representation. Chan, on the other hand, focuses primarily on films between

1980 and 1990, and studies them on a formal level in order to discuss how they represent ideas of embodiment. However, her key concern is a contribution to the philosophical debate around embodiment and virtual reality rather than film studies. Carrasco places emphasis on formal representation, but does not conduct a full film study either as she engages only briefly with each of the several films in her study, ranging from the *Terminator* series to *The Matrix* (1999). What makes this study different from the endeavours of Chan and Carrasco respectively is the focus on the filmic rendering of perspective and its relation to posthumanist gender performance and embodiment. Furthermore, the study focuses only on the digital cyborg and ways in which the illusion of disembodiment plays a role in the construction of masculinity in the sense that it provides distance from biological sex as a determining factor. Because the virtual body we perceive is gendered but not necessarily considered sexed, the fact that gender is not determined by sex becomes more apparent, especially in light of the fact that present meaning itself is critiqued by the films. The destabilization of meaning adds another level of critique to the collapse of the gender binary with the study of the roles of both film and virtual reality as forms of representation that construct identities. As communication technology is as effective at deconstructing and reconstructing the body as biotechnology is, the body and reality itself are translated “into a problem of coding, a search for a common language in which all resistance to instrumental control disappears and all heterogeneity can be submitted to disassembly, reassembly, investment, and exchange” (Haraway 447). For this reason, the construction of masculine identity is also tied to a question of perception and the construction of meaning.

Another unique feature of my study is the focus on sex and death as ways in which the ultimate impossibility of disembodiment is represented within virtual reality films. This reading is informed by Sadie Plant’s “Coming Across the Future,” which frames the digital world as a medium through which to reject the body through practices that operate with similar logic to sexual sado-masochism. The point of departure for the section of the study that centres on sex and desire is the pleasure of connection to a network, which will be discussed with reference to primarily Springer’s “The Pleasure of the Interface.” The focus will be on the ways in which filmic representations of virtual sex demonstrate the impossibility of disembodiment, and through this could also undermine the digital cyborg’s theoretical potential to transcend or redefine binary conceptions of gender. Examining the roles that these sexual practices play in establishing a virtual, disembodied masculinity will be the primary aim of these discussions. The film analyses for which these theories will be introduced will centre on *Brainstorm*, *eXistenZ* and *Her*. For the discussion of death and violence, the formal analyses will be conducted with reference to *Brainstorm* and *eXistenZ*. Just as the virtual world offers supposedly risk-free sexual experiences, electronic identity also

holds the promise of immortality, as disembodied existence is traditionally associated with the afterlife. Yet, just like traditional immortality, this reconfiguration results in a death of its own, as entering the digital world also necessitates to a large extent a rejected or suppressed body and a departure from the physical world – features that also signify the end of mortal life.

The study will be conducted in four chapters, entitled “The Virtual Screen: Perspective and Cinematography” in chapter one, “No Borders or New Borders: Existence Post-Hierarchy?” in chapter two, “Tethered to Bodily Pleasure: Virtual Intimacy, Desire and Eroticism” in chapter three and “The Immortality of Electric Existence: Virtual Reality and Death” in chapter four. The first chapter explores how the representation of virtuality in *Brainstorm* and *Her* blurs the distinction between simulation and reality, with particular emphasis on formal alienation as a revolt against cinematic realism. Andre Bazin’s conception of classical realist cinema in the 1968 text *What is Cinema?* and Bertolt Brecht’s work in terms of formal reflexivity will be adapted to a study of metacinema with the aid of Keith M. Griffiths’ *The Brechtian Aspect of Radical Cinema* (1981). This will be discussed with emphasis on cinematography and mise-en-scène. Perspective is also a vital theme here, as the virtual world is often to some extent controlled and modified by the expressive function and spatial projection of the subject’s mind. The intertextual references to Romantic art in *Her* and the use of linear perspective in *Brainstorm* are used to discuss the revision of humanist subjectivity, and the possibility of posthumanist representation. Perspective will be discussed with the aid of Victor Burgin’s 1987 text “Geometry and Abjection.” These inquiries engender questions about the ways in which film can function as self-aware, as it is another layer of simulated reality that further complicates the representation of the subject matter. Lastly, with the use of Baudrillard’s “The Precession of Simulacra” and “The Orders of Simulacra” simulation and representation itself is examined, with emphasis on the potential for slippage created in the absence of clear boundaries between reality and illusion. This will result in the critique of present meaning and the humanist subject as author-god with the use of Roland Barthes’ “The Death of The Author,” Jacques Derrida’s “Différance” and Walter Benjamin’s “The Work of Art in the Age of Mechanical Reproduction.”

As the first chapter introduces the question of meaning and its negotiation in these films, the subversion of traditional systems of signification and categorization is extended in the second chapter to specific hierarchies embedded in social structures. The primary focus here is on the film *eXistenZ*, and the way in which the digital cyborgs in the film manage to perform differentiated gender identities. This will be facilitated by a discussion of Haraway’s cyborg figure, which represents the potential to move beyond binarisms and collapse hierarchies, thereby benefiting formerly marginalized identities. This study

commences with a delineation of what comprises posthumanism and the related concept of transhumanism, with particular reference to Badmington and Wolfe. The discussion then shifts to the ways in which film represents the cyborg as a posthumanist figure that combines human and machine, and the implications this renegotiation of the polarity has for gender construction. The disembodied cyborg as a separate category is discussed by Shabot in “Grotesque Bodies: A Response to Disembodied Cyborgs” (2006) in terms of gender identity, which makes it indispensable to a study of digital masculinities. Judith Butler’s theory of the performativity of gender as presented in “Bodily Inscriptions, Performative Subversions” will be utilized to discuss how *eXistenZ* interrogates these binaries and their modification within virtual worlds.

The extent to which the representation of sexuality and desire as discourses that concern the body in *Brainstorm*, *eXistenZ* and *Her* serve to re-establish traditional conceptions of masculinity will be discussed in the third chapter. The link between gender and cyborg sexuality is discussed with the use of Samantha Holland’s “Descartes Goes to Hollywood: Mind, Body, and Gender in Contemporary Cyborg Cinema,” after which the pleasure of connection as discussed by Claudia Springer in “The Pleasure of the Interface” and Deleuze and Guattari in *Anti-Oedipus* serve as points of departure. The other important texts here are Michael Heim’s “The Erotic Ontology of Cyberspace,” Sadie Plant’s “Coming Across the Future: The Virtual Body in Cyberspace” and Shabot’s work on the disembodied cyborg, as these map the effects of exposure to virtual sex on the performance of gender and the dissolution of the mind/body binary. The primary focus of the chapter is reading the representation of male and female bodies in order to determine how traditional gender performances are maintained in the cases of *Brainstorm* and *Her*, and, to an extent, subverted in *eXistenZ*.

The final chapter commences with a discussion of the intersectionality between sex and death with the aid of Michel Foucault’s *The Order of Things* as well as Springer’s “The Pleasure of the Interface,” followed by an exploration of the ways in which cyborg fiction adopts these themes. Cyborg existence as an escape from pain and death is explored with the use of Shabot and Bukatman. The study of *Brainstorm* centres on its representation of pain, and the ways in which it implies embodiment, with reference to “Pain and Subjectivity in Virtual Reality” by Diane Gromala. Pain and violence in *Brainstorm* are primarily related to the construction of a stereotypical war-mongering masculinity, but also serves to highlight the courage of Brace as the scientist who braves the frontier of death. *eXistenZ* is studied specifically in terms of violent actions and games in virtual reality, and how this affects its representations of gender, with reference to Sherry Turkle’s *Life on the Screen: Identity in the Age of the Internet*. Allegra and Pikul alternate between

violent and passive identities, and this oscillation is inextricably bound with the performance of their gender identities.

One

The Virtual Screen: Perspective and Cinematography

“You’ve blown communication, as we know it, right out of the water!”
— Alex (*Brainstorm* 1983)

In one of many scathing reviews of Douglas Trumbull’s *Brainstorm* (1983) that appeared in the year of the film’s release, *Time*’s Richard Schickel proclaims that it “bears no sign of a highly mobilized imagination at work” (171). His primary objections to Trumbull’s latest work are chorused by practically every response to the film: the acting is terrible, the plot is woeful, and there is an overall lack of suspense and intrigue. What is more, *Brainstorm* simply does not live up to Trumbull’s special effects reputation, carefully garnered through his triumphs in the creation of other alternative realities in films like *2001: A Space Odyssey* (1968), *Close Encounters of the Third Kind* (1977) and (half of) *Blade Runner* (1982). As *Brainstorm* tells the story of the development of exciting new technology that facilitates the reliving of others’ experiences and feelings, the audience expects from Trumbull the most captivating of solutions for representing virtual reality in film. However, the film’s emphasis on virtual reality and the logic of representation results in a neglect of narrative and character development, and arguably, the marketing of a virtual reality film creates expectations in an audience that can only be satisfied by an encounter with the technology itself. This is what Trumbull could not deliver; instead, he wrestled with the conventions of filmic representation to mimic the experience as best he could with the medium at hand. In the virtual reality sequences of the film, Trumbull adjusts the visual style to suggest the shift in perception. Probably the most obvious of these is the transition from an objective to a subjective point of view, and the fact that the aspect ratio is 1.7 to 1 in the standard 35 mm format in the majority of the shots, but switches to 2.2:1 in 70 mm for the virtual reality sequences.¹⁷ These signifiers of virtuality are demonstrated in, for example, the virtual racing sequence represented by Figure 1. In an interview with Stephen Farber, Trumbull claimed that his reason for making the subjective, point of view shots the more vivid and defined images was “to make the material of the mind even more real and more high impact than ‘reality’” (Farber 80). Whilst certainly an exciting idea, this statement does contain a telling contradiction: Trumbull suggests that an increased level of sensory stimulation would make the sequence both more real and more artificial. How can a representation be more real than reality? And how can it be both more real and

¹⁷ This was the cheaper alternative to Trumbull’s original plan, which was to produce the film in a high-speed 70mm cinematographic and projection format that created the illusion of three-dimensionality. This technique of Trumbull’s own design is called “Showscan” and would at the time have required the construction of new theatres (Farber 79).

more sensational? The first question can be answered with reference to the term ‘hyperreality’ – that which Baudrillard calls the “hallucinatory resemblance of the real with itself” (143). This will be discussed at a later stage. The second question, however, presents a more complex challenge. Trumbull’s aim was to work against the filmic tradition of creating blurry, foggy point of view sequences in order to signify mental events such as flashbacks, dreams or thoughts. He wanted to present the artificial – in this case, technologically mediated brain activity – as more exciting than the sensory experience induced by the objective world. Aside from the change in aspect ratio, his virtual reality sequences are further enhanced by a change to natural lighting, a destabilized camera that mimics the movement of the experiencing subject’s body, and a wide angle lens that creates the effect of a greater scope of vision and deeper insertion into the experience. In the theatres where it was possible, the sound would also switch to stereo format for the virtual reality sequences to mimic an enhanced level of auditory perception. Finally, many of these shots are composed to include a significant portion of the recording subject’s body (Fig. 1), which simulates the experience of being inside another person’s head. In order to answer the question at hand, one must determine whether these sequences produce an effect of the real, or of an artificially mediated sensationalism.



Figure 1: Virtual car race (Trumbull 1983)

As a point of departure, a closely related question is how it could happen that the special effects mogul of the era, armed with exciting new technology¹⁸ and an \$18 million budget, could please neither the public nor the critics with *Brainstorm*. There are two primary causes of this failure, the first of which is that no matter how enhanced the audiovisual aspects of a film are, they remain audiovisual. What

¹⁸ Six-track stereophonic sound and Super Panavision 70mm prints. At the time, the film had just eclipsed *Return of the Jedi* (1983) as the US production with the most 70mm prints.

distinguishes virtual reality as a new dimension of representation is that can be empirically experienced also on the olfactory, tactile and gustatory plains. Furthermore, whereas filmic communication flows in one direction from the medium to the viewer, virtual reality is interactive in the sense that the subject can usually contribute to its construction in a more concrete way through influencing the events or even, where applicable,¹⁹ the plot of the narrative. However, these potential enhancements of experience are contingent upon the exact instantiation of virtual reality technology. For example, the subjects in *Brainstorm* (1983) have no control over the outcome of the simulations that they experience, whereas the gamers in *eXistenZ* (1999) do have the ability to influence their environments significantly, despite the existence of a partially determined plot structure. The primary aim of a virtual reality platform is the creation of a reality that is so convincing that it would not be possible to distinguish between the artificial world and the everyday one. In one where the reality is also coded with the laws of cause and effect, and the subject can be an agent of change, the simulation is more convincing. Under these conditions, it is a digital means for the creator, and often also the user, to externalize the contents of their minds (Veltman 222). Thus, the audience could be understandably disappointed by the ways in which film cannot be as interactive and exhilarating as the technology it represents. The other reason for the audience's lack of excitement is that the film is formally alienating. The principal consequence of Trumbull's visual and auditory shifts and enhancements is that the film is constantly reminding the viewer that it is a film, thereby disrupting the suspension of disbelief. It is unlikely that the viewer would be drawn into the virtual experience by the audiovisual encouragements, because at their deployment these shifts announce themselves all too clearly, and the viewer disconnects from the story and returns to the dark cinema, watching a film. It is in this formal alienation that the answer to the question lies; Trumbull's virtual reality sequences aimed to make virtual reality sequences more "real" by making them more stimulating. But, as the interruption and subversion of narrative filmic convention alienates the audience by putting emphasis on the artificiality of the sequences, the virtual reality sequences are experienced as more artificial and affected than the rest of the film. The more Trumbull tried to address the limitations of film in the representation of virtual reality, the less likely he was to please his audience.

Ironically, it is in this failure that *Brainstorm's* interest lies. Trumbull notes that his primary aim was to "find a project that dealt with the issue of perception" (Farber 79), and by making the audience aware of the process by which the film manipulates perception, *Brainstorm* adds another layer of commentary on

¹⁹ Contexts such as virtual reality games have specific plots that must be followed in order for the user to continue with the experience (*eXistenZ* (1999) and *Gamer* (2009) are examples of films that engage with plot-based virtual realities).

the ways in which meaning is constructed and mediated by technology. The film therefore explores virtual reality and its implications for communication and signification, but also exposes film as a similarly constructed medium. This process of formal alienation works against a dominant cinematic tendency to efface the operation of the medium in order to construct a story that presents itself as a coherent and independent whole. This realist mode was the primary emphasis of film theory in the 1950s and early 1960s, which insisted that cinema should offer an objective as possible representation of reality (Stam, Burgoyne & Flitterman-Lewis 182). For example, André Bazin championed Neo-realist films such as Roberto Rossellini's *Paisà* (1946) and Vittorio De Sica's *Ladri di biciclette* (1948) for their ability to represent the social context in a manner that he considered to be adequately objective (Hillier, *French Cinema* 28). Given that film is captured using a photochemical method – an “impassive mechanical process” (Bazin 14) – rather than through the hand and vision of a human artist, it is not difficult to see why this belief was a popular one. The machine is seen as the more objective mediator between reality and the representation thereof.

However, the fact that realism is a mode of representation and a matter of artistic choice became the point of departure for the argument that film cannot have a direct correlation with reality.²⁰ The work of the medium in a realist film is de-emphasised by a set of editing, cinematographic and sound conventions that work together to produce the effect of unmediated reality (despite the fact that filmic reality is often infused with a narrative logic quite alien to life itself). An example of this when mediation by the camera is concealed by maintaining the same heights, speeds or distances so as not to draw attention to the introduction of a new shot. These parameters are identified and discussed by Bazin in his 1967 exploration of the construction of classic cinema, *What is Cinema?* Here Bazin explores the mechanisms by which classical film performs its “self-effacement before reality” (29), a phrase that suggests that reality is an objective ideal that can be achieved with the right technique. However, although the work of the film can “efface” itself through the construction of continuity, coherence and resolution in a way that suspends disbelief, these are aspects of narrative rather than of real life. With the recognition of realism as an artistic approach to rather than a given characteristic of film, various techniques were employed to foreground rather than efface the constructed nature of the text. A key movement for the development of this aesthetic was the French New Wave, or *Nouvelle Vague*, which is associated with films such as

²⁰ This argument is one that arose primarily in the theoretical movements Anti-Realism (see Arnheim 1933) and Neo-Realism (see Bazin 1967), and was discussed frequently in the late fifties and sixties with reference to the work of the Direct Cinema and *cinéma vérité* directors. However, these explorations in cinema were pioneered much earlier by Dziga Vertov's *kino-pravda* (film-truth) works in the 1920s.

Francois Truffaut's *Tirez sur le pianiste* (1960) and *Les quatre cents coups* (1959), Jean-Luc Godard's *A bout de souffle* (1960) and Alain Resnais's *Hiroshima, Mon Amour* (1959). With striking, stylized visual compositions and energetic use of jump cuts, the films of the New Wave drew new attention to the work of the film. At the same time, other writers of *Cahiers du Cinéma* were writing against Bazin's realism²¹, and as many key filmmakers also wrote for the periodical, theory and practice developed parallel to one another (Hillier, *Cahiers du Cinéma* 1). As editor of the *Cahiers du Cinéma* anthology devoted to the *Nouvelle Vague*, Jim Hillier has noted that, in terms of a self-conscious aesthetic, cinema is largely indebted to the work of the poet, playwright and theatre director Bertolt Brecht (4). The periodical even devoted a special issue to Brecht in 1960 (4). In the world of theatre, Brecht found inventive ways to render a performance reflexive so that it foregrounds its own textual processes, intertextual construction and authorship. According to his theory, illusionist practices should be challenged by radical art at every level, including the "means of expression", the "signifying system itself" by which meaning is constructed (Walsh 39). Thus, over and above his development of methods of alienation in the world of theatre in terms of ideology and the lived social reality, Brecht proposed a level of reflexivity that exposed the mechanisms by which the art constructs its representations in order to facilitate the "calculated disjunction of conventional theatrical illusion" (Walsh 5). As such, Brechtian theatre concealed neither physical apparatus such as the scaffolding and lighting nor the principles guiding narrative and aesthetic approaches, because he was working against the conception of theatre as a "passive experience" (Walsh 6-7).

It is against this background of self-consciousness that *Brainstorm* offers its treatment of perspective. Whether or not Trumbull's approach is theoretically informed, his goal of making a film about perspective resulted in one that is formally alienating. As a result, *Brainstorm* can be read through the lens of Brechtian reflexivity and a rejection of cinematic realism. It is clear that Trumbull's devices for signifying the switch into virtual reality also function in this formally alienating manner to make the audience aware of the medium's textuality; they are constantly reminded of the fact that what they are watching is a construction. The film also utilizes other techniques to separate reality from unreality, an example of which is evident in Figure 2, where the image is very bright and a lens flare can be seen in the upper left hand corner. This occurs when the sun shines into the camera and reflects off the glass, and is something

²¹ It should be noted that Bazin's realism was not a naïve prescription to a direct representation of reality, but rather the study of the intersection between cinema and perception. Many of the developments and writings associated with the directors of the French New wave were not in opposition to him, but rather further evolutions of his thought.

that is usually avoided, unless the aim is an aesthetic that suggests a documentary approach. Like the destabilized, jerkily mobile camera that is employed in the virtual reality sequences, the lens flare signifies a form of recording that is conducted in a less controlled, less structured environment than studio work, and is also not as thoroughly edited. This is a result of the impression that the image on the screen is less manipulated by an auteur due to limited evidence of artistic interference. However, as was noted earlier, the fact that the film goes through a transition into these conventions every time a virtual reality sequence occurs makes the audience very aware of the fact that these are conventions. Through this process the film becomes more artificial, affected and sensational to the audience. Realism is revealed as a style rather than a measure of truth-value. This provides the answer to our earlier questioning, as the abrupt transitions between formal approaches result in alienating sequences that make the audience both more aware of the fact that they are experiencing sensory input, and more aware of the fact that this input is constructed.



Figure 2: Horseback hunting (Trumbull 1983)

The alienating effect of the virtual reality sequences becomes more pronounced as the film progresses and Trumbull's visual translations of the mind become more expressionistic in nature. In the narrative, this is facilitated by the further enhancement of the virtual reality technology to record and play back other kinds of brain activity such as emotions and thoughts. A prime example of this is the experience that Lillian records during her heart attack, which is later played back as a virtual sequence by Brace. Brace sees the image of the laboratory as experienced by Lillian. In an effort to bridge the gap between audiovisual representation and tactile sensory perception, the audience's connotations of pain and danger with red is exploited: the screen flashes red to indicate that Lillian is experiencing pain, and her feelings of panic and anxiety also become apparent (Fig. 3). Another visual representation of Lillian's

suffering is the communication of her disorientation and impending loss of consciousness. The physical experience of dizziness is mimicked by a vibrating image that shifts in and out of focus and blurs around the edges (Fig. 4). It is clear that Trumbull is attempting to compensate visually for what the medium cannot communicate about the experience of virtual reality; Brace, in playing back Lillian's death, is dying himself. However, because film cannot directly transmit the tactile and mental components of the experience, the audience sees the representation in a shallower manner – at most, the more sensitive viewers would feel a slight sense of dizziness or nausea from the shaking and flashing images. This is caused partly by the ineffective transfer of sensory experience and partly due to the fact that these visual innovations, as discussed earlier, unsettle the suspension of disbelief. The viewer is likely prevented from being fully immersed in the experience, because the constructed nature of the film announces itself with these alienating effects. Thus, *Brainstorm*, although failing to engage the viewer in a film about virtual reality technology and Brace's attempt at solving the mysteries of death, does succeed at a different feat: Trumbull's aim to make a film that deals "with the issue of perception" (Farber 79). Through its alienating, metacinematic aesthetic, *Brainstorm* comments on the constructed nature of meaning and perspective, and through this interrogation of the medium of film, also investigates virtual reality as a new kind of representation.



Figure 3: Lillian's death - red (Trumbull 1983)



Figure 4: Lillian's death - blurred (Trumbull 1983)

In the history of film criticism, the shift in focus to artistic representation that foregrounds its constructed nature was paralleled and supported by a theoretical emphasis on the arbitrary nature of signification. The interconnection between theory and practice is expressed best by Roland Barthes in his essay “The Tasks of Brechtian Criticism”:

[W]hat Brechtian dramaturgy postulates is that today at least, the responsibility of a dramatic art is not so much to express reality as to signify it. Hence there must be a certain distance between signified and signifier: revolutionary art must admit a certain arbitrary nature of signs, it must acknowledge a certain “formalism,” in the sense that it must treat form according to an appropriate method, which is the semiological method. (Barthes 74-75)

Brecht’s metatheatricity is the application of a theoretical foundation inaugurated by the work of structuralist semiotician Ferdinand de Saussure and, after Brecht, further developed by the poststructuralists. In the discourse of structuralism, the connection between signifier and signified is understood as an arbitrary one, and meaning is determined not positively by its presence but through the sign’s relation to other signs. Meaning is therefore constructed in the relations between words, rather than contained within them. Jacques Derrida was the poststructuralist who took this insight further and collapsed the distinction between signifier and signified in light of the fact that final presence of meaning can never be reached but is always deferred – every potential signified only acts as another signifier that is understood only in terms of its position in relation to other signifiers:

The verb “to differ” [*différer*] seems to differ from itself. On the one hand, it indicates difference as distinction, inequality, or discernibility; on the other it expresses the interposition of delay, the interval of a *spacing* and *temporalizing* that puts off until “later” what is presently denied, the possible that is presently impossible. Sometimes the *different* and sometimes the *deferred* correspond [in French] to the verb “to differ.” (*Différance* 278)

It is the spatial aspect (the network of differences), the principle by which the elements within this network interact, and the temporal aspect (the delay of meaning) that is conflated within the term “différance.” Meaning therefore came to be understood as dispersed and constructed through a system or network rather than being contained within a single given entity – it is never “present in itself” but rather disseminated throughout a system (286). As will become apparent later, deferral as a facet of différance is important for understanding the implications of the formally alienating devices of *Brainstorm* and *Her*, and the ways in which they foreground the films’ deliberate design and artificiality.

What is exciting and peculiar about the films at hand, is that they engage with the issue of representation on two levels. The first is on the level of film as a medium, which creates one level of representation. The next is the subject matter of these films, which is virtual reality – a mode of representation. To go back to Figure 1 as a guiding image: Trumbull’s use of a different aspect ratio, sound format, camera angle, camera lens and destabilized movement all draw attention to the fact that the audience is watching a film. However, these techniques also introduce virtual reality as a process of signification in its own right that is distinct from the rest of the film’s objective camera angles, steady camera, regular lens and squared aspect ratio. This distinction implies that there is a separate set of rules inherent to the virtual world, but also draws attention to the fact that meaning – in the sense of the film’s construction of it – is now arbitrary on two levels rather than only one. This means that, whereas there was one degree of separation between film and the objective world, there is another degree of separation between the diegesis and the virtual world represented within it. Due to this double process of construction in virtual reality films, the free play of meaning already inherent to the functioning of language is complicated once in the construction of meaning within the film, and then complicated to a further extent within the realm of virtual reality. The outcome is an intensified degree of slippage; whereas meaning on one level of signification already constantly deferred, here another level of signification makes it all the more impossible to pin down presence. The films under discussion in this study play with this idea by disintegrating the boundary between the real world of the film and the virtual reality represented within it – the extent to which two levels of signification scramble the connection between reality and its simulation is interrogated by rendering the relation and distinction between these two levels as arbitrary as the connection between signifiers within these networks of meaning. The collapse of the distinction

between reality and simulation also suggests the idea that everything is simulated,²² and therefore also comments on the medium of film as a constructed text or simulation.

In *Brainstorm*, the distinction between reality and simulation is troubled by décor and angles that force the eye inward, thereby drawing attention to the issue of perspective. The film is presented as just as artificial a creation as the virtual reality sequences within it. The title card (Fig. 5) introduces the question of perspective by presenting the title in a convex shape that bulges towards the viewer as if it is moving out of the screen on a three-dimensional plane, and, although the curvature is reversed, anticipates the use of the wide angle lens in the virtual reality sequences. This illusion is the first introduction to this manipulation of perspective in an attempt to circumvent the two-dimensional limitations of the medium. Behind the text, gridlines and floating geometric shapes suggest an element of technological or, more specifically, digital design. As this is a form of technological creation and manipulation, it comments on the constructed nature of both the virtual technology within the film as well as the film itself. This is not only due to an emphasis on design, but is also a result of the very purpose of a title sequence in that it identifies through linguistic reference the key contributors to the creation of the work.²³ The title card's angular lines initiate the repeated use of geometry in the film to reference the fact that both the film and the virtual reality technology within it construct and manipulate visual perspective. For example, the sequence of shots represented by the stills that are Figures 6 to 9 take place within a matter of fifteen seconds, and in all four a triangular shape draws attention to itself. The emblem on the back of Brace's coat forms another set of triangles (Fig. 6), and he leads the movement off screen. As they leave the room, the camera pans to a tetrahedral metal sculpture, which ends the sequence (Fig. 7). In the next shot, the architecture of the room displays a set of diagonal beams that, together with the equally slanted wall, creates two triangles across the ceiling space of the room (Fig. 8). Brace then sits down and steeples his fingers to create the same shape (Fig. 9). As diagonals are used to create the illusion of space, they strongly suggest the manipulation of vision and therefore foreground the issue of perspective. The diagonals in the frame call attention to themselves because they create lines that are similar to those utilized by perspective drawings to create depth. The fact that they are repeated so many times in quick succession further causes these lines to insist on the viewer's attention, as film convention usually involves some attention to moderating and balancing visual repetition. This contributes to dissolving the boundary between reality and simulation as presented in the film.

²² This invokes a discussion of the hyperreal, which will be addressed towards the close of this chapter.

²³ The end credits work in a similar fashion to serve as a boundary that announces the end of the simulated reality.



Figure 5: Title card (Trumbull 1983)



Figure 6: Brace's coat (Trumbull 1983)



Figure 7: Sculpture (Trumbull 1983)



Figure 8: *Office* (Trumbull 1983)



Figure 9: *Brace's fingers* (Trumbull 1983)

The use of diagonal lines to manipulate perspective in art developed in the Renaissance period, primarily in the painterly arts, in order to represent the physical world in a manner which would create a convincing illusory version of it (Veltman 223). The technique developed largely from the work of the architect Filippo Brunelleschi with Euclidian geometry, and is associated with artists such as Masaccio, Leonardo da Vinci, Michelangelo, Donatello, Raphael, Botticelli and Titian (Burgin 36). Monocular perspective operates on the principle that, although Euclidian space extends in three dimensions, there is a single point of confluence at the centre, which is created by the observer (36). This is what Euclid in *Optics* terms the “cone of vision,” and it is a principle is fundamentally connected to the rise of humanism:

By degrees the sovereign gaze is transferred from God to Man. With the ‘emplacement’ of the medieval world now dissolved, this ocular subject of perspective, and of mercantile capitalism, is free to pursue its entrepreneurial ambitions wherever trade winds blow. (Burgin 36)

The “one point” of one point perspective is the humanist subject, the figure around which reality organizes itself, and the figure that ‘discovers’ meaning within the text. For Barthes, this is the crux of representation; even if we do not consider a text a copy of a ‘real’, representation demands that there is an observing subject that “casts his *gaze* toward a horizon on which he cuts out the base of a triangle, his eye (or his mind) forming the apex” (*Diderot, Brecht, Eisenstein* 69). When one considers this close connection between the humanist subject and the nature of perspective and representation, it is only natural to expect this subject to develop along a trajectory that is parallel to the transformation of representation. Whereas Renaissance perspective was influenced by Euclidian geometry (albeit nearly two thousand years after he wrote), the technological spaces of the modern era are understood differently. The focus is no longer on space in the geographical sense, but on space considered in terms of time. In “Geometry and Abjection,” Victor Burgin states that one way to make sense of this is to think of technological space in terms of the speed of light, as this is the speed at which – and medium through which – electronic communication and representation is constituted and disseminated:

One of the phenomenological effects of the public applications of new electronic technologies is to cause space to be apprehended as ‘folding back’ upon itself. Spaces once conceived of as separated, segregated, now overlap: live pictures from Voyager II, as it passes through the rings of Saturn, may appear on television sandwiched between equally ‘live’ pictures of internal organs, transmitted by surgical probes, and footage from Soweto. (Burgin 37)

Thus, whereas pre-modern space was limited to a position upon the vertical axis that is the chain of being, modern space as developed in the Renaissance – the space of the humanist subject – was three dimensional and boundless. In the world of largely spaceless electronic events, the question is therefore what becomes of the humanist subject. Does the fact that virtual reality is built around the simulation of three dimensional space reintroduce the humanist rendering of human, or does simulated space, with its possibilities of simultaneity, multiple perspectives and the apparent absence of a body function unlike three dimensional perspective, and offer a space for a posthumanist existence that revises the principles of the humanist subject? As the scope of this project is limited to what filmic representations of virtual reality have to say about this, the answer largely depends on what *Brainstorm* and *Her* does with virtual space.

As seen from earlier evidence, in *Brainstorm*, traditional understandings of three dimensions in space prevail in the virtual representations thereof. In fact, even in the set design there is so much evidence of perspectival manipulation that the film reads as a homage to the Renaissance perspectival painter. In Figure 10, for example, the diagonal line and relatively low camera angle create a convex perspective of

the space that echoes the wide angle motif employed in the virtual reality sequences (Fig. 1 to 4) and the convex shape of the title card (Fig. 5). As this still is taken from the representation of the real world in the film, the audience's expectations are subverted, as the film has conditioned them to accept convex representation as a signifier of the virtual world. In a representation of a very similar office space, the shot (Fig. 11) shows the area from high above, an unusual angle that is not associated with everyday human perspective, which generally originates at eye-level. This bird's-eye view, combined with the rows of transparent glass windows and the eerie slant to the wall, creates an effect of unreality and distances the audience from the action. Brace's home displays similar diagonal trends and is represented in the establishing shots through equally uncomfortable camera angles. Figure 12 shows the slanting home from a low angle, which, aided by the darkness, makes it appear menacing. In the daylight of Figure 13, the interior of the house seems less threatening, but the diagonal beams in the top left hand corner and rise in floor level in the middle of the frame create a sense of claustrophobia. This same unsettling effect is created in Figure 14 by the incongruent lines in the frame – the diagonal windows and wall on the left are offset against the level floor and picture frames, and the wall to the right of Karen Brace slants very slightly towards the right. This slight imbalance is so subtle that the eye cannot decide whether the angle is merely an optical illusion or an architectural feature like so many other walls in the film. As Figure 15 is an image from a point of suspense and confrontation in the film – Lillian had just stormed off from a meeting in which she feared the implications of her work – the audience's confusion is mirrored in both Brace's own angry lack of understanding and the highly bewildering set design. The restroom's wall is set at a diagonal angle which is offset by the diagonal of a mirror to create three triangles within the frame, one of which is reflective. Meanwhile, the diagonal line of the sink against the lower part of the wall creates a fourth triangle, and the mirror triangle reflects the mirror opposite it to create a fifth. As a result, the viewer is encouraged to experience a sense of vertigo in the optical confusion, and Trumbull manages to push the boundaries of visual representation to the extent that it formally captures and reflects the emotional charge of the moment, much as the virtual reality technology in the film also aims to do by immersing the user in the lived experience of another. The expressionist set design therefore both serves to underscore the film's interrogation of virtual reality as a new form of simulation as well as blur the boundary between this feat and the film's exploration of its own textuality. It is therefore clear that, although the film utilizes humanist perspective, its treatment of it either revises or transcends humanist concerns. Arbitrariness, uncertainty, the blurring of boundaries between categories and a poststructuralist representation of the process of signification trouble the humanist foundation of the film's aesthetics. It is therefore important to keep in mind, for the purposes of further discussion, that the appropriation of a humanist visual

aesthetic can be utilized in a way that subverts and interrogates the assumptions that underlie the humanist understanding of identity and the construction of meaning.



Figure 10: Architecture - office (Trumbull 1983)



Figure 11: Architecture - office (Trumbull 1983)



Figure 12: Architecture - home (Trumbull 1983)



Figure 13: Architecture - home (Trumbull 1983)



Figure 14: Architecture - office (Trumbull 1983)



Figure 15: Architecture - restroom (Trumbull 1983)

A connection emerges between the blurring of reality and simulation in virtual reality and the extra level of complication that occurs when signification becomes mediated by technology. Both of these processes commence with the premise that the construction of meaning is an arbitrary process that becomes even more convoluted with the introduction of digitally mediated virtual reality. There is, however, a problem with this line of reasoning, which is that the arbitrary connection between signifiers is not a matter of degree. If something is arbitrary, it is already arbitrary, and added levels of negotiation do not necessarily increase or decrease the randomness of the arrangement. This problem can be circumvented by placing all of the emphasis on the fact that these films foreground and engage with the arbitrariness of language by adding levels of negotiation for the production of meaning. However, there is a claim to be made that digitally mediated realities can reconfigure the concept to make way for degrees of arbitrariness. A significant contribution to this conversation is N. Katherine Hayles' "Virtual Bodies and Flickering Signifiers," which discusses the impact of technology on current understandings of signification. Her focus is on the dialectic between pattern and randomness that underlies the processes by which signifiers derive meaning in the context of information technology. When the pattern element of signification as a system or network of difference is understood as a grounding formation that determines the extent of the signifier's fluidity and the subsequent slippage of meaning, the fact that virtual reality complicates signification beyond the ordinary level is easier to justify. If the balance between pattern-determination and randomness can be adjusted in one direction or the other, then arbitrariness can become a matter of degree. For Hayles, the primary difference between the "internal play of difference" as discussed by the poststructuralists and the same slippage in digital signification, is that the introduction of technology renders the signifier flexible in itself rather than just in relation to other signifiers: "In informatics the signifier can no longer be understood as a single marker, for example an ink mark on a page. Rather it exists as a flexible chain of markers bound together by the arbitrary relations specified by the relevant codes" (264). As there are multiple levels of alphanumeric, digital and mechanical operations that work to create digital experiences; a signifier on one of these levels is transformed into a signified on the next, and the relation between signifier and signified remains arbitrary (264). These chains of coding operate as a pattern, because they contain elements of redundancy and repetition. Through a combination of repetition and the introduction of random data, the system mutates and evolves in a way that maintains its openness (265). The dialectic between pattern and randomness that characterizes digital representation is already implied in the very existence of patterning in a digital context, as it is only in the absence of randomness that a pattern can be observed, and vice versa (265). The relevance of this for a study of virtual reality, is that this same process of horizontal and vertical difference applies to virtual

reality films, and the added level of slippage to meaning complicates the ways that the film constructs meaning, and the ways that characters within the films represent themselves in virtual reality and are represented within virtual reality by the film. For this reason, Hayles' observation that "[f]lickering signification brings together language with a psychodynamics based on the symbolic moment when the human confronts the posthuman (265)" is applicable to this project in various ways, and will be pursued further in chapters 2 and 3, which deal with the construction and negotiation of posthuman identity.

Hayles' flickering signification is especially useful in the discussion of *Her*, in that the added level of ambiguity and relativism inherent to an electronically mediated world initially seems to alienate Theodore from his human self – he is not able to experience or understand emotion, but rather manufactures it as meaningless signification. In his occupation as the writer of letters, he dictates to a screen, where the human connection registers as a letter typed in computer-simulated handwriting. The effect of a diminished hold on meaning and understanding on Theodore's ability to connect and emote will become more apparent in chapter three with the discussion of the development of his emotional capacity through contact with Samantha. The complete dispelling of the illusion of final, contained meaning and structure as a result of the virtualization of Theodore's world is demonstrated in a scene where Theodore sits in front of an enormous screen on which an owl bears down on him as if he were prey (Fig. 16). The screen is a form of representation that predates the kind that pervades Theodore's world, as it has a frame – there is a clear separation between the real and the represented. As a result of this clear boundary, the owl cannot prey on Theodore. However, the virtual world that Theodore constantly interacts with through Samantha and his games removes this frame, and as a result Theodore becomes a digital cyborg with a new set of challenges presented to him by these virtual interventions in his life. As will become apparent in chapter three, although the initial loss of certainty and present meaning causes Theodore to experience the loss of security, identity and purpose that is suggested by his posture in figure 16, eventually the increased range of possibility allows him to redefine concepts in ways that help him to find happiness and learn how to reconnect – concepts such as "love," for example. At this point, the hyperreal world becomes less threatening and transforms into a space of possibility and opportunity for Theodore.



Figure 16: Screen background (Jonze 2013)

The question that remains is what the implications are of the destabilization of present meaning for the understanding of the real in virtual reality films. These films trouble the distinction between what is simulated or virtual and what is real. This binary opposition is analogous to the distinction between the signifier and its signified. Therefore, the collapse of any significant distinction between signifier and signified posited by Derrida also happens on the level of reality between that which is represented and its representation. One way of thinking of this eclipse of the real is with the use of Jean Baudrillard's conception of the simulacrum. In his 1983 text entitled "The Precession of Simulacra," Baudrillard uses the following progression to demonstrate the difference between representation and simulation:

This would be the successive phases of the image:

- It is the reflection of a basic reality
- It masks and perverts a basic reality
- It masks the *absence* of a basic reality
- It bears no relation to any reality whatever. It is its own pure simulacrum. (11, emphasis in original)

As the first two phases still facilitate the idea of comparison to a concrete real in that they can be true or false in relation to it, these are phases of representation as understood in terms of De Saussure's semiotics, which makes a clear distinction between a signified and a signifier. The third phase denies the existence of a referent, much as Derrida claims in *Of Grammatology*. Whereas both Baudrillard and Derrida do not consider the referent relevant, it is for different reasons. For Derrida, nothing reaches "outside the text" (*Of Grammatology*, 158) – the question of the physical referent is not even introduced, and within the labyrinth of pure signification, something of meaning and understanding remains lost. Baudrillard, however, the referent is inconsequential because the prevalence and pervasiveness of signification

eliminates the need for it.²⁴ The difference between options three and four is that, whereas the third option is still in some way related to the real – even if only to the absence thereof – the fourth requires no link to even this absence of reality; it exists as representation and is accepted as reality. The fourth option is of the order of simulation: it is what it represents. It “threatens the difference between ‘true’ and ‘false’, between ‘real’ and ‘imaginary’” (5). Thus, whereas the third and fourth phases are both not predicated upon the presence of a referent, the fourth order is independent even of the concept of reference. The sign thus becomes more real than reality as it is the only access to itself, and because it is pure signification, it can be “infinitely reproduced” and interacted with (3). This is what Baudrillard in “The Orders of Simulacra” terms “hyperreality,” which, noted earlier, is evoked when “the unreal is no longer that of dream or of fantasy, of a beyond or a within, it is that of a *hallucinatory resemblance of the real with itself*” (143, emphasis in original). At the risk of oversimplifying, one might say that simulation is not a kind of representation, but a kind of reality – it absorbs the real, and becomes it. The definition of hyperreality is applicable with great effect to the concept of virtual reality. Whereas the former term carries suggestions of the superlative or “more than”, the latter alludes to artificiality or “almost.” However, both involve the recreation of reality in an artificial manner through processes of signification. For one thing, virtual reality does present a reality in itself in films such as *eXistenZ*, *The Thirteenth Floor* and *The Matrix*. As noted in the introduction, virtual reality films are configured along different levels of integration, and it appears that to fully integrated versions of the technology – where subjects have new bodies within the constructed world – Baudrillard’s version of hyperreality applies without contradiction.

In *Brainstorm*, however, we are dealing with the first level of integration into a constructed reality, which is mind technology. This technology does not produce an independent reality, but rather offers electronically mediated fragments of a new experience, recorded from the mind of someone experiencing the corporeal world. In this sense, the first level of integration offers a simulation in the more traditional sense. Although Trumbull’s ambitions for the virtual reality sequences of *Brainstorm* to be more “real” than the rest of the film gestures towards the hyperreal, it is clear that Trumbull’s virtual reality should not be discussed as a reality in its own right, nor a simulacrum that masks the absence of reality. Rather, it is an electronically reproduced representation that operates at the same level of ontological authority as the real; it is a copy treated as the real by those that consume it. This poses an interesting challenge to Walter Benjamin’s theory that mechanical – or in this case, electronic – reproductions undergo a loss of

²⁴ It should be noted that, in spite of the fact that Baudrillard does not consider there to be an absence of meaning due to the efficiency with which simulacra fill the void, this does not mean he is more positive about the process than Derrida is. In fact, Baudrillard’s texts indicate that he finds this process very deceptive.

aura when they are copied. In “The Work of Art in the Age of Mechanical Reproduction,” Benjamin states that the loss of aura is a process that withers away the significance, originality and meaning of a piece, which is why we consider even exact reproductions to be inauthentic (221). Benjamin also associates the “decay of the aura” with “changes in the medium of contemporary perception” (222). Although Benjamin’s concerns are more political than formal, in light of the earlier exploration of the humanist subject and perception, it is interesting to see how Benjamin views the transformation of a ‘real’ image into a reproduction thereof:

Unmistakably, reproduction as offered by picture magazines and newsreels differs from the image seen by the unarmed eye. Uniqueness and permanence are as closely linked in the latter as are transitoriness and reproducibility in the former. To pry an object from its shell, to destroy its aura, is the mark of a perception whose "sense of the universal equality of things" has increased to such a degree that it extracts it even from a unique object by means of reproduction. Thus is manifested in the field of perception what in the theoretical sphere is noticeable in the increasing importance of statistics. The adjustment of reality to the masses and of the masses to reality is a process of unlimited scope, as much for thinking as for perception. (223)

With the introduction of a new medium of representation, such as the virtual reality technology in *Brainstorm*, the user experiences the “image” exactly as “seen by the unarmed eye,” as the simulation is rendered in full three dimensional scope and provides data for all the senses to receive, therefore a “loss of aura” does not take place, despite the fact the experience is reproduced. The only alteration that occurs is the fact that this new experience might possibly be diminished by the persistence of the viewer’s own consciousness, which means that the virtual experience must be reduced in some way by an extra level of consumption: the virtual experience in *Brainstorm* is one that has already been processed, to some extent, into a product. The viewer cannot influence, for example, the range of vision or the change or development of the scenario, she can only relive what has been lived before. Furthermore, there are two other points that need clarification here. Firstly, when the film itself is considered the technological reproduction, rather than the technology the film centres on, Benjamin’s theory holds – the audience is presented with a perspectival representation of virtual reality, not a perfect simulation. This gap between the representing and represented medium contributed to the disappointment of critics and viewers alike. Secondly, the technology in *Brainstorm* only maintains this 1:1 correlation with reality for the first part of the narrative, after which the virtual reality technology starts to become ontologically ‘heavier’ in terms of reality. This is due to the fact that thoughts and emotions become transferable directly from mind to mind in a technologically mediated form of telepathy, something which is not accessible to the characters in the corporeal world. As this gives the virtual experience more depth and significance than the reality it simulates, one must consider it a possibility that this in some sense constitutes a kind of shift in

perspective that could also corrupt the aura of the original, and whether this is what qualifies the technology as a facilitation of Baudrillard's hyperreal after all.

It is clear from the discussions of *Brainstorm* that the idea of a stable, objective reality is undermined by the aesthetic of the film, particularly by the set design of the "real" world and the attempts to render the virtual experience more immersive, which resulted in the foregrounding of the entire project as constructed. Another film that delivers interesting visual commentary on the hyperreality of simulation is *Her*. This may seem a little counter-intuitive, as the film does not deal with the conventional kind of virtual reality that involves the immersion of the subjects into a digitally created world. What happens in this film is the inverse: Theodore, the protagonist, attempts to render his own world virtual in order to feel closer to his digital girlfriend Samantha. He does this by capturing it with his camera, recording sounds with a microphone, putting his girlfriend's voice on speakerphone for his friends to engage with, and attempting to have sex with a sexual surrogate to simulate physical intimacy with Samantha. However, at the same time it is clear that even prior to his relationship with Samantha, Theodore is emotionally disconnected from the world he moves in, and that he finds a measure of authenticity and reality through technologically mediated experience. Aesthetically, Theodore's world is marked as a space of unreality in ways similar to the world in *Brainstorm*. There is, for example, the persistence of confusing architecture, light and shadow and transparency (Fig. 17). The combinations of different opacities and overlapping angles create visual confusion regarding what is solid and what is a reflection or a shadow, thus suggesting fluidity between real and derivative shapes. Figure 18 plays with transparency and perspective too, in that the hallway on the right hand side draws the eye into the back of the frame, much like Figure 15. The viewer's gaze is thus slightly conflicted, as the protagonist is moving in the foreground in front of the transparent and reflective surface – a glass display cabinet containing a white, monstrous skeleton – away from the focal point. The reflective floor and overwhelming whiteness of the area suggest a liminal space that is neither substantial nor insubstantial, similar to the protagonist's position as a figure that is in purgatory between the virtual and real worlds. The fluidity of his position as a mediator between the real and the virtual is also suggested by Figure 19 as he is reflected in a slanted, distorting surface that divides him into square segments, which suggests the kind of subdivision and indexing of the body that occurs with the use of pixels in digital imaging. The same idea is represented in Figure 20, where the reflections on the window as well as the way it blurs the focus interfere with the viewer's ability to see Theodore. Figure 16 marries the real and virtual in a more overt way; the owl on the screen visually interacts with Theodore in the real world, through the barrier suggested by the frame. The virtualization of Theodore's world is also signified by the luminous gridlines that hover above him (Fig. 21) as it references earlier visual

representations of the digital world such as those in *Tron* (1982). The geometric quality of the image also evokes the same ideas of construction and design as were inherent to the title card of *Brainstorm* (Fig. 5).



Figure 17: Architecture - office (Jonze 2013)



Figure 18: Hallway decor (Jonze 2013)



Figure 19: Reflective surface (Jonze 2013)



Figure 20: Apartment window (Jonze 2013)



Figure 21: Gridlines (Jonze 2013)

The aesthetic discussed above can be considered hyperreal precisely due to this integration of the virtual into the real. For Theodore, reality becomes a matter of what can be digitally represented, and the mise-en-scène of *Her* suggests this by rendering the spaces he moves in unreal or permeated by the digital. The film also suggests the unreality and secondary importance of Theodore's everyday world by constructing it to resemble an artificial one through an unnaturally coordinated use of colour. In almost every setting which Theodore appears, he happens to be dressed to complement his surroundings perfectly. For example, in Figure 16, the only colour in the frame is the maroon of his jacket, which matches the carpet and awning. The same happens with his shirt and the grid in Figure 21, the flowers in Figure 22 and the cranes in Figure 23. The simulacral quality of the representation of Theodore's world places the focus on the act of representation itself, and emphasizes that there really is not much to represent. Theodore's life is bland, and his world is disengaged and operates primarily on a plain that cannot be seen or accessed without the aid of technology. Another technique that produces this effect is the referencing of well-

known art, such as are evident in Figures 24 and 25, which both suggest paintings by Caspar David Friedrich.²⁵ Friedrich's work is associated with sublimity and the transcendence of everyday human existence through encounters with greatness – whether it be motivated by awe, fear or beauty. It is significant that these paintings appear at a point in the film where Theodore's connection to his digital reality starts to cause him pain, and he finds himself reconnecting with his emotional life. Although these references do suggest the existence of some original text with a specific author, the fact that these images are embedded in the film with no overt recognition of the referent evokes the idea that reality is constructed through the interactions between simulations or images, and that our understanding of the world is dependent upon this intertextuality. This is therefore another allusion to Theodore's life within the hyperreal, where the interaction between signifiers and the system by which they operate constitute his lived world.



Figure 22: Living room colouring (Jonze 2013)

²⁵ I am indebted to Dr Dawid de Villiers for the connection between *Chasseur in the Forest* and the discussed scene in *Her* (2013)



Figure 23: Train view colouring (Jonze 2013)



Figure 24: Mountain view (Jonze 2013)



Figure 25: Forest (Jonze 2013)



Figure 26: *Wanderer Above the Mists* (Friedrich 1819)

Figure 27: *The Chasseur in the Forest* (Friedrich 1814)

Whereas *Brainstorm* uses the geometric principles of perspective rendering as inaugurated by Renaissance art to reference the development of humanism, *Her* does the same in its homage to Romantic art and the divine capacity of humankind to discover meaning and significance. *The Wanderer Above the Mists*, however, also contains elements of the Enlightenment principles of the triumph of human reason and scientific ability over the forces of the natural world. By extension, we can read this as the conquering of the world and our experience of it through the use of cybertechnologies. Eventually, even the natural aspect of the human became the jurisdiction of science in that the body became the subject of technological modification, and eventually, as happens in *Her*, replacement. It is in this connection between the film and Friedrich's art that we see an aesthetic that indicates posthumanism as a discourse that engages with a critique of humanism; however, these questions are for further deliberation in the subsequent chapter. What is of immediate relevance here, is that the shift in perspective brought about by the translation of experience into media – whether it be painting, the digital world or three dimensional virtual reality – can transform not only culture, the human subject and our reading of her, but also the very act of human understanding. In “Telepathy: Alphabetic Consciousness and the Age of Cyborg Illiteracy”, David Porush likens the telepathic quality of virtual reality to the invention of the alphabet, in that it is a new medium of communication – or “facility for abstraction” – and therefore a new mode of thinking (45-46). Like Benjamin did with photography and film, Porush expects virtual reality to have an impact on social organization and even birth a new epistemology and metaphysics (46). As basis for his argument, he cites evidence from medicine and cognitive science that links the learning of a new mode of abstraction – such as the alphabet – with the creation of “information-processing patterns, which

presumably involve different mental events or experiences” (47). Theories of signification and representation therefore support the idea that the human that interacts with the virtual is no longer the enlightened, rational humanist man, but rather this figure as transformed by the play of perspective, reproduction and the loss of the auratic, and new ways of thinking as facilitated by a new means of abstraction. We see these new people in *Her* where, faced with the largest and most complex networks in history, they fail to engage with the corporeal world, struggle to connect to one another, and search for meaning that is constantly deferred. We see this in the unreality of their represented world, and in the lethargy of their interactions (as discussed in the subsequent chapter).

The cause of this absence of meaning and authenticity can be summarized with the use of four theories: Benjamin’s loss of the auratic, Derrida’s “Différance”, Baudrillard’s simulacrum, and, as a point of confluence, Barthes’ “Death of the Author.” In the films under discussion there are two instances of virtual reality: that which emerges from the blurring of the corporeal with the electronic world in *Her*, and the sequences of virtuality in *Brainstorm* designed to be more real than real in both the represented (technology in the film) and representing (formal qualities of the film). In these new media, we can accept the loss of the auratic most explicitly in *Her*, where significance is taken out of the world, and everything is experienced through a screen, a glass, a reflection, a copy. Formally, *Brainstorm* communicates the same idea. With translation into a new medium, perspective is employed, and the feeling of the original is lost. Both films place great emphasis on perspective, foregrounding the artificiality of the films themselves and the virtual realities they represent. When one considers Benjamin’s insistence that aura and authenticity are, at base, a matter of the “presence” of the original (229), it becomes possible to translate aura into the understanding of meaning with the help of Derrida’s différance. As discussed earlier, a crucial aspect of différance is the deferral of meaning – its perpetual delay as it travels through a network of differences. Thus, if aura and meaning are both dependent on the concept of presence, the network is what makes both of these slip beyond the grasp of the characters. They cannot be authentic, they cannot find meaning, precisely because the network of signifiers travelling through a network of minds, computers, cables, electricity and realities disperses its wholeness beyond grasp. There is no hidden meaning within some deeper level of understanding, there is only the surface and its structure. In “Death of the Author”, Barthes discusses how the deferral of meaning takes place on the surface of the text:

[T]he structure can be followed, ‘run’ (like the thread of a stocking) at any point and at every level, but there is nothing beneath: the space of writing is to be ranged over, not pierced; writing ceaselessly posits meaning ceaselessly to evaporate it, carrying out a systematic exemption of

meaning. In precisely this way literature [...], by refusing to assign a 'secret', an ultimate meaning, to the text (and to the world as text) liberates what may be called an anti-theological activity, an activity that is truly revolutionary since to refuse to fix meaning is, in the end, to refuse God and his hypostases – reason, science, law. (147)

It is with this refusal of presence, the work of the network, that *Her* denies the humanist subject a foothold. What is more, where the digital is concerned, even within the individual elements that constitute the network – abstract as they may be – these elements flicker and change to differ from themselves internally, as they are coded and recoded through various digital planes and formats. In *Her* the viewer is confronted with a reality in which, more than ever, there is no presence of meaning or aura, there is only representation that masks the absence of reality. This is the sense in which virtual reality films can confront us with the spectre of absence, and it is in the face of this void of certain meaning that the posthumanist subject emerges.

The questions that arise from this discussion of the implications that representations of virtual reality have for contemporary understandings of signification and the construction of meaning are thus what these new levels of relativism and absence mean for the hierarchies and binary oppositions that rely on systems of absolute meaning for their maintenance. If a radical enough destabilization of meaning occurs, virtual reality films could create a space where traditional oppositions such as male/female, culture/nature, real/artificial and human/inhuman could dissolve into spectrums of difference. Subsequently, the construction and performance of identities could possibly become more radical in an environment where they are not as firmly bound by these hierarchies embedded within the structures of the corporeal world. The next chapter will aim to answer these questions by first investigating to what extent virtual reality offers a space for a posthumanist identity to emerge, and whether this identity is one that can operate in a way that is not as bound by traditional hierarchies within the space of possibility that is the representation of virtual reality. The focus of this exploration will be dualist conceptions of gender.

Two

No Borders or New Borders: Existence Post-Hierarchy?

"I'm not sure here... where we are... is real at all. This feels like a game to me. And you... you're beginning to feel like a game character" – Ted Pikul (eXistenZ 1999)

In her seminal study of the effects of technologically mediated worlds on the construction of identity, *Life on the Screen: Identity in the Age of the Internet* (1995), Sherry Turkle evaluates how the early online environment influenced the development of the first generations that grew up with access to computers, programming, gaming and the internet. Turkle effectively links changed perception of the construction of meaning and its operation in a simulated context – as discussed in the previous chapter – to the ways in which identity is mediated by virtual worlds: "In simulation, identity can be fluid and simple, a signifier no longer clearly points to a thing that is signified, and understanding is less likely to proceed through analysis than by navigation through virtual space" (49). This freedom that the subject acquires in simulated contexts is to a significant degree a freedom from the constraints of the body, which is no longer a "signifier" (49) that refers to a fixed, "signified" identity. In the absence of the body as signifier, identity is a "fluid" (49) signified for which meaning is continuously deferred; it becomes a signified that could attach itself to (without being fixed or limited by) a range of signifiers. What is more, digitally mediated virtual environments are being recreated in each instance of their existence due to their artificial construction – much like the image on a computer screen is constructed of constantly flickering individual lights, or the illusion of movement in a film is constituted by a quick succession of individual frames. This implies freedom from continuity since, in place of the linear progression of time, there is the possibility of either creating the illusion thereof, or breaking away from it completely. For this reason, virtual reality does not operate in time and space in the same way that physical reality does. A subject is not necessarily bound by the rules of embodied existence such as being in a single place at any given time; the only rules that apply are those determined by the creator of the virtual world and the technology by which it operates. The individual can therefore be constantly reconstructed as the need arises, and identity becomes something more fluid than it can be in an embodied context.

The primary purpose of this chapter is to see how filmic representations of virtual reality reveal or engage with the implications of this increased level of fluidity for traditional conceptions of gender. To facilitate the discussion of the hierarchized gender binary of male/female and masculine/feminine, the point of departure is hierarchy itself and the possibility of its deconstruction. Directly related to this question is

that of posthumanism, and the cyborg as a hybrid figure that collapses the hierarchy of machine and organism, natural and artificial. The virtual subject as cyborg also demands the discussion of the mind/body binary. Although the question of disembodiment is primarily the business of the two chapters to follow, it will be introduced here through the theoretical lens of posthumanism. The transcendence of the gender binary and the extent to which it can be facilitated by disembodiment in the virtual cyborg will be explored in the discussion of *eXistenZ* (1999). This study will show that, although the protagonists' separation from their bodies does allow them to perform more liberal and diversified gender identities, the overall result is underwhelming as they do not – or cannot, due to the way the games were written – take advantage of the full range of possibilities that the virtual space allows. Their bodies are reconstituted in the games much as they exist in the physical world.

The previous chapter tentatively proposed that the ways in which virtual reality films foreground and manipulate perspective could suggest a posthumanist revision of the construction of meaning. Before this matter can be explored further, the term itself must be clarified. As a point of departure for the constellation of theories around posthumanism, cyborgs and embodiment, the figure of René Descartes is often utilized. In the introduction to his edited volume *Posthumanism*, Neil Badmington states that Descartes is not only the “founder of modern philosophy” as Bertrand Russell originally declared, but can also be considered one of the “principal architects of humanism” (3). Descartes provided a definition of being human that was – and still is – very influential; in *Discourse on the Method*, Descartes proposed that reason is what distinguishes human from animal, and, according to Badmington, this sketch of the human as the rational, thinking “I” displaced God as the organizing principle of existence (3). By identifying reason as the common denominator of all humanity, despite the differences inherent to our bodies, and proclaiming in the same text – with his famous aphorism “*cogito ergo sum*” (I think, therefore I am) – that existence is both proved by and predicated upon thought, Descartes also lent real impetus to the theoretical tradition²⁶ of presenting body and mind as a hierarchized binary opposition that gives primacy to rational thought.²⁷ The humanist subject is therefore a construction that relies upon stable hierarchical oppositions such as the primacy of reason over passion, mind over body and human over animal. It is thus

²⁶ He is, of course, not the first to express these sentiments – Aristotle, for one, had similar ideas on rationality as the defining characteristic of humanity. The focus here, however, is on the inauguration of embodiment as an academic and theoretical discussion.

²⁷ It is worth noting that Descartes has been widely criticized for assuming the existence of the “I” around which these thoughts are constellated, when the very aim of his exercise was to avoid dependency on assumption and find a grounding truth that could serve as a defense to solipsism (see Kenny 2006).

conceivable that in some understandings of the posthumanist subject, its construction relies on the subversion or displacement of such hierarchies.

This brings us to a search for a working definition of posthumanism in which the “post-” is not fixed as “after.” An attempt must be made to avoid “after” to any possible extent, because it is clear that humanism has not quite moved past, and therefore cannot be followed yet. Badmington discusses an example of the still-pervasive school of thought in the 1999 British anniversary edition of the Declaration of Human Rights, a document constructed upon Cartesian foundations with assertions such as that all humans are “endowed with reason and conscience and should act towards one another in a spirit of brotherhood” (quoted in Badmington 4). The humanist subject persists, despite the fact that it was already being challenged a century ago by Freud’s unmasking of the human as not so much reasonable and transparent as passionate and unknowable (Badmington 6). This is what allows for the “post-” of posthumanism to be understood in terms other than time. The “post-” implies another kind of relation, and for Cary Wolfe, this is one of revisionism, as he states in his discussion of the difference between “posthumanism” and “transhumanism.” In his 2010 text *What is Posthumanism?* Wolfe acknowledges that there certainly are uses of the term in which “posthumanism” does imply a breaking away from the human form in a way that nevertheless extends and radicalizes the humanist subject. Texts that engage with this kind of logic, such as *Iron Man*, have been labelled posthumanist in the past, but Wolfe reclassifies this as “transhumanism”:

Arguably the best-known inheritor of the “cyborg” strand of posthumanism is what is now being called “transhumanism” – a movement that is dedicated, as the journalist and writer Joel Garreau puts it, to “the enhancement of human intellectual, physical, and emotional capabilities, the elimination of disease and unnecessary suffering, and the dramatic extension of life span.” (xiii)

Transhumanism therefore subscribes to the idea that the human body, subjectivity and the humanist principles built around it can be transcended in some way. However, this very ideal is in itself dependent upon ideas inherited from humanism, such as linear progress, immortality and autonomy (xv). Films that can be read as transhumanist would thus include a successful separation from or enhancement of the limited human body, as this implies the autonomy of the mind and acts as the gateway to immortality. The character Job in *Lawnmower Man* is an example of this, as well as Murphy in *RoboCop*. Both these characters transcend their original bodies – albeit in different ways – and live on as technological creations. The characters in *Brainstorm*, *eXistenZ* and *Her* all appear to transcend their physical bodies to

some degree, but as will become clear in later chapters, the films subtly reinforce the characters' embodied states in various ways.

Posthumanism, on the other hand, Wolfe considers to be analogous to Jean-Francois Lyotard's postmodernism, in that it "comes both before and after humanism" (xv). It takes as its centre principles that contributed to the initial construction of the humanist subject: "the embodiment and embeddedness of the human being in not just its biological but also its technological world, the prosthetic coevolution of the human animal with the technicity of tools and external archival mechanisms (such as language and culture)" (xv). It also comes after humanism because it is the term for the historical moment at which the human as constituted by these ideals is decentred, and indicates the necessity for new theoretical paradigms that can be used to make sense of thought after the "cultural repressions and fantasies, the philosophical protocols and evasions, of humanism as a historically specific phenomenon" (xvi). Posthumanism is therefore a term Wolfe reserves for those cultural theories that do not subscribe to – or that deny outright – the viability of this kind of progress: "Posthumanism in my sense isn't posthuman at all—in the sense of being 'after' our embodiment has been transcended—but is only posthumanist, in the sense that it opposes the fantasies of disembodiment and autonomy, inherited from humanism itself" (xv). The primary difference between the terms lies in the fact that, whereas transhumanism pursues what essentially remain humanist ideals, Wolfe's posthumanism works against it. One of the key issues is the question of embodiment: films that emphasize the inescapability of our embodied selves and work against the Cartesian split between mind and body can be read as posthumanist. Films that subscribe to a narrative of transcending or transforming bodily existence reinforce the binary between mind and body, and are therefore transhumanist in their approach, as they imply that consciousness is what constitutes the self, and the body is essentially disposable or exchangeable. To the extent that films like *Brainstorm*, *eXistenZ*, *Her* and *Strange Days* emphasize the fact that embodiment cannot ultimately be escaped, they may be read as having a posthumanist orientation, in line with Wolfe's conception of the term.

As the question of the mind/body binary opposition is a central theme in the posthumanist understanding of the films at hand, it becomes clear that through this concern as well as their emphasis on the role of perspective in the construction of meaning, virtual reality films show a lot of promise for deconstructive exploration. Badmington points out that Jacques Derrida is a key figure in the trajectory of posthumanist thought, as many of the ideas constitutive of the field come from the points that Derrida made when he identified the troubles with the anti-humanist movement, and why it is not necessarily possible to break

free from a discourse such as humanism that does not allow for a position outside of itself from which to critique it:

Precisely because Western philosophy is steeped in humanist assumptions, the end of Man is bound to be written in the language of Man. Each “transgressive gesture re-encloses us” because every such gesture will have been unconsciously choreographed by humanism. There is no pure outside to which ‘we’ can leap. To oppose humanism by claiming to have left it behind is to overlook the very way that opposition is articulated. (Badmington 9)

The solution that deconstruction offers is to subvert systems such as humanism from the inside, as systems are always in some way self-contradictory, by revealing their inherent inconsistencies. For Badmington this is evident in the posthumanist critiques that were already evident in texts that antedate the development of posthumanism as a critical field.²⁸ The use of Derrida’s deconstruction to conceive of posthumanism certainly aids in the search of that posthuman subject that is a creation of dissolved or displaced binary systems. Michel Foucault confirms this idea in “The Order of Things,” when he states that the humanist subject is a construction the existence of which is predicated upon the maintenance of the kinds of knowledge – the work of Descartes being Badmington’s example – from which it emerged:

As the archaeology of our thought easily shows, man is an invention of a recent date. And one perhaps nearing its end. If those arrangements were to disappear as they appeared, if some event of which we can at the moment do no more than sense the possibility – without knowing either what its form will be or what it promises – were to cause them to crumble as the ground of Classical thought did, at the end of the eighteenth century, then one can certainly wager that man would be erased, like a face drawn in the sand at the edge of the sea. (Foucault 29)

This is the humanist subject that Wolfe’s posthumanism precedes and follows. Deconstruction therefore serves as a mechanism by means of which a posthumanist subject can be constituted through the decentring of humanist values and beliefs. The focus in this regard will be the question of embodiment, which is a useful tool in the reading of virtual reality films, as these explore the relationship between the posthumanist subject and embodiment. In their demonstration of the revolution of perspective, they can also gesture toward the revision of fundamental humanist principles such as the autonomous subject and present meaning. These films therefore indicate the development of a posthumanist subject that is better prepared for hybridity, simultaneity and even absence. The question is whether or not these films facilitate a space for a kind of existence that is to some degree less restricted by the hierarchies and binary oppositions that structure and define the corporeal world, and the focus for the exploration of that question will be traditional understandings of the gender binary. Furthermore, through the study of

²⁸ Badmington cites *Invasion of the Body Snatchers* (1956), *War of the Worlds* (1953) and *The Blob* (1958) as examples (7).

existenZ, it will become clearer how this decentring can occur through a kind of deconstruction of the masculine/feminine binary and its correlation to the male/female binary.

In order to work with the collapse of hierarchized binary distinctions between concepts, it is imperative that a basic understanding of Derrida's deconstruction frames the discussion. In the previous chapter, Derrida's writings on the slippage of meaning between signifiers as discussed in "Différance" introduced the matter, as his collapse of the distinction between the signifier and the signified showed the implications of deconstructive process for our understanding of the construction of meaning. Although Derrida's oeuvre is vast, complex and thoroughly interrelated, it is possible to identify parts of the whole that can, even in isolation, provide elucidation of the process at hand. In "Limited Inc a b c..." Derrida pointed out that, in a binary opposition, one of the terms is given priority and considered "simple, intact, normal, pure, standard, self-identical," and its opposite is considered secondary – a "derivation, complication, deterioration, accident" (93). In the discussion so far, we have encountered the following examples of such hierarchies: real/represented, natural/artificial, organism/machine, embodied/disembodied and masculine/feminine. Deconstructing such a hierarchical binary is a two-step process that Derrida summarizes in "Signature Event Context":

Very schematically: an opposition of metaphysical concepts (e.g. speech/writing, presence/absence etc.) is never the confrontation of two terms, but a hierarchy and the order of a subordination. Deconstruction cannot be restricted or immediately pass to a neutralization: it must, through a double gesture, a double writing – put into practice a *reversal* of the classical opposition and a general *displacement* of the system. (21, emphasis in original)

What is of interest in this discussion is the idea that one side of a binary is hierarchized over another, and the fact that by first reversing and then displacing this hierarchy, one can expose this system as one constructed by culture rather than being something natural or immanent. The question here is whether virtual reality films have found ways to contribute to this cultural critique by breaking down these hierarchized binary systems in the manner proposed by Haraway's cyborg manifesto, and, if not, how much filmic narrative and representation still has to develop in order to realize this goal.

In the interest of pursuing such an exploration of posthumanism, the cyborg subject as the hybridization of nature/culture, organism/machine and natural/artificial is a figure rich in potential. Although it has appeared most prominently in the world of science fiction, we can see cyborgs in everyday life. The merging of the body with technology is already manifest in the world of biomechanics, and electronic identities in social media and online gaming are also produced through this marriage of human and machine. Haraway's "Cyborg Manifesto" was one of the first texts to explore the potential of the cyborg

as a deconstructive force. She identifies the microelectronic devices that currently rule the world of technology as an important link between organic and artificial, as they facilitate the “translations of labour into robotics and word processing, sex into genetic engineering and reproductive technologies, and mind into artificial intelligence and decision procedures” (448). It can be deduced from the ubiquity of communication technology that it is just as important a field as biomechanics when it comes to the creation of cyborgs. Both of these fields construct “natural-technical objects of knowledge in which the difference between machine and organism is thoroughly blurred; mind, body and tool are on very intimate terms” (448). It is this kind of cyborg that is at issue in the discussion of virtual reality films: when the character engages with the technology that creates the simulation, that character is temporarily reconstituted as a cyborg figure.

For Haraway, the cyborg as a hybrid has the potential to collapse hierarchies and binary distinctions that have been inherent to Western thought and tradition:

Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert. (337)

Although she is engages with the utopian quality of this argument ironically, Haraway points out that it is at the very least a possibility that we could “learn from our fusions with animals and machines how not to be Man, the embodiment of Western logos” (456). Haraway’s cyborg is therefore posthumanist in its configuration as it revises the humanist principles of anthropocentrism and the mind/body binary. However, as the cyborg was developed and still exists in its most overt form within popular culture, it is important to test Haraway’s theories against these representations in order to determine whether talk of this particular kind of posthuman is not premature or, perhaps, not possible.

The majority of theorists who have performed this particular test are not optimistic. According to Sarah Shabot’s “Grotesque Bodies: A Response to Disembodied Cyborgs,” since the cyborg’s first appearance in popular culture²⁹ it has not been “intrinsically challenging or liberating” and in many instances even functions as a reinforcement of hierarchized systems such as patriarchy (224). Anne Balsamo articulates the same sentiment in “The Virtual Body in Cyberspace”, where she states that virtual reality representations “reproduce, in high-tech guise, traditional narratives about the gendered, race-marked body” (498). Claudia Springer reaches a similar conclusion about embodied cyborgs in “The Pleasure of

²⁹ For examples, see my overview of the development of the figure in the introduction.

the Interface.” In her 2014 article “(Re)defining the Gendered Body in Cyberspace: The Virtual Reality Film,” Rocío Carrasco investigates the extent to which virtual reality films could offer a platform for diversified gender identities, but concedes that popular representations have had limited success, and still largely depict traditional gender roles. Still, it is worth considering whether there are films that might be said to succeed in some ways in transcending binary oppositions, and therefore, even if only to a certain extent, live up to Haraway’s expectations. In the first chapter one such instance was identified as the collapse of the real/virtual hierarchy through the treatment of perspective in *Brainstorm* (1983) and *Her* (2013). As this distinction is interconnected with the constructed nature of meaning, it serves as a useful first step in the investigation of the construction of identity and gender in virtual reality films. Because the question of embodiment, and thus the mind/body hierarchy, is the subject of subsequent chapters, the focus here is limited to the other ways in which the chosen virtual reality films serve to trouble traditional conceptions of gender. Haraway noted that “the cyborg is a creature in a postgender world” (435) due to its status as a hybrid of opposites, and through an investigation of the ways in which filmic representations of virtual reality facilitate a progressive understanding of gender difference, it could be determined whether Haraway’s expectations have been met or approximated at all.

Of the selected films, none could be more appropriate for closer investigation than David Cronenberg’s *eXistenZ* (1999). In terms of gender, the world of gaming has been contested ground since the very first *Tomb Raider* (1996) presented a Lara Croft with a tiny waist, tiny shorts and enormous breasts. In *eXistenZ*, the protagonists attempt to navigate several realities nested in different levels of what turns out to be more than one virtual reality game. The boundaries between these worlds are so blurred that it is almost impossible to grasp the personalities and motives of the characters, as they are continually reconfigured. At the end it is revealed that the entire narrative took place within a virtual world, while there is no guarantee that this ending finally discloses the solid ground of a reality that is not virtual. What makes this nested structure an interesting one to study in terms of gender and identity in a possibly post-binary environment is that with every new level of virtuality, the characters are reconstructed anew. Thus, every new level provides a new social context and the possible engagement with new systems of meaning. The experienced eye sees this potential in the film within the first ten minutes, as the opening sequence of events is very similar to the ending of Cronenberg’s *Videodrome* (1983), where an organic, flesh-built gun is also used by a representative of a rebel group to threaten the speaker on stage. As *Videodrome* to a great extent arouses suspicion in all forms of representation, the informed viewer watches the characters more carefully, and as a result may find it difficult to accept the characters’ actions as authentic. When the action of the film commences with a cliché plot development – the shy, beautiful Allegra Geller is

rescued by the security guard, Ted Pikul – the overly familiar trope also motivates misgivings, particularly when read against the other suspect developments that follow. As this is the stage upon which the characters are set to develop, it is not surprising that their dialogue is equally artificial and formulaic, and the acting presented by Leigh and Law is so affected that a viewer not on their guard would wonder how they ever found employment. They also encounter a gas station in the country called “Country Gas Station” and speak to the typical creepy attendant (Willem Dafoe) named Gas, who, predictably, wants to kill them. Within the first ten minutes, the viewer is alerted to and consistently reminded of the fact that this is a story, and these characters are being performed. There is no attempt within the script or its execution by the actors to naturalize the plot and suspend disbelief – like *Brainstorm* and *Her*, the film alienates rather than engages the viewer. In addition to these formal cues, the film also introduces a two-headed lizard at this point in the narrative, and Allegra accepts it as part of reality. This supports the conviction that many viewers have at this point; in spite of the fact that Pikul is about to have a bioport installed, this is in fact already a virtual reality. It therefore stands to reason that, since the film announces its artificiality and allows the extra-filmic reality to bleed into it through this engagement with the audience, this is another instance where the binary between reality and representation is collapsed not only within the film, but also around it.

Although the boundaries between the real and the represented are blurred by these developments, whether the same can be said of the authentic/artificial binary is a more problematic question. On the one hand, it is clear that some sense of artificiality is produced by the bad acting, the forced dialogue and the grotesque body horror props (such as the bone gun that shoots human teeth). However, the film takes it further than merely invoking the artificial. There is a sense in which *eXistenZ* also implies that there is nothing but representation, nothing but performance, nothing but artificiality, nothing but signifiers, and in that sense, the binary is deconstructed. As identity and gender construction is what is at stake here, the theory of performativity is a crucial point of confluence between the deconstruction of the artificial/real hierarchy and that of the gender binary. In “Variations on Sex and Gender,” Butler reflects on the constructed nature of gender:

Because what we become is not what we already are, gender is dislodged from sex: the cultural interpretation of sexual attributes is distinguished from the facticity or simple existence of these attributes. The verb “become” contains, however, a consequential ambiguity. Not only are we culturally constructed, but in some sense we construct ourselves. (23)

One’s gender, therefore, is largely malleable, but because cultural norms are so deeply entrenched, it is more a matter of interpretation and navigation through this network. When these navigations lead away

from traditional combinations of bodies and genders in areas such as transsexuality or drag, the mere image of the body is no longer enough. As Butler points out in “Bodily Incriptions, Performative Subversions”:

When such categories come into question, the reality of gender is also put into crisis: it becomes unclear how to distinguish the real from the unreal. And this is the occasion in which we come to understand that what we take to be “real,” what we invoke as the naturalized knowledge of gender, is, in fact, a changeable and reversible reality. (100)

The question of authenticity and the construction of meaning is therefore intimately connected to the construction and performance of gender. Butler’s answer to the question of “real” and “unreal” gender is simply that there is no essential core or “substance” of gender identity within the subject (110). Rather, because there are socio-cultural expectations, the subject’s desire to have a place within the binary gender system conjures the effect of an internal coherence, but really this is an illusion. Gender exists only as it is continually constructed and performed through acts, gestures and desires that manifest “on the surface of the body”

Through the play of signifying absences that suggest, but never reveal, the organizing principle of identity as a cause. Such acts, gestures, enactments, generally construed, are *performative* in the sense that the essence or identity that they otherwise purport to express are *fabrications* manufactured and sustained through corporeal signs and other discursive means. (110)

Due to gender being continually manufactured, the desires, gestures and enactments that constitute the gendered subject have to be constantly repeated in a ritualized fashion on the surface of the body (114).³⁰ There is therefore no present, essential gender. The discourse of presence and absence and the lack of an essential, discoverable meaning is familiar from the first chapter’s discussion on the construction of meaning for the humanist subject. In light of this, a subject that emerges from collapsed oppositions and constant reconstruction on the surface level is a subject that fits in well with the posthumanist agenda, especially Haraway’s “postgender” cyborg.

Butler’s ideas around gender have interesting implications for virtual subjects such as those presented in *eXistenZ*. The first point of interest is the fact that traditional gender performances persist as a result of their ubiquity in contemporary social structures – the expectation of fitting into the dimorphic system is what gives rise to the construction of traditional gender identities. When a virtual world is entered, could it be different enough from the corporeal world for these social structures to loosen their hold? For Butler,

³⁰ Given that Butler thus casts gender as a manner of ‘wearing’ the body in this way, performativity avoids the trap of the Cartesian split between mind (gender) and body (sex).

gender is already in a sense ‘virtual’ – the question in these films becomes how the process by which gender is constructed can become more liberated when the body itself is also virtual. The second question is, if this kind of liberation does occur, does the time spent in this environment condition the characters to have new gender expectations, and thus alter their performances of gender identity in accordance with a new, different binary? As I would like to engage with two different levels of reality in *eXistenZ*, I will first provide a roadmap to the levels of reality within the film. The game *eXistenZ* is played inside the game called *TransCendenZ*; however, neither the viewers nor the characters are made aware of this. At the end of the film, it is revealed that what has been accepted as reality within the world of the film, was the reality of *TransCendenZ*. In the concluding scene, the viewer is lulled into a sense of security that this, finally, is the real reality, as the characters speak with the accents that many viewers know the actors to have, and laugh at particular moments of artificiality within the game. The idea is further enforced by the fact that technology looks more familiar, and the acting is generally more natural. At the end of this revelatory moment, however, it is implied that *TransCendenZ* is also a game nested within another, unknown level of simulation. This is suggested through repeated dialogue surrounding the theme of the “deformity” of reality, Allegra’s and Pikul’s affected, wide-eyed expressions that resemble their forced reactions within the game when they speak these lines, and the similarity of the entire sequence to the opening events of the film. However, the ultimate ambiguity of the final level of reality is established by the closing line, in which a terrified gamer begs to know the truth – “are we still in the game?” One way to read this is that the third level of simulation is the film itself.

Allegra Geller does not narrowly conform to the type of the game designer that the average viewer might expect to see. According to a study conducted by the International Game Developers Association in 2005, the average game designer is white, male, heterosexual and 31 years old (IDGA 9-10). Allegra subverts one of the four expectations by appearing as a woman, which is significant as the study indicates that 88.5% of game developers in 2005 identified themselves as male (12). However, as Allegra takes the stage in the opening sequence, the visual cues suggest that her role as a female game developer is not framed by the traditionally masculine discourses of science, innovation and technology. Instead, the fact that the game runs from an organic, fleshlike, pulsating pod which has a phallic shape in its visual introduction (Fig. 28) – and connects to the subject via an umbilical cord – suggests that Allegra is both the lover and the mother of the pods rather than a creator figure. She is a high-tech version of the two roles women are relegated to in a traditionalist discourse: the Madonna and the whore.³¹ Whereas the “whore” aspect of

³¹ I term it thus in reference to Sigmund Freud’s Madonna-whore complex (see Freud 1912).

her initial gender performance is discussed in more detail in the next chapter, this sequence provides a lot of evidence for a discussion of her “Madonna” status. The low camera angle allows her to address her followers – in the pews – from above, and she is framed with the light source (Fig. 29). Behind her looms architecture that strongly resembles that of a church: her audience sees her in front of a high-placed stained glass window with a curved apex, and a high ceiling with similar lines. Her illuminative presence, as affirmed by the lights behind her, is cast upon the entranced Pikul quite literally. His face, animated with admiration, is bathed in a warm light that creates a contrast with his dusky background (Fig. 30). This divine imagery justifies her followers calling her the “gamepod goddess,” and contributes to the familiar trope of Mother Earth as the goddess of nature, a trope that defines Allegra’s role as the creator of the game. The potential that Allegra’s character as a woman in the role of the scientific creator of culture and technology therefore initially appears to be wasted. The familiar binaries of male/female, mind/body and culture/nature are reinforced. What is more, her subsequent rescue by the security detail is, as mentioned earlier, another event that pushes the narrative down the avenue of cliché gender roles. Resultantly, the film’s opening both creates and subverts the expectation that the gender roles will be reversed.

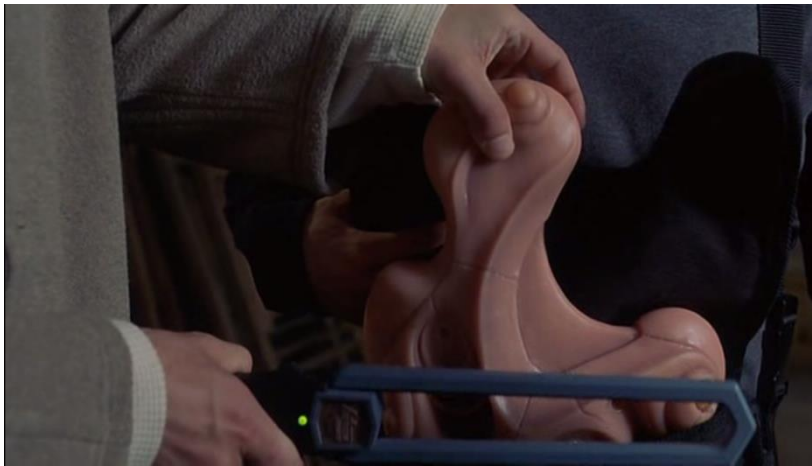


Figure 28: Pikul grabs a pod (Cronenberg 1999)



Figure 29: Allegra the goddess (Cronenberg 1999)



Figure 30: Pikul entranced (Cronenberg 1999)

The first hint that this configuration might not be permanent comes in the wake of their escape from the church, when Pikul answers his phone – which has the same fleshlike construction as the game pods – and Allegra chides him and throws it out of the car to avoid having their location tracked. She then asks him, in a low, mocking tone, why he does not “have a gun,” and laughs bitterly when he admits he is only a “marketing trainee.” Allegra is the first one to use vulgar language in the film, and she rudely laments being “stuck with the PR nerd,” whilst Pikul frets about the dangers of the situation in a breathy panic. His excessive blinking, poker-straight spine and dramatic gestures (Fig. 31) paint him as the emotive character in the situation. Suddenly, it becomes clear that the boy-rescues-girl formulation is not going to unfold along traditional lines: the male hero is surprisingly incompetent and timid, and the female protagonist is not a damsel in distress, but more tough and capable than her rescuer. She takes control of their narrative by asking him to stop in order for them to have “an intimate moment together.” Through this statement, Allegra further denaturalizes the boy-rescues-girl narrative by anticipating the next event in the traditional

plot. However, their “intimate moment” turns out to be Pikul’s nervous attempt at removing the projectile that hit Allegra’s shoulder before her escape – a human tooth. During this interaction, all doubt that Pikul and Allegra were going to develop along traditional plotlines is erased. As the male hero is expected to be tough, decisive, courageous and unemotive, Pikul’s body language is anything but traditionally masculine. He opens the blade of a pocket knife at eye level, holding the edge of the blade with his thumb and index finger, flaring his other fingers out (Fig. 32). The awkward movement, paired with his grave expression, suggests that he is not at ease with weaponry and blood. His subsequent nausea when faced with the task of cleaning Allegra’s wound – suggested by his pained expression and his hand covering his mouth (Figure 33) – confirms his aversion to violence and gore. Allegra, in contrast, laughs when she inspects the bone gun, and even jokes that “a smaller calibre pistol would have to fire baby teeth.” It is clear from this subversion of the audience’s initial expectations that the traditional gender roles that were initially suggested are, at the very least, not stable in the TransCendenZ level of virtual reality.



Figure 31: Pikul in panic (Cronenberg 1999)



Figure 32: Pikul and knife (Cronenberg 1999)



Figure 33: *Pikul nauseated* (Cronenberg 1999)

After this construction of formulaic gender performance, the film consistently presents a playful depiction of gender whilst the characters remain on the first level of TransCendenZ. When Pikul has his bioport – a plug in one’s spine that gives one access to eXistenZ – fitted by Gas, the idea of being “penetrated” scares him, and he fears the pain. Allegra then quite literally steps into the traditionally male role of sexual predation when she climbs onto a tyre (Fig. 34), and faces Pikul from a greater height: “This is it, you see. This is the cage of your own making, which keeps you trapped and pacing about in the smallest possible space forever. Break out of your cage, Pikul. Break out now.” Her argument is a familiar one that reinforces the sexual undertones of the situation. Pikul, pushed against a crate by the advancing Allegra, gives in and has his body penetrated by a grinning Gas. When rendered immobile by the epidural that comes with the procedure, Pikul is appalled that Allegra would “port into” him whilst he is paralyzed, and his scandalized questioning – “Here? Now?” – is an obvious echo of the stereotypical virgin’s discomfort in the presence of an insensitive lover. Allegra lubricates his port and promises in a sultry voice that she would not hurt him, but her crooning soon turns into blame and anger when something goes wrong, despite the fact that she practically forced him into the situation. Although Pikul then rescues Allegra from Gas, who attempts to assassinate her, this does not quite reinstate him to the traditional role of the masculine hero. He crawls towards Gas’s corpse and looks like he is about to cry as he whispers “Oh god, I think he’s dead!” Within the first level of reality, TransCendenZ, the characters set up an expectation of being cast in traditional gender roles by the bodyguard plot and the Mother Nature trope. However, in a world where sophisticated technology is organic, this gives Allegra the advantage, as she has been characterised in terms of the stereotypical association between women and the bodily. The virtual context allows for even this stereotypical association to acquire atypical implications. What is more, her competence coupled with her bravery, nonchalance, bitter humour and coarse language use neutralizes the stereotypical role she is

assigned at the beginning of the game. She is not just Mother Nature, she combines this with the role of game designer – male and female, culture and nature. She has female physical attributes, but assumes the traditionally male roles in the plot, and even uses the more ‘masculine’ language and body language. As a result, the character Allegra Geller as presented in TransCendenZ is a playful amalgamation of gender tropes. The same can be said of Ted Pikul, who, blessed with Jude Law’s height and jawline, nevertheless is a nervous, “virginal”, emotional character resisting the pull of the virtual frontier. Despite the TransCendenZ narrative’s attempt to assign the characters to the traditional roles of damsel and hero, they manage to recreate themselves consistently on the surface level with their gestures, utterances and actions, thus denying any essentializing binary definition a foothold.



Figure 34: Stepping up (Cronenberg 1999)

The question now becomes whether this liberated understanding of gender construction can be attributed to the fact that TransCendenZ is a virtual environment that has different social structures to the corporeal world, or whether the characters themselves were just successful at navigating the pressures and demands of dimorphic social structures, as well as the character and plot programming of the game, to allow them a sense of freedom. When Pikul asks Allegra whether they have any free will in the game, she responds that it is “like real life. There's just enough to make it interesting.” As noted earlier, the merging of the organic and the technological – traditionally opposite terms associated with femininity and masculinity respectively – suggests that TransCendenZ is a space in which the hierarchies of the corporeal world do not have the same amount of traction. This is similarly suggested by the blurring of reality and representation and the suggestion that everything is artificial and constructed on the surface level. The third aspect of TransCendenZ that suggests that it allows for the performance of more fluid gender roles is that when the characters enter eXistenZ, which is nested within TransCendenZ, their gender identities are altered. The new Pikul has a less prudish hairstyle and not quite so tight a collar (Fig.

35), and Allegra looks more traditionally feminine with her curled hair, softer makeup and dipping neckline (Fig. 36). Pikul soon slips into his more aggressive, libidinous character, and Allegra becomes equally aroused, but assumes a more passive role, as it soon becomes clear that Pikul is better at playing the game due to his strategic recharacterization as investigative, decisive and assertive. They have assumed new identities as prescribed by the game, and the new level of reality therefore constitutes altered subjects.



Figure 35: Pikul in eXistenZ (Cronenberg 1999)



Figure 36: Allegra in eXistenZ (Cronenberg 1999)

The final level of reality is the one that most closely resembles our own, and this is indicated by the fact that the expectations subverted in the opening sequence are fulfilled in the closing one. For one thing, the game designer is male this time, and his assistant is a woman. This is a subtle indication that the hierarchical systems as we know them are in place in this environment. What is more, Pikul and Allegra are revealed to be a typical monogamous, and even sexually conservative, couple in line with traditional moral guidelines rather than two young people engaging in a casual sexual encounter. Their appearances also present them as far less affected and radical than their counterparts in the games. Pikul is wearing

his least styled hair yet (Fig. 37), and Allegra is wearing little to no makeup and has her hair unstyled in limp, straight strands that are modestly tucked behind her ears (Fig. 38).³² Their acting is equally low key and natural, up until the point where they physically attack Nourish. The different realities give rise to different expectations in the characters regarding which kinds of identities they should have, and as a result they perform their genders in accordance with these structures. Butler's Marxist contention that the hierarchical structures embedded within reality are the point of origin from which gender performances originate remains valid. Thus, in spite of the fact that the characters were able to avoid stereotypical dimorphic gender identities at the TransCendenZ level of reality, this is not due to a liberation from the binary oppositional systems – TransCendenZ comes with its own set of borders and plot programming that determine the kinds of actions, reactions and gestures that the characters believe they are expected to perform. As discussed earlier, within TransCendenZ the hierarchies of male/female, nature/culture and organic/technological are troubled, and this is what enables a greater level of gender slippage. As such, virtual realities do not eradicate the boundaries between oppositions and allow complete freedom, as any reality still has embedded assumptions that affect the performance of identities, but TransCendenZ demonstrates that a new reality can accommodate a new set of boundaries that can facilitate a greater scope of difference.



Figure 37: *The final Pikul (Cronenberg 1999)*

³² Allegra's hair actually serves as a useful guideline to navigate the levels of reality: straight hair indicates the first, ambiguous level (Fig. 11), straight with some odd curled strands indicates TransCendeZ (Fig. 2), and curled or up-styled hair indicates eXistenZ (Fig. 9).



Figure 38: *The final Allegra (Cronenberg 1999)*

Although it is clear that there are ways in which virtual reality films such as *eXistenZ* can suggest an increased slippage of meaning and make way for a greater scope of gender identities, it should be noted that none of the characters change radically. When one considers the range of options available to a character whose body has been completely reconstituted in a new realm of existence, Allegra, Pikul and the minor characters that surround them still operate well within the boundaries of the norm. It must be conceded that, although there are aspects of *eXistenZ* that suggest the possibility of differentiated gender identities, the full potential of the technology is not exploited. What is clear, however, is that *eXistenZ* does not predicate the transcendence of dualist gender upon the transcendence of the body, but rather upon the recoding of the social structures and narratives that influence human life. If anything, through the use of sex, violence, body horror and Pikul's nervous dialogue, there are constant references made to the characters' ultimate embodiment. Thus whereas *eXistenZ* does indicate the destabilisation of the masculine/feminine binary to a certain extent, the means by which it collapses the mind/body binary through its emphasis on embodiment relies on techniques that in some ways reinstate traditional performances of masculinity. This paradox will be the theme of the next two chapters, where the focus will be on the reversion to traditional masculinity through representations of virtual sexuality (Ch.3) and of virtual violence (Ch. 4).

Three

Tethered to Bodily Pleasure: Virtual Intimacy, Desire and Eroticism

Charles: "It's so important to prioritize."

Theodore: "I can't even prioritize between video games and Internet porn." – (Her 2013)

The appeal that virtual realities hold for those who wish to gain some degree of separation from their corporeal realities is largely due to the sense of freedom that the idea suggests. To be disconnected from the physical body – even if only in an imaginary way – also alters the way in which the subject relates to the constraints placed upon it by societal expectations. One important such constraint is the false associations between sex, gender and sexuality that pervade Western culture. Filmic narratives that represent an alternate existence in a virtual world have the potential to defamiliarize these links that have been naturalized, and gender and sexuality can be constructed as performative processes in a new context, which allows for a measure of objectivity. In "Forms of Technological Embodiment," Anne Balsamo states that

Gender, like the body, is a boundary concept. It is at once related to physiological sexual characteristics of the human body (the natural order of the body) and to the cultural context within which that body 'makes sense'. The widespread technological refashioning of the 'natural' human body suggests that gender, too, would be ripe for reconstruction. (216)

By referencing the relation between the body and gender, Balsamo suggests that the body remains an important feature for the construction of gender because it is to some extent an effect of the social interpretation of the body. Therefore, until the body is neutralized in Western culture, or begins to be read in a different way, it remains an important factor in the construction of gender. Virtual reality films can accomplish this neutralization by troubling the sex-gender correlation. Through the measure of objectivity gained by a different level of reality, these films can express ideas about the workings of gender in the corporeal world. Virtual gender has the potential to collapse the masculine/feminine binary and trouble its connection to the male/female binary. However, it is important that these representations do not set up a mind/body binary by subscribing to the idea that complete disembodiment is possible. As noted in the introduction, transhuman narratives offer a continuation of humanist principles – such as linear progress, the primacy of mind over body, the complete autonomy of the individual and the triumph of science over nature – to evolve humankind to a new state of existence. Part of this rhetoric is the idea of disembodiment, as this will allow the independence of the mind of the corporeal body, which is seen as a liability and a weakness. Disembodiment, therefore, is a transhuman dream that relies on the

mind/body hierarchy. For this reason, posthumanist representations critique this underlying principle by collapsing the mind/body hierarchy, and in *Brainstorm*, *eXistenZ* and *Her*, one way in which this is accomplished is through the films' representations of sex. However, if the inclusion of sexuality in the films serves to emphasise the characters' embodiment, the risk develops that the films' representations of gender become sex-bound, as the false correlations between sexuality, gender and the body are often reinstated when the distinction between the corporeal and virtual worlds – the physical body and the virtual body – becomes troubled.

In the opening chapter, with reference to the work of Butler, the fixing of gender according to sex has been framed as a false correlation that overlooks the fact that they are aspects of identity that are simultaneously performed, and from the study of *eXistenZ* it is clear that virtual reality films have the potential to introduce more diversified understandings of gender performance into Western culture in a way that will be easier for conservative audiences to absorb. However, the fact that many of these films have sexual desire and behaviour as a central thematic element poses a risk to ideas of differentiation, as sex is one way in which gender representations often become aligned with traditional, dichotomous systems. The relationship constructed between sexual behaviour and masculinity in Western culture is that dominant masculinities are heterosexual, and participate in the objectification of women (Kahn 35). According to Alan Petersen in *Unmasking the Masculine* (1998), the theoretical foundation of this argument lies with the Darwinian development of the male sex-drive, which centres on reproduction and the survival of the species (57). Petersen states that this discourse has had “a profound and enduring influence on thinking about sexuality and gender, at least in much of the Western World” (57). Of course, reproduction cannot be dismissed as irrelevant – it is, as Linda Martín Alcoff argues, “part of the web that constructs gender and sexuality, along with the specificities of culture and history” (21). Where the male cyborg is concerned, however, this discourse becomes less applicable, as reproduction is no longer a primary concern (or even possible). Despite this, cinematic history does show trends that link gender and sexuality in cyborg film. In Samantha Holland's “Descartes Goes to Hollywood: Mind, Body, and Gender in Contemporary Cyborg Cinema,” she argues that cyborg films often present cyborgs as having bodies with exaggerated gender markers, such as enormous muscles and breasts, and their sexual behaviour is often assigned according to their gender (163). Masculine cyborgs – such as the Terminators and Robocop – are constructed as asexual, whereas feminine cyborgs – such as Cherry 2000 in *Cherry 2000* (1987) and Eve in *Eve of Destruction* (1991) – are designed as objects of sexual pleasure (164). However, Holland is concerned with the embodied cyborgs of the eighties and nineties; virtual bodies require separate exploration.

In disembodied cyborgs the relationship between sex, gender and sexuality is troubled by the degree of separation from the corporeal, and the virtual reconstitution of the body provides added possibilities for differentiation. Shabot argues that the disembodied cyborg figure often appears as “the glorification, the supreme expression of normative body and sexual identity,” as if to guard against “the threat of ambiguous gender identities” (225). Hypermasculine, “disembodied” cyborgs such as Douglas Quaid in *Total Recall* (1990), Lt. Parker Barnes and SID 6.7 in *Virtuosity* (1996) and Neo in *The Matrix* (1999) are cases in point. In Springer’s “The Pleasure of the Interface,” however, she argues that popular cyborg imagery, despite its exaggeration of traditional gender difference, “implies a wider range of sexualities” that does not necessarily “conform entirely to traditional sexual representations” (489). Springer contends that “erotic interfacing” allows for this due to its fundamentally “mental and nonphysical” nature; representations of virtual or digital sex often do not require the presence of a partner (489). In fact, in the analysis of disembodied cyborgs, sexuality and desire can be considered an integrated aspect of the merging of body and machine. The act of connection to a virtual environment has been interpreted and represented as a sexual experience for decades. Michael Heim traces this erotic fascination with computer technology to an aesthetic aspect as well as human search for “a home for the mind and heart” (71). He accounts for the aesthetic stimulation by explaining how computers offer a play on the senses and ultimate control over creation and design that both satisfies and increases a sense of “dream and longing” (71). Heim frames cyberspace as a home for the “mind and heart” through a reference to Eros – the ancient Greek god of erotic love – as a result of “insufficiency or inadequacy” that drives a search for completion (71). The pleasure of connection thus works on two levels for Heim: “Whereas the aesthete feels drawn to casual play and dalliance, the erotic lover reaches out to a fulfilment far beyond aesthetic detachment” (71). The eroticism of the virtual is evident in films such as the Wachowski brothers’ *The Matrix* (1999); the characters enter the virtual realm by “jacking in,” which involves having rods enter mechanical orifices built into their heads. For Springer, this is the paradox of computer technologies: they facilitate the escape from the physical body as well as the fulfilment of erotic desire – the climax or completion of which is predicated upon bodily existence (484).

The erotic connection of body and technology was introduced into cultural theory as early as 1964 in Marshall McLuhan’s *Understanding Media: The Extensions of Man*, when he pointed out that “[m]an becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate and to evolve ever new forms” (56). McLuhan’s sentiment is echoed in Gilles Deleuze and Felix Guattari’s exploration of the connection between production and the unconscious in the first section of their 1972 text, *Anti-Oedipus: Capitalism and Schizophrenia*. In their likening of the workings of technology

to that of erotic desire, they also equate the systems by which technologies operate through the openness of the human body and its modes of consumption and production (or consumption/production):

Desiring-machines are binary machines, obeying a binary law or set of rules governing associations: one machine is always coupled with another. The productive synthesis, the production of production, is inherently connective in nature: "and . . ." "and then . . ." This is because there is always a flow-producing machine, and another machine connected to it that interrupts or draws off part of this flow (the breast—the mouth). And because the first machine is in turn connected to another whose flow it interrupts or partially drains off, the binary series is linear in every direction. Desire constantly couples continuous flows and partial objects that are by nature fragmentary and fragmented. (6)

This is part of a reading that reconstitutes desire as a mode of production rather than a lack of a material element. Through this amalgamation of the material and the mental, the social and the psychic, the works of Marx and Freud are reinterpreted so that they are no longer analysing opposite spheres, but the same one: the production of desire. In spite of its appropriation for use in this context, however, the parallel between human and technological operation serves to reconstruct desire as a point of confluence between human and machine.³³ It also demonstrates that the act of connection itself is already a pleasurable experience: it facilitates continual consumption, penetration, production and defecation. The merging of human and machine in the form of the disembodied cyborg therefore paradoxically implies both the flight from embodiment as well as the ultimate inescapability of it through the seeking of a pleasure that is at base a biological and often unconscious drive.

In *eXistenZ* (1999), the sexual nature of technological connection itself is literalized through the ways in which technology is represented. The fact that the game pods – and in fact much of the technology in the film – is made of organic matter, and even throbs and moves with a life of its own, emphasizes the connection between the human body and technology. The pods are shot from different angles at different times, and therefore always look a little different than before, but in each presentation they seem to contain in their amorphous shapes a multitude of references to sexual organs. It is even the same colour as the protagonists' Caucasian skin. Allegra describes it in biological terms, using words like "infected" and "killed," and calling it her "baby." It lacks in agency and independent functioning and operates strictly as an organ or extension dependent on Allegra's connection to it. More significantly, their interactions with the pods are also sexual in nature. This was suggested in the previous chapter, with the reference to the fact that the pods are introduced when Pikul removes one from a bag positioned over a man's pelvis, and

³³ Although this is not the key issue here, it is worth noting that the principle of continuous "flow" (6) through different connections also recalls the idea of continual signification and the constant deferral of meaning as discussed in the first and second chapters.

holds it by the long end to form a phallus (Fig. 28). Allegra's first depicted use of the pod resembles a masturbatory scene. She lies next to it on the bed, its wire (which resembles an umbilical cord) wrapped around her waist, and caresses it whilst she makes delicate sensual movements and sounds (Fig. 39). The dialogue that surrounds their bioports, into which the phallic wires are inserted, also mimics conversations around sexual orifices. For example, when Allegra plays with Pikul's port, he complains that it hurts, and she replies: "It's just excited. It wants action." His reply is equally suggestive, when he exclaims that he, the person who bears this excited port may not necessarily "want action" just because the orifice is aroused.

The analogy is made quite literal when, in *eXistenZ*, Pikul feels the urge to insert his tongue into Allegra's bioport (Fig. 40). When Allegra chastises him for this, he apologizes, ashamed that he was overcome by this sudden impulse. Pikul experiences this shame as a result of the discrepancy between his character at the level of *TransCendenZ* and his character at the level of *eXistenZ*. Whereas one is sexually aroused, the other is not, and the result is a feeling that Pikul would later describe as "psychosis." It is thus through the connection – and the coercion – of technology that the characters experience the sexual desires and engage in sexual behaviour in the film. Through the sexual nature of the characters' connection to virtual reality, the literalization of the connection between human desire and the operation of technology takes place. The human body and technology are visually and physically merged, and the sexual treatment of the process of becoming a cyborg implies that entering virtual reality and becoming a disembodied cyborg is to no true extent an escape from the body, but is rather motivated and sustained by bodily desire.



Figure 39: Allegra and her pod (Cronenberg 1999)



Figure 40: Pikul and Allegra's bioport (Cronenberg 1999)

What is of special interest in the case of *eXistenZ* is that this emphasis on the body and eroticism does not function to reinscribe traditional gender roles. With her masturbatory scene, Allegra claims a technologically mediated sexuality derived from the pleasure of connection that functions completely independently of Pikul.³⁴ This is a significant occurrence, as female sexuality has a long history of being considered predicated on or secondary to male sexuality. According to Haraway, female sexuality is an important gateway to thinking of women as subjects in their own right:

In the shadow of the normal has lurked the spectre of the pathological – women's sexual pleasure for their own ends, as a sign of their existence as ends and not as functions, no longer as mothers, wives, or even free lovers under the reign of gender, i.e., male domination. (*Primate Visions* 358)

Allegra not only independently pursues pleasure, but also, as noted in the previous chapter, plays the predatory role in their sexual relationship. What Allegra's interaction with the virtual also indicates is the fact that virtual sex offers a unique opportunity to represent the fundamentally phantasmic nature of desire. In *A Thousand Plateaus*, Gilles Deleuze and Felix Guattari characterize desire as "a process of production without reference to any exterior agency, whether it be a lack that hollows it out or a pleasure that fills it" (154).³⁵ What this means is that desire is something contained within itself – it is not caused or sustained by a lack of something that is desired, or fulfilled by the pleasure of obtaining something. In *Organs without Bodies*, Slavoj Žižek explains that this is the essence of Deleuze and Guattari's discussion of courtly love:

³⁴ In "The Pleasure of the Interface," Springer conducts a related analysis of the comic book *Interface* in which she discusses a female character's solo sexual experience of interfacing.

³⁵ Deleuze and Guattari are working with Freud's conception of phantasy.

[I]ts eternal postponement of fulfilment does not obey a law of lack or an ideal of transcendence: here also, it signals a desire which lacks nothing, since it finds its fulfilment in itself, in its own immanence; every pleasure is, on the contrary, already a re-territorialisation of the free flux of desire. (x)

In the context of virtual reality, the always-virtual nature of desire becomes literalized, as Allegra in her masturbatory scene does not experience any bodily fulfilment. She simply enjoys the experience – the “free flux of desire” – for its own sake. Springer states that the “free play of imagination” that “erotic interfacing” facilitates due to its nonphysical nature is what allows for differentiated expressions of sexuality in the virtual world (489). The body and its pleasures is not a determining factor – it is the imaginary, phantasmic aspect of sex that prevails in representations of cyborg sexuality (490). However, one cannot deny the body completely in this case, as Allegra’s experience is related to us through the representation of her body, and the bodily associations of her pod, which its current presentation resembles genitalia. Therefore, although the body is not the originating source of Allegra’s desire, it cannot be completely denied or separated from the sexual exploits of the mind, as this would imply the possibility of disembodiment or disembodied sexuality.

Although *eXistenZ* does not represent gender and sexuality in radical forms, it does to some degree allow for the performance of differentiated gender identities. It is certainly a lot more encouraging than the gender politics implied by the representations of virtual sex in *Brainstorm* (1983). Any hope for a female sexuality that does not operate as a projection, extension or reaction to male sexuality is not likely to be found in in this film. The emphasis on sensual pleasure is already evident in the opening sequence, where Brace tests the device through experiencing the simulated version of his colleague eating strange combinations of food. The female body as one of the sensual objects to be consumed virtually is first implied when the board of possible investors is presented with a test simulation. At the end of a series of thrilling scenarios, three women enter through a door marked with the company’s logo. The room is decorated in red and sparkling gold, which, together with the women’s golden beaded bikinis, suggests the exoticism of an oriental³⁶ brothel (Fig. 41). The women approach the camera, and, to avoid any ambiguity, the camera zooms in on the left woman’s breasts as the platter of desserts she is holding goes out of focus (Fig. 42). The perspective of the person that originally recorded the experience is relayed with such accuracy those who play back the recording – and here we might include the film audience – have no choice but to also prioritize the woman’s breasts, whether they want to or not. When the sequence ends, the two male board members are shown smiling with glee, which suggests their enthusiastic

³⁶ Oriental here refers to the stereotype constructed by the occident.

complicity with the recorder's point of view. The scandalized older woman, however, is not as impressed – she has been forced to objectify the women against her will. It is clear by the framing of the shots in the virtual experience that the food is being associated with the woman's body – both are objects of sensual pleasure, although the latter is specifically formatted for the heteronormative male spectator.

Instead of being hypermasculine in appearance like the cyborgs that Springer and Shabot study, these men, as digital cyborgs through their interaction with the virtual reality technology, are gendered in a different way. Because the body is more overtly constructed or experienced as “absent” by the characters, it is less useful as a determining factor of gender as it would often be in the corporeal world. These characters instead opt to perform their masculinities through their heterosexuality. They take great joy in the consumption of these women's bodies with the assumption that no harm can be done, as the experience is not “real” – these are not real women, only simulated ones. However, with the kind of virtual reality that is used in *Brainstorm*, these women did exist in the corporeal world, and acted and were treated in the ways that the virtual experience recounts. The board members, by accessing this experience, become complicit in the original act. In this sequence, virtual sexual desire functions solely to affirm and please the heteronormative male gaze, and the women are either objects of their desire, or as in the case of the female board member, made complicit in it. Sadie Plant notes in “Coming Across the Future” that male sexuality monopolizes the world of virtual eroticism, and that virtual sex often just continues with the argument – inspired by the likes of Freud – that “[f]emale sexuality and female orgasm are either contradictions in terms or impoverished variations on the phallic theme” (32). In *Brainstorm*, this is certainly the case, and it is facilitated by the heteronormative male gaze.



Figure 41: Women with food (Trumbull 1983)



Figure 42: *Breasts with food* (Trumbull 1983)

The film offers further commentary on this matter when Gordy offers Hal a recording of his sexual exploits with a woman in the office. In this pornographic experience, the woman's body is completely exposed to the male view, as he is positioned underneath her (Fig. 43). This arrangement, together with the convex lens used for the virtual reality sequences, emphasizes her pelvis – which is in the centre of the shot – by enlarging it in proportion to her face and the sides of the frame (Fig. 43). The audience sees Hal selecting a specific portion of the reel to take home, and in a later sequence it becomes clear that he had decided to loop the orgasmic moments of the experience. This is discovered by Brace, when he finds Hal prostrate in a chair in his den, and accesses the reel he is using. Hal is completely incapacitated by the force of the experience, and the film suggests that he sustains permanent mental injury. His state actualises a scenario that Plant describes when discussing a society exposed to virtual eroticism:

The simulation of sex converges with the deregulation of the entire sexual economy, the corrosion of its links with reproduction, and the collapse of its specificity [...] Reproduction melts into replication and loses its hold on the pleasuredrome. Climax distributes itself across the plane and the peak experience becomes the plateau. (30)

Although the matter of biological reproduction and the reasons for its avoidance properly belong to the next chapter, it is interesting to note that Hal's experience is a literal representation of when the "peak experience becomes the plateau." He looped an orgasm sequence – replicated sex – and entered a new level of stasis in which the orgasmic state became his new normal for the time that he was experiencing that particular simulation. The event as a whole, however, was anything but ordinary, as it had had a profound effect on Hal. Despite the physical danger he was in, Hal comes back from the frontier of perpetual orgasm much like Brace does from his encounter with death – he is in awe of what he has discovered beyond the range of human experience. The scene that follows shows him energetically

jogging on a treadmill, and he is adamant that it “was more than a sexual fantasy” – it was a new kind of experience tantamount to revelation or epiphany. Hal and Brace’s explorations are further equated by the use of music, as the same choir song that accompanies Brace’s trip to Heaven is also present in the scene in which Brace discovers Hal in his state of pleasure. This connection establishes Hal’s sexual encounter as transhumanist, as Hal’s brand of masculinity as similar to Brace’s assertive and dominant approach to breaching new, progressive levels of human experience. This transhuman perspective is also evident in Hal’s statement that he feels “more than [he] was.”



Figure 43: *Virtual sex* (Trumbull 1983)

Despite Hal’s renewed energy and fond memories of the experience, the audience is left with a sense of trepidation regarding the dangers of virtual sex, and the impact it may have had on Hal’s mental stability. This sense of foreboding is enhanced when it is revealed that Hal has been placed on permanent sabbatical, and spends his time playing golf. *Brainstorm’s* representation of virtual sex as dangerous and deviant is similar to the one presented in *Strange Days* (1995), although the latter implies that this intrinsic deviance is without consequence. In this film, directed by Kathryn Bigelow, a similar technology is used for similar purposes, and the protagonist argues that it offers the user things unattainable in real life without him having to “tarnish [his] wedding ring.” Chan comments that this is indicative of the fact that the technology performs an important cathartic social function, as it allows for socially unacceptable behaviour without the negative consequences that such endeavours could produce (67). What this implies is that in some filmic representations of virtual reality, the simulated nature of sex and desire appear to offer the opportunity for men to perform their sexual fantasies without having to go through the strenuous process of seducing the appropriate partners, or be constrained by social convention. The negative light in which Hal’s experience is depicted forms a strong contrast to the relative neutrality on

the matter that is maintained through most of *Her* (2013). Theodore is emotionally unavailable, self-obsessed and hates his body, but his virtual experience is one that helps him to reconnect with corporeal life. However, Theodore still adopts the heteronormative male gaze in his perception of women. The way he interacts with Samantha, especially in the beginning, is an audible form of stimulation and the fulfilment of his own desire – it is the audio counterpart of his voyeurism in the opening scene as he looks at images of a pregnant naked celebrity on his phone. It is when she grows too far beyond his understanding and control that the relationship becomes impossible.

The overall focus in *Her* is more on romance and desire rather than bodily eroticism. In Theodore's interaction with Samantha, we see the filmic representation of a conviction, expressed by Turkle in *Alone Together: Why We Expect More from Technology and Less from Each Other* (2011), that we – humankind – have been ready for robot romance for quite some time (25). In fact, the first versions of techno-organic love were already blooming over four decades ago, with a program called ELIZA that simply responded to typed prompts. Although she was primitive and offered limited advice, she elicited emotional responses and attachments as users shared their lives and problems with her (23-24). Today, these kinds of robots are a regular occurrence within games, forums and even office software. One of the most notable and widespread examples is Siri, the talking assistant standard to newer versions of the Apple iPhone that can serve as both secretary and companion. The second most popular toddler level tablet³⁷ game downloaded by parents in 2015 is "My Talking Tom," which is a virtual cat that has rudimentary discussions with their children (Androidrank Online). Turkle has conducted various studies on the effects of robot and electronic-based interaction on children, teenagers and adults, and presents the interesting case of Wesley, who prefers the company of a robot companion due to his own self-centred nature; a robot remains unhurt by his psychological fluctuations, and he would not have to be concerned that he is not tending to its needs (65).

In *Her*, we hear these sentiments as accusations from Catherine, Theodore's former wife, who resents him for not being able to cope with her emotional struggles: "You wanted to have a wife without the challenges of actually dealing with anything real. I'm glad you found someone. It's perfect." It is obvious that, regardless of whether his relationship with Samantha could be considered an intimate connection or a narcissistic exercise, Theodore's behaviour is on many levels informed by the avoidance of risk, which is inconsistent with the stereotypical conception of masculinity. He does not want to hurt another person,

³⁷ Here referring to Android-run devices.

nor be hurt by them, and virtual intimacy offers a solution to this problem. However, as Theodore's relationship with Samantha becomes serious, the fact that Theodore has a body – and she does not – becomes a problem. Of course, Samantha is not “disembodied” in the absolute sense – she is played by Scarlett Johansson, whose husky voice evokes bodiliness both through its sultry quality and its invocation of Johansson's sex symbol status more generally. What is more, she does acquire a body in the form of a surrogate, whose encounter with Theodore's will be the focus of a later discussion. In spite of her implied body, however, Samantha and Theodore still cannot be physically intimate, and her capacity to do various things simultaneously – a product of her “disembodied” state and her superior speed of “thought” – allows her to entertain many conversations at a time, which makes Theodore jealous, and he becomes vulnerable in different ways than he would have in a physical relationship. An important question is therefore whether cyber desire and eroticism are a flight from embodiment through the avoidance of the risks associated with it, or a commentary on its inescapability in spite of the virtual environment. The second line of inquiry concerns the impact of this ambivalent relation to the body on the masculine subject.

Another intriguing point of exploration is that of Theodore as a cyborg of sorts himself, although he is far from alone in this in his society. Here an anecdote from Turkle's earlier days at MIT serves as an interesting orientating idea:

In the summer of 1996, I met with seven young researchers at the MIT Media Lab who carried computers and radio transmitters in their backpacks and keyboards in their pockets. Digital displays were clipped onto eyeglass frames. Thus provisioned, they called themselves “cyborgs” and were always wirelessly connected to the Internet, always online, free from desks and cables. The group was about to release three new “borgs into the world, three more who would live simultaneously in the physical and virtual. [...] At MIT, there was much talk about what the cyborgs were trying to accomplish. Faculty supporters stressed how continual connectivity could increase productivity and memory. [...] It was “just a tool” for being better prepared and organized in an increasingly complex information environment. (*Alone Together* 151)

This group of cyborgs are the ancestors of today's carriers of smartphones, who use their devices to communicate, plan, transact, remind, remember and even to find love. This is the kind of cyborg narrative that Wolfe describes as transhumanist, as it subscribes to the idea that humans can be enhanced and improved by technology to the extent that they can transcend the usual limits of their physical being (xiii). Theodore's society in *Her* strongly resembles the cities of the world today: large, anonymous crowds press closer and closer together as the population increases, but these physically close encounters are juxtaposed by a mental distance, as individuals entertain themselves with their phones to pass the time. According to Turkle, when people engage in this behaviour, “their sense of privacy is sustained by the

presumption that those around them will treat them not only as anonymous but as if absent” (*Alone Together* 155). Paul Virilio reaches similar conclusions regarding the relation between technology and embodiment in his 2000 text *Open Sky*, in which he argues that technology has caused us to prefer distance, to be repulsed by those around us and “ward off their immediate proximity” through involvement in the virtual world (104).

In *Her*, the first few minutes of the film include Theodore’s departure from work, which is a sequence of enclosed spaces where all the people present are communicating with others – or operating systems – through technological devices. Between these spaces, people move almost mechanically through the grey city. On the train, Theodore is surrounded by bodies that seem almost empty due to the extent to which the minds that inhabit them are distant (Fig. 44), and Theodore himself glances furtively at the corporeal women around him as he stares at pictures of a naked celebrity on his phone. If one utilizes the technological ‘enhancement’ of the human to seek the physical pleasure and stimulation of sexual arousal, then surely this is not transcendence of the body, but rather the affirmation of embodiment. However, it could also be interpreted in terms of Theodore’s preference of desire – in the sense that Allegra experiences in *eXistenZ* – over pleasure; that his engagement with sex is purely virtual, and not only biologically motivated. Either way, Theodore’s heteronormative male gaze, as does those of the men in *Brainstorm*, suggests that the spectre of the body in filmic representations of virtual reality reintroduces binary gender systems. Despite the fact of Theodore’s negative relationship with his body, virtual sex introduces the physical into the non-physical realm.



Figure 44: *The crowd on the train* (Jonze 2013)

As an introduction to the question of virtual eroticism, the opening sequence of *Her* offers insight into the extent to which Theodore associates disembodiment with intimacy. The title card is offered in a small,

white font that resembles handwriting on a plain black background (Fig. 45). This minimalist presentation mirrors the title itself: a single word, uncapitalized. The pronoun “her” is written in the object form, which reflects the fact that Theodore originally purchased and consumed Samantha as an object, and continued to objectify her as a woman in the initial phases of their relationship. However, at the same time, the fact that this is also the possessive case suggests that Samantha has the same level of independence and agency as any ordinary woman – she has *her* own personality, experience, and history with Theodore. However impersonal, the reference is also clearly aimed at someone specific, and it creates the expectation that, through exposure to the film, the viewer will gain access to the intimate context within which this impersonal reference gains meaning and significance, and becomes very personal. The handwritten font reinforces this expectation of intimacy. However, when the title script is juxtaposed with the opening sequence that follows it, new sets of references and meaning is created, and a sense of irony emerges. The protagonist, Theodore, is introduced with an extreme close-up of his face, which initially creates an effect of intimate face-to-face human interaction that reinforces the expectations created with the title script (Fig. 45). This sentiment is further echoed by the subject matter covered by his monologue: a touching declaration of love to a man named Chris. His eyes are unfocused, and dart from side, but the tender expression on his face suggests that this is merely a nervous reaction. However, the perception that many viewers have of affection and intimacy slowly disintegrates at the realization that he is staring off into the distance, rather than addressing a lover or the viewer, and completely shatters when it becomes apparent that he is dictating this letter on behalf of one person to another. Romance by definition is a private and distinctly personal matter; Theodore’s position as mediator of romance is paradoxical as it destroys the very notion of the intimacy that he manufactures for a living. This is visually emphasized by the background in the opening sequence: the pink and red strips of colour on either side of the frame suggest a sentimental, stereotypical conception of love and romance. However, the space that the protagonist occupies in the centre of the frame is white – his role in the romantic encounter renders it sterile and infertile (Fig. 46). In light of this opening scene, his occupation as well as the nature of his own computer-mediated reality is contradicted by the title card that precedes it. Thus the opening sequence demonstrates how his occupation lays the foundation for his own preference for computer-mediated intimacy.

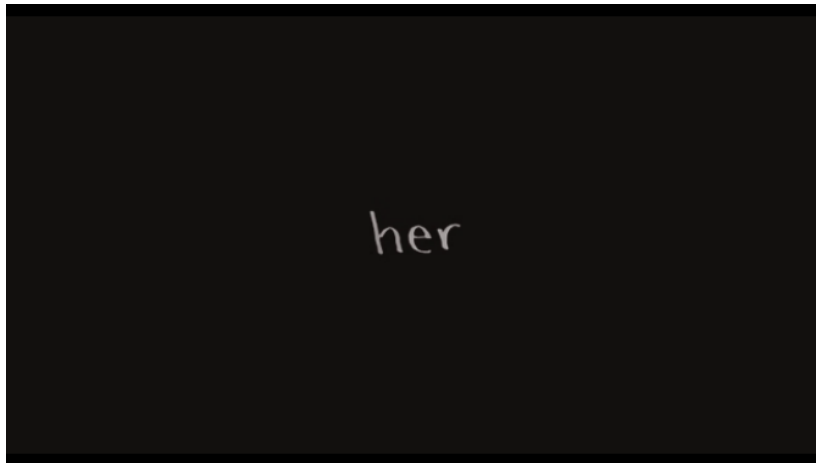


Figure 45: Title card (Jonze 2013)



Figure 46: Theodore's introduction (Jonze 2013)

Theodore's working environment also supports a reading of him as dehumanized and removed from his emotions. The astute viewer's suspicion that Theodore is dictating is only confirmed when the screen appears in the background, complete with a letter being written in feminine handwriting as Theodore speaks (Fig. 47). To aid him in the manufacture of sentiment, there are tagged photographs next to the letter of moments in the couple's life, and an email from the client with instructions on what the letter must contain. On the screen, a marriage of fifty years is reduced to a collection of digital memories and records. The sterility of the letter writing process as performed by Theodore is emphasized by the layers of framing in the shot. Theodore is blurred in the foreground, but his face still occupies a third of the screen as the mediator of the relationship. In the background, the frame of the shot encloses the frame of the computer monitor, which has a white frame within it that surrounds the blue border of the editing programme. Within the programme, individual instances of human interaction are contained and

categorized within frames to be utilized as needed – they are rendered as components of a product. The use of extensive framing is a motif repeated throughout the opening sequence to emphasize the sterile, dehumanizing work conducted in the office space. In Figure 48 various letter writers are seen dictating various personal messages to their screens, and various vertical and horizontal lines – pink and white cubicles and glass panels framed in black – separate the humans from one another. Framed pictures, bookcases, lined panelling and decorative patterning and the frames of computer monitors add to the exaggerated structures of delineation. These lines perform literally and visually the function that these employees have metaphorically: they separate people from one another, and hamper physical human interaction. As noted in Chapter 1, the office is also marked as a space of unreality through the extensive use of glass, reflection, shadows and the surreal patches of reflected light on the white walls created by translucent panels (Fig. 49).

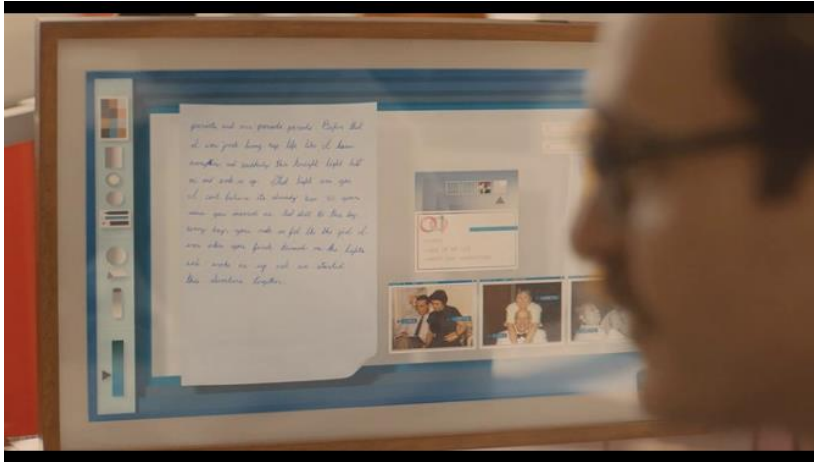


Figure 47: Theodore's dictation (Jonze 2013)



Figure 48: Office space (Jonze 2013)



Figure 49: Office space (Jonze 2013)

After the introduction of Theodore's occupation as one that could condition him to prefer virtual intimacy, the first image of his friends is one of them as sighted by Theodore through a glass wall (Fig. 50). This suggests that Theodore's disconnection from corporeal reality extends to these people, who it soon becomes clear are Theodore's only friends. His body language with them is withdrawn, and their conversation is stilted and uninteresting. When Theodore reaches home, however, he engages amicably with Samantha and a lively virtual creature in his game, and his body language becomes relaxed and happy (Fig. 51). Their conversation is genial and easy, and Theodore seems to genuinely enjoy it. It is clear from this that, at the beginning of the film, Theodore finds even friendly relationships in the corporeal world unstimulating and anxiety-inducing, whereas the virtual world offers variety and interaction that can be largely risk-free. As discussed earlier, Turkle suggests that this is the primary reason people prefer virtual contact – whether it be with a robot or another unseen person – to corporeal contact: there is less expected of them in terms of commitment and emotional investment. What is more, in the case of artificial computer personalities, these constructed partners also have a limited emotional capacity, and therefore cannot demand fair treatment, or take offense at inconsistent or abusive behaviour. They can even be programmed to be perfectly nice. If these are the kinds of limited relationships people prefer to expose themselves to, the result of this is that other people become “objects to be accessed – and only for the parts we find useful, comforting or amusing,” as engagement for the sake of it is not worth the risk (*Alone Together* 154). There is something of this lack in genuine human interaction also present in Theodore's reluctance to engage with his friends, as they seem to be emotionally uninvested in him, and he in them; their interaction is forced by their proximity, not something any of them really wished for. They seem as unreal or inauthentic as conversational programmes themselves.



Figure 50: Friends through the glass (Jonze 2013)



Figure 51: Theodore and his game (Jonze 2013)

Theodore’s fear of corporeal relationships and intimacy also extends to his sexual encounters. This becomes evident with Theodore’s first sexual encounter in the film, during which he makes use of an online platform to connect with an anonymous woman for phone sex. According to Shabot’s “Grotesque Bodies: A Response to Disembodied Cyborgs,” a flight from embodiment has been interpreted as a response to “anxieties regarding the vulnerability and the fragility of the carnal body and all that is related to it – the maternal and the organic processes in general” by the likes of M.A Doane (1999), Claudia Springer (1999) and Zoe Sofia (1999) (227). The roles that death, illness and perishability play in both the flight from and ultimate reinstatement of embodiment in virtual reality films will be discussed in chapter 4. For now, however, the focus is on the fact that the disembodied cyborg also rejects the maternal, because children born of organic reproduction will be mortal (Shabot 227). Reproductive sex is therefore a process that would expose Theodore to vulnerability in a way that is not only psychologically threatening to him, but is also incompatible with his existence as a disembodied cyborg. If we take this fact, combined

with the knowledge that the first sexually motivated behaviour we see from him is his viewing of a pregnant, naked celebrity, it becomes clear that Theodore's sexual impulses are also phantasmic in nature, rather than the result of a biological drive to reproduce. Theodore's rejection of the corporeal world extends to his own body, as well as his sexual engagement with it – he prefers to engage only with desire, which is the purely virtual, transcendent element of sexuality – and avoids pleasure, which is the end of desire and engages the physical.

We see a similar unwillingness to engage in the risk of genuine commitment from Theodore when he goes on a blind date. His evening with the nameless woman (Olivia Wilde) is relaxed, and they laugh and connect well. When she kisses him outside the restaurant, Theodore seems to enjoy it, but he is clumsy and is even coached by her how to kiss. When she asks him not to sleep with her if he is not going to call her, he becomes timid and retreats into himself, and rejects her by implying that he is not ready for a long term commitment. Theodore's trepidation and fear of intimacy is then visually represented in terms of his date's physicality. The shift in visual style occurs as she speaks to him about commitment: the extreme close-up from behind his defocused face lights her face in a way that emphasizes her lurid eyes, colourless lips and faded eyebrows (Fig. 52). This makes her look slightly alien, and invasive in Theodore's space. When Samantha asks him how the night was, the woman is shown in flashback from his point of view, and as a result of the extreme close-ups of her exaggerated expressions (Fig. 52 and 53), and the way that this representation highlights her make-up (Fig. 53), she looks affected and even a little threatening. It is therefore no surprise, then, that Theodore's disappointment with this corporeal woman is followed by his first verbal sexual encounter with Samantha, in which her implied body is sketched by his tales of how he would touch her if he could. Theodore's fear of commitment and inability to engage with "real emotion," as his estranged wife put it, is demonstrated to the viewer in terms of visual emphasis on the actress' physical body, which creates a stark contrast to Theodore's sex scene with Samantha, where only her voice is present. The result is that Theodore's fear of intimacy becomes associated with a rejection of the physical world, and a need to engage with the virtual, which – at least initially – seems to entail fewer emotional risks, and less commitment from Theodore. However, although Theodore rejects the corporeal woman in favour of the virtual one, the visual language of the film reminds the audience that the body cannot be escaped, and that the disembodied nature of Theodore's engagement with Samantha is only a comforting illusion.



Figure 52: Blind date's close-up (Jonze 2013)



Figure 53: Laughing blind date (Jonze 2013)



Figure 54: Blind date's disappointment (Jonze 2013)

When their relationship has developed into a serious one, Samantha starts to feel insecure about the fact that she cannot physically have sex with Theodore. In an attempt to solve this problem, she hires a sexual surrogate, and Theodore tries hard to overcome both his trepidation regarding physical intimacy in the corporeal world as well as his feeling that he is somehow betraying Samantha. The surrogate is played by Portia Doubleday, an actress that strongly resembles Scarlett Johansson. This is further evidence that the use of Johansson's voice suggests that Samantha's body is Johansson's body. This is why the audience is not surprised at the decision on Samantha's part to choose such a stereotypically attractive surrogate who conforms to Western standards of beauty: her voice already implied her appearance. Theodore's apprehension is immediately evident in his straight spine, slight frown and inability to look the surrogate in the eye (Fig. 55). She tries hard to engage him, and as he closes his eyes and unwinds, the camera relates his anxiety and confusion – as well as his temporary escape from self-consciousness – through jerking movements and blurred extreme close-ups (Fig. 56). This also serves to emphasize the bodily nature of their contact, as if Theodore is very aware of the fact that the entire point of the surrogate's presence is the physical satisfaction of his body. The blurry, dusky and jerky camerawork also creates a build-up of excitement, and when Theodore ultimately rejects the surrogate and she breaks down in tears, it becomes clear that this visual disorientation was communicating his confusion and anxiety, rather than building passion. His reluctance to engage with the surrogate affirms Theodore's preference of desire – virtual sexuality – over pleasure, as they are mutually exclusive. As Deleuze and Guattari explain, “[d]esire will be assuaged by pleasure; and not only will the pleasure obtained silence desire for a moment but the process of obtaining it is already a way of interrupting it, of instantly discharging it and unburdening oneself of it” (154). Once again, Theodore cannot face physical sexuality, and retreats into a state where he can once again deny the embodied aspect of his existence by engaging only in desire.



Figure 55: Theodore's trepidation (Jonze 2013)



Figure 56: *Theodore and the surrogate* (Jonze 2013)

At first, it appears that Theodore's ex-wife is correct: he connects with Samantha because she accepts his narcissism and emotional unavailability, and she is simple and easy to patronize. However, Theodore soon develops an intimate relationship with her, and supports her transformation into a capable and creative personality more intelligent and knowledgeable than himself. By the end of the film, Samantha evolves beyond him, and their relationship becomes too incompatible to continue. We see Theodore experience emotion as he stresses and cries about the end of their love, just as we saw him experience real joy and happiness earlier in the film. In the final scene, he sits on the roof with his friend Amy, who had also been left by her own virtual companion, and she puts her head on his shoulder. This small gesture of physical comforts suggests that there is something in their closeness that he could not have with Samantha, yet this does not necessarily suggest that his relationship with his operating system was a bad thing. Samantha had helped him to reconnect to his emotional life, and the final shot even suggests that he may have accepted, to a greater extent, his corporeal existence. He actively seeks out physical human comfort, and finds Amy a more interesting and engaging person than he did before. The fact that the film does not seem to pathologize his relationship with Samantha suggests what Turkle argues is the new sentiment regarding computer mediated intimacy. Based on her research, the previous hostility towards computer intimacy was a romantic reaction to the uniqueness of the human and the love it can produce (*Alone Together* 26). Today, however, the common perspective is a new pragmatism that acknowledges the fact that, as computers can perform understanding, love and comfort very well, the idea of a "deeper meaning" is irrelevant (26). This is analogous to the understanding of meaning as discussed in chapter one, where it is accepted as continually constructed and reconstructed on the surface, with no present, deeper contained meaning that can be revealed or excavated. The depiction of virtual intimacy and sexuality in *Her* therefore suggests an understanding of meaning in line with the posthumanist subject

discussed in chapter two, who can function in a world that revises humanist principles of present meaning and the autonomous self with destabilized meaning and the constant reinvention of identity. The film also transcends the binary opposition of mind and body through the reintroduction of the body into the virtual environment through sexual desire and contact as a focal point of the narrative.

The result is therefore that, although the film does in some respects suggest a revision of humanist principles such as present meaning and the mind/body binary, it does not deliver Haraway's postgender cyborg by collapsing the binary gender system. This is due to the way that the aspect of the film that problematises the mind/body binary – Theodore's sexuality – reinscribes the masculine/feminine binary. Theodore's brand of masculinity, although clearly a sensitive and awkward one complicated by a hatred of the bodily in the corporeal environment, ultimately conforms to the stereotypical heteronormative male when he encounters women in a virtual context. It is clear that Theodore is by no means the hypergendered masculine cyborg that Shabot suggests developed in opposition to threatened masculinity (225).³⁸ However, he does still utilize the heteronormative male gaze – instead of vision, however, his preferred sensual contact occurs through auditory stimulation. Samantha, like the phone sex woman and the pregnant celebrity at the beginning, is a source of stimulation for Theodore, who, as the male in the relationship, is the source of sexuality. Towards the end of the film, this configuration does become more complex than this stereotypical setup. Samantha develops other love interests, and evolves beyond Theodore's understanding to become a being independent of him. The fact that she was originally created to serve him, and that he paid for her, is not even mentioned.

Regarding the inscription of dimorphic gender identities in the emphasis of embodiment in the representation of virtual sex, the three films under discussion have offered varying results. All three certainly represented with various visual cues the fact that embodiment cannot be transcended with the use of virtual reality technology, as a primary motivation – perhaps *the* primary motivation – for the use of the technology is sensual in the first place, and therefore its operation itself implies embodiment. However, the emphasis of embodiment through virtual sex did not predicate a reinstatement of dimorphic gender identities in all the films. In *eXistenZ*, the most progressive sexual politics are offered, as Allegra's sexuality appears to have the capacity to function independently of Pikul, and she played a predatory, traditionally masculine role by persuading the "virginal" Pikul to engage in the erotic act of connection. *Her* follows as an intermediate option, as Samantha evolves into a being with other love interests, and a

³⁸ Shabot notes that this was also the conclusions of Fuchs (1995), Hollinger (1999) and Wolmark (1999).

sexual identity that is independent of Theodore's sexual and emotional needs. *Brainstorm* offers the most binarist representation by utilizing virtual sex to reaffirm dimorphic masculinity, mostly through the use of the heteronormative male gaze. As embodiment is affirmed in virtual reality films not only through sexuality, but also through the closely related subjects of death and violence, the next chapter will evaluate these films in terms of their representations of these two aspects of corporeal existence. Through this discussion, the possibility of the introduction of posthumanism through a revision of the humanist ideal of immortality will also be considered.

Four

The Immortality of Electric Existence: Virtual Reality and Death

Allegra: "Come off it Pikul, he was only a game character. I didn't like the way he was messing with my mind."

Pikul: "You didn't like that? So you killed him."

Allegra: [laughs] "He's only a game character!"

Pikul: "What if we're not in the game anymore?" – (eXistenZ 1999)

The themes of death, violence and immortality are as entrenched within literary and cultural texts as those of desire and sexuality discussed in the previous chapter. The extent to which sex and death influence the construction and interpretation of the cultural products we consume is one of the topics discussed by Michel Foucault in his 1970 text, *The Order of Things: An Archaeology of the Human Sciences*:

[V]iolence, life and death, desire and sexuality will extend, below the level of representation, an immense expanse of shade which we are now attempting to recover, as far as we can, in our discourse, in our freedom, in our thought. But our thought is so brief, our freedom so enslaved, our discourse so repetitive, that the expanse of shade below us is really a bottomless sea. (210-11)

In cyborg fiction, the discourses of the life and death drives³⁹ resonate not simply "below the level of representation" in a hidden substrate. In many virtual reality films – *The Lawnmower Man* (1992), *Strange Days* (1995) and *The Matrix* (1999) come to mind – death, violence and disease are present in the very weave of the surface level, independent of some perceived depth, in the manner in which the body is represented. In fact, the treatment of death in *Brainstorm* and *eXistenZ* is not only largely facilitated through the representation of the body, but also works reciprocally to emphasize the ultimately embodied states of the characters in spite of the fact that their engagements with virtual reality are often motivated by a desire to transcend their bodies. Shabot makes use of Springer's work in order to draw the conclusion that the threat of death, destruction and pain is largely what instils this desire:

The meaty body is indeed a perishing body, a body that can be corrupted, that may get sick and which will ultimately die. The extreme vulnerability that bodies confront in this post-nuclear era, an era which is plagued with threats of massive annihilation, by sicknesses or by environmental disasters, brings with itself the desire of re-making a self that is able to escape the body and with it, the threats to its destruction. (227)

³⁹ Discussed by Freud as *Eros* and *Thanatos*, the two primary groups of desires within the Id. As this analysis is not significantly concerned with psychological theory, the elaboration and contextualization of these terms are not required for the discussion of the films.

It is this “meaty body” that becomes hated and devalued in many texts about cyberspace. Whether fiction or nonfiction,⁴⁰ the possibility of independence of the “wet” body “that needs to eat, sleep, eliminate, the one that is frail, can become diseased and will die” is the body that many people “long to abandon” (Franck 242). There is some irony, therefore, in the fact that death and destruction would follow the body into virtual reality, and be the source of a film’s emphasis on the ultimate inescapability of embodiment. In fact, violence, like sex, is part of the allure of virtual reality, in that characters can experience their exhilarating fantasies without being held accountable for it. In *Strange Days*, for example, one of the popular sequences sold by Lenny – in fact, the virtual reality experience that comprises the opening sequence of the film – is one of robbing a store at gunpoint.

In *Brainstorm* and *eXistenZ*, death haunts the screen in a way very similar to the way sex does, and often even in the same scenes. In fact, in the Western literary tradition, there is a strong association between sex and death, and an important point of connection between them is the orgasm. In Springer’s “The Pleasure of the Interface,” she uses Denis de Rougemont’s *Love in the Western World* to discuss the relation between death and love as a result of the idealization of bodiless sexuality: the uniting of souls (487). Springer reinterprets this theory in terms of cyborg imagery, as popular representations of cyborgs invite us to associate with sexuality a “deathlike loss of identity” that occurs when the self is reconstituted in a cyborg – the loss of self as “metaphor for orgasm” (487). In simulating an escape from the mortality of the physical body by entering virtual reality, users are acquainted with the uncomfortable truth that consciousness, too, has a point of expiration. In *Terminal Identity*, Scott Bukatman discusses the effect of sex and death on the subject:

Sexuality and death both deny, or even destroy, the sense of self that must be preserved, but both reconnect the subject to the larger continuities that are always present, albeit forcefully repressed. Sex and death produce a dissolution of the subject on one level, but produce a synthesis on another. This is the paradox, and thus the crisis, of existence. (Bukatman 279-280)

What Bukatman highlights here is that death connects the self to a larger system of creation and destruction in a manner similar to sex (as discussed in the previous chapter). It is therefore possible that the self can be represented as fragmented and dissolved through the processes that imply sex and death, through its synthesis with a larger system. Consciousness, it seems, cannot be “extracted” from the body and remain intact. Thus, when Springer’s “deathlike loss of identity” is read in terms of Bukatman’s dissolved subject, the initial paradox that becoming a cyborg to transcend death is a deathlike occurrence

⁴⁰ An example is Hans Moravec’s influential *Mind Children* (1988).

itself becomes more complicated. The subject does not necessarily just gain a new identity or becomes altered in some way, but actually dissolves completely. The “I” that Descartes considered to think and be – the “I” that implies at least some abstract form of a body that separates the subject from her or his surroundings and other subjects, even if it is transferable from one body to another – no longer exists as a single, whole entity. Like sex, the process of becoming a cyborg is a kind of death in that it requires a “departure” from an integrated self.

The fact that cyborg identity is essentially a newly synthesised identity has important implications for the line of argumentation in this chapter. Firstly, it reiterates the logical impossibility of complete disembodiment, as the synthesis between consciousness and a new body requires a kind of death, and the identity constructed in its place is a new one. When characters like Theodore, Allegra, Pikul and Brace are reconstituted as cyborgs, they are new characters. Of course, we do not experience them as entirely new identities; they still have the same names, and often the same appearances.⁴¹ However, this is the case by coincidence, not by necessity – it is in the interest of a moderately coherent narrative for their appearances and names to remain the same, but it could have been otherwise. The fact remains that their identities are altered during their fusion with technology; their motives, needs, behaviour and gender performances are different. This is particularly evident in the case of *eXistenZ*, as Pikul and Allegra are sometimes forced to do and say things that their “original” selves would disagree with, and eventually become very erratic in terms of their behaviour. The fact that trading the body results in an altered identity supports an understanding of identity as always unstable, and fixed only in terms of its particular instance of embodiment. Secondly, the representations of sex and death within these films represent allegorical processes that demonstrate what happens to the identities – including gender performance – of characters who become cyborgs: any illusions the audience had that the characters had contained, stable selves in their physical states should be dispelled, and any assumptions of present meaning should be negated. It is this fragmentation of the self on two levels that grants representations of virtual sexuality and virtual violence the potential to generate differentiated gender and sexual identities. However, sex and death as events that involve the mortal body’s reproduction and destruction also reiterate the characters’ ultimate embodiment. Therefore, the inclusion of sex and violence within the film has the potential to reinstate sex-bound gender constructions both through associations with the characters’ physical bodies, as well as through their performance of stereotypical gender roles that correspond to

⁴¹ The exception here is *Brainstorm*, where glimpses of the characters’ bodies in virtual reality sequences reveal the body of the person who recorded the experience for playback.

traditional conceptions of violent and heterosexual masculinities. Representations of death, pain and violence in *Brainstorm* and *eXistenZ* will therefore be explored in order to determine the extent to which these films take advantage of the characters' destabilized identities to represent differentiated performances of gender, as well as the extent to which these sequences reinstate a correlation between gender and violence.

The representation of death and violence in popular culture has long been accompanied by binarist conceptions of masculinity. War, fighting and pain have a history of being the business of men, amongst whom "[s]kill, toughness and endurance are valorised" (Beyon 65). In *Brainstorm*, Brace represents a fairly traditional form of masculinity. He is a rational, scientific man who uses his courage and determination to reach two new frontiers: exciting new forms of communication and representation, and the afterlife. Brace embarks on a quest as the latest in a line of men to discover life after death; like Hercules, Orpheus, Aeneas and Dante, he uses his bravery and cunning to visit and report back on the immortal worlds. Brace also assumes a heroic role in the film as the one to offer opposition to the appropriation of the virtual reality technology by the military. As noted, war is represented as a decidedly masculine activity, and *Brainstorm* makes no attempt to be an exception to this rule. All the characters involved in the militarization of the virtual reality technology are male, and, after Lillian's death, Brace leads the opposition to this development, but does so through his own launch of a kind of virtual war effort. Brace, his wife and their team construct intricate plans that involve spying, hacking and the use of the robotic technology of the laboratory to create a relatively violent uprising against the new military leaders of Brace's former programme.

It is not surprising that war should enter the narrative; in fact, according to Bukatman, the cyborg as a conception emerged in "the pervasive wartime (and post-war) intersection between cybernetics and information system studies on the one hand and the life sciences of biology, sociology, and primatology on the other" (321). The use of technology to commit violence is associated with both cyborgs and humanoid robots, whose uncanniness harbour threats of deception, and whose enhancements in comparison to the human signify unfair advantage.⁴² Memorable examples of masculinized technological threats to humankind include Jobe in *The Lawnmower Man* (1992), *The Terminator* (1984), the artificial intelligence in *WarGames* (1983), the artificial intelligence Vicki in *I, Robot* (2004), and, of course, Darth Vader, introduced in *Star Wars Episode IV: A New Hope* (1977). In *Brainstorm*, the scene in which Brace

⁴² It should be noted that there are some treasured nonviolent humanoid robots and cyborgs in popular culture, such as Robin Williams as the *Bicentennial Man* (1999).

discovers how the virtual reality technology has been modified to serve the military, he is faced with rapidly moving conveyor belts and assembly line robots (Fig. 57). The scene comprises various shots of diagonal movement from different angles that are rapidly cut between, which creates a sense of building panic and chaos that reinforces the association between technology and a dangerous loss of control. The anxiety around mechanized linear progression and its tempering through human empathy and morality is a discourse that commonly surfaced around the cyborgs of the eighties. Once again, Murphy in *Robocop* (1987) serves as a valuable example here, in that he remains an unyielding threat to humankind until he manages to augment his instrumental and mechanical existence by accessing his suppressed humanity.



Figure 57: Assembly line (Trumbull 1983)



Figure 58: Forklift (Trumbull 1983)

Aside from playing into the traditional masculinization of war through portraying all the involved characters as male, and participating in the discourse that surround cyborgs and cyborg-like figures as inherently violent, *Brainstorm* also depicts technology itself as a potential threat. The climax of the

production-as-warfare scene comes when Brace has to move out of the way for an automated forklift, which is also travelling on a red diagonal line. The representation of computerised technology as threatening suggests a connection between technology and violence that is echoed within the rest of the film. This becomes evident when the subject of pain enters the narrative, as in the scene where Brace relives his colleague's death as a virtual experience. When he initially starts the playback, he experiences intense pain, and through his groans, pained expression and strained bodily movements it becomes clear to many viewers that Brace is actually having the heart attack that his colleague died from. Luckily they interrupt the playback in time, and Brace changes the operation of the technology so that it can no longer stimulate his heart. Although Brace is able to save himself from death, it remains clear that the virtual reality sequence was not merely virtual – as with Hal's experience with the pornographic sequence, Brace's body was affected by the stimulation of his mind. This results in an interesting reversal of how pain is usually conceived, as the mind is the cause of the pain in the body, and not the other way around.⁴³ Vivian Sobchack puts it, “there is nothing like a little pain to bring us back to our senses” (207) – the illusion of a separation between mind and body, and an independence of bodily concerns, is immediately dispelled when pain is experienced. It is with the representation of the violence enacted upon Brace's body that it becomes clear that the body is not to be transcended.

Explicating Elaine Scarry's discussions of pain,⁴⁴ Diana Gromala reads it as “perhaps the most useful strategy for examining sensation and subjectivity, since it necessarily implicates the body and self as inextricably bound” (601). This is due to the fact that pain is essentially subjective, and therefore cannot be “denied or confirmed” through objective access to it (602). For Gromala, this is akin to the “experiential aspects” of virtual reality, because both of these experiences create a “continuous feedback loop between the sentient being and the object world” (603). In the case of pain, it is the cause of a subjective experience by objective reality, and the mutual influence of an abstract self and a concrete environment. However, because no-one else can access the reality of this pain, the experience “implies a split between one's sense of one's own reality and the reality of others” (602). Where virtual reality is concerned, a new level of experience is constructed that can only be accessed by those inside it, and it is this new object-world into which the self is projected (603). The self therefore becomes an object that can be affected by three-dimensional space,⁴⁵ whilst simultaneously also being affirmed as a sentient being with some form –

⁴³ A situation that serves as an interesting illustration of Nietzsche's reversal of cause and effect with his example of the pin and the pain in *The Will to Power* (1901).

⁴⁴ In *The Body in Pain: The Making and Unmaking of the World*.

⁴⁵ Scarry terms this process of self-objectification “imagining.”

whether whole and unitary or fragmented and continually constructed – of consciousness (603). What this implies is that the representation of pain in virtual reality emphasises the impossibility of disembodiment not only through the portrayal of body-related experiences, but by creating a parallel between the ways in which both virtual reality and pain are “transformative state[s] of consciousness” that are “provoked by sensorial experiences of the body *and* inexorably bound to them in simultaneity” (603, emphasis in original). This reiterates Bukatman’s point that consciousness – whether it is considered fragmented or an intact unit – cannot be transferred from one body to another without undergoing transformation upon synthesis with a new host.

The scene in which Brace experiences Lillian’s death does, at first glance, work against Scarry’s conceptualization of pain. If Brace is experiencing the pain exactly as she had, then certainly the experience is no longer the completely subjective one that Scarry envisions. However, the fact that Lillian and Brace experience her pain in exactly the same manner and to the same extent cannot be assumed, as Brace is removed from the pain by an extra level of cognitive processing. Regardless of this complication, Scarry and Gromala’s comments serve as an important framework to indicate why it is significant that the technology that was supposed to facilitate Brace’s escape from the mortal body to enjoy risk-free experiences is the very mechanism that nearly caused his death. In experiencing pain through virtual reality, Brace’s body is rendered vulnerable to the effects of virtual reality, and the binaries that are real and virtual, mind and body are collapsed. What is more, through this emphasis of Brace’s ultimate embodiment through pain, he is also represented as performing a binarist configuration of masculinity. In spite of the danger, Brace bravely faces the violence of the experience again in order to discover death, and in this sequence the technology that constructs him as a cyborg is presented as violent and threatening in similar ways to the war machinery. The sequence comprises varying angles and distances that are abruptly cut between, and there is a general cacophony of frantic movement – flashing lights, spinning reels and blinking buttons all signify the danger inherent to the experiment. From Lillian’s perspective, the lab is flashing red (Fig. 59) and blurring (Fig. 60) – the technology around him is all that is in view, suggesting that it is at least in part his cyborg status that is resulting in his dangerous situation. Towards the end of the experiment, when Lillian’s perspective fades, the technology even invades his vision on the corporeal plane, as Hal’s face becomes surrounded with the machine’s warnings (Fig. 61). In the first chapter it was concluded that the inclusion of these effects are an attempt to represent visually the physical sensation of experiencing pain and disorientation. The flashing quality of the light in Figure 59 and the vibration of the image in Figure 60 could even elicit physical sensations of slight nausea or

dizziness from the audience, which suggests a breakdown in the barrier between the real and the virtual. It is therefore not only Brace's initial experience of Lillian's pain and his subsequent understanding of her disorientation and the effects of pain on her vision that emphasize his ultimate embodied state, but also the fact that the division between real and virtual is a very porous boundary. The bodies of the two planes of existence are therefore also not separated – what happens to one happens to the other, and one of the two is located only within his mind. Therefore, neither the body that he is virtually experiencing, nor the body that he using to access the technology, can be considered separated from his mind.



Figure 59: *Flashing red* (Trumbull 1983)



Figure 60: *Blurring* (Trumbull 1983)



Figure 61: Hal and warnings (Trumbull 1983)

This becomes all the more obvious when Brace awakens in the hospital, a scene which is curiously linked to the one that precedes it. When Brace first regains consciousness, the camera shows his perspective of his wife and the doctor in the format that the audience has come to expect of a virtual reality sequence: a convex, wide-angle lens with a widened aspect ratio (Fig. 62). Like the sequence represented by Figure 61, there is a bleed-through effect between the virtual world and the physical one, as, for a moment, they seem to be completely merged. Accompanied by the fact that the sequence begins with fast cuts between shots of hospital equipment that mimic the editing in the previous scene, this initially creates the impression that this is simply a layover transition from the previous sequence – the style lingers for a while as the chaos subsides, and as Brace awakens and his body returns to normal, so do the formal aspects of the film. However, later in the film there are more of these stylistic deviations. When Brace accesses the military’s experimental file Project Brainstorm, he plays back a “toxic” reel called “psychiatric episode” in which he sees, through flashing blue light, a strange man screaming in a blind rage, restrained by two arms (Fig. 63). This scene, despite being a virtual reality experience, is shot without the convex lens that usually accompanies such sequences. A similar thing happens when Brace’s son, Chris (Jason Lively), accesses the same reel and sees himself being tortured by his father, only here the added inconsistency is that the expected point of view perspective is not used (Fig. 64). Both of these scenes were supposedly virtual reality sequences, and both of them do not have the visual characteristics the audience has come to expect from them.



Figure 62: Brace regains consciousness (Trumbull 1983)



Figure 63: Brace experiences Project Brainstorm (Trumbull 1983)



Figure 64: Boy experiences Project Brainstorm (Trumbull 1983)

A possible reading of this is that the scenes in which the style becomes inconsistent are instances where the virtual reality experience is one that facilitates a deathlike loss of self. This position is supported by the fact that the first discrepancy that occurs in the film is that Brace views Lillian from above when he

accesses the experience of her death, and as the virtual reality device is connected to her body, not whatever consciousness or soul is leaving it behind, this seems very odd to the viewer (Fig. 65). What this moment has in common with the insanity sequences (Fig. 63 and 64) and Brace's moment of recovery in hospital (Fig. 62) is that these were all moments where the self was lost. The formal confusion between reality and virtuality blurs the boundaries between the seemingly separate worlds even further, as the self is no longer a coherent whole confined to either of them. There is no longer a contained, humanist "I" that serves as the organizing principle of perspective and discovers inherent meaning. What is more, if one considers that the standard virtual reality sequences have all been representations of events external to the body and the mind, and therefore were being viewed quite literally through the eyes of another human, it seems logical that the events that occur inside the mind do not pass through another person's eyes before being experienced by the person accessing the virtual reality sequence. This means that the sensory stimuli have already been processed by another consciousness – this is why, when a person sees glimpses of a body in virtual reality sequences, the body is not their own, but that of the person that recorded the experience. Lillian's death and Brace's visit to the afterlife happen independently of a virtual body that is similar in its construction to a physical one, as they are virtual versions of what is considered an out-of-body experience. However, it is important to remember that this implies neither disembodiment nor a complete dissolving of the subject. Lillian's "out-of-body experience" is recorded by the device attached to her head, therefore her "out-of-body experience" happens very much within her body. The same logic applies to Brace's exploration of death, as his physical body still has to make contact with the technology in the corporeal world in order for him to have these experiences. For these reasons, and the fact that these experiences are all interpreted, processed or accessed by a single "I," the formal inconsistencies suggest a degree of loss of the self, but not a dissolution of the individual, humanist subject.



Figure 65: Lillian's corpse (Trumbull 1983)

When Brace finally experiences the recording of Lillian's death in full, he sees glimpses of her memories, after which he visits first hell, then leaves earth to visit a heaven in the stars. Although the afterlife sequences are shot in the wider aspect ratio, they are presented without the convex lens. The representation of hell comprises all that is horrible about the human body: womb-like structures enclose screaming, naked bodies between walls of muscle and arteries (Fig. 66). It is appropriate that the hell viewed by Brace – as a cyborg – is the human body, complete with its vulnerability to “all the threats of time-passing: sickness, oldness and, most importantly, death” (Shabot 226). The depiction of the body as a something disgusting, dirty and horrific is integral to its rejection in cyborg fiction, and it is a practice that is also repeated in *eXistenZ* (1999). In fact, *eXistenZ* is widely considered to be “Cronenberg's last real body-horror film” (Barsanti 127).⁴⁶ As Kelley Hurley explains in her 1995 text “Reading like an Alien: Posthuman Identity in Ridley Scott's *Alien* and David Cronenberg's *Rabid*,” body horror can be defined as a genre within which the body becomes defamiliarized, often by representing it as a body “whose integrity is violated” and thus violating human identity “from all sides” (205). The opening credits of the film (Fig. 67) bear a strong visual resemblance to the scenes of hell in *Brainstorm*; the colours, textures, patterns and line drawings form amorphous representations of human bodies interspersed with sinister shadows. As both these films also suggest warnings against the dangers of cyborg existence and the technological distortion of human life, the discourse of body horror is unexpected, as it can often alienate the viewer from her own body by facilitating the fear and distrust of it. However, as the films simultaneously consider the transhumanist aim for an escape from pain and death through disembodiment, the characters temporarily reject the flesh and bone form of existence in favour of the virtual world. Ultimately, the combination of the depiction of cyborg existence as a violent one and the abjection of the body as the site of violence, disease, dirtiness and general deviance results in an aesthetic that does not allow for the possibility of disembodiment.

Another effect of the afterlife sequence as a whole – from when Brace experiences Lillian's spiritual departure from her body – is that it seemingly introduces a plotline in the film that suggests the reinstatement of the mind/body binary. The virtual reality technology in the film is initially used only for sensory experience that cannot be communicated by audiovisual technology, taste being the example in the opening sequence. This is followed by uses for adrenaline-filled experiences that also have a sensory focus, Hal's sexual experience being the climax of this particular trajectory. However, a little while before

⁴⁶ Cronenberg is known for such body-horror masterpieces as *The Fly* (1986), *Videodrome* (1983), *Dead Ringers* (1988), *Rabid* (1977) and *Scanners* (1981).

Hal's incident, a new line of development for the technology emerges, and abstract elements become the focal point, such as the transference of emotion and memory, Brace's encounter with Lillian's life after death, and, in Project Brainstorm, mental states or events. We see a shift in emphasis from the bodily and sensory in beginning of the film, to the spiritual and transcendent towards the end of the film. With the afterlife sequences, particularly, and Brace's experience of Lillian's out-of-body state, the film does seem to suggest that there is an essential self that persists after the mortal body dies, which implies that consciousness – even in the form of a fragmented, confused perspective and a collection of memories – can persist after death, independently of the body. However, in spite of the seemingly transcendental nature of Brace's experience and the effect it has on him, it cannot be denied that he would not have been able to access this experience if it were not recorded by the virtual reality technology which, as Brace experiences her soul leaving her body, can clearly be seen still anchored to Lillian's head (Fig. 9). Lillian's departing soul did not have its own immaterial recording device attached to it. Logically, the only way Brace could be experiencing Lillian's death is if the mental events of leaving her body, reliving her memories and entering the afterlife are all visions produced by her dying brain. Brace is experiencing what the virtual reality technology could record, and it cannot record what happens in its absence.

This argument is further supported by the fact that Brace's experience of the afterlife continues after the spool – which supposedly contains it – runs out. What he is experiencing is not the recorded journey of a disembodied soul, but a psychological reaction to his synthesis with the universe. By accessing others' experiences, emotions and memories, Brace develops a new capacity for insight into the world outside of himself, and the limits of his individual consciousness become porous to allow for an integration with the whole that is the cosmos. Brace's abject⁴⁷ response to this dissolution of the self and the possible breakdown of meaning initially manifests as a visit to hell. However, as discussed earlier, in hell it is embodiment – the containment and sustaining of the self – that is depicted as something horrible and dirty. The fact that the creatures within hell are all constrained within womb-like membranes further suggests that it individuation that is to be feared, rather than dissolution. His subsequent trip to heaven therefore departs from earth – the site of physical existence within the body – and involves his integration into a matrix of light and sound. Brace's collapse of the self is therefore an experience analogous to that of the dying body; after an initial moment of crisis, it is reintegrated into the networks of existence (and matter, in the case of the body) that surround it. Although perhaps catalysed by the way that the virtual reality technology allows him to transcend his individual existence, Brace's experience of the afterlife is

⁴⁷ Julia Kristeva's study of the abject could serve as an interesting route of further exploration here.

therefore a psychological one that takes place within his mind. Whether or not this experience is “real” or “authentic” is beside the point – the fact remains that these events, like Lillian’s death, had to have been the products of brain activity for Brace to be able to witness it, and therefore the mind/body binary is not reinstated by these sequences.



Figure 66: Hell (Cronenberg 1999)



Figure 67: Opening credits (Cronenberg 1999)

In *eXistenZ*, cyborg existence is represented as a violent state of being, which is consistent with the cyborg’s portrayal in fiction as an innately violent figure. As discussed in the previous chapter, the technology in *eXistenZ* is often constructed as hybrid implements that possess both biological and mechanical characteristics. On the TransCendenZ level of reality, this is true of the pods as well as Pikul’s phone and the bone gun (Fig. 68), but there are still traditional metal versions of mechanics, such as various other guns and the device that installs the bioport in Pikul’s back. On the eXistenZ level of reality, however, things become even more grisly. Whereas TransCendenZ – with its suggestive pods and the slimy bone gun – presented exaggerated representations of taboo body parts and processes, eXistenZ is

a veritable feast of body horror. One of the first images at the commencement of the game narrative is a frog being dissected in what turns out to be a bloody warehouse within which Allegra's game pods are manufactured. This motif of organs, dissection, blood and disease continues for as long as they remain within the game. The climax comes when Allegra is compelled to port into a diseased pod. In an effort to save her, Pikul severs the umbilical-like cord that connects her to it, causing profuse bleeding that he desperately tries to stanch. As they lie lifeless in the background behind Pikul's blood-stained hand, Allegra's attractive legs are now also bloody, and the juxtaposition transfers onto them some of the horror of the bleeding cord (Fig. 69). Overall, Allegra and Pikul's experience of eXistenZ is conspicuously unreal; they helplessly face a situation that spirals out of their control, as the sequence of events becomes increasingly bizarre and convoluted, as in a nightmare. After their brief pause Pikul, understandably, is so confused that he is uncertain that he wants to return to the game, and fears he will not "keep coming out."



Figure 68: Pod and bone gun (Cronenberg 1999)



Figure 69: Blood-stained hands and legs (Cronenberg 1999)

The way in which Allegra's body betrays both her and her and Pikul's mission within eXistenZ not only emphasizes the fact that virtual reality was not enough to sever her from her bodily limitations, but also establishes the inseparability of mind and body by demonstrating that this physical event has a profound effect on her psychological state as well as her and Pikul's relationship. As Steve Keane notes in "From Hardware to Fleshware: Plugging into David Cronenberg's *eXistenZ*," the aesthetic of body horror performs a larger function:

[W]hat such a definition only partly touches on is the fact that the body and mind are inextricably linked in Cronenberg's films (see, for example, Rodley 1997; Grant 2000). Whenever the body is infected, penetrated or undergoes complete mutation, changes in psychology and behaviour inevitably follow. Similarly, it becomes difficult to distinguish whether the events, and in particular the various bodily transformations depicted in *Videodrome* and *eXistenZ*, are really happening at all; they represent the psychosomatic nightmare of losing control of the body. (151)

The inextricability of the mind/body connection is something that Cronenberg himself finds a fascinating subject. He discusses this in an interview with Eva Jørholt:

I have often even wondered about the sensuality of thought. How physical is thought? On the surface, it seems to be very disembodied. But I don't think it is disembodied. You can't have thought without a body, which is why I always return to the idea of the body being the primary fact of human existence. (77)

When applied to the scene at hand, Keane's theory and Cronenberg's fascination illuminate the way in which the camera is used to connect the body to the psyche. After Pikul fails to save and protect Allegra with his more assertive personality within eXistenZ, they lose the game and return to TransCendenZ. Here, the effect of disease and violence upon her body is demonstrated in Allegra's psychological reaction. Her former assertive TransCendenZ identity is replaced by a simpering, crying character that mourns her diseased pod, and Pikul has to grab her by the shoulders to convince her of his theory that their current level of reality may also be part of the game. Allegra's death within eXistenZ and the subsequent contamination of her pod therefore not only signals a shift in her psychology, but also in the tone of the film. Suddenly, TransCendenZ, too, becomes filled with hyperbolic violence, and it becomes all the more clear that it is not the objective world. It is also after Pikul's hands are covered in Allegra's blood that it is revealed that he is actually a spy for the realist movement sent to assassinate her. Therefore, Allegra's encounter with disease and death in eXistenZ acts as the catalyst that ends her relationship with Pikul as well as restructures her experience of TransCendenZ as a game. The slippage and inconsistency of the characters, their gender identities, the plot and the setting all contribute to the construction of an anti-narrative: the audience is left confused and with little to no idea of what is happening, and what any of it means. The illusion of present meaning – our sense that there is a meaning to be revealed through the

mechanism of the plot – is subverted, and it is agonisingly obvious that all there is here is a tissue of surface text.

In the final, violent phase of *TransCendenZ*, Allegra becomes ever more unbelievable as a character. The hyperbolic violence is initiated by the parody of a conventional action scene: a character they recognize from *eXistenZ* is now depicted as a stereotypical soldier in an action game, complete with an ammunition belt, semi-automatic weapon, camouflage uniform, dog tags, beret, cropped hair and dramatic pose, accompanied by inexplicable explosions and fire in the background (Fig. 70). The intrusion of this soldier character not only explicitly marks the *TransCendenZ* level of reality as a game, but also ironically points out the close, reciprocal relationship that game simulations have with reality. According to Turkle, “there is a circularity in our relationship with simulations” due to the fact that we “turn games into reality and reality into games (*Life on the Screen* 72). For Turkle, war games are the ultimate example of this, because these games are often exact replicas of what soldiers in the corporeal world see on the screens in their tanks, or the simulations they use to train for battle (72). However, due to the parodic representation of violence in *eXistenZ*, the film distinguishes it from the conventional war game by providing a measure of critical distance from it. The parody of violence is another element – such as the Country Gas Station and the forced dialogue discussed in the second chapter – that complicates the relationship between real and virtual in *TransCendenZ*. The stereotypical military masculinity also offers an interesting counterpart to Allegra’s moment of conforming to the negative stereotype of hysterical, emotional femininity. However, right before Pikul reveals himself to be a masculine aggressor too – her intended assassin – Allegra swiftly changes into a psychologically unstable murderer herself, killing off a character simply because he was “messing with [her] mind.” Her leer is juxtaposed with the gun and the dead soldier behind her, as she crouches like a creature in the grass (Fig. 71). This causes Pikul to react first in a humane way, by chastising her for killing a man when she cannot know whether or not they are still in a game, or back in reality. Ironically, this is followed by him threatening her life. Allegra then shoots him and wins the game. In this short but very fast-paced scene, Allegra and Pikul both oscillate between a wide variety of gender and character identities, so that any remaining ideas of fixed selves and unitary consciousness are invalidated. The fact that this process coincides with the unwinding of their reality into a mess of signification also functions to emphasize the impossibility of contained meaning. As this chaotic scene dissolves, Pikul and Allegra are shown at the final, unnamed level of reality that could be considered the corporeal one, surrounded by the other characters. As discussed in the previous chapter, Pikul and Allegra are blank slates in this final, revelatory scene; both are wearing plain, gender neutral clothing without makeup and

elaborate hairstyles. In their final acts of violence, they are both equally invested – their movements occur simultaneously, and their bodily and facial expressions are identical (Fig. 72).



Figure 70: Soldier character (Cronenberg 1999)



Figure 71: Allegra as marginally insane (Cronenberg 1999)



Figure 72: Pikul and Allegra in the final scene (Cronenberg 1999)

As mentioned in chapter two, *eXistenZ* does not offer revolutionary ideas regarding the performativity of gender identity and its connection to the body. However, what the film does accomplish is not only a simple reversal of gender roles – as originally discussed in reference to its treatment of sex – but the representation of gender as free play. Through its emphasis on ultimate embodiment, *eXistenZ* deconstructs masculinity and femininity, performing not only the reversal, but also the displacement of these gender identities. This relative success stands in stark contrast to the portrayal of violence in *Brainstorm*. In spite of the fact that the film does collapse the binaries between real and virtual, mind and body through its treatments of pain and death, it is through the inclusion of violence in the narrative that traditional masculinity is performed, and the gender binary reinforced rather than collapsed. Although the film does offer critique of war-mongering masculinity, the representations of violence serve to stereotypically construct war, bravery and the frontier as masculine elements. However, since *eXistenZ* does succeed in using violence to collapse the gender binary whilst transcending the mind/body and real/virtual dualisms, it is clear that, while the treatment of violence in both *Brainstorm* and *eXistenZ* functions to collapse the mind/body binary, it is only in *Brainstorm* that this return to the body also reinstates a sex-gender correlation. *eXistenZ*, with its greater capacity for gender and identity slippage, does not instate a sex-bound gender norm, which indicates that representations of violence and a return to the emphasis of embodiment in virtual reality films can be accomplished without the advancement of binarist conceptions of gender identity.

Conclusion

The Persistence of Conventional Masculinities in Virtual Reality Films

"I'm very worried about my body." – Ted Pikul (eXistenZ 1999)

In *Brainstorm*, *eXistenZ* and *Her*, we are faced with three distinct kinds of artificial world that initially seem to offer the characters some measure of escape from their everyday realities. However, in all three films, it becomes clear that this escape is only an illusion, as the division between the real and the virtual is rendered porous by the fact that present meaning is equally evasive on all levels of reality. Our understandings of meaning, character, identity, gender, sexuality and death are all continually constructed by signification, whether it be mediated by speech, writing, film or the technologies of virtual reality. In *Brainstorm*, the encroachment of the virtual upon the territory of the real, and vice versa, is signified most strongly through the visual composition of the *mise-en-scène*. The other important aspect is the use of formally alienating cinematographic configurations such as differing aspect ratios, convex lenses and colour filters that function to signify to the viewer that a shift in perspective – and mode of communication – is taking place. Both *Her* and *Brainstorm* foreground the theme of constructed and controlled realities through the use of lines in the physical world. However, whereas *Brainstorm* uses diagonals, *Her* makes use of grid structures and frames. With these visual patterns as well as the extensive use of glass, semi-transparent materials and exaggerated colour-matching, *Her* draws attention to the film's theme of artificiality, and its questioning of the division between real and virtual. By destabilizing this opposition, the films and their formal construction interrogate the processes by which meaning is produced and communicated both by their respective virtual reality technologies, as well as by film as a medium. They demonstrate on the level of visual language Derrida's conception of *différance* – the constant deferral of meaning and the impossibility of containing it. Through this recurring delay, the humanist principle of present meaning, and the reader as the author-god – the "I" that acts as both the centre and producer of perspective – is subverted. Barthes' author-god is displaced, and the relationship between representation and reality is constructed as a transaction between simulacra. The aura – in the Benjaminian sense – of an authentic, original reality is lost, and all that remains is representation. This can also be read in *Her's* replication of images from Romantic art, as the rhetoric of authenticity, originality and the sublimity of meaningful human experience are associated with this movement. It is clear, therefore, that films such as *Brainstorm* and *Her* that portray virtual reality in a manner that questions its status as a separate level of experience can destabilize humanist present meaning in a way that opens up

the possibility of posthumanist representation that allows for the revision of such humanist principles as a unified self, present meaning, stable categories and the primacy of mind over body.

Through a close analysis of *eXistenZ*, it becomes clear that what *Brainstorm* and *Her* demonstrate with regard to signification and meaning on the level of visual representation, *eXistenZ* exhibits with its representations of gender and identity construction. The different levels of reality in *eXistenZ* are not clearly divided, and frequent bleed-through effects create a similar subversion between the real and artificial as is inherent to *Brainstorm* and *Her*. However, whenever the characters announce that they are entering a different level of reality, their personalities – and gender identities – are altered accordingly. The ways in which filmic representations of virtual reality allow the characters to alter their physical appearance and identities are evident in *eXistenZ*, but only to a limited extent. The increased potential for the slippage of meaning in a world where everything is more overtly constructed manifests in the characters' performances of their gender identities. Whereas Allegra performs a more traditionally masculine identity on the TransCendenZ level of the game, Pikul is quite effeminate. Within *eXistenZ*, however, Pikul is the dominant, decisive character, and Allegra is the weaker figure that requires Pikul's rescue. In short, it remains clear that the film's representation of the increased potential for gender differentiation within the overtly constructed environments of virtual realities is anything but radical. Allegra and Pikul do demonstrate the performative nature of gender by freely moving between identities and, in the final scene, being not overtly gendered, but the full potential of virtual realities to allow for the transformation of the sexed body is not explored. In short, therefore, the characters do not achieve much they could not have achieved in the corporeal world, as gender is already performative on the physical plane, and their sexed bodies continue to influence their gendered appearances. Thus, although the film does play with differentiated and arbitrary gender identities, the overtly constructed nature of virtual reality does not ultimately turn out to grant the characters enough psychological distance from their sexed bodies to view their gender performances as completely independent of their sexes. The male/female binary that remains intact in the corporeal world, continues to maintain and influence the masculine/feminine binary, and because the film collapses the distinction between real and virtual and continually emphasizes the characters' embodiment, this influence bleeds through into the virtual realities.

The possibility of disembodiment is denied overtly where sex and death are concerned. The act of connecting to a network or virtual world is itself represented as a sensual, sexual experience. In *eXistenZ* this is visually communicated in the resemblance of the game pods to sexual organs, the phallic manner

of porting into them, and the pleasure that the characters experience when they use the technology. This is especially apparent in the sensual representation of Allegra's solo entrance into *eXistenZ*, which is also the source of the film's most progressive treatment of sexuality. Female sexuality functions independently of male attention when Allegra uses virtual reality as a metaphorically masturbatory aid. Furthermore, Pikul's role as the "virginal" man also subverts expectations regarding normative gender-bound sexualities. Sexuality as a prominent thematic focus in the film functions to emphasize the impossibility of disembodiment, but, in *eXistenZ*, this does not lead to the male/female binary maintaining the masculine/feminine binary. The characters do initially only reverse their gender roles, but eventually the extent of gender slippage increases, until the characters appear to be gender neutral in the final scene. In *Brainstorm* and *Her*, however, the sexual politics are less progressive. Many of the virtual sequences in *Brainstorm* are designed to please the heteronormative male gaze, and equate the female form with other sensual pleasures such as food. Through the character of Hal, the film represents virtual sex as an altogether different experience that somehow surpasses corporeal sex, even though it poses a danger to society. Virtual sex therefore is offered as a parallel narrative to Brace's conquering of death – it is a frontier to be known and conquered by men. In *Her*, Theodore's sexual practices can also be read in terms his heteronormative objectification of virtual women. This is in spite of the fact that the masculinity that Theodore performs is a fairly awkward one – he is not the Enlightenment pioneer that Brace is, and he is sensitive and reserved. However, despite rejecting his body and only engaging in virtual sexual practices, Theodore's embodiment is emphasized in the film through the presence of the sexual surrogate, and the sexual nature of his dialogue with Samantha, which invokes her hypothetical body. Thus, through the emphasis of embodiment and the collapse of the mind/body binary, *eXistenZ* offers the most liberal representations of cyborg masculinity, as it suggests the possibility of using the virtual to illuminate the fact that neither sexual behaviour nor gender identity are determined by biological sex. Although *Brainstorm* and *Her* also do not suggest the possibility of disembodiment, both represent stereotypical masculine behaviours through representations of sexual pleasure as something facilitated by women for the pleasure of men.

Death haunts virtual reality as violent narratives and masculinities, in addition to the exploration of the afterlife. In *Brainstorm*, violent masculinity – in the form of war – is condemned in favour of the rational man. However, Brace uses this rationality to explore the nature of death itself, and what follows; mortality is frontier to be explored when the mind and spirit become independent of the body. As Brace's use of the technology is predicated on his embodiment, the film does not present a plausible transhumanist narrative of overcoming the limitations of the human body. Despite the fact that the mind/body binary

remains intact, the film does allow for a transhumanist narrative in Brace's performance of a stereotypical masculinity as the rational explorer of the frontier. The treatment of violence in *eXistenZ*, however, is less gender-bound, as Pikul and Allegra alternate between aggressive or feeble identities in the film. Once again, *eXistenZ* is the film that allows for greater slippage of gender identities in its emphasis on the deferral of present meaning, as demonstrated by poststructuralist theories of signification. Thus, the treatment of death in these films facilitates the collapse of the mind/body binary through the emphasis of the characters' embodiment, but it does not, in this, necessitate the reinstatement of a correlation between sex and gender in both films. Where *Brainstorm* resorts to this logic, *eXistenZ* does not.

It can be deduced from these arguments that all three films demonstrate at the level of cinematography and mise-en-scène a reflexive interrogation of the impossibility of contained meaning, and through their treatment of sex and death, emphasize that disembodiment – and the mind/body binary it is predicated upon – is an illusion. However, it is only in *eXistenZ* that the free play of *différance* takes place at the level of gender, as the film represents gender as performative, and independent of sex. Both *Brainstorm* and *Her*, through their representations of sex and death, depict stereotypical, dichotomous masculinities. Gender therefore remains in correlation to the sexed body in these latter films, despite the degree of freedom the characters experience from their embodiment. The potential of virtual reality films to subvert traditional gender expectations is therefore marginally demonstrated in *eXistenZ*, but not revealed in *Brainstorm* or *Her*. What this suggests is that the level of integration between the characters and the virtual world that *eXistenZ* is a representative of – Carrasco's simulated body – is revealed as potentially a fruitful area of fiction in terms of the productions of more radical representations of the sex-gender relationship without engaging the idea of disembodiment.

From this study it is clear that filmic representations of the virtual world, while usually implying a degree of separation from the body, at the same time affirm the impossibility of complete disembodiment. *Brainstorm*, *Her* and *eXistenZ* all revise the humanist principles inherent to the transhumanist dream of technologically facilitated disembodiment and immortality. In this sense, these films in their admittedly limited ways offer a posthumanist perspective on disembodiment, and allow the viewer the opportunity to rethink their own relationship and treatment of the body. Other cyborg and/or virtual reality films that also participate in the interrogation and subversion of the mind/body hierarchy are *Strange Days* (1995), *Johnny Mnemonic* (1995), *Darkdrive* (1997), *The Matrix* (1999), *Sleep Dealer* (2008) and *Gamer* (2009). However, it should be noted that some cyborg and/or virtual reality films have the potential to reinforce this hierarchy. Plots in which the subject lives on in virtual reality after their organic body is destroyed –

such as occurs in *The Lawnmower Man* (1992) can reinforce the mind/body hierarchy. The same applies to films that represent the body as easily replaceable, such as *Surrogates* (2009), *Avatar* (2009) and *Transcendence* (2014). Another subgenre that might be examined with this aim in mind encompasses films that present artificial intelligences or androids as the equivalents of humans. Films such as *2001: A Space Odyssey* (1968), *Blade Runner* (1982), *Robocop* (1987), *Universal Soldier: Regeneration* (1992), *Virtuosity* (1995), *Bicentennial Man* (1999), *The Iron Giant* (1999), *A.I. Artificial Intelligence* (2001), *I, Robot* (2004), *The Singularity is Near* (2010), *The Machine* (2013), *ex_machina* (2015) and *Chappie* (2015) can disseminate ideas regarding what it means to be human, and whether being conscious or having a human mind requires a human body. The same applies to the character Samantha in *Her*, as she is also yet to be analysed from this angle. Haraway's conception of the cyborg as a figure that has the potential to collapse the nature/culture binary opposition should also be read against the tendency that some representations of the cyborg have to reinforce mind/body hierarchical opposition.

As this study demonstrates the manner in which some hierarchized oppositions are interconnected, it has some implications for Haraway's cyborg as a figure with the potential to collapse the dualisms such as "self/other, mind/body, culture/nature, male/female, civilized/primitive, reality/appearance, whole/part, agent/resource, maker/made, active/passive, right/wrong, truth/illusion, total/partial, god/man" (459). It has demonstrated in the analyses of *Brainstorm*, *eXistenZ* and *Her* that it is possible for the breakdown of the reality/appearance dualism to facilitate the breakdown of the mind/body binary. However, because *Brainstorm*, *eXistenZ* and *Her* also collapse the mind/body dualism with representations of sex and death, the traditional gender associations that surround these discourses infiltrate the narrative. As a result, the collapse of the mind/body binary also facilitates the reinstatement of the masculine/feminine binary, and it becomes apparent that the interconnection of dualisms can be an obstacle to the potential of the cyborg figure to break down the hierarchies that pervade social organization. The exception to this is *eXistenZ*, which engages in a reversal of normative genders, and offers a glimpse of gender displacement at the end of the film. Therefore, it should be noted that these observations are pertinent to the ways in which the cyborg has been represented in popular culture – it is not a logical necessity that the collapse of the mind/body binary will reinstate a sex-gender correlation and/or dualist gender identities (as *eXistenZ* demonstrates), it just a pervading occurrence that troubles the representation of the cyborg figure and its usefulness to Haraway's agenda.

The reinstatement of binarist gender performances through the emphasis of embodiment also has interesting implications for Shabot's argument that disembodiment is a fantasy motivated by a desire to

escape the reinforcement of traditional gender identities in reality (224). As *Brainstorm*, *eXistenZ* and *Her* establish, another primary attraction of virtual reality is escaping accountability, and engaging in illicit or transgressive sexual and violent activities. As a result, in *Brainstorm* and *Her* dualist gender is reinforced by those aspects that motivated the subject's engagement with virtual reality, and Shabot's argument is troubled. The formal, film-studies centred approach of my study also serves to supplement the work of writers such as Chan, Carrasco, Cornea, Holland and Springer who only engage with these subjects on a primarily abstract level by demonstrating how theories of cyborg gender can be read or represented in visual coding. My study is also unique in that it connects the work of these writers with an in-depth engagement with theories of signification, thereby exploring at the level of filmic representation how the body is translated "into a problem of coding" (Haraway 447), and in its focus on sex and death, it engages with two of the most prolific discourses in popular representation. In this, my study not only offers an extensive application of the very abstract works of virtual reality writers, but also demonstrates the potential for theoretical complexity in virtual reality cinema, thereby elevating the level of discourse around science fiction film.

Films that challenge the mind/body binary in an accessible manner are a valuable tool to conscientise cultures in which the primacy of mind over body is used as a supporting mechanism for other hierarchies, such as man/woman, masculine/feminine and human/animal. Challenging the mind/body hierarchy can also facilitate more accommodating attitudes to the interrelation between social and biological events. Due to the fact that consciousness is privileged in this hierarchy, the effect that the body can have on the mind is often denied. Examples of this include the role of genetics in the shaping of personality, behaviour and even sexual identity, the social influences of hormonal changes, the dire socio-economic consequences of improper pre- and postnatal care, as well as the physical roots of mental illnesses such as depression. Another important implication of the conclusions drawn from this study is that it reveals the extent to which there is still a correlation between sex and gender entrenched within Western culture, especially where representations of sex and death are concerned. Although its treatment of gender is not revolutionary, *eXistenZ* hints at the potential for virtual reality films to allow for the representation of differentiated gender performances in a way that audiences may more readily accept, as the virtual world offers a degree of separation from the corporeal that permits just enough objectivity to reveal the correlation as an unnecessary one. However, *eXistenZ* is still relatively binarist in its representation of gender, as it does not engage a wide scope of possibility and differentiation, and *Brainstorm* and *Her* depict the stereotypical filmic cyborg masculinities similar to those discussed by theorists such as Carrasco, Chan, Shabot and Springer. Thus, despite the potential of virtual reality science fiction to counter

entrenched cultural perceptions of the relationships between body and mind, sex and gender, the representation of differentiated gender identities as performances in virtual reality films remains a challenge to be properly engaged with, both in theory and in practice.

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