FEMINIST CRITIQUE OF POSTHUMAN EMBODIMENT

IN MAMORU OSHII'S FILM GHOST IN THE SHELL

By

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Abstract

This thesis mainly explores the posthuman narrative of Mamoru Oshii's film Ghost in the Shell as it depicts a posthuman embodiment that addresses a complex and shifting relationship between body and technology. Considering how cyborg feminists and posthumanists find the technological particularly productive in redeploying embodiment within a gendered context, I am particularly interested in exploring the deployment of posthuman bodies in the film and the extent to which technology in the (re)formulation of subjectivity has been bound up with gender. The portrayals of cyborg bodies throughout the film, therefore, provide a valuable site of exploring how a gendered subject specifically emerges within the general corpus of cyborg texts, and how the gender performativity that the subject executes offers a queer imaginary—one that potentially undermines and denaturalizes heteronormativity. In this regard, I argue, correspondingly, that the ways in which the film uses the cyborg figure to articulate the discursive constitution of the posthuman body offers significant implications for the theorization of the posthuman and human that is in dialogue with the questions of gender.

Keywords: Posthuman, artificial intelligence, mind/body, cyborg, gender

Declaration of Original Research and the Word Count

I hereby declare that this thesis is the result of original research; it contains no materials accepted for any other degree in any other institution and no materials previously written and/or published by another person, except where appropriate acknowledgment is made in the form of bibliographical reference.

I further declare that the following word count for this thesis are accurate:

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Signed _____ (Rosallia Domingo)

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CHAPTER 1

INTRODUCTION

1.1 Background of the topic

Science fiction typically presents a human and machine/technology merge and divide. It asks the possibilities of what comes after when humanity has reached a certain advancement on technology. The term posthuman has become the standard within the science fiction discourse to refer to what we envision as the transformed subjectivities that will come after the complex interaction between human and machine. Yet, despite the potential to offer an alternative vision to the conventional notions of identity, narratives of the posthuman in science fiction continues to rely on the traditional notions of human identity and society. The speculations about the future of humanity in some hypothesized future world has often been arguably "described in largely masculinist terms, reinforcing gender binaries in its privileging of the mind, coded masculine, over the feminized body" (Booker and Thomas, 2009: 92).

Science fiction films often present possible futures of advancement in technology in the form of AI embodied in robots and cyborgs. Considering consciousness as an aspect of intelligence, one of the central points of concern in philosophical debates of AI is whether intelligence is possible in various forms of technology. AI representations in science fiction films, nonetheless, usually suggests an AI that already possesses consciousness¹. Thereby, blurring the line between human from machine. As such, much science fiction discourse on AI usually centers not on whether machine can think but upon issues of human anxieties about what intelligent machines mean for humanity.

Cyborgs are more often presented as humans with robotic or cybernetic limbs. Film portrayals of such cyborg characters maintain a plot that revolves around a dystopian future where due to the advancement of technology, the world reaches its apocalypse. Some of the films that are apocalyptic due to the dangers of technology are Metropolis (1927), Blade Runner (1982), Ex Machina (2014), Total Recall (1990), Terminator (1984), Robocop (1987). While the first four focus on the portrayal of robots, and the last two on both cyborgs and robots, they all the same lay the idea that if left unchecked, technology would either overrule humanity, or be used for unethical means. In contrast, there are only a few popular films which present a utopia without presenting its dystopia. Science fiction films, which present the utopian future with technology and rarely presents any dystopia are Star Trek franchise (2017-1979)Back to the future , franchise (1985-1990), Bicentennial man (1999), Robot and Frank (2012), and Her (2013).

The science fiction genre has also been popular in the world of manga and anime. The former, most commonly, is the foundational basis for the latter. Since the 1990s,

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¹ The task to completely understand and define consciousness is a continuous study. One problem with encountered by philosophers, for example, in determining if something has consciousness is it is subjectively based. There is no way to find out if something other than myself is conscious or not. But this does not stop philosophers of mind in giving a definition to what it is. Searle (1993: 3) defines it as "those subjective states of sentience or awareness" everyone has whenever they are aware of doing anything. This is one reason why some philosophers are pessimistic about AI acquiring consciousness. While AI can exhibit intelligences that are most often superior to their human counterparts, does not necessarily mean they have consciousness.

Japanese anime films has risen in international popularity. One of which that has proven very successful to have spawned not only animated films but also novels, video games, TV series, and most recently a Hollywood film adaptation is Mamoru Oshii's film adaptation of Masamune Shirow's popular manga, *Ghost in the Shell*. The animated film did not only bring anime to a more mainstream audience in the UK and the US with its international release in 1995, but it has also done the most to bring the cyberpunk subgenre—one that imagines a fusion of human and machine in an urban, dystopian future (Kamrowska, 2014)—to the attention of a wider audience.

The animated film *Ghost in the Shell* is set in the near future year 2029, where an advanced cybernetic technology allows humans to augment or improve any of their body parts in place of a cybernetic or mechanical one that is faster, more durable, or aesthetically significant. In the film, humans are indistinguishable from cyborgs as cybernetic implants and augmentations are as popular as plastic surgery. One of the reasons speculated for its success is its philosophical content that revolves around the notion of the relationship between the mind and the body, human and machine, personal identity, and consciousness. It also tackles the concept of Strong artificial intelligence (AI) where a program became sentient and conscious of itself and strives for self-preservation. Cartesian dualism, which rears its head as the idea that the mind and the body are two separate entities, takes central theme in the film.

The film presents us with questions about the nature of humans, machines and the intersections and/or blurring of the boundary between the two. Major Motoko Kusanagi, the protagonist, is a cyborg employed as the commanding officer of her squad in Public Security 9, an intelligence department that protects the public from cyber related crimes such as hacking and cyber-terrorism. Like many other technologically enhanced humans

in this vision of 2029 Japan, Motoko has a full cybernetic body and augmented human brain with artificially generated memories. Throughout the film she seeks to find the origin and location of her consciousness. And by the end of the movie, she merges with the Puppet Master or Project 2501, an AI project developed by Section 6 that developed sentience and gone rogue, to form a new entity and assuming a new, younger body.

The ghost, or the mind, has been highlighted through Motoko's cyborg existence as that which differentiates human from machine. Within the film, humans are distinguished from machines through their ghost. The ghost is a human's mind, or soul². The human mind, according to the Puppet Master, is self-aware, and has the tendency for self-preservation. And this same claim, is what the Puppet Master used to prove his sentience. The film specifically explores questions of humanity and self-identity within the broader philosophical issues posed by a cyborg future. By positing serious philosophical questions about a potential future in which human bodies have been intimately fused with technology, Ghost in the Shell remains one of the most challenging films to examine the question of what makes us fundamentally human.

The film, as a work of science fiction that touches upon a key discourse on the body as a site of political struggle, also serves to impel us to reformulate our social and cultural understanding of the meanings of the gendered body in the technological age (Mitchell 2006: 112). With the utopian tale of human evolution that centers on the

 $^{^{2}}$ The ghost is what makes cyborgs still human despite all the cybernetic augmentations that they have in their body. In the film, the ghost is the defining factor of what separates a computer program from human beings. Nevertheless, this notion will be challenged by the Puppet Master. When the Puppet Master asked for his legal rights since he is a life form, he was ridiculed by his interlocutor. However, he was able to argue that what makes something human is a questionable as what makes an AI sentient and conscious.

potential of information networks in creating new consciousness that is neither human nor entirely artificial, the *Ghost in the Shell* suggests the possibility of a new reality that welcomes a dynamic state of being. With regards to the speculations of masculinist perception of the future, the film challenges the boundaries between human and machine, the film opens up new ways to imagine and question the problem of humanity, the self, and gender. Some of the examples that these ideas could be explored in the film include, the Puppet Master's claim of him being a life-form, which sprang from a multitude of information combined, Motoko's questioning the authenticity of her memory and identity for being a full cyborg who can be hacked and reprogrammed without her knowledge, and the embodiment of Puppet Master in a female shell. The film's idea of the cyborg as a liberating force complicates the feminist critique of the dominant understandings of sex and gender in science fiction films' representation of cyborgs in ways in which the film's "posthumanist approach to the female-gendered cyborg encourages the emergence of a new female identity and agency" (Endo, 2011: 228).

1.2. Statement of the problem

This thesis mainly explores the posthuman narrative of the film *Ghost in the Shell* as it depicts a posthuman embodiment that addresses a complex and shifting relationship between body and technology. The portrayals of cyborg bodies throughout the film not only provides a valuable site of exploring how a gendered subject specifically emerges within the general corpus of cyborg texts, but also how the gender performativity that the subject executes offers a queer imaginary—one that potentially undermines and denaturalizes heteronormativity. I argue, correspondingly, that the film offers significant implications for the theorization of the posthuman and human that is in dialogue with the

questions of gender as it ambivalently reinscribes and undermines biological and naturalized norms of identity—the way the cyborg ontology symbolizes a trajectory towards gendering embodiment as metal and machine within the exteriorities of the masculine and/or the feminine.

As I am interested in the notion of posthumanism as it seeks to challenge the 'sexualized, racialized, and naturalized differences' that have empowered the ideal, unified, humanist conception of the subject (Braidotti 2013). In my thesis, I am bringing in an attention to the posthumanist-humanist tension that focuses on the posthumanist critique of humanism. My reference to humanism is informed by the posthumanist critique of the oppressive ideologies undergirding humanism's abstract and Western conceptions of "rational man" (Kreswell, 2009). Posthumanism, in this context, deconstructs the humanist conception of what it is to be human—that relies on the Cartesian ideology of distinguishing humans from other animals, and natural from artificial—and maintains meaningful distinction between humans and nonhumans can be made.

Cyborg as a posthuman figure has specifically facilitated scholars in dismantling these binary oppositions and theorizing gender as an ongoing and mutable activity (Miller 2014: 323). The posthuman has reshaped the traditional conception of the human subject into new configuration of identity that offers different possibilities of 'becoming' outside the traditional gendered power relations (Carrasco, 2014: 109). Interestingly, science fiction films contribute to visualize images of the posthuman not only in terms of presenting a new configuration of the human self as inscribed in cyborgs, but also in

delving into its transgressive nature to resist the binary constructions of gender (Carrasco, 2014: 110).

In my thesis, I want to bring together these key issues with the feminist epistemological critique of AI into critically examining the relationship between mind/body dualisms in the representations of cyborg in the film, *Ghost in the Shell*. Whereas traditional critiques of AI, as argued by Alison Adam (2002), limits its question on embodiment in terms of how the mind affects the body if both entities are qualitatively different and ontologically independent from each other, I aim to offer a feminist critique of AI that emphasizes on the question of the situatedness of the posthuman knowing subject within the social, racial and gendered context to open up possibilities of inquiring into unresolved gender binary issues within the posthuman thought.

Considering how cyborg feminists and posthumanists find the technological particularly productive in redeploying embodiment within a gendered context, I am particularly interested in exploring the deployment of posthuman bodies in the film and the extent to which technology in the (re)formulation of subjectivity has been bound up with gender. As such, I am interested in the ways in which the film uses the cyborg figure to articulate the discursive constitution of the posthuman body and the extent to which we can consider this figure as radically subversive or liberatory. Accordingly, this study will explore the main question: How could the posthuman narrative of the film *Ghost in the Shell*, which depicts an embodiment that addresses a complex and shifting relationship between body and technology, offer significant implications for the theorization of the posthuman that is in dialogue with the questions of gender?

In line with this, I will be answering the following sub questions:

- 1. How do cyborg figures in *Ghost in the Shell* allow new ways of exploring the transformative relations between embodiment and technology?
- 2. How does the embodiment of gender in the cyborg figure disrupt the mind and body binary?
- 3. How does the gendered embodiment of cyborgs in *Ghost in the Shell* give critical insight on the liberating vision of the cyborg figure?
- 4. How does a feminist critique of AI help us in rethinking the limitations and subversive possibilities of the cyborg figure in *The Ghost in the Shell* in (re)imagining gender roles?

This result in the conclusion that a feminist critique of the ways in which the film reveals how technological has been bound up with gender could offer new possibilities of resistance—as it pushes for a more dynamic notion of gender and sexuality and (re)imagining embodiment, gender and sexuality beyond the binary logic that characterizes the Western thought.

1.3. Literature review

1.3.1. Traditional philosophical critique of artificial intelligence

When Alan Turing asked, "Can machines think?" in his paper *Computing Machinery and Intelligence* (1950), he suggested that instead of asking this question, we should ask whether a machine could behave intelligently. Turing's goal was to formally define what computability is. To do this he defined it through the theory of the Turing machine. It contains the basic and ideal specifications of any possible computing machine. It is mainly created for solving complex mathematical problems. Since being human had so many constraints like the mysteriousness of one's psychological makeup, Turing removed the idea of *being human* in the process of computation and put it in a machine. The result became a purely mechanical problem, which can be worked out with mathematical functions. Now if the device can execute complex tasks, can it be considered intelligent? In Turing's behavioral intelligence test called the *Turing Test*, the machine undergoes an imitation game. Turing (1950) proposes that if a machine can carry on an ordinary conversation like any ordinary person, then the system is surely intelligent.

Thus, the most controversial philosophical debate on AI: The Weak AI vs Strong AI debate, which centers on the issue is whether to accept the possibility of an artificial mind through computation. The Turing test made the possibility of the creation of intelligent machines optimistic. If the computers were able to exhibit intelligent behavior by passing the Turing test, the possibility of having conscious computers are not farfetched. However, there are AI programs which behave intelligently but do not possess consciousness. This leads to the distinction of weak AI and Strong AI. Weak AI are designed for specific human intelligence such as in calculators, computers, and factory machines. On the other hand, Strong AI has general intelligence wherein it is conscious and would be able to learn by itself without any human intervention.

Weak AI is the view that brain processes can be *simulated* through a computer program (Searle 1980, 1992, 2004). Another concern for Weak AI is to systematize and to automate intellectual tasks and is therefore potentially relevant to the sphere of human intellectual activity (Russell & Norvig, 2003: 1). This means that computers can be used to learn more about the cognitivity of mind or just make ordinary tasks faster. Weak AI is a concept for any instantiations of AI programs mostly in machines which can behave intelligently by being able to do, most of the time superior, a specific human action such

as computing, constructing, or destroying. However, even if weak AI can be superior in some ways with humans, it does not necessarily mean it has a mind.

On the other hand, Strong AI as an appropriately programmed digital computer does not just simulate having a mind—it literally has one (Searle 2004). This claim views the mind as a system of computer programs which are implementable in some appropriate hardware such as the brain in the case of humans. Strong AI represents the view that "all there is to having a mind is having a program" (Searle 1992: 205). These programs do not simulate but completely duplicate the cognitive processes of the human brain. That is, it is only a matter of implementing the appropriate computation to produce consciousness or awareness. Supporters of strong AI believe that computers are capable of true intelligence. Hilary Putnam (1975: 386) even viewed the possibility of robots being conscious—the capability to manifest feelings, thoughts, attitudes and unique character traits.

Many supporters of strong AI believe that the computer and the brain have equivalent computing power, and that with sufficient technology, it will someday be possible to create machines that enjoy the same type of consciousness as humans (Rose 2010). They call this tipping point the singularity. The singularity is a plausible event in the future where machines become more intelligent than humans. And in each generation of machines creating more intelligent machines an explosion of even greater levels of intelligence would follow (Chalmers 2011). In general, these ongoing philosophical discussions on AI that has continued to expand discussions of conscious machines both in speculative fiction and scientific research are of importance to the theory of singularity that implicates the question of gender identity in conceiving a notion of human intelligence.

1.3.2. Feminist and queer analysis of artificial intelligence in science fiction films

Feminist and queer analysis of science fiction films more commonly explore the question of embodiment in AI films in terms of how they are presented in a masculinist position that perpetuates traditional societal, literary, and historical constructions of gender identity. It is nonetheless not uncommon that these two approaches overlap. The following works that I consider for review provides insightful sites of philosophical and feminist critical analysis of the representation of gender in science fiction films. Judith Kerman's Retrofitting Blade Runner: Issues in Ridley Scott's Blade Runner and Philip K. Dick's Do Androids Dream of Electric Sheep? presents a compilation of work that mostly deals with the moral implications of a hypertechnological society depicted in the film Blade Runner and the novel it is based on. This book provides relevant ways of thinking how the science fiction genre of speculative fiction, such as Blade Runner, extends meaningful philosophical discussions, especially at points of contact between hypertechnology and its transformative effects on our society. The film is assumed to be a thought experiment dealing with a wide range of issues including politics and society, technology, morality, and AI. A particular essay that relates very well with the trajectory of my analysis is The Metahuman "Kipple" or "Do Movie Makers Dream of Electric Women?" The article more specifically explores the societal role of women both in the film's narrative in and real life. Males are portrayed as strong and menacing while females are provocative specially with their clothing and behavior (Barr, 1997: 30). The analysis of the cinematic shots in pointing out the objectification of women characters throughout the narrative of Blade Runner could help inform an analysis of the female/feminine representation of cyborg figures in Ghost in the Shell. While the film features Motoko in a heavily cyberized and prosthetic body that is capable of superhuman

strength, it still hinges on a narrative tool that relies on a sexually-charged imagery of women's bodies in understanding humanity.

Another philosophical, and feminist and queer analysis of science fiction is offered by Douglas Williams (1988) in Ideology as Dystopia: An Interpretation of Blade *Runner*. Williams, in discussing the film within the context of a cinematic dystopia, made an assumption that the film does not remove any abhorrent tendencies from typical Hollywood film noirs. The film, he claims, tackles issues in politics and society which is related to a possible outcome in the future wherein robotic technology has reached an advanced level capable of mimicking every human attribute. Through this mimicry, the concept of what truly constitute a human and if AI is capable of exhibiting the same capabilities be considered alive. His discussion goes further in exploring the plot and character that are deeply rooted in the dichotomizing gender categories of men and women-objectification of passive female characters by dominant male characters of "power, authority, fantasy and gaze" (Williams 1988: 390). Similarly, the ontological discourse of the concept of identity within the context of technological progress that is reflected in Ghost in the Shell, as I shall argue, reveals an underlying structure of hegemonic heterosexuality. Motoko's struggle with straddling within the boundary between traditional humanity and the cybernetic future reveals the blurring of her ontological status as an augmented-cybernetic human. The film nonetheless remains trapped within a narrative content that reflects normative definitions of man and woman despite the vision of a future technology in which humans have begun to merge with machines.

1.3.3. The female posthuman body in *Ghost in the Shell*

The following works provide insightful views in my analysis of postgenderism in the film *Ghost in the Shell*. These works, also suggest ways of exploring a new reading of fluid gender identity themes in film that could further wider possible range of queer rereading of the science fiction genre. In *Ambivalent Portrayals of Female Cyborgs in Oshii Mamoru's Ghost in the Shell and Innocence (2012)*, Yukihide Endo provides a feminist critique of Oshii's vision of the posthuman female as reinforcing gender polarities. The article highlights on the film's failure to reduce the domination of patriarchal desires. It problematizes the female cyborgs as it portrays a lack of any female agency or desire. And highlights the difficult question of agency in the realm of the posthuman that reflects much of feminist criticism's ambivalence toward the subversive potential of technology. In the same vein, I would like to address in my thesis the question of female agency and subjectivity in terms of the representations of women's relations to technology in the film and its subversive potential for feminist politics.

Carl Silvio's *Refiguring the Radical Cyborg in Mamoru Oshii's "Ghost in the Shell" (1999)* and Austin Corbett's *Beyond Ghost in the (Human) Shell* also open up relevant insights in terms of the extent to which I intend to explore how the film depicts crucial role of the body in the making of knowledge. While Silvio (1999) examines the ideological functions of the film *Ghost in the shell* within the context of American popular culture, Corbett (2009) on the other hand further traces the cyborg genealogy in science fiction films dating back to 1990 until 2003.

In his article, Silvio unveils what is deemed to be potentially liberating in the use of information technology to the fact that actual interactions often bolster conventional social structures of domination. The cyborg, he claims "serves as a representational figure that embodies the capacity of information technologies to erase gender and racial boundaries and the structures of oppression which have historically accompanied them" (Silvio 1999: 54). Silvio (1999: 69) contends that the film as a cultural site of ideological production works to produce a conservation version of sexual identity. I argue as Silvio does that the "power dynamics inherent in dominant structures of gender and sexual difference" remains intact in the film despite the profound technological potential and "seductive appeal of the radical cyborg" in restructuring our lived realities more positively (Silvio 1999: 56). Corbett extends a similar argument in exploring the radical potential of the cyborg figure in science fiction films. Making a radical claim on the "possibility of liberation of the body through technology" in his analysis of the posthuman portrayal and role of cyborgs in the *Ghost in the Shell* sequel, *Stand Alone Complex* (2009: 43).

1.4. Theoretical framework

1.4.1. Posthumanist feminist cyborg

More than thirty years after the publication of Donna Haraway's *Cyborg Manifesto*, the image of cyborg as "a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" still strikes as an interesting way to imagine the self in a postmodern context (Haraway 1991: 149). More than providing an influential critique of the epistemological underpinnings of socialist feminism and radical feminism, it has also resolutely opposed the naturalistic and essentialist underpinnings of sex-gender distinction. As Haraway calls attention to the importance of science fiction in understanding our social, cultural and political reality, her metaphoric construct of the cyborg has been influential, among other things, in inspiring posthumanist approaches to notions of identity and subjectivity in science fictional works. Claiming that "the boundary between science fiction and social reality is an optical illusion," Haraway's theoretical construction of the cyborg as it moves away from the conventional dialectics or narratives of power has emerged as of crucial importance both in feminist theorizing and reformulating the social and cultural meanings of the gendered body in science fiction (Haraway, 1991: 149; Csicsery-Ronay, 1991: 392).

It is in this sense that Haraway's cyborg as a framework is not only particularly valuable in opening up a move beyond the dualistic epistemologies that produced antithetical subject positions such as male/female, organism/machine, human/animal, but also in informing feminist articulations of science fiction in highlighting the paradoxical representations of embodiment and subjectivity in cyborg technology. The film's paradoxical reiterating and challenging of the oppositional binary of male/female, mind/body, and natural/artificial, by virtue of the hybrid embodiment that undergirds the film's representation of cyborg bodies challenges the mind/body division in a way that allows for a non-binary model of understanding of human and machine.

On one hand, the film presents a cyborg embodiment that reiterates the Cartesian mind/body distinction but on the other hand challenges this distinction through a dynamic vision of humanity where the body and mind are intermeshed. Correspondingly, while the cyborg's posthuman nature and its embodiment as it is imagined in the film re-embodies a homogenization of gender and sexuality in its gendered construction of AI, it nonetheless, in articulating the cyborg as embodied boundary-crossing concept,

challenges the hierarchies of human and posthuman embodiment in feminist terms by explicitly breaching the dominant vectors of bodily differentiation that are used to, among others, reproduce old hierarchies of biological and mechanical. Inasmuch as the cyborg figure has continued to inform feminist reading and articulation of the mind/body bifurcation or dualism in science fiction film and literature that epitomizes the body-asmachine metaphor, my discussion and analysis of the gendered embodiment of the cyborg figure in *Ghost in the Shell* builds from the embodied hybridity of Haraway's cyborg.

Correspondingly, the model of posthumanism in Ghost in the Shell bears remarkable similarities to that of what Katherine Hayles's proposed in How We Became Posthuman. The posthuman subject as conceptualized by Hayles (1999: 3) is "an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction." Hayles, like Haraway, moves beyond existing frameworks of hegemonic power that privileges material instantations of embodiment. Hayles, nonetheless, "privileges the notion of embodiment in the posthuman and the potential to include those marginalized from the conceptions of the liberal humanist subject" (Nadkarni, 2016: 227). While Haraway focuses on the figure of the cyborg in rethinking the relationship between human beings and machines, Hayles attempts to articulate a posthuman framework that challenges the ways in which we think in terms of the classic posthumanist vision of technology that sets an anti-subjectivity stance with its assumption of an autonomous, bounded self. Hayles (1999: 160) specifically thought of dissolving boundaries of the self, arguing that "the subject becomes a system to be assembled and disassembled rather than an entity whose organic wholeness can be assumed."

What Hayles calls posthumanism "was the rise of a new way of thinking about human beings" that was in flat contradiction to the attributes of "liberal humanist subject and the attributes normally associated with it such as autonomy, free will, self determination and so forth" (Potzsch 2014: 95-96). Expounding on how technology will change our lives and futures, Hayles (1999: 246) argues, "Increasingly the question is not whether we will become posthuman, for posthumanity is already here. Rather, the question is what kind of posthumans we will be." She further argues the value offered by a different account of the posthuman subject/body is one in which "a dynamic partnership between humans and intelligent machines replaces the liberal humanist subject's manifest destiny to dominate and control nature" (Hayles 1999: 288 in Vint 2005). It is within the process of posthumanity defined by Hayles that a posthumanist approach on notions of cyborg embodiment in Ghost in the Shell could help inform my claim of the film's cyborg narrative as a potential site of blurring the distinction between the human and nonhuman. These theoretical frames will then be carried forward to chapter two, where I will apply their key facets to exploring the transformative relations between embodiment and technology in the cyborg figures in the film, Ghost in the Shell.

1.4.2. Feminist epistemology and AI

The idea of AI as a step in human evolution is one of the central themes explored in science fiction such as the *Ghost in the Shell* franchise. Science fiction as a point of contact to seeing possible futures has not only been a valuable pedagogic resource to a meaningful philosophical discussion of emerging developments scientific technologies such as AI but also feminist questioning of the construction of the artificial modes of existence. Science fiction conjures up AI images of androids and robots exercising thought and performing intellectual tasks similar to rational human beings that raises a similar philosophical question of, "Can there be such?" or "Are they really thinking?" that are understood within human terms of intelligence and thinking. Feminist critique of science fiction as a predominantly male genre raises, among others, questions of "How does gender affect the development or construction of AI?" or "How does it mimic or critique normative notions of femininities and masculinities in its design?"

Adam uses the tools of feminist epistemology as articulated by Haraway in discussing the relation between the gendered body and knowledge formation. Adam shares a concern with Haraway in acknowledging that objectivity is a highly contested concept. Haraway's feminist critique of the hegemonic Western science through the lens of situated knowledges has informed Adam's research on AI. Haraway employs to emphasize the value of situated knowledges in offering a more enriching objectivity for both feminist and scientific goals and theorizing that no perspective or standpoint is epistemologically privileged. She argues for situated and embodied knowledges placed within a context, whether it is a socioeconomic, anthropologic, intellectual, historic or cultural. Arguing against various forms of unlocatable, and so irresponsible, knowledge claims, her theory of situated knowledges posits that knowledge be positioned in communities and be limited while maintaining a rational empiricism (Haraway, 1988: 583). Adam shares with Haraway this quest for feminist objectivity which stands clear of essentialism and develops accordingly a feminist AI epistemology that challenges "an essentialist view of human nature and women's nature; where cultural ways of knowing are to be explained and subsumed in deterministic biological models" (Hayles, 1998:155).

In my thesis, I would like to consider what the film *Ghost in the Shell* can contribute to this discussion. I will be working on Adam's feminist epistemology as a

framework in highlighting the problem of the traditional critiques of AI that mainly focus on the philosophical test of intelligence—the philosophical debate that revolved around the question of whether computers can or cannot "think." While recent advances in AI have demonstrated the importance of embodiment, Adam (1998: 129) argues that rationalist philosophy has still sidelined the body in assigning primacy to the mind in the making of knowledge and rationality. Engaging with Adam's critique of traditional knowledge production inherent in AI conceptions is particularly useful for my purposes of exploring how the cyborg figures in *The Ghost in the Shell* can be articulated in terms of the question of "how far is the body or embodiment necessary for having knowledge and how does this relate to gender" (Adam 1998: 129)?

1.4.3. Artificial intelligence and performativity of gender

It is interesting to ask how concepts of AI are gendered and how science fiction films, such as *Ghost in the Shell*, persist in gendering AI within the dominant discourses of power and control characterized by patriarchal structures. How science fiction casts AI-enabled robots replicating certain gendered traits to make them appear more human not only raises questions of "How intelligence is gendered?" but also "How the gendering of intelligence informs the notion of 'human' and replicate the hierarchical and heteronormative binary of femininity and masculinity?" Despite the fact that artificially intelligent machines are generally exempt from the categories of sex and gender, the tendency to construct individualized AI's notion of self and identity within the category of gender correlates with Judith Butler's insight that gender is produced by means of performative acts (Gymnich and Scheunemann, 2010: 183). As Butler puts it, gender is not "a stable identity or locus of agency from which acts follow," rather, gender is "a corporeal style, an 'act,' as it were, which is both intentional and performative, where 'performative' suggest a dramatic and contingent construction of meaning (Butler, 1999: 177-179)." That is, although gender is not tied to one's biological sex, perceived sexual differences are heavily affected through gendered actions, which is based on social conventions. In this theorization, according to Butler (1993b), all performances of sexual and gender identities are contructed through imitation and copy. Thus, it challenges not only the naturalized or essentialist notion of gender identity but also the notion of heterosexuality as origin and homosexuality as copy. To deconstruct such concepts, Butler argues, heterosexuality would not have achieved the status of originality had it not been for the explicit appropriation of homosexuality as a copy of the 'real' and 'original' gender or sexuality.

The theoretical links between Butler's gender performativity and the aspect of AI's performative subjectivity rearticylates the fictional and social constructedness of an individual's gender identity, which are constituted within structures that embody patterns of power. The notion of the instability of gender and fluidity of AI subjectivity offer critical insights on exploring the liberating vision of the kind of gendered embodiment exemplified in *Ghost in the Shell's* cyborg figure. Following Butler's theory of performative construction of identity, the gendered embodiment of AI emerges, in the same way as the human subject is transformed into a gendered subject, as a result of socially enacting the norms that constitute the disciplinary regime of gender and heterosexuality. Butler's argument of the subject as always inscribed into the gender power relations might be an important clue that the theory of performative construction of identity can provide in investigating the ontological (non)difference between human and AI. Which, in turn, opens the question of how technology's construction of a perfect idea

of female and male challenges the idea of biological sex, and potentially queers the boundaries of normalization.

1.5. Methodology

In order to critically examine the cyborg or posthuman bodies in rearticulating the mind and body distinction as contentious site to think about gendered embodiment of posthuman subjectivity depicted in *Ghost in the Shell*, I will use a feminist critique as a mode of analysis. As I explore the ways in which the film opens up perspectives on challenging the heteronormative ideologies underlying its narrative and discourse, my analysis while it rests mainly on posthumanist feminist and feminist epistemological approaches, it at the same time relies on queer theory in the analysis of AI embodiment and gendered performativity of AI. Following the insight of Eve Sedgwick's (2008) argument in *Epistemology of the Closet*, on the importance of queer theory in revealing the underlying meanings of the modern homo/heterosexual dichotomy, looking at the film through the prism of queer theory is critical in uncovering and challenging the heteronormative structure inscribed in AI. As Sedgwick (1990, 321) contends, "that an understanding of virtually any aspect of modern Western culture must be, not merely incomplete, but damaged in its central substance to the degree that it does not incorporate a critical analysis of modern homo/heterosexual definition; and it will assume that the appropriate place for that critical analysis to begin is from the relatively decentered perspective of modern gay and antihomophobic theory."

As I engage with multiple theories in undertaking a feminist and queer analysis of the film, a close reading analysis will help me locate the underlying ideological structure and formations of heteronormativity embedded in the film's posthuman narrative. My line of narrative analysis highlights the main events involving the main characters, Motoko and the Puppet Master, that further reveals the cyborg and AI figure, respectively, as useful sites of signification and contestation. It is particularly through a close reading of the film's characterization of the Motoko as a cyborg figure that will help elaborate the underlying foundations of Cartesian dualism in the film's presentation of body and technology hybridity. Correspondingly, it is through a close reading of the film's depiction of the Puppet Master and its merging with Motoko that informs my critical analysis of the implicit queer potential of contemporary cybernetic subjects.

CHAPTER 2

EXPLORING CYBORG EMBODIMENT THROUGH THE CONCEPT OF BODY AND TECHNOLOGY HYBRIDITY

In an attempt to provide a posthumanist feminist critique of the cybernetic technology in *Ghost in the Shell*, this chapter mainly focuses on a close reading of the posthuman narrative of the film as a reiteration of the basic foundations of Cartesian dualism vis-à-vis the feminist discourse on interrogating the body and technology hybridity. To this end, the chapter will be divided into two parts. The first part is a revisiting of the Cartesian vision of machine technology that privileges the mind over the body and continue forth with how this Cartesian idea as implied in the world of *Ghost in the Shell* could be critiqued through a posthumanist feminist discourse offered by Haraway and Hayles. The second part offers a critical analysis of the film's paradoxical representations of embodiment and subjectivity of cyborg technology—it exemplifies, on one hand, a humanist desire for disembodiment with the devaluation of the body in favor of a mind, but illustrates, at the same time, a posthumanist conception of body and embodiment.

2.1. Feminist reimagining of the posthuman cyborg

It is interesting how the film *Ghost in the Shell* as a work of science fiction, has been framed as an explicit intervention in feminist discourses of cyborg politics. The cyborg as a political entity in the film has offered the potential to radically challenge the essentialist constructions of human nature such as the binary understandings of masculinity and femininity. The film, for one, challenges the traditional notions of the body in detaching itself from a deterministic representation of the material condition of subjectivity and "cancelling out" the significance of the sexual specificity of the material body (Silvio 1999: 64). While the film presents classic ideals of corporeality with its visual figuration of the cyborg body, it nonetheless renders a cyborg identity, which is envisioned by Haraway to be always in flux. The hybridized female machine embodied in the character of Motoko is thus one way of exploring a flexible alternative to the rigidity of universal identities that the blur the lines between human and machines, and male and female. Inasmuch as the hybridized female machine defies sexual distinctions and stereotypes quite ambivalently, begs the question: to what extent does this depiction of the female cyborg undermine biology as the source of gender identity?

The film exemplifies through its construction of cyborg technology a humanist split that devalues the body in favor of a mind the desire for disembodiment, while at the same time works within a posthuman framework in conceiving a non-normative conception of body and embodiment that reflects Hayles' view of mutually inclusive informational mindbodies that "enact the human-machine boundary as mutual emergence (2002: 309)." Inasmuch as contemporary cyborg theory, which "assumes an established history of cyberculture as outcome of a poorly defined Enlightenment/Cartesian subjectivity (Muri 2007: 15)" reaffirms the basic foundations of Cartesian dualism in late twentieth century cyborg films, *Ghost in the Shell* as a reference to the philosophical concept "ghost in the machine" could be a useful site of interrogating the body and technology hybridity as a place where we project a normativization of the body.

The film, depicting a future where humanity has taken to using cybernetic bodies, highlights the paradoxical nature of the tensions caused by human and machine interactions. The story follows Major Motoko Kusanagi, often goes with the title "Major," who underwent cyberization at the age of nine. Her brain is put into a cybernetic body to save her life from an accident that nearly ended her life. Thus, while her entire body is cybernetic, she retains her human identity with her memories implanted in her cybernetically enhanced brain. The film explores the humanist and posthumanist tensions of overcoming of the oppressive binary oppositions that have empowered the ideal humanist subject—as seen in Motoko's attempting to search for an essential human identity and at the same time struggling to retain an identity through the "ghost" in the bodily "shell." It is in this context that I am interested in the ways in which the film, *The Ghost in the Shell* uses the cyborg figure to articulate the discursive constitution of the posthuman body in informing new conceptions of embodied human subjects. Accordingly, I argue that by virtue of the hybrid embodiment that undergirds the film's representation of cyborg bodies challenges the mind/body division in a way that allows for a non-binary model of understanding of human and machine.

2.1.1. Ghost and shell dualism

The most notable technological advancement introduced in the movie is the concept of the cyberbrain. The cyberbrain is simply a human's biological brain encased inside a machine or cybernetic case. The case preserves the brain and gives it the ability to traverse through the internet, or install itself to a different body which is called the "shell." As seen throughout the film, the shell is viewed as a tool, which can be replaced whenever it is deemed obsolete. The cyberbrain houses an individual's "ghost"—the term given to the "mind" or "consciousness." While it is clear that her body is machine, there is nonetheless the recurring question of whether Motoko's mind is human or artificial inasmuch as her brain is a cybernetic and human hybrid. The film's concept of the

"ghost" in the "machine" suggesting that human is actually a ghost living in a body thus implicitly implies that the possession a "ghost" is what distinguishes humans from mindless automatons such as the artificially intelligent beings.

This brings us to the mind and body problem, usually associated with Rene Descartes' dualism also known as the Cartesian dualism, which speaks of the mind and the body as two different independent substances. Descartes views the mind as pure intellect free of bodily distress (Matthews, 2005: 9). The mind here is something abstract. It is not constrained by space. It is something immaterial as compared to the body that is only a machine. On the other hand, the body, for Descartes, is a pure mechanical system (Matthews, 2005: 12). Its essence is spatial extension; and if ever the mind and body separate, both can still exist independent of the other. Nonetheless, the difficulty in Descartes dualism on how the mind affects the body if the both substances are qualitatively different and ontologically independent from each other still remains and is also evident in the *Ghost in the Shell* where the relation of the ghost and the shell is blurred.

The film's narrative not only follows this theory of Cartesian dualism, but also presents an elaborate praxis of it. Motoko having the ability to separate her 'ghost' from her 'shell' and travel through the net on her own accord puts forth the idea that mind and body are different entities. Whereas the mind has the ability to disconnect itself from the body with ease, the body appears to be just a shell that the ghost inhabits. Though this suggest that the mind is superior to the body in this strictly humanist interaction between mind and body. The manner in which the posthuman world of *Ghost in the Shell* presents the net as immaterial and transcendent seems to challenge this division with the later

scenes between Chief Aramaki, the Chief Executive Director of Section 9 and the Puppet Master. The following conversation from the film (Oshii, 1995), which discusses the emergence of the Puppet Master's sentience through the interaction of a vast multitude of information gathered from the net complicates the notion that consciousness guarantees the existence of the self, thus making "the posthuman subject" a "postconscious subject"

(Hayles, 1999: 280).

Puppet Master: I entered this body because I was unable to overcome Section 6's reactive barriers. However, what you are now witnessing is an action of my own free will. As a sentient life form, I hereby demand political asylum.

Chief Aramaki: Is this a joke?

Nakamura: Ridiculous! It's programmed for self-preservation!

Puppet Master: It can also be argued that DNA is nothing more than a program designed to preserve itself. Life has become more complex in the overwhelming sea of information. And life, when organized into species, relies upon genes to be its memory system. So, man is an individual only because of his intangible memory. But memory cannot be defined, yet it defines mankind. The advent of computers and the subsequent accumulation of incalculable data has given rise to a new system of memory and thought, parallel to your own. Humanity has underestimated the consequences of computerization.

The problematic notion that arise out of the increasing replacement of organic bodies by technological and informational bodies is the cyborg dilemma of identity that is based on the humanist split of mind and body—is the mind the self or the seat of identity for a cyborg machine? In one case, the film asks if the mind is the necessary and sufficient condition for the existence of the self, while in another, the mind is just part of a whole existence which gives the identity of a cyborg. Nonetheless, the way the conceptualizations of the body have changed within the posthuman world has provided new ways of illustrating selfhoods in hybridized and digitized bodies. The transgression of the body by and into technology in a way suggests that it is no longer of consequence whether materialization of human consciousness takes place in an organic or prosthetic body. This reveals a new conception of a self without the presence of a physical body as with Motoko's cyborg self that was born from the net.

The body as site at which oppression/liberation happens, has been an important point of discourse in feminism. At one point, "the machine woman and techno fetish was perceived clearly as a male fantasy, which could have been appropriated and deconstructed" (Volkart, 2005). Moreover, "these utopian ideals are argued to be overlooking the material and subjective lived experiences with cyborg technology, where patriarchal cultural legacies and Cartesian Christian values continue to be exercised through and on cyborg bodies" (Cook, 2004: 2).

While feminists are at odds on the liberatory potential of the cyborg technology in dismantling the material, cultural, and theoretical framework of gender, Haraway is more interested in the embracing these boundaries thereby coding the self as partial and contradictory. Motoko's struggle for her quest of self-discovery within her organic-technological hybrid identity reflects Haraway's idea of cyborg imagery. It reveals paradoxical perceptions of the body—it works to exclude naturalness through an imagined cyber spatial existence yet retains its embeddedness within the material world. As the film investigates the possibilities for a merger between the bodied cyborg and disembodied collection of data, it dissolves the opposition between human and artificial.

2.1.2. Cyborg hybridity and identity

As the film pushes forward the question of what is inherently unique to humans, it also speaks to the emergence of problematic relationship between technology and subjectivity of cyborg identities. Motoko, as a cyborg with the exception of her brain as entirely artificial, struggles with the demonstrating autonomy in identity formation. This leads us back to the Cartesian territory as we question the difference between mind and the brain. It is heavily implied that Motoko's identity is stored in a transplantable brain that is connected by a vast information network, which enables her to both exist in cybernetic body and space. This notion of identity thus implies that the locus of human subjectivity is the disembodied mind.

The dichotomy questioned in the film is the same with the ideologies Haraway has mentioned between "mind and body, animal and human, men and women, primitive and civilized" (Haraway 1991: 163). The most notable ideological dichotomy blurred in the film as it delves into cyborg technology is the distinction between the mind and the body. As it depicts the cyborg brain to seamlessly interface with both their metal cases and outside of the body-the net, it deliberately highlights hybridity as the center of cyborg identity. It would be difficult to imagine the character of Motoko without the use of the technological advances her shell possesses nor her capability of using technology as an extension of her being. She could traverse through the net, listen to conversations within the range of the net, and use any advanced weaponry as easy as breathing. The boundaries and limitations in the film have been challenged and probably broken. In the earlier part of the film, there was faint distinction between the nature of humans and machines. However, at the later part, the boundaries and limitations of what identity humans possess have become a partial ideology of what makes up an identity. As what Motoko has mentioned about her identity, that even if the memories she possesses are just implants, what matters is what she does with it in her present situation that creates who she is.

Part automaton-as technological creation-and part autonomy-or an

autonomous person, the cyborg is a synthesis blurring the boundaries between human and machine. Although of different cybernetic origins and considered as different cybernetic entities, the Puppet Master and Motoko could both be described as part automaton and part autonomy. The Puppet Master claims that it had gained self-awareness and the drive for self-preservation while Motoko claims she is not an AI created by the government to think like human as the memories she has, fake or otherwise, allows to be as human as any other human beings in the film. In the scene where Motoko and a colleague discuss about the authenticity of their memory and whether it is real or not, Motoko questions whether the memory is fake or real, and drives at the idea that it is one's consciousness of the self that is sufficient to accept that she exists (Oshii, 1995):

Just as there are many parts needed to make a human a human, there's a remarkable number of things needed to make an individual what they are. A face to distinguish yourself from others. A voice you aren't aware of yourself. The hand you see when you awaken. The memories of childhood, the feelings for the future. That's not all. There's the expanse of the data net my cyber-brain can access. All of that goes into making me what l am. Giving rise to a consciousness that l call "me." And simultaneously confining "me" within set limits...

The film challenges the notion of what a mind is, while at the same time reflecting Descartes' cogito argument since the driving principle on what makes humans authentic and not mere automatons is their ability to be self-aware. It is assumed in the film that an individual's mind contains her beliefs, memories of her past, dreams of the future, and the strong urge for self-preservation. Being self-aware is the film's version of human consciousness. Consciousness is commonly thought of as the "inner, private, subjective, qualita-tive phenomenon of sentience or awareness" (Searle 1992: 15). Implying that what makes something human is not just its drive or capability for self-preservation, but its ability to be autonomous. AI can easily mimic human behavior, including the drive for

self-preservation and a seemingly autonomous behavior. Autonomy gives the individual free choice to perform an act. The individual is able to choose freely without being forced. But as in the case of the Puppet Master before becoming a sentient being, even though he shows self-awareness is not yet an autonomous entity with his being strictly bound to the rules of his programming.

Through the Puppet Master and Motoko, the film assumes that the mind contains an individual's beliefs, memories, dreams, and the urge for self-preservation. As Motoko later mentioned, the initial assumption of a human's mind, which started as something simple to understand becomes more and more vague. The reason as to what essentially makes something a human are both the memories that make up her identity, and her nature for self-preservation can be acquired by AI as shown by the puppet master. Here Motoko again explains her argument about memory and autonomy (Oshii, 1995):

I submit the DNA you carry is nothing more than a self-preserving program itself. Life is like a node, which is born within the flow of information. As a species of life that carries DNA as its memory system, man gains his individuality from the memories he carries. While memories may as well be the same as fantasy it is by these memories that mankind exists. When computers made it possible to externalize memory you should have considered all the implications that held.

Following Motoko's speculation on the two contrary representations of cyborg subjectivity could be a means to bridge the mind and body divide. One that follows a mechanistic interpretation of consciousness with regard to her conscious body treated like a "living puppet." Another that demonstrates an infinitely complex area of coding an individual's identity with her cyberbrain implanted with real and altered memories. As Motoko struggles with identifying what exactly is animating her as she makes the connection between what is her in the net and her cybernetic body, she appears to have a distant relationship with her body. It makes relevant to ask then, if the mind is what allows a human being to be human, then what stops an AI from becoming sentient if it can acquire the same abilities and autonomy?

2.2. Embodiment and subjectivity of cyborg technology

At first glance, the film could be interpreted as exemplifying a desire for disembodiment with its construction of cyborg technology that devalues the body in favor of a mind. The film, however, through Motoko's ontological origins delivers a critical engagement with an understanding of materialization/dematerialization of technology. Motoko's constant struggles with her identity as a cyborg—her human brain encased in a cybernetic shell and the fully prosthetic body inhabited by her ghost—not only reveals the tensions between traditional notions of a self and the cybernetic future but also complicates the notion of any singular subjectivity that can properly distinguish technology and humanity. Identifying herself based on her nonphysical aspects-her ghost-Motoko transcended the physical constraints of the body with her cybernetic enhancements but at the same time trapped the very source of her identity within a physical shell-metal and circuits. The film's depiction of Motoko's cyborg body and brain thus questions humanist notions of subjectivity and embodiment as it stresses the contingent relation between the enacted and represented bodies in the production of Motoko's identity. As the following dialogue between Motoko and Batou poignantly illustrates, despite her metal shell, Motoko fiercely clings what remains of her humanity as still the seat of her identity (Oshii, 1995):

Motoko: Well, I guess cyborgs like myself have a tendency to be paranoid about our origins. Sometimes I suspect I'm not who I think I am. Like maybe I died a long time ago, and somebody took my brain and stuck it in this body. Maybe there never was a real me in the first place, and I'm completely synthetic like that thing. Batou: You've got human brain cells in that titanium shell of yours. You're treated like other humans, so stop with the angst.

Motoko: But that's just it. That's the only thing that makes me feel human: The way I'm treated. I mean, who knows what's inside our heads. Have you ever seen your own brain?

Batou: It sounds to me like you're doubting your own ghost.

Motoko: What if a cyber-brain could possibly generate its own ghost, create a soul all by itself? And if it did, just what would be the importance of being human then?

2.2.1. Merging identities and creating a hybrid world

From the opening credits of the film showing a montage that depicts Motoko's naked technobody under construction to the final scenes of Motoko and the Puppet Master's merging reveals an initiation of a new life form that projects a normativization of the body. The body-as-machine metaphor illuminates the supremacy of the human mind through the film's attitude toward the body as a sophisticated mendable shell that is susceptible to dismemberment. Motoko's machine-enhanced body makes her well suited for hard-core tactical work but it's still the mind that ultimately triumphs over the body-as-machine in the film's attempt to retain Motoko's identity in the absence of a physically contiguous body. The new configuration of existence that evolved out of the merging of consciousness nonetheless dramatizes a posthuman ontology that makes an interesting site of interrogating the concept of posthuman feminism that seeks to explore the idea of machine intelligence as a form of embodiment undermining essentialist notions of biology and technology (Wilcox, 2017: 15).

Motoko and the Puppet Master's transformation could be read as having achieved a type of artificial life that is characterized by both waves of cybernetics that Hayles described. The first wave, which is understood in terms of passing the Turing test where human and machine are indistinguishable based on intelligence, both Motoko and the puppet master will pass as indistinguishable from their human counterparts. The second wave, which involves the artificial life "seeking to redefine and reorganize the boundaries of human body through imbrication in technology and in relation to other bodies (Wilcox 2017: 18)," that the Puppet Master in successfully creating new shells that would allow itself to inhibit has also embodied this form of corporealization.

As Hayles (1999: 5) suggested, the posthuman does not possess immortality through a disembodied mind and limitless powers. The cyborg body is posthuman--it moves away from the humanist notion of possessing a body rather than being a body (Hayles 1999: 5). The film showcases this idea through the desire of both the Puppet Master and Motoko to acquire a shell that they do not only inhabit but claim to be an integral part of their identity. It is revealed in the film that the cybernetic body that both characters possess are provided by the government section nine and can be taken away as the government pleases since the shells are seen as government property-a weapon. Motoko can be seen struggling to hold on to the shell she is provided with and claims that regardless of it being hers or not, what matters is her present situation wherein she exists as herself. Thus her initial apprehension to the merge with the Puppet Master, "You talk about redefining my identity. I want a guarantee that I can still be myself." Her statements about being content with what section nine has given her and her colleagues-including their shells and memories-suggests that she struggles to rationalize her predicament in having no ownership of her body while trying to hold on to an identity that is based on a memory that she cannot fully claim as hers. On the other hand, regardless of the god-like ability of the puppet master by hacking and traversing through the net, it is surprising that such a being still longs for a material body-a shell. As the film puts emphasis on the importance of the material body while still presenting bodiless sentience, it opens up alternative embodiments that are not limited to the bodily aspects of human subjectivity.

An initial interpretation of the film also suggests that the characters' usage of their shells symbolizes the body being used as a tool. The body can be manipulated, reconfigured, updated, and disposed of. The ghost had become the most important aspect of human life. Without the ghost, the shell is literary just a husk; an automaton with hardly any use except for the parts it can be re-used for. However, also at the earlier part of the film, it was subtly presented that the ghost cannot exist without its metallic counterpart—the cyberbrain. The film delves into this idea of embodiment in terms of the individual achieving a 'self' by possessing a variety of information making up memories/dreams within the ghost, which is gained through multiple sources. The sources could be attained through a lifetime of experiences, or in the case of the technological advances in the film, downloaded.

The concept of a life form in the film is a combination of a variety of information that is processed overtime. It then produces within the individual a strong drive for selfpreservation and the acquirement of more information that would enable it to go beyond its current limitation. The typical idea of the ghost in the film is something that is immaterial in nature—like the soul. However, the plot reveals that the ghost, can be hacked and even manipulated. Similar to the film series *Robocop* where Alex Murphy's actions and memories can forcibly be manipulated by the company that manufactured him, the *Ghost in the Shell* implies that the ghost is hackable since the mind within the cyberbrain is made up of a program—a computer program. The evolution of cybernetic technology into a state wherein consciousness and bodies become hackable pieces of technology makes it more difficult to meaningfully answer the philosophical question, "What does it mean to be human?" as it further blurs the line between human and machine.

2.2.2. From posthuman body to posthuman embodiment

As the Puppet Master makes Motoko an offer that will ultimately cause her to lose her body but will enable her ghost to freely flow in the net and the Puppet Master become a new organism conveys the hope of both Haraway and Hayles for a more embodied approach of posthuman existence that rejects the disembodiment of consciousness. Significantly, the film follows Haraway (1991: 172) as she writes that, "cyborg replication is uncoupled from organic reproduction." The merging of Motoko and the Puppet Master's consciousness to form a new life form blurs the line between organic and artificial life, thereby, following at the same time Hayles (1999) notion of the changing experiences of embodiment with the increasingly intertwined future of humans and machines. The image of the new merged identity as an embodiment of hybrid identity recognizes the version of the posthuman that Hayles (1999:12) imagines—one that embraces the possibilities of information technologies that allows for new forms of subjectivity and embodiment that blurs the boundary between the virtual and corporeal.

The film's construction of Motoko's identity as a cyborg entity—neither privileging social location nor a historic construction of unmarked social location represent a new form of subjectivity that both Haraway and Hayles values as a more embodied form of posthuman existence. As the film depicts the body as dynamically intertwined with technology, the hybridized female machine disrupts the idea of clear-cut boundaries between biology, technology, and culture. The film, in creating a female cyborg that undermines biology as the source of gender identity articulates Haraway's theorization of the cyborg as a transgressive potential for gender role. The film projects a posthuman world that depicts the cyborg as Haraway (1991: 150) would describe as a 'creature in a post-gender world,' which is liberatory to the extent that it refuses to fit into a fixed category of gender that is oppressive.

Which relates to the key concept that is revealed in the film as the Puppet Master claims to be an autonomous life form. Although born from a program and is still a program, the puppet master claims to have autonomous choices free of the intended programming section nine intended it to be. The self-preservation aspect of the program and its collection of information to produce the Puppet Master could be then compared to a human's DNA, which is nothing more, according to the Puppet Master, but a self-preserving program as well. As he compares life with "a node that is born within the flow of information (Oshii, 1995)," DNA is perceived to be the like a program's memory system and the possessor of the mixture of memories/information receives his/her individuality. Memories and fantasies are taken as the same; and both affects an individual's identity.

Consequently, externalization of the computer memories would imply the creation of new life forms. The puppet master further reiterated that he is "a life form that was born in the sea of information (Oshii, 1995)." Through this he claims that he became self-aware. The film's argument rests on the analogy that DNA is a collection of information and memories created through a cycle of death and life and collection of new data that would preserve itself. AI programs with information and other memories of individuals could be externalized. Therefore, through the merging of Motoko and the Puppet Master, a new life form will be born. One with which the Puppet Master hopes for Motoko—to act as a catalyst to birth new life forms free of the previous limitations both of them struggles with.

Another plot central to the film that explores this is the Puppet Master's claim of being incomplete and is in need of the process basic to human beings—death and the ability to produce an offspring. Reproducing by merely creating a copy of himself like a computer virus that does not evolve is problematic as it will eventually be susceptible to extinction through an anti-virus program. The Puppet Master explains to Motoko that an improved state, free of his current limitations is the best course of action. Like the evolutionary process of biological life forms, the puppet Master claims that by constantly improving itself even if it means dying a number of times is necessary to exist.

It is important to note here that for the Puppet Master an identity is not a single absolute being that never changes. He compares the cells in the human body, which constantly undergo a process of death and regeneration. Aging continually reborns a person in order to prevent the state of extinction. The information available in the cells is distributed and therefore carrying with it all data achieved in its lifetime. The Puppet Master suggests that flexibility is the guiding principle behind existence. And by merging with Motoko, they would have achieved a new life form—a combination of machine and organism that is not limited to the conventional ideas of what real or artificial life is. Congruent to what the Puppet Master has imagined to be a dynamic and fluid identity, the new life form that emerges introduces new conception of the body and the individual with its existence no longer confined to a physical body nor a physical world. The new entity embodies a new form of subjectivity that challenges the conceptual division between the mind/body insofar as it signifies both an integration of and ambiguous distinction between humanity and technology.

CHAPTER 3

RETHINKING THE EMBODIMENT OF GENDER IN CYBORG TECHNOLOGY

This third chapter ties up with the previous chapter in articulating the discursive construction of the posthuman body. Considering the second chapter's critical analysis of cyborg embodiment and subjectivity, this chapter extends an analysis of the possibility of disrupting the mind and binary through a gendered embodiment of the cyborg figure. In exploring this idea, this chapter further extends in rethinking the subversive possibilities of a feminist critique of AI in theorizing and reformulating the social and cultural meanings of the cyborg technology. To this end, this chapter, which will be divided into two parts, brings in a feminist inquiry of the underlying heteronormative structures in the construction of AI in popular media contents such as the *Ghost in the Shell*.

Following the ideas of Alison Adam and Judith Butler, this chapter explores the film's potential of rethinking the complex interaction between the liberating potential of blurring the human/machine binary and the instability of gender performativity. In contesting the professed neutrality of knowledge production inherent in AI conceptions, the first part inquires, through Adam's (1998: 4) critique of "the gendered models of knowledge represented and inscribed in AI," into the kind of masculine vision that has dominated the posthuman embodiment depicted in the film. Given how cyborg figures in the film are instituted through the stylization of the body in accordance to the heterosexual social matrix, the second part highlights the constitutive aspect of gendered embodiment within a posthuman paradigm. This chapter thus explores the extent to which the film could potentially constitute a place of imagining the future possibilities of new

gender identities and be utilised to question conservative conceptions of gender.

In this chapter, I argue that AI gender performativity offers a subversive vision of the post-gender through opening up a radical interrogation of mind/body that has perpetualized an oppressive male/female dualism. For one, AIs performing a gendered self like humans do radically bridges man/machine divide that has evoked an essentialist understanding of the human being. Another, AI's performative accomplishment of gender identity, while reifying the gender binary, at the same time radically queers AI as it deconstructs the notion of a fix and stable gender identity that is inextricably link to biological sex. Correspondingly, I argue, that film offers this subversive possibility through the gender-queer figure exemplified by the character of the Puppet Master and by the new identity produced by the merging of Motoko and the Pupper Master—the former as an ambiguous creation that confuses the notion of the body or exterior as the signifier of gender, and the latter as a new form of subjectivity that dismantles both humanist and heterosexist account of human mind, body, and species.

3.1. Making of cyborg: gendered aspect of cyborg technology

Haraway's vision of the cyborg as a lived reality of women of the time provides critical insight on liberatory potential of gendered embodiment of AI. The crucial dissolution of the boundaries by technoscience such as the human/nonhuman and organic/artificial binaries makes it possible to claim a positive polysemic identity of cyborg. Removed from the potential of opposition, the cyborg as a merge between technology and gendered bodies represents a feminist posthuman construction in traversing itself within liminal spaces. The cyborg figure thus represents a hybrid embodiment that transgresses the boundaries of identity politics that is confined to categories of biology, race, and gender. Nontheless, the cyborg as a staple element of science fiction films continues to signifiy a desire to represent the posthuman within the framework of humanism. It reflects an essentialist perception of the human as separate from the technological; and it reinscribes gender onto bodies of supposedly neutral technology.

Haraway's concept of the cyborg continues to serve as a metaphor for narrative on how cyborg technology affects the understanding of what it is to be human but also on how AI in cyborg technology is gendered and/or racialized. Moreover, science fiction films, as they continue to open up discussions on the feminist theorizations on how the cyborg metaphor as an alternative way of understanding identity in a new technological landscape, could be potentially emancipatory in disrupting the constructs of gender. It is in this sense, while it remains admittedly limited, that *Ghost in the Shell* illustrates a mutability of the concept of bodies and gender within a society where technology is omnipresent. From the transference of Motoko into a cybernetic prosthesis to her merging with the Puppet Master, the film both challenges the rigidity of the humanist body confined by fixity, definition and boundaries, and articulates a posthuman concept of subjectivity that is mutiple and fluid. It is in these moments, as Motoko finds herself merging with cyber-intelligence and inhabiting a body, that the film also illustrates the underlying social structures and assumptions of gender that the cyborg figure is also subjected to.

It is along these lines that I argue that while the cyborg's posthuman nature and its embodiment as it is imagined in the film can be seen to re-embody a homogenization of gender and sexuality in its gendered construction of AI, it nonetheless, in articulating the cyborg as embodied boundary-crossing concept, challenges the hierarchies of human and posthuman embodiment in feminist terms in explicitly breaching the dominant vectors of bodily differentiation that are used to, among others, reproduce old hierarchies of biological and mechanical. That is to say, although the film tacitly reinscribes the heteronorm in the way the cybernetic construction of body extends exteriorities of the masculine and/or the feminine, the way the cyborg ontology symbolizes a trajectory towards gendering embodiment as metal and machine potentially undermines biological and naturalized norms of identity.

3.1.1. Gendered construction of AI

This brings us to Adam's concern with how representations of gender are being embedded in technology and expressed through it. Adam (2005: 327), as a consequence, turns to feminist epistemology to challenge the traditional epistemology in its production of a unified theory of knowledge that ignores the cultural context and status of knowers. Adam problematizes the conservative critiques of AI that mainly focus on the philosophical test of intelligence—the philosophical debate that revolved around the question of whether computers can or cannot "think." The main problem with this philosophical criticism, she argues, is that it fails to consider how AI systems are used to represent knowledge. That the philosophical critiques merely inquire into the possibility of true AI but disregard the questions of how AI is used and what knowledge it uses, she made a strong claim that feminist epistemology is the theoretical approach that is most adequate for a critique of AI.

As such, Adam's (1998) feminist critique of AI centers on the question of situatedness of the knowing subject within the social, racial and gendered context and

examine the ways in which gender is inscribed in AI systems. She problematizes the 'monolithic' view of AI or "the assumption that AI, is above all, about the building of an artificial mind or person" neglects what she claims should be a focus on embodiment concerned with the role of the body in knowledge production (Adam, 1998: 4). Haraway's approach on the situatedness of knowledge, which has been central to Adam's feminist epistemological approach, recognizes that neither social location nor a historic construction of unmarked social location could provide a single consistent vision, her embodied objectivity which emphasizes the material practices of knowledge production, and not just location of subject, could all the same accommodate the dominant and subordinated situated knowledge but only through a critical examination. It is, thus, a more democratic approach that fundamentally integrates the partiality of knowledge without privileging neither the subjugated nor the dominant position; and with the critical positioning—which we can see and question not just our position but all that it entails—it undoubtedly represents a feminist objectivity that continually values partiality and objectivity in its epistemic approach of encouraging more careful and rigorous use of existing scientific methods.

Adam's feminist epistemological critique of AI is of legitimate concern in examining how the film, despite its postgender potential of moving away from a heteronormative imagination of posthuman subjectivities, remains naively blind to the hyperbolized gender labels in its depiction of cybernetic beings. Although the film symbolizes a denaturalization of the essential feminine, it reaffirms a patriarchal desire for technological mastery over women (Endo, 2012: 514). Motoko's births—from the opening scene of the film that shows the cybernetic brain and cybernetic body being assembled into a full-body cyborg to the final scene of merging of AI and human consciousness into creating a new life form—narrativize these tensions in the male project of creating a supposedly neutral cyborg identity.

3.1.2. Gendered cyborgs and humans

Arguably a signifier of a very heteronormative imagination of the main characters in the film is the physical body. As such, I am especially interested on how the cyborg figure as possessing a definitive gendered artificial body evoke questions of gender identity in relation to embodiment. Motoko, Batou, and the Puppet Master are assumed to perform a specific gender role. The implicit influence of cultural conditioning in the film includes the casting of male and female into oppositional categories of masculinity and femininity. While Motoko and Batou are noticeably female and male respectively, the Puppet Master is left ambiguous. The film depicts the Puppet Master with typically female to male registers in the way he is portrayed in a female body with a male voice. In the film's reveal of the Puppet Master, the other characters could nonetheless be assumed to perceive him as male as they consistently refer to him with the pronoun "he." Yet again, as a computer program incapable of possessing any human traits, he can also be assumed as neither male nor female. Both males and females come across as certain archetypes in anime, which is saliently evident in *Ghost in the Shell*. The importance of the anime tradition with the film shows that even with a fictional world where gender stereotypes should be non-existent, the vision of the creator of the fictional universe, and the vision of the creators of AI programs exhibit racial and gender biases.

The film embodies a tacit masculine norm in its trajectory towards new cyborg configurations as illustrated in the opening scenes of Motoko's cyborgisation process and the later scenes of Puppet Master's ghost merging with Motoko's. In both processes, Motoko assumes a female-bodied existence, which extends a heteronormative gendering of cyborg as machine. Motoko's cyborgisation process which focuses on the notion of producing machinic and cyborgian entity, and the merging on a more evolving notion of artificiality reassert the essentialist logic of the social implications for a femaleassigned/female-identified person. The film, thus, depicts posthuman narratives of becoming that raises critical potential of the changing human physical ontology and entertains nonbiological forms of life; and at the same time opens up a feminist discourse on the manner in which heteronormative gendered bodies as ideal embodiments of AI are reasserted in the film's design of cyborgs.

The notion of the gendered embodiment of AI in the film, as it reflects and reasserts a masculine vision of cyborg ontology, raises relevant questions regarding the role of traditional epistemology in the representation and construction of gendered subjects in science fiction films. As the film projects a neutral model of rationality in developing codes and systems for AI yet retains exteriorities of the masculine and/or the feminine in its gendered inscriptions of cyborg embodiment nonetheless illustrates masculine strategies of reinscribing idealized notions of gendered knowledge. Significantly, the film imagines AI systems in terms of a traditional epistemological argument of the existence of a perspectiveless universal knower or the illusion that knowledge contained in AI comes from nowhere.

Following the opening text of the film (Oshii, 1995): "In the near future (2029): corporate networks reach out to the stars, electrons and light flow throughout the universe. The advance of computerisation, however, has not yet wiped out nations and ethnic groups" introduces in calm neutrality a posthuman world where singularity or the continuous evolution of AI as embodied by the Puppet Master is occuring. The film opens

up the possibility of escape from constricting forms of identity as it introduces through the character of Motoko the idea of cyborg fluidity, and the merging of identities of Motoko and the Puppet Master the dissolution of gender and individuality that produces a flexible posthuman identity.

3.2. Cyborg and the performativity of gender

The construction of gendered and racialized modes of embodiment in the film the underlying heteronormative structures within the technology of reveals bioenhancements. The making of a cyborg body and an augmented mind, as in the case of Motoko, suggests not only an enquiry into the posthuman potential of the fusion of humans and machines but also the post-gender potential of that fusion. This brings us to re-examine the transgression of bodily boundaries as depicted through Motoko's mechanical and digital birth. These underscore not only completely new forms of reproduction but also new forms of being that are extricably link to cyborg evolution. The opening credit shows Motoko's body in the initial phase of the creation as a mechanical and cybernetic humanoid machine. This highly evolved but replaceable mechanical body composed of metalic plates and wires is female in form but essentially sexless as it lacks functional reproductive organs. The later phases of the creation highlight the manufacturing of Motoko's shell and the cyberbrain wherein the latter is emphasized to be the most important part of the machine. The brain is encapsulated inside the metallic casing as if it was the "heart" or "essence" of the machine. The next phase shows Motoko's metallic shell being covered with synthetic skin and formed to be a "perfect" female body. Ultimately rising from the tank of liquid, as flakes of shell are being removed, she rises as a synthetic, cybernetic human.

In contrast with the first birth, the birth of a new entity that resulted from the merging of Motoko and the Puppet Master demonstrates a new marker of selfhood that is no longer dependent on exteriority. The ontological condition of the newly born identity from which the hybrid of AI and human consciousness has evolved is a literal merging of two silhouettes of a body overlapping one another and becoming one. The last thing Motoko sees is a figure with wings landing towards her—signifying death and rebirth. The following lines of Motoko, which tell us about her past experiences, knowledge, and limitations at the same time tell of a new perspective of individuality and networking of minds. More than exploring the possibility of leaving the physical body and elevating consciousness to a higher plane, this merging also explores the cyborg condition. After the merging the, artificial life who looks like Motoko states to Batou (Oshii, 1995):

When I was a child, I spake as a child. I understood as a child, I thought as a child. But when I became a man, I put away childish things. Here before you is neither the program called the Puppet Master... ...nor the woman that was called the Major.

With the transformation and birth of a new identity as a result of this merger, it further distances the characters from traditional notion of identity—it is an entirely new artificial life encased within a machine body. Yet, the physical portrayals of the female form cannot be easily divorced from the traditional notion of what is 'female'. The machine body is observably female-normative. Her body is clearly based on the female anatomy, but she is not particularly feminine. Her body is now of a child. Although it is assumed that the body Batou gave Motoko is of a female child's body, the newborn Motoko reveals that with her new identity, she is no longer limited to any shell. The encasing into a child's body easily signifies a physical symbol of rebirth but her gender becomes ambiguous as she could always choose to expand into multiple subjectivities"its forms may include the physiological, technological, purely informational, or all three" (Mcblane, 2010: 38).

3.2.1. Performativity of AI

The basis for identity of the characters in the film is the knowledge that the "ghost" is what gives them their humanity. The mind or the soul with the same respect is what most people are holding on to as the reason for believing that they exist. However, in the following dialogue between Motoko and Batou about the legitimacy of their information about their ghost, shows how doubtful the ideology is. Regardless of possessing a "ghost," thinking that her memories are artificially generated, not only confuses her of her identity but what becomes the marker of her identity. The following conversation between Motoko and Batou speaks so much about how Motoko's doubts with her knowledge of herself could further the question of her gender identity (Oshii, 1995). As the film hints at the memory of Motoko being unreal, we still see Motoko fulfilling the dictates of her memories. To follow Butler's theory of performativity, Motoko has always been performing a female gender, not because of her intrinsically feminine nature, but because of the feminized 'ghost' and 'shell' constructed for her.

Motoko: Maybe all full-replacement cyborgs like me start wondering this. That perhaps the real me died a long time ago.....and I'm a replicant made with a cyborg body and computer brain. Or maybe there never was a real "me" to begin with.

Batou: You've got real brain matter in that titanium skull of yours. And you get treated like a real person, don't you?

Motoko: There's no person who's ever seen their own brain. I believe I exist based only on what my environment tells me.

Batou: Don't you believe in your own ghost?

Motoko: And what if a computer brain could generate a ghost... and harbor a soul? On what basis then do I believe in myself?

Batou: Bullshit! I'll see for myself what's in that body. With my own ghost!

This brings us to Butler's (2009) critique of the idea of stable identity categories and stresses that all gender is performative. She says, gender and sexuality can only emerge through repeated performance in accordance to the heterosexual social matrix. Arguing that if all sexuality is simply performative, then there is no essential sexuality or gender within a person. She goes on to question the obligatory and regulatory aspect of gender and sexuality that produces an ideal that we pattern ourselves from. As such, if gender and sexuality are constructed on the repetition of acts and imitation of the dominant conventions of gender, then heterosexuality, as she explains, is an imitation, a copy, of an idealized concept of how heterosexuality ought to be done. It is a consistent patterning that produces the subject.

It is in this sense of AI's performativity of gender that the world of *Ghost in the Shell* both highlights the importance of performance in the construction of cyborg identity and feminist analyses of the conventional understandings of the body as a site of natural identity. As Butler (1997: 402) contends, "gender identity is a performative accomplishment compelled by social sanction and taboo;" but "in its very character as performative resides the possibility of contesting its reified status." The common position of Motoko's performance of human identity and femininity within the framework of social construction thus points to the possibility of anti-essentialist views of human identity. With the line between an AI and a human being blurring, not only raises questions about the nature of human consciousness but also the 'illusion of an innately gendered self' (Butler 1990: 24). How the film depicts AI embodiment in terms of performing their gendered selves thus reduces the difference between AI and humans to the presence or absence of a biological body. The body of the cyborgs such as Motoko, Batou, and most personnels in Section 9 are indistinguishable from a biological body with a cyborg body. That cyborgs in the film perform gender as well as humanity also entails that gender can be performed with a human or a full cyborg body like that of Motoko's or Batou's. Similarly, as with the Puppet Master's sentience, it becomes difficult to conclude that he is not a life-form and merely an AI program.

The depiction of Motoko's body, in particular her physique, lays her identity as a sexual entity. Apart from the explicit mention of her female identity near the end of the film "I am neither the program called the puppet master nor the woman called Motoko (Oshii, 1995)," the various depictions of Motoko's body directly hints at her exterior gendered self. Motoko inhabits a female body, which has enunciated curves especially with the breasts and buttocks area. Her eyes are larger than male's, which is characteristically anime art style to either show the character as female or very young. While the narrative operates outside the conventional norms of gender in terms of Motoko's cybernetic construction as an iconic hero of strength, it fails to disconnect stereotypical gender roles in a number of encounters with her male counterparts. One of the prevalent gestures for stereotypical gender roles show in the film is the scene where Batou puts his coat over Motoko's naked body after she has used her shell's stealth capability. Which, in a way, suggests that Motoko accepts the protective gesture of Batou. With another instance near the end of the film, Batou, this time, comes to the rescue before Motoko could be killed.

Motoko's partner, Batou, with his archetypal masculinity is the film's main source of machismo. His physique is larger than an average man and boasts of above average physical strength. One of his notable features is his cybernetic eyes. It is also shown in the film during his conversations with Motoko that he does not have a full cybernetic body. Batou's attitude towards Motoko shows a very protective or defensive side to his character. As mentioned before in anime stereotypes, even if Motoko seems to be more skillful than Batou, the latter nonetheless still persists in trying to portray a traditionally mascculine role of protector—to keep Motoko away from any harm. Different instances of Batou's gestures of protectiveness of Motoko are highlighted in the film. One of which is the boat trip scene where Batou puts his jacket around Motoko's nude body. He consistently mirrors the traditional image of the chivalrous man who protects the woman. In desperate fight to save Motoko, Batou sacrifices his left arm to shield her brain from attack in the last battle scene.

3.2.2. Queering AI

The Puppet Master's gender is assumed to be unknown. In various dubbed versions of the film, the Puppet Master's voice can be heard as either male or female. In the English version of the film, the Puppet Master's voice resembles male. It was not explained though why the characters use the pronoun "he" when referring to the Puppet Master. In the scene with the heads of Section 9 and Section 6 gaining possession of what seems to be the shell of the Puppet Master. It is interesting to note that even with the ungendered identity of the Puppet Master, Section 6 has used "he" as a generic pronoun for a non-gendered program (Oshii, 1995):

Dr. Willis: it's definitely him.

Section 9 Department Chief Aramaki: "Him?"

Section 6 Department Chief Nakamura: He's referring to the original ghost block within the shell. Its sex remains undetermined, and the use of the term "he".....is merely a nickname the good doctor has given it

The film consistently maintains this particular generic use of the masculine

pronoun, that in a way affirms the principle of male-as-norm. With the Puppet Master's scene with Section 9 Department Chief Aramaki, he did not mention of his gender but clarifies that he is neither a cyborg nor an AI, "I refer to myself as an intelligent life form because I am sentient and I am able to recognize my own existence, but in my present state I am still incomplete. I lack the most basic processes inherent in all living organisms: reproducing and dying (Oshii, 1995)."

Portrayed as a slippery entity, the Puppet Master possesses a female shell while his face projects masculine features in his every scene. While this is telling of the patriarchal government agency's construction of a default masculine gender of the program, the film at the same time seems to project into his character a reiteration and obscuring of hyperbolize gender markers of masculinity and femininity. It is interesting why the Puppet Master—a computer program who gains sentience—chooses a female body. Storywise, the Puppet Master could be seen as something that is gender queer because of his male voice and female body. The difficulty to read his gender comes from behavior during the time that he shows himself in the film. Although the Puppet Master assumes a male-like role through its low masculine voice, the Puppet Master's inhabiting a female body highlights particular aspects typical of Japanese science fiction—queering sex/gender. He can embody any shell, be it male or female, and assume any role he deems necessary. The Puppet Master could have a female voice with a very masculine male body and still deliver its message of the possibility of serving feminist interest of challenging the normative sexualities and binaristic discourse of gender.

Gender performativity requires individuals to perform behaviors corresponding to their sex as per social requirement or else it would be branded as taboo, queer, or abnormal. The Puppet Master's ambiguously masculine and feminine identity queers AI insofar as it articulates the possibility of a gender fluid AI. Thereby, potentially challenging the traditional gender norms with its very notion of unstable gender identity. Motoko and Batou, on the other hand, as they accomplish the performance of their respective feminine and masculine roles, exemplifies what Butler (1990: 25) expresses that gender is in the sequence of the acts and that it is "doing" rather than "being." Motoko and Batou could easily fit within the heteronormative assumptions, which underlie our contruction of gender roles, in this sense, as Butler (1900: 25) puts it, these characters' gender identity is based on the results of their expressions—the proper perfomance of femininity and masculinity. It must be taken that gender fluidity in the film is not alien to idea of the film's reality. Granting that all characters can possess any type of shell and thereby assume any role they please, as presented by the Puppet Master, the identity crisis of Motoko, and Batou's denial of Motoko's dilemma, the idea of cyborg technology in the film shows the potential of posthuman feminist critiques of dismantling the naturalistic notion of sex and creating a new paradigm of gender.

CHAPTER 4

CONCLUSION

As science fiction films contribute to visualization of the posthuman not only in terms of presenting a new configuration of the human self as inscribed in cyborgs, but also in delving into different possibilities of 'becoming' outside the traditional gendered power relation, I point out to *Ghost in the Shell's* transgressive potential of resisting the binary constructions of gender. I have shown in my discussion that the film, on one hand, presents a cyborg embodiment that reiterates the Cartesian mind/body distinction but on the other hand challenges this distinction through a dynamic vision of humanity where the body and mind are intermeshed. The cyborg's posthuman nature and its embodiment as it is imagined in the film, therefore, re-embodies a homogenization of gender and sexuality in its gendered construction of AI. In articulating the cyborg as embodied boundary-crossing concept, the film nonetheless manages to challenge the hierarchies of human and posthuman embodiment in feminist terms by explicitly breaching the dominant vectors of bodily differentiation that are used to, among others, reproduce old hierarchies of biological and mechanical.

That is to say, although the film tacitly reinscribes the hetero-norm in the way the cybernetic construction of body extends exteriorities of the masculine and/or the feminine, the way the cyborg ontology symbolizes a trajectory towards gendering embodiment as metal and machine potentially undermines biological and naturalized norms of identity. Indeed, the film allows new ways of perceiving a more dynamic notion of gender and sexuality and (re)imagining embodiment, gender and sexuality beyond the binary logic that characterizes the Western thought. The film, thus, provide a new and

valuable site of exploring the transformative relations between embodiment and technology insofar as it deploys posthuman bodies and technology in the (re)formulation of subjectivity as bound up with gender, and renders a cyborg ideology that opens up a possible understanding of AI technology without the removal of gender.

Bibliography

Adam, A. 2002. Gender/ body/ machine. *Ration: The Journal of Analytic Philosophy*, 15 (4), 354-375.

_____. 1998. Artificial knowing: Gender and the thinking machine. London: Routledge.

- _____. 1996. Constructions of gender in the history of artificial intelligence. *IEEE* Annals of the History of Computing 18 (3), 47-53.
- _____. 1993. Gendered knowledge—Epistemology and artificial intelligence. *AI and Society* 7, 311-322.
- Barr, M. 1997. Metahuman 'Kipple' Or, Do Male Movie Makers Dream of Electric Women?: Speciesism and Sexism in Blade Runner. In *Retrofitting Blade Runner: Issues in Ridley Scott's Blade Runner and Philip K. Dick's Do Androids Dream of Electric Sheep?* Kerman, Judith (Ed.). Wisconsin: Popular Press 3.
- Booker, M. and A. Thomas. 2009. *The Science Fiction Handbook*. Oxford: John Wiley & Sons.
- Braidotti, Rosi. 2013. The Posthuman. Massachusetts: Polity Press.
- Brown, K. 2015. *The Cyborg in Pieces: gender identity in her and Ex machine*. Retrieved from http://www.dartmouth.edu/~themalsjournal/pdf/fall_2015/brown.pdf
- Butler, J. 1997. Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminism. In *Writing on the Body: Female Embodiment and Feminist Theory*, Conboy, K., et. al. (Eds.). New York: Columbia University Press.
 - _____. 1993a. Critically Queer. *GLQ: A Journal of Lesbian and Gay Studies 1*(1): 17-32.
 - _____. 1993b. Imitation and Gender Insubordination. *Lesbian and Gay Studies Reader*. Abelove, H. et. al (Eds.). New York: Routledge.
 - ____. 1990. Gender Trouble: Feminism and the Subversion of Identity. New York: Routledge.
 - ___. 1994. Feminism by Any Other Name: Interview with Rossi Braidotti. Differences: A Journal of Feminist Cultural Studies 6.2 (3), 27-61.
- Carrasco, R. 2014. Interrogating the POsthuman in U.S. Science Flciton Films. In *Identities on the Move: Contemporary Representations of New Sexualities and Gender Identities*, Castro-Borrego, S. and Romero-Ruiz, M. (Eds.). Maryland: Lexington Books.
- Carter, M. 2007. *Minds and Computers: An Introduction to the Philosophy of Artificial Intelligence*. Edinburgh: Edinburgh University Press.

- Cook, P. 2004. *The Modernistic Posthuman Prophecy of Donna Haraway*. Retrieved from http: www.eprints.qut.edu.au/646/1/cook_peta.pdf
- Corbett, A. 2009. Beyond Ghost in the (Human) Shell. Journal of Evolution and Technology, 20 (1), 43-50.
- Cresswell, T. 2009. Place. In *International Encyclopedia of Human Geography Vol.* 8, Thrift, N. and Kitchen, R. (Eds.). Oxford: Elsevier.
- Csicsery-Ronay, I. 1991. The SF of Theory: Baudrillard and Haraway. *Science-Fiction Studies 18* (1991), 387-403.
- Daniels, J. 2009. Rethinking cyberfeminism(s): Race gender and embodiment. Women's Studies Quarterly, 37(1/2), 101-124.
- Dennett, D. 1978. *Brainstorms: philosophical essays on mind and psychology*. Sussex: Harvester Press.
- Endo, Y. 2011. Women and Science in Japanese Anime: A Challenge to the Traditional Construction of Female Identity. In Women and Science, 17th Century to Present: Pioneers, Activists and Protagonists, Andréolle, D., et. al. (Eds.). Cambridge: Cambridge Scholars Publishing.
 - . 2012. Ambivalent Portrayals of Female Cyborgs in Oshii Mamoru's Ghost in the Shell and Innocence. *Journal of Literature and Art Studies*, 2 (5), 507-519.
- Gymnich, M. & Ruhl, K. 2010. Gendered (Re)Visions: Constructions of Gender in Audiovisual Media. Gottingen: V&R Unipress GmbH.
- Halberstam, J. 1991. Automating Gender: Postmodern Feminism in the Age of the Intelligent Machine. *Feminist Studies*, 17 (3), 439-460.
- Halberstam, J. & Livingston, I. Eds. 1995. *Posthuman Bodies*. Bloomington: Indiana University Press.
- Haraway, D. 1994. A Game of Cat's Cradle: Science Studies, Feminist Theory, Cultural Studies. *Configurations 1*, 57-71.
 - _____. 1991. A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century. In *Simians, Cyborgs and Women: The Reinvention of Nature*. New York: Routledge.
 - ____. 1992. The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others. In *Cultural Studies*, Grossberg, L., Nelson C. and Treichler, P. (Eds.). London: Routledge.
- Hayles, K. 1999. How we became posthuman: virtual bodies in cybernetics, literature and informatics. Chicago: University of Chicago Press.
 - __. 2002. Writing Machines. Cambridge: MIT Press.
- Kamrowska, A. 2014. Cyberpunk, Anime and Creative Foresight. *The Polish Journal of the Arts and Culture, 11* (3).

Matthews, E. 2005. Mind: Key concepts in philosophy. Cornwall: MPG Books Ltd.

- McBlane, A. 2010. Just a ghost in the shell. In *Anime and philosophy: wide eyed wonder*, Steiff, J. and Tamplin, T. (Eds.). Chicago: Open Court.
- Miller, R. 2014. Posthuman. In *Critical Terms for the Study of Gender*, Stimpson, Catharine R., and Gilbert Herdt (Eds.). Illinois: University of Chicago Press.
- Mitchell, K. 2006. Bodies that matter. Science Fiction Studies, 33, 109-128.
- Nadkarni, S. 2016. "Memory itself guarantees nothing": *Dollhouse*. Witnessing and "the Jews" In *Joss Whedon and Race: Critical Essays*, Iatropoulos, M. (Ed.). McFarland.
- Narayan, U. 1989. The project of feminist epistemology. In Bordo, S. & Jaggar, A. (Eds.), Gender/Body/Knowledge: Feminist Reconstructions of Being and Knowing. Rutgers: Rutgers University Press.
- Oshii, M. 1995. Ghost in the Shell [Motion picture]. Japan: Manga entertainment.
- Penrose, R. 1994. Shadows of the mind: A search for the missing science of consciousness. Oxford: Oxford University Press
- Potter, E. 2006. *Feminism and philosophy of science: An Introduction*. New York: Routledge.
- Potzsch, H. 2014. [Interview with Katherine Hayles, author of How we became posthuman: virtual bodies in cybernetics, literature and informatics]. *The Fiberculture Journal 23*, 95-107.
- Putnam, AI. 1975. *Mind, Language, And Reality.* New York: Cambridge University Press.
- Rose, C. *The Great AI Debate*. Retrieved from https://charltonrose.com/archives/1998/aidebate/
- Russell, S. & Norvig, P. 2003. *Artificial Intelligence: A Modern Approach*. Upper Saddle River: Prentice Hall.
- Searle, J. 2004. Mind: A Brief Introduction. New York: Oxford University Press.
- _____. 1993. The problem of consciousness. *Social Research* 60 (1): 3–16.
- _____. 1992. *The Rediscovery of the Mind*. Cambridge: MIT Press.
- _____. 1980. *Minds, brains, and programs*. The Behavioral and Brain Sciences (3): 417-457.
- Sedgwick, E. 2008. *Epistemology of the Closet*. Los Angeles: University of California Press.
 - _____. 1999. Axiomatic. In *The Cultural Studies Reader*, During, S. (Ed.). London: Psychology Press.

Silvio, C. 1999. Refiguring the Radical Cyborg in Mamoru Oshii's "Ghost in the Shell."

Science Fiction Studies, 26 (1), 54-72.

- Thornham, S. 2001. Second wave feminism. In Gamble, S. (Ed.). *The routledge companion to feminism and post feminism*. New York: Routledge.
- Turing, A. 1950. Computing Machinery and Intelligence. Mind, 59, 433-460.
- Vinge, V. 1993. The Coming Technological Singularity: How to Survive in the Post-Human Era, Vision-21: Interdisciplinary Science and Engineering in the Era of Cyberspace. NASA Publication CP-10129, 11–22.
- Volkart, Y. (in press). *The Cyberfeminist Fantasy of the Pleasure of the Cyborg*. Retrieved from http: www.obn.org/reading_room/writings/html/cyberfem_fantasy.html
- Warwick, K. 2003. Cyborg morals, cyborg values, cyborg ethics. *Ethics and Information Technology*, *5*, 131–137. Netherlands: Kluwer Academic Publishers.
- Wilcox, L. 2017. Embodying algorithmic war: Gender, race, and the posthuman in drone warfare. *Security Dialogue* 48 (1), pp. 11-28.

<u>____.</u> 2014. Bodies of violence: Theorizing embodies subjects in international relations. Oxford: Oxford University Press.

- Williams, D. 1988. Ideology as Dystopia: An Interpretation of Blade Runner. International Political Science Review 9 (4), 381-394.
- Wilson, E. 2011. *Affect and artificial intelligence*. Washington: University of Washington Press.
- Zant, et. al. 2013. Generative Artificial Intelligence. In Muller, V. (Ed.). *Philosophy and theory of artificial intelligence*. New York: Springer.