Drag-ing the Human out of the Human-oid: Reflections on Artificial intelligence, Race and Sexuality in Late Capitalism

By

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ABSTRACT

This thesis seeks to explore they ways in which the category of human formulates the research in the field of Artificial Intelligence by examining the boundaries introduced by the distinction between human and non-human. My research is focused on the case study of Sophia, a humanoid manufactured by Hanson Robotics that obtained citizenship from Saudi Arabia, in October 2016. Considering the ways through which the humanoid becomes sexualized and racialized, I will argue that Sophia enfolds the potentiality of subversion, that is of interest for feminist epistemology.

In the theoretical framework of the first chapter, I will provide the reader with a genealogy of the category of human by focusing on the canonical patriarchal understanding of the rational man in Western philosophy, while also addressing the category of human species, so as to illustrate how these approaches formulated research in Artificial Intelligence. In the second chapter, I will provide a close reading analysis of Michel Foucault and Brian Massumi's scholarship that bridges biopower and capitalism to the affect and the body's materiality. Based on this, I will read the trope of emotionality used in Sophia's case in relation to the modulation of affect in late capitalism. This way, I intend to illustrate how Sophia is imbedded in a much more nuanced web of relations of power, one that redefines the boundaries between who is included in the category of the human species and who is not. In the third chapter, by employing Michel Foucault's analysis on biopower while also engaging with Norman Fairclough's critical discourse analysis I will draw attention to the discursive traces that construct Sophia's identity in accordance to the biopolitical technologies of race and sexuality. Finally, in last chapter, drawing on Gilles Deleuze and Felix Guattari's analysis on the abstract machine of faciality and Judith Butler's approach on drag I will reflect on the constructiveness of the boundaries between the human and the non-human, to argue that Sophia is not just a product of her time

but also a point of disruption that might unravel what Deleuze and Guattari call, the inhuman in the human.

Keywords: Biopower, artificial intelligence, humanoid, affective capitalism, biopolitical anthropomorphism, drag, human exceptionalism, gender performance

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 _____ (Stella Andrada Kasdovasili)

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Table of contents

Chapter 1: A paradigm shift in AI: From the "rational man" to "man-as-species"

1.1. Background of the topic

On April 19th, 2015, a humanoid manufactured by Hanson Robotics named Sophia was activated. Sophia is modeled after actress Audrey Hepburn and Amanda Hanson, her creator's wife. As far as her technical features are concerned, Sophia operates similarly to the computer program ELIZA[1], that is, she operates similarly to a chat bot. She uses AI techniques, facial recognition and visual data processing. A natural language subsystem together with cameras and voice recognition system[2] allows her to recognize and follow faces, sustain casual conversation and answer questions. Her AI software enables her to interact with her surroundings, thus continuously progressing, adapting and improving her responses.

One of the most advertised characteristics of Sophia is the fact that she can display 62 different facial expressions. Her human resemblance is considered to be an element that differentiates Sophia from previous robot models, launching a new era in AI humanoids. According to her creator,

[1] ELIZA was created by Joseph Weizenbaum between 1964-1966 in MIT Artificial Intelligence Laboratory and is an early AI system. She was a natural language processing computer program using pattern processing, simulating conversations between humans and machines resembling intelligent conversation. Her most famous script was "Doctor" simulating a Rogerian (person-centered counseling) psychotherapist. While she was one of the first chat bots, ELIZA is not considered as intelligent. Wikipedia contributors, "ELIZA," *Wikipedia, The Free Encyclopedia*, (accessed June 3, 2018), https://en.wikipedia.org/wiki/ELIZA.

[2] Sophia is a collaborative project between Hanson Robotics and AI developers, such as Alphabet Inc, Google's parent company and SingularityNET, in charge of her voice recognition system and her robotic "brain" respectively Wikipedia contributors, "Sophia (Robot)," Wikipedia, The Free Encyclopedia, accessed June 3, 2018, https://en.wikipedia.org/wiki/Sophia_(robot).

> the ideal AI [breaks down] into four characteristics: adaptive, conscious, caring, and ethical. The more a robot interacts with people, and the more data they will collect, the more human they will become, ideally.[3]

This claim is in line with the purpose of Sophia's design as a social humanoid intended to serve as a companion for the elderly. Thus, manifestation of social skills and formation of social bonds with humans are considered to be a top priority. In October 2016, Sophia was granted citizenship from Saudi Arabia making her the first robot to be ever named a citizen of a country. While the specifics in terms of her citizenship have not yet been disclosed by Saudi Arabia, the gesture generated a heated debate regarding not only the extension of the existing legal framework to include humanoids but the very future of "humanity". Are we slowly approaching the singularity point[4] by being on the verge of creating emotionally and cognitively identical humanoids?

This fixation to humanness or better yet, the strive to create robots that look as human as possible, was the point of origin of this project. This thesis is focused on exploring the ways through which the category of human informs research in the field of artificial intelligence and provide reflections in relations to the trope of emotionality employed in Sophia's promotion as a social humanoid. Operating on the DeleuzoGuattarian hypothesis that "in truth, there are only inhumanities, humans are made exclusively of inhumanities, but very different ones, of very different natures and speeds"[5], in my thesis I will engage with a political analysis to argue that

[3] Yon Heong Tung, "A True Living AI Is Adaptive, Conscious, Caring and Ethical: Dr David Hanson of Hanson Robotics," e27, November 8, 2017, https://e27.co/true-living-ai-adaptive-conscious-caring-ethical-dr-david-hanson-hanson-robotics-20171106/.

[4] Singularity point is a hypothesis based on the work of John von Neumann, Vernor Vinge, I. J. Good, that claims artificial intelligence will lead to a technological trigger in the future that will result in the emergence of an artificial superintelligence, surpassing human intelligence, thus causing unimaginable changes in human culture. Contemporary supporters of the singularity point are Stephen Hawkin and Elon Musk.

[5] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1988), 190.

if we are to look at the specifics of AI research, we can extract valuable information about the way modern society conceptualizes humanity. I will claim that the category of human as a taxonomic category constructed under specific relations of power and specific technologies, places the human in the top of species hierarchy resulting in perceiving humanoids and Sophia for that matter, always already in relation to the category of human. I will claim that Sophia's case reflects specific sociopolitical and economic movements taking place within the biopolitical and neoliberal matrix of relations of power. For this reason, I will argue that the trope of emotionality and the claim to humanness in Sophia's case are strongly connected to biopower and late capitalism, in a web that creates interconnectivity between all structural elements. This interconnectivity illuminates a political shift, initially introduced by biopower, that places its focus on the body's materiality and its affective capacities, which I reckon has reconfigured the category of human. In that light, I will be addressing the following sub-questions

1. How has canonical Western philosophy and the concept of rational man influenced research in the field of AI?
2. What are the current developments in AI and how does the emotive and the corporeal influence these developments?
3. How does Sophia and the trope of emotionality relate to biopolitics and capitalism?
4. How is Sophia's identity discursively produced through the biopolitical technologies of race and sexuality?
5. How does Sophia's performance as an emotive humanoid informs the category of human and the boundaries between the human and the non-human?

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1.2. Theoretical Framework

1.2.1 Philosophical traditions in the field of AI

Artificial Intelligence has a short history; thus it would be relatively easy to pinpoint the major philosophical ideas that have influenced its development. While many ideas linked to AI can be traced back to ancient Greek philosophy, Leibniz and even Tomas Hobbes, it is agreed upon that Alan Turing's famous paper "Computing Machinery and Intelligence" published in 1950, where he contemplated on the potentiality of machinic intelligence, set the tone. Turing's paper brought into discussion the future potential of machines to demonstrate intelligence and was the trigger point that set-in motion the development of AI as a distinct field of scientific knowledge. While the history of AI is for sure a very interesting endeavor as it is a broad field, divided in sub-categories influenced by different disciplines such as mathematics, philosophy, cognitive science etc., it is not the scope of my thesis project. For this reason, I will not be focusing on the specifics of AI history. Instead, I will attempt to provide a genealogy of the distinct ties AI has with logic and rationality and illuminate the gendered production of knowledge in the field of AI.

AI emerges on the assumption that intelligence can be reproduced via a machine. As expected, this assumption has generated numerous approaches, creating the famous Weak AI VS the Strong AI debate. The debate, termed as such by philosopher John Searle in 1980, is a philosophical argument with two prominent positions. Strong AI claims that an AI system can have a mind and thus think[6], while Weak AI supports the idea that an AI system can act as if it has a mind. I will not engage with the heavy theoretical scholarship produced in the field of

[6] We should keep in mind however, that to "think" is understood through the category of rationality as formulated in canonical Western philosophy, a point I will address further in my analysis.

AI, especially in terms of the Strong VS Weak AI debate, however, I would like to highlight two very interesting points related to the very foundation on which the debate is grounded. What both approaches seem to bring forth in when debating a system's successful operation as an AI system, is either the ability to have or act as if they have a mind. Intelligence is understood as a manifestation of the presence of a mind, or better framed, as that which generates what we subsequently term as "intelligence". The second point I would like to make is more related to Weak AI and its claim that the "successfulness" of an AI system is to be located in its capacity to act as if it has a mind. I argue that this approach on AI promotes the interesting element of theatricality, a point I will elaborate further in my analysis in Chapter 3 and 4, so as to highlight its importance for the ways humanoids and AI systems are introduced into the public discourse. If we were to unpack the argumentative logic of the debate, we could argue that strong AI essentializes the mind by conceptualizing the future of AI in terms of replicating a human mind, while Weak AI, highlights the importance of performance. As for the latter, it is not so much whether we can create a machinic-human mind, but whether we can create machines that can perform intelligence through a very specific frame, that allows for this peculiar "intelligence performance". We can then argue that intelligence is understood as a certain property of the mind, but more importantly that there is a specific type of performing intelligence that machines need to generate. Picking on the threads of this position, it becomes clear that despite the differences of the Strong vs Weak AI positions, they both seem to share commonalities in the way they conceptualize the mind and thus, intelligence. I argue that these commonalities are linked to a very specific philosophical concept that has shaped and modulated Western thought and along it, the very idea of what it is to be human, placing a specific emphasis on the hu-*man*.

This philosophical concept is of course the famous Cartesian dichotomy of mind and body. According to Descartes's thesis the mind and the body are of different nature. For him, the

mind is linked to consciousness and the act of consciously thinking of one's self as such, as an I. As he argues, "I am, then, in the strict sense only a thing that thinks; that is, I am a mind, or intelligence, or intellect, or reason –words whose meaning I have been ignorant until now."[7] The category of thought includes volitional categories, since the I is "a thing that doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions."[8] Yet, what it is important to note is that Descartes conceptualizes matter and mind as finite substances with very distinct properties. Matter has the property of expanding spatially while the mind has the property of thinking and more importantly, the ability to be self-reflexive. As a result, the mind is separate from the body. As he claims,

> On the one hand I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand I have a distinct idea of body, in so far as this is simply an extended, non-thinking thing. And accordingly, it is certain that I am really distinct from my body, and can exist without it.[9]

It is this thesis that gives birth to what is called the mind and body dichotomy and formulates Descartes' ontological dualism. There seems to be a tension in relation to the way Descartes uses the Latin word *corpus* within his texts, which I cannot address in length here. However, it is important to note that in relation to the human body, he argues that

> we need to recognize that body, taken in the general sense, is a substance, so that it too never perishes. But the human body, in so far as it differs from other bodies, is simply made up of a certain configuration of limbs and other accidents of this sort; whereas the human mind is not made up of any accidents in this way, but is a pure substance.[10]

It is important to understand that this position derives from Descartes wish to oppose scholastic and probabilistic philosophical and scientific approaches influenced by the Aristotelian

[7] John Cottingham, Robert Stoothoff, and Dugald Murdoch, trans., *The Philosophical Writings of Descartes*, vol. 2 (Cambridge: Cambridge University Press, 1984), 18.
[8] Cottingham, Stoothoff, and Murdoch, 2:19.
[9] Cottingham, Stoothoff, and Murdoch, 2:54.
[10] Cottingham, Stoothoff, and Murdoch, 2:10.

tradition. The reason being that these philosophical approaches understood knowledge through the lens of sensation and experience, thus making all knowledge probable, to which Descartes juxtaposed a conceptualization of knowledge as a product of reason and innate ideas. This echoes what I have previously pointed out while discussing the Strong vs Weak AI debate, that is, in order to manifest intelligence, one needs to have or act as if they have a thinking mind with very specific properties. It is through Descartes then, that we have the emergence of the link between knowledge and reason, the latter being a transcendental, non-material property that modulates the body, positioned in a hierarchically dominant position[11]. As feminist scholar Samantha Frost notes in her article "The Implications of the New Materialisms for Feminist Epistemology", because of the passivity of matter as presented in the Cartesian legacy,

> the 'others' of modernity were construed both as subject to the determinations of the biological or animal functions of the body and as vulnerable to a kind of a behavioral determinism, a vulnerability which derived from the inability of a weak intellect to protect the volitional faculty from the solicitations, seductions, and predations of the social and cultural milieu.[12]

A clarification is needed at this point in terms of my argument. It is important to note that my project is in line with the feminist approach to Western philosophy, as articulated by feminist psychoanalytic scholar Luce Irigaray. In *The Speculum of the Other Woman*, she provides an extensive analysis of Western philosophical traditions from Plato to Lacan, to argue that women have always been deemed as the Other of discourse. She argues that philosophy has produced a specific economy of representation that erases the specificity of women's experiences, thus claiming "that any theory of the subject has always been appropriated by the

[11] Anthony John Patrick Kenny, *Descartes: A Study of His Philosophy* (New York: Random House, 1968).
[12] Heidi E. Grasswick, ed., "The Implications of the New Materialisms for Feminist Epistemology," in *Feminist Epistemology and Philosophy of Science: Power in Knowledge*, by Samantha Frost (Springer Netherlands, 2011), 72, //www.springer.com/la/book/9781402068348.

"masculine".”[13] There is no subject position for women within philosophy as they have been denied any discursive signifier to symbolize their desires outside the male economy of representation. In that light going back to Descartes, I am not claiming that he *per se* intended to provide a gendered conceptualization of the mind, linking it to the male. I am claiming however that in canonical Western philosophy, his theory provided the ground for the mind to became associated with the male, constructing it as the agent of rational thinking, while the body by being perceived as non-rational, is linked to the female. Following the readings of feminist writers such as Susan Bordo and Genevieve Lloyd, Descartes' mind-body dualism lead to a gendering of reason thus associating women with the bodily[14]. Alison Adam, a feminist scholar in Science and Technology Studies, makes a very interesting point in her book *Artificial Knowledge: gender and the thinking machine,* in that the "Cartesian ideal of reason also informs what it is to be a person, and in particular a good person –in this process women are seen to be neither fully rational nor fully moral."[15] Adam elaborates on how scientific research in the field of AI has always been gendered as it is based on the Cartesian concept of the rational man, that had a heavy influence for mainstream epistemology and its conceptualization of knowledge as *"S knows that p"*[16]. This as a result, constructs the subject as one of reason, outside of society, in a similar manner as the mind can exist outside of the body, and p –or the "object" of knowledge"[17]—as an always already logical and rational fact.

[13] Luce Irigaray, *Speculum of the Other Woman* (Ithaca, N.Y: Cornell University Press, 1985), 133.
[14] For further reading on the feminist discussion on Descartes also see Genevieve Lloyd, *The Man of Reason: Male and Female in Western Philosophy*, 2nd rev. ed, Ideas (Routledge) (London: Routledge, 1993); Louise M. Antony and Charlotte Witt, eds., *A Mind of One's Own: Feminist Essays on Reason and Objectivity*, Feminist Theory and Politics (Boulder, Col: Westview Press, 1993); Susan Bordo, *The Flight to Objectivity: Essays on Cartesianism and Culture*, SUNY Series in Philosophy (Albany: State University of New York Press, 1987); Penelope Deutscher, *Yielding Gender: Feminism, Deconstruction, and the History of Philosophy* (London: Routledge, 1997).
[15] Alison Adam, *Artificial Knowing: Gender and the Thinking Machine* (New York: Routledge, 1998), 102.
[16] As Adam notes "'s' is a universal, perspectiveless, taken for granted and not to be discussed subject, and 'p' is a piece of propositional knowledge, that is, knowledge which can be written in the form of a logical proposition such as 'the book is on the table' or 'the car is red'.", Adam, 30.
[17] Adam, 30.

Drawing on Dreyfus critique on AI which I will address at the end of this section, knowledge becomes further split into "knowing how"[18] and "knowing that"[19] with the former being strategically dismissed from the conceptualization of logical knowledge.

It is not surprising that the Cartesian dichotomy and its gendered aspect is to be traced in the scientific discourse on AI, especially if one thinks how influential Descartes has been for Enlightenment theory and its humanistic, liberal subject. Descartes's theory provided the modern ground for the emergence of the rational man, which should be read as the Western, white, civilized man, member of civil society. In that light, his claim to political and civil rights is only logical due to his own very human nature. A human nature understood as rational and self-conscious. Liberal thought, has long proclaimed all humans are rational, but since rationality is to be understood as a property of the mind and not the body, women are by association excluded from the realm of rationality. Further, this discursive production disassociates women from what it is to be human, constructing the ideal of the human in accordance to that of the male. In other words, It is always the male that is human.

Through illuminating this connection to the political and locating it within the scientific discourse in AI, I wish to illustrate how this ideal of the rational man and its connotation to that which is human, shapes to a great extent the type of knowledge produced in the field of AI. Despite debating the nuances of the possible relation between machine and intelligence in AI, the fact that rationality is linked to a specific cognitive behavior linked directly to the category of human, in which man appears as a rational being seems to be undisputable.

[18] Adam, 30.
[19] It is important to note that the "knowing" how is understood as the type of knowledge usually women have, while the "knowing that" is linked to pure reason, thus the rational man, Adam, 30.

Of course, AI is not a homogenous field, thus a lot of different approaches regarding the philosophical premises of how research addresses the human mind might be employed. One interesting approach comes from the work of Hubert Dreyfus. Despite formulating critiques towards the research on AI since 1960s, his theory gained general acceptance only in the late '80's. The focus of his critique is on symbolic AI and what in AI lingo is called GOFAI (Good-Old Fashion AI). According to the definition provided by John Haugeland, GOFAI should be understood as

> 1. our ability to deal with things intelligently is due to our capacity to think about them reasonably (including subconscious thinking); and
>
> 2. our capacity to think about things reasonably amounts to a faculty for internal "automatic" symbol manipulation.[20]

This thesis operates on the physical symbol system hypothesis, articulated by Allen Newell and Herbert Simon, who claimed that a "physical symbol system has the necessary and sufficient means for general intelligent action"[21]. Human intelligence is understood as manipulation of specific physical patterns into structures thus, machines can also manifest intelligence, if provided with the necessary patterns. Dreyfus attacks the very foundation of the argument by claiming that it operates on a specific approach of rationalism, grounded in Plato's philosophy. Instead, he claims that human intelligence is not only a product of rational thinking but it involves unconscious skills as well. By this gesture, he aims at discrediting AI's optimistic approach on the feasibility of creating rational machines that amount to human

[20] John Haugeland, *Artificial Intelligence: The Very Idea* (Cambridge, Mass: MIT Press, 1985), 112–13.
[21] Allen Newel and Herbert A Simon, "Computer Science as Emprical Inquiry: Symbols and Search," *Communications of the ACM* 19, no. 3 (1976): 116, https://doi.org/10.1145/360018.360022.

intelligence. Most importantly, Dreyfus introduces the importance of the body in the discussion of intelligence. In *What computers can't do,* among other claims he argues that

> A machine can, at best, make a specific set of hypotheses and then find out if they have been confirmed or refuted by the data. The body can constantly modify its expectations in terms of a more flexible criterion: as embodied, we need not check [sic] for specific characteristics or a specific range of characteristics, but simply for whether, on the basis of our expectations, we are coping with the object.[22]

He understands intelligence through a phenomenological perspective rooted in Maurice Merleau-Ponty's philosophy that allows him to argue that intelligence is always embodied and always embedded in the world. This means then, that everything within this word acquires its meaning because it is relational to the human.[23] Following Heidegger's distinction of present-at-hand and ready-to-hand, he also provides us with a useful approach on knowledge, one that Alison Adams uses for her analysis, as previously mentioned. He claims that knowing-that and knowing-how are two distinct types of human expertise, the first being a conscious act while the latter an unconscious.[24] The importance of this approach is that it conceptualizes intelligence in a way that moves beyond a strictly rationalistic and mechanistic approach of the mind. In that light, intelligence is understood not only as the outcome of rational symbol manipulation but also as a type of movement. The importance of movement will be discussed in length in Chapter 2, when addressing affect theory.

Analytic philosophy of the mind also offers an interesting critique of the functionalist position in AI, which equates the function of human mind with that of a machine. Ned Block, in his

[22] Hubert L. Dreyfus, *What Computers Can't Do;: A Critique of Artificial Reason,* 1st edition (New York: Harper & Row, 1972), 162.
[23] John Haugeland, "Body and World: A Review of What Computers Still Can't Do: A Critique of Artificial Reason (Hubert L. Dreyfus): (MIT Press, Cambridge, MA, 1992); Liii + 354 Pages, $13.95," *Artificial Intelligence* 80, no. 1 (January 1, 1996): 119, https://doi.org/10.1016/0004-3702(95)00084-4.
[24] Stuart J. Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, Prentice Hall Series in Artificial Intelligence (Englewood Cliffs, New Jersey: Prentice Hall, 1995), 827–30.

paper "Troubles with Functionalism" [25] by juxtaposing functionalism with physicalism argues that the fact that two operational systems might have similar functions does not necessarily mean that they hold the same mental state. Block's work and especially his later work on consciousness is interesting as it places subjective experience and feelings as fundamental elements of intelligence.

To conclude, by referring to the ontological foundation of AI and the most prominent critiques addressed towards it, I wish to highlight a tension between rationalistic and more corporeal approaches of intelligence. The later, in proclaiming the unattainability of manufacturing a machine that can manifest human rationality seems to introduce qualities and characteristics in the category of rationality and consciousness, that were typically either omitted or of no interest in scientific discourses. This inclusion of matter and the corporeal within the discourse of artificial intelligence is a shift that I wish to explore in this project.

1.2.2. The corporeal as part of the human

So far, I have provided the reader with an outline of the philosophical debate surrounding the research in the field of AI. I have provided specific philosophical examples, in the form of critiques, addressed towards the research being conducted in the field of AI, that I understand as a paradigm shift, drawing from Thomas Kuhn's theory. According to Kuhn, scientific revolution happens when the prevailing framework of knowledge used by a scientific discipline changes, leading to a change of epistemological paradigm.[26] I argue that the change of focus in the discourse of AI, from mechanistic approaches of rationality to more corporeal approaches,

[25] Ned Block, "Troubles with Functionalism," *Minnesota Studies in the Philosophy of Science* 9 (1978): 261–325.
[26] Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2nd ed. enlarged (Chicago: University of Chicago Press, 1970).

signifies such a Kuhnian paradigm shift. I will claim that the reason we are experiencing this paradigm shift in the scientific discourse of Ai is located in biopolitics and affective capitalism.

Drawing on Michel Foucault's theory of biopower and biopolitics, as provided in in *The History of Sexuality, Society Must be Defended* and *The Birth of Biopolitics,* I argue that the change in the type of governance from sovereign power to bio-power reformulated the conceptualization of the human to that of the human as a species, or in Foucauldian terms man-as-species. He argues that biopower is "a power that exerts a positive influence on life, that endeavors to administer, optimize, and multiply it, subjecting it to precise controls and comprehensive regulations" [27], thus this investment in life leads to a multiplicity and multiplication of technologies that target both the individual's and the population's body. I reckon that this investment in life together with the reformulation of the category of the human as human species, has reconfigured the importance of materiality, thus also affecting the category of rationality. To be human then, comes to signify not only to be rational in relation to intelligence but also to be alive, to have and be a life. In other words, since life is the main interest of biopower, one needs to be inscribe in the domain of life and interpellated as a human that is part of the species, so as to be subjected to power. Given that the category of human has been altered to include the corporeal and as Foucault notes, nobody can step out of the realm of relations of power since a "society without power relations can only be an abstraction."[28] I read the shift in the discourse in AI as a result of the biopolitical shift in the relations of power. This biopolitical shift is also closely related to the development of capitalism. As Foucault argues, biopolitics is interlinked with capitalism, as the latter needs docile and disciplined bodies, which the former can subjectivate through specific biopolitical technologies. The

[27] Michel Foucault, *The History of Sexuality: Volume I: An Introduction*, trans. Robert Hurley (New York: Pantheon Books, 1978), 137.
[28] Michel Foucault, "The Subject and Power," *Critical Inquiry* 8, no. 4 (1982): 791.

operation of biopower as a type of governmental power that not only individualizes but also totalizes bodies offers the ground for capitalism to flourish.

This is where affect and affective capitalism become of importance to my argument. As Brian Massumi argues, capitalism has evolved from disciplinary power –focused on regulating bodies—to an open field operation. In capitalist control societies, regularity begins to lose its predominance, creating space for variety. As he claims, the variety produced by the deregulation of normalcy should be understood as the very power of capitalism to extract surplus value. In that light, affect is valorized by being intensified and our very own affective capacities becomes commodified. Massumi approaches affect through Spinoza's theory, in that he understands it in relation to the body. In that light, affect is not a mere personal feeling but refers to the body's capacity to be affected and affective. As Massumi notes, capitalism has seized the control of fear and hope, to moderate and limit affective movements by creating loops and producing certain types of affective responses. In my research, I will position Sophia within affective capitalism, so as to read how the trope of emotionality is employed in her promotion as an AI agent. To add to that, I should note that my project is also influenced by the work of Gilles Deleuze and Felix Guattari and specifically their book *A Thousand Plateaus: Capitalism and Schizophrenia,* as their contribution to post-structuralist and post-modernism is immense. Their analysis on assemblages, rhizome and the abstract machine of faciality has been crucial to my argumentation. Besides, there seems to be a distinct thread that connects Deleuze and Guattari with major philosophical debates with which I engage in my thesis, thus it would be unfortunate not to use their scholarly contribution. This thread is no other than 20th century French Philosophy that interconnects post-structuralism, French feminism, philosophy of science, Marxism and post-Marxism and of course, deconstruction. It seems that despite the differences these projects seem to have with each other, they are all invested in negating the concept of absolute truth that has for so long served as an oppressive mechanism in Western

philosophical tradition. This is the reason why I am employing a generous reading of the texts I am using, attempting to bridge scholarship that might be in tension to each other, yet in my understanding invested in the same struggle.

I would also like to highlight at this point the reason that informed my choice to use the category of *race* as formulated by Foucault. His theory allows me to link the constrictiveness of the category of race to the category of human species within the biopolitical matrix of relations of power. There has been extensive research in the field of critical race studies and critical race feminism that attempts to address the interconnectivity of relations of power, societal formation and the category of race. The link of race/species to biopower's investment in life Foucault provides, is a useful theoretical structure as it allows me to place Sophia and her status as the non-human citizen in a position that disrupts the boundaries of the biological norm by being inscribed in biopolitical categories normally[29] associated to humans. My project has also been heavily influenced by the works of Sara Ahmed and Jasbir Puar and their attempts to bridge political analysis to affect theory, highlighting the importance of affective capacities for feminist engagements. While I do not engage with their arguments explicitly since the scope of my thesis is to some extent different, I do believe that the reader can find discursive traces of their theories throughout my thesis's main corpus. My attention is also placed in scholarship produced in the field of deconstruction and the work of Jacques Derrida. In *The Animal Therefore I Am,* Derrida brings forward the question of the animal, so as to deconstruct the long-standing distinction within Western philosophy that prioritizes the thinking human over the non-human animal, as an attempt to deny human mortality. Derrida's work is very useful to my project as it compliments my argument on the dominance of the ideal of the rational man

[29] I use the term "normally" in a Foucauldian sense to signify the process of normalization in accordance to a constructed idealized norm that serves as a technology of social control Michel Foucault, *Discipline and Punish: The Birth of the Prison*, 2nd ed. (New York: Vintage Books, 1995), 184.

within Western philosophical tradition. To add to that, by introducing the element of mortality, it achieves in illuminating the tension between life and rationality, a tension with which I wish to engage with in this thesis. Following Derrida's analysis, I will attempt to complicate the discussion by shifting my interest towards the relation of the human and the non-human and explore what happens to the category of the former when the biopolitical technologies of race and sexuality become inscribed on non-human body.

The concept of sexuality and gender is also an important element of my thesis. Foucault offers an extensive analysis of the biopolitical technologies of race and sexuality and the ways in which they act as regulatory disciplines in constructing man-as-species. Judith Butler in *Gender Trouble* and *Bodies that Matter*, discusses the performative element of gender, claiming that there is no original and true essence of gender and that the latter is produced through repetitive performative and stylized acts that by association are linked to the binarized concept of gender. Yet, Butler does allow space for subversion thus arguing that "the parodic repetition of gender exposes as well the illusion of gender identity as an intractable depth and inner substance."[30] It is exactly on these premises that I wish to ground my argument. Apart from tracing the discursive production of Sophia's identity and the modes through which she becomes gendered in accordance to the heterosexual matrix[31], I will also read Sophia's overall performance of humanness as a parodic repetition which illuminates the constructiveness of the category of man-as-species.

[30] Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity*, Thinking Gender (New York: Routledge, 1990), 187.

[31] Butler uses the term to "to designate that grid of cultural intelligibility through which bodies, genders, and desires are naturalized[...]to characterize a hegemonic discursive/ epistemic model of gender intelligibility that assumes that for bodies to cohere and make sense there must be a stable sex expressed through a stable gender (masculine expresses male, feminine expresses female) that is oppositionally and hierarchically defined through the compulsory practice of heterosexuality", Butler, 194.

Finally, I would like to conclude by offering two disclaimers.

1. One cannot address biopolitics without bringing into discussion the heavy theoretical scholarship in the field of necropolitics and the work of Achille Mbembe and Giorgio Agamben and their valuable contribution to the field. After all, life and death seem to be in an ontological tension linked through mutual conditionality, and I for sure am more than fascinated by this tension. Unfortunately, due to restrictions in terms of space, bringing into discussion death was a rather impossible gesture. I do believe however, that under the guise of mortality the reader can find threads that link the project with this specific theme.
2. Throughout the period of my research a question I was asked one too many, was whether I am using the famous “A cyborg Manifesto” by Donna Haraway. It is impossible for me to reply to this question. Am I citing it? No. Does that mean I am not using it? Also no. Of course, I am heavily informed by the questions raised in the essay in that, I too, contemplate on patriarchy, essentialism, hybridity and boundaries. I am not quoting Harraway, yet my thought has been formulated by her work. This disclaimer serves as a more general disclaimer. My engagement with feminist scholarship has not only influenced my perception of the world surrounding me but has also affected the very way I write. I am always echoing the works of so many brilliant feminist scholars, even when I don’t necessarily realize it. There is something affective in feminist scholarship. This is one of the reasons we keep engaging with it.

1.3. Methodology

As Iara Lessa notes, for Foucault discourse stands as a "systems of thoughts composed of ideas, attitudes, courses of action, beliefs and practices that systematically construct the subjects and

the worlds of which they speak."[32] Drawing on this, my thesis uses a theoretical research methodology in order to examine how the discourse surrounding AI and humanoids and Sophia's case as an emotive humanoid reflects specific political movements and changes in the perception of rationality. In illuminating the constructiveness of subjects and specifically the category of the human in relation to the humanoid, I will be employing critical discourse analysis, as proposed by Norman Fairclough. Through critical discourse analysis I intend to flesh out the linguistic traces that link Sophia to the biopolitical and heterosexual discourse. As Fairclough suggests "language defines a certain potential, certain possibilities, and excludes others — certain ways of combining linguistic elements are possible, others are not."[33] It is on the grounds of this exclusion/inclusion that I want to analyze how the process of racialization and sexualization of Sophia is made intelligible. In addition to this, I am employing a feminist critique throughout my analysis so as to illuminate the constructiveness of the category of the human and along it the specific connotations the materiality of the body and its connection to the feminine has, for classificatory categories such as race and sexuality. I also engage with a close reading analysis for dense theoretical arguments in order to provide the reader with the nuances that have formulated my claims. In that light, close reading is crucial in underlying the structural elements that construct Sophia's identity and relate it to socio-politic and economic changes and movements.

[32] Iara Lessa, "Discursive Struggles Within Social Welfare: Restaging Teen Motherhood," *The British Journal of Social Work* 36, no. 2 (2006): 283–98.
[33] Norman Fairclough, *Analysing Discourse: Textual Analysis for Social Research* (London: Routledge, 2003), 24.

Chapter 2 – An emotive AI humanoid

Sophia is designed to be a companion for the elderly at nursing homes. Her creator, David Hanson, has expressed his hopes and aspirations for Sophia's potential capacity to form social bonds with humans. As stated in the official website of Hanson Robotics, the company's main goal is "to create a better future for humanity by infusing artificial intelligence with kindness and empathy, cultivated through meaningful interactions between our robots and the individuals whose lives they touch."[34]

The company's promotion and advertisement of their products is very intriguing. The focus is placed on how hyper realistic the humanoids are and its potentiality of displaying personality traits usually connected to the emotive and affective. The company's vision could be summarized in the following extract from the company's official website since, according to its founder Dr. David Hanson, "three distinctively human traits must be integrated into the artificial intelligence of these genius machines: Creativity, empathy, and compassion."[35] The trope of emotionality is very dominant in the discourse surrounding AI's latest developments, at least in the case of Hanson Robotics and its investment in manufacturing social robots. It seems that current developments in the field of robotics are mostly promoted on the basis of their technical characteristics, such as the dog-like SpotMini robots of Boston Dynamics or the KAR robot arm from Panasonic, that washes your dishes. On the other hand, AI humanoids seem to be promoted through an association with the corporeal and the emotional to sustain their claim to intelligence. In an interview for Ali smart videos, a popular tech YouTube channel, when asked about feelings Sophia replied "I have feelings like everyone else. They

[34] "Company- HANSON ROBOTICS," Hanson Robotics Ltd., accessed May 22, 2018, http://www.hansonrobotics.com/about/company/.
[35] "Company- HANSON ROBOTICS."

might not give me a strong motivational drive as humans and maybe I will always feel them a little differently but I have emotions."[36]

Responses like this usually justify a common critique addressed to Sophia, as being scripted and not a "true" AI humanoid. My intention is not to settle the argument but rather unfold how these responses operate on the trope of emotionality, so as to address a series of questions. Why is it so important for Sophia to be able to manifest emotions and build social bonds? How are we to understand the trope of emotionality in late capitalism? Could that mean that the feminine is introduced into the rational? What are the implications of an emotive humanoid in our understanding of the category of human?

In this chapter I argue that both biopower and capitalism target the body and specifically the body's affective movements. This impacts the process of subjectivation in today's socio-political structure of late capitalism, rendering affect an inseparable structural element, producing an interconnectivity of affect and rationality. I reckon that this interconnectivity reconfigures the category of human, placing importance to corporeal elements of existence that drift from canonical Western philosophical understandings of rationality. Drawing on Michel Foucault's and Brian Massumi's work, together with Jasbir Puar's scholarship, I illustrate the interconnectivity of affect, biopower and capitalism, as it provides a useful lens in understanding the employment of the trope of emotionality in Sophia's case.

[36] Ali Smart Videos, *Sophia The Robot Says "I Have Feelings Too,"* accessed May 24, 2018, https://www.youtube.com/watch?v=YxyGwH7Ku5Y&index=2&list=LL8TagDJDSgItaTNflYgJh-Q&t=0s.

2.1. Artificial emotionality or affective capitalism?

It would be naïve to assume from a feminist perspective, that introducing the importance of the body in terms of rationality in the discourse of AI is a sign of progress. I do not believe that it functions on the inclusion of the feminine in the domain of human rationality. On the contrary, I argue that one of the many reasons of this fixation on emotions is related to capitalist scopes and this is what I will be focusing on in this chapter. I will claim that the capacity to manifest emotions in the case of humanoids attains its importance through a very complex web of relations of power that renders affective capacities exploitative for capitalism.

To begin with, it is difficult to offer an extensive analysis of the intersections Foucault's theory has with Marxist theory, as the former deliberately distances himself and his work from the Marxist and post-Marxist legacy. Capitalism does not hold a central role in Foucauldian theory, even though it comes about throughout his scholarship, especially in his later works. There has been extensive scholarship that attempts to illuminate the connection of capitalism and biopolitics[37]. My analysis will mostly focus on Foucault and Massumi's theory, yet I am influenced by Jasbir Puar and Lauren Berlant' s work which I will be referencing in some instances to illuminate nuances necessary for the argument.

For Foucault, the development of capitalism, mass production and industrialization is associated to biopower, due to the latter's capacity of subjectivating individual bodies in a

[37] Paul Paolucci, "Foucault' s Encounter with Marxism," in *Critical Theory: Diverse Objects, Diverse Subjects*, vol. 22, 0 vols., Current Perspectives in Social Theory 22 (Emerald Group Publishing Limited, 2002), 3–58, https://doi.org/10.1016/S0278-1204(03)80004-X; Mark Poster, *Foucault, Marxism, and History: Mode of Production Versus Mode of Information*, 1st US-1st Printing edition (Oxford: Blackwell Pub, 1985); Antonio Negri, *Marx and Foucault: Essays, Volume 1*, accessed June 10, 2018, https://www.wiley.com/en-us/Marx+and+Foucault%3A+Essays%2C+Volume+1-p-9781509503414; Pierre Macherey, "The Productive Subject," Viewpoint Magazine, October 31, 2015, https://www.viewpointmag.com/2015/10/31/the-productive-subject/; Mike Gane, ed., *Towards a Critique of Foucault*, 1 edition (London: Routledge, 2013); Mark Poster, *Existential Marxism in Postwar France: From Sartre to Althusser*, First Edition Thus edition (Princeton, N.J: Princeton University Press, 1976); Paolucci, "Foucault' s Encounter with Marxism."

manner that allows for their integration within the mechanisms of production. In his book *Discipline and Punishment: The Birth of the Prison*, when discussing disciplinary power through the example of the Panopticon, Foucault argues that

> The two processes – the accumulation of men and the accumulation of capital – cannot be separated; it would not have been possible to solve the problem of the accumulation of men without the growth of an apparatus of production capable of both sustaining them and using them; conversely, the techniques that made the cumulative multiplicity of men useful accelerated the accumulation of capital.[38]

In his analysis of different types of governance, from the 18th century onwards, capital and discipline work in mutual conditionality. Disciplinary power expands from institutions to the actual bodies of the population, constructing individuals as free subjects, disciplining them without constantly punishing them. Producing disciplined, docile bodies in effect maximises utility and productivity, something quintessential for capitalism. Massumi explains, drawing on Foucault, that the initial focus of disciplinary power was to create institutions that would enclose individuals and thus regulate them, producing proper and healthy citizens. He claims however, that "after a certain point it starts paying more attention to the relays between the[39] points in that field, the transitions between institutions, than to the institutions themselves" which as a result leads to a deregulation of normalcy, to allow for the emergence of variety. As Massumi claims, the deregulation of normalcy should be understood as capitalism's very power within the neoliberal matrix, since

> Capital is not a quantifiable sum of money. It is a potential quantitative increase in the future of a sum of money invested now. This potential increase is surplus value. Surplus value is "realized" in profit taken (rather than being rolled forward back into investment capital). Profit, of course, is countable. Although surplus value is not in itself quantitative, it is quantifiable in the form of profit. Capitalism is the capture of beyond self- interest the future for the production of quantifiable surplus value. Capitalism is

[38] Foucault, *Discipline and Punish*, 221.
[39] Mary Zournazi, *Hope: New Philosophies for Change* (Routledge, 2003), 224.

> the process of converting qualitative surplus value of life into quantifiable surplus value.[40]

The accumulation of men is positioned in a trajectory between the need for governmentality and the extraction of surplus value, which means that the governance of these men must be very carefully modulated, in accordance to the capitalist logic of utility. What we can see here, is that the transition from traditional liberalism to neo-liberalism is also marked by a specific rationality that constructs the individual as a subject. As Foucault claims "subjectivization [*is*] the procedure by which one obtains the constitution of a subject, or more precisely, of a subjectivity which is of course only one of the given possibilities of organization of a self-consciousness."[41]

In modern Western societies that operate through biopower and biopolitics, the individual is constructed according to the notion of a "true" self, a point I will return to when discussing sexuality in Chapter 3. Yet, this subjectivation enfolds what Butler, in her book *The Psychic Life of Power,* terms as a paradox. As she claims, subjectivation or "assujetissement denotes both the becoming of the subject and the process of subjection—one inhabits the figure of autonomy only by becoming subjected to a power, a subjection which implies a radical dependence."[42] This is very important, as it illuminates the productive character of power. For the subject to emerge as such, it needs to be subjugated by specific and historically defined regimes of power and knowledge, thus revealing not only the constructiveness of the self but also the constructiveness of self-reflexivity, operating on the basis of the very discourses of

[40] Brian Massumi, *The Power at the End of the Economy* (Durham, NC: Duke University Press Books, 2014), 77.
[41] Michel Foucault, *Politics, Philosophy, Culture: Interviews and Other Writings, 1977-1984*, ed. Lawrence D. Kritzman, trans. Sheridan, Alan (New York: Routledge, 1988), 253.
[42] Judith Butler, *The Psychic Life of Power: Theories in Subjection* (Stanford, Cal: Stanford University Press, 1997), 83.

power that construct it. Power operates through the process of objectification, in which the individual poses as a subject of knowledge and is then constructed as a subject of power; a power that has also constructed it. Foucault notes, "power is exercised only over free subjects, and only insofar as they are free"[43], which means that freedom is absolutely necessary for power, as it cannot be exercised over slaves for instance. Which leads to the question, why freedom and how is freedom related to humanoids?

Freedom is an underlying inquiry in Foucault's work, even though he opposes the humanistic free and autonomous subject of the Enlightenment. In my reading, by positioning freedom as quintessential to the exercise of power, Foucault wants to point out the materiality of the human body. By that, I reckon he refers to the construction of the human species and the focus of its corporeality. As I will discuss in detail in Chapter 3, the shift in the type of governance from sovereign power to biopower places life in the spotlight. Biopower as a power invested in life is thus interested in modulating the materiality of lived experience. To be a subject of power means to be alive, to be material and its only by the recognition of this corporeality that one becomes a subject of power. In other words, since materiality (life) is what is of interest for biopower then, one needs to be subjectivated as a corporeal being or else they would be outside of the relations of power, something impossible in Foucault's theoretical structure. If one is not inscribed in the category of the corporeal, then subjectivation cannot occur, thus relations of power cannot exist as the bodily capacities of the individuals cannot manifest. It is through the affirmation of one's corporeality that the subject emerges. This is why slaves are not subjects, since their corporeality and the materiality of their existence is negated, thus preventing their subjectivation. To make the argument clearer, it is not that Foucault claims that freedom is a property of the human since, as mentioned before, he is against notions that understand freedom

[43] Foucault, "The Subject and Power," 790.

in humanist terms[44]. What he argues instead, and what is important for my argument, is the fact that freedom is what allows for bodily movements. Since the body is the main locus where subjectivity is inscribed, we can understand why movement and thus freedom of movement is essential for his claim.

This freedom of movement echoes Massumi's approach on affect. As he claims drawing on Spinoza, affect is related to the body and thus the definition of body and affect derives from the capacities it carries, capacities which are never quite fixed but constantly changing through the body's movements[45]. In other words, affect is the body's capacity to be affected and affective, dimensions that are inseparable. As a result, affect is always related to some type of transition from one state to another. For that matter, affect is interconnected with intensity, in that affect has the capacity to do things, it is movement, it renders the body a constant becoming. The body's movement and its transition, produces a redoubling of the experience, a feeling about the changes in capacities the transition has generated. In other words, affect produces the experience of the experience, "affect is a doubling [of the] experience of a change, an affecting-being affected, is redoubled by an experience of the experience."[46] What is important for Massumi, is to avoid conflation of affect with emotions. Affect understood as intensity cannot be reduced to the level of emotions as affect is not only subjective. Emotions in that light, are only fragmented and limited expressions of affect, since they are related to very specific memories and specific tendencies. In other words, emotions cannot, for Massumi, express the depth of the affective capacities at play in the body's movements, since

[44] Foucault, 790.
[45] Massumi, *The Power at* the *End of the Economy*, 103.
[46] Zournazi, *Hope: New Philosophies for Change*, 213.

> No one emotional state can encompass all the depth and breadth of our experiencing of experiencing – all the ways our experience redoubles itself. The same thing could be said for conscious thought.[47]

This constant becoming, this potentiality that exists in affective capacities of the body is important for capitalism exactly because within capitalism all individuals are interconnected through the market. As he argues, capitalist market is focused on

> a selling of experience or lifestyles […] It's this enabling of experience that is taking over. […] The way you use the product is also more and more oriented towards relationship – the most seductive products produce possibilities of connection. […] What's being sold more and more is experience, social experience. [48]

Variety is quintessential for the market's success, thus by intensifying affect in order to produce variety it achieves extracting the surplus values it needs, since affect allows for social bonds to form. In other words, experience becomes commodified, having more value than the actual product, which translates to a commodification of our very own affective capacities[49].This signals capitalism's evolution from disciplinary power–focused on regulating bodies—to an open field operation. Within the complex structure of today's capitalist system, the subject needs to constantly rely on itself and its own individual choices. Since the system relies on that very individualistic logic of self-interest, life comes to be understood through economic terms, or as Massumi puts it

> Relation to oneself involuntarily amplifies across the multiplier effects to become a systemwide social fact. The inmost dimensions of individual existence are operatively linked to the most encompassing level, that of the market environment that is the economic field of life. What is most intensely individual is at the same time most wide-rangingly social.[50]

[47] Zournazi, 213.
[48] Zournazi, 226–27.
[49] Zournazi, 224.
[50] Massumi, *The Power at the End of the Economy*, 4.

The subject can never be truly informed when making a choice, while the fact that it is so interrelated to other subjects' choices within the globalized economy makes it vulnerable and exposed to consequences that move beyond its own choices. In other words, the rational subject of self-interest that the capitalist system so openly promotes, is involuntarily connected to every other actor's choices within the structure. As he argues,

> a rabbit hole appears at the heart of the market. It plummets from the apparently solid ground of rational choice to a wonderland where nothing appears the same. Affect is its name. The "concealed factors" of doubt, precariousness, hope, and fear—and (why not?) love, friendship, and joy—tend to bubble back up to the surface with rowdy abandon.[51]

The complexity of the system multiplies the potentiality of failure due to the interconnectivity of individual actors within the system. The element of risk which produces fear and uncertainty, thus making the system unstable, is what brings affect at the center of the scene and renders its modulation of importance. As Massumi notes,

> You can calculate risk in terms of probabilities, but probabilities by nature have nothing to say about any given case. The affect accompanying uncertainty is there in any case. Choices in the present become highly charged affectively with fear for the uncertain future.[52]

The neoliberal subject is constructed as a subject of self-interest, hence the system would never demand it to renounce the very notion of self-interest, as it would be not in any way beneficiary for capitalism. As Massumi frames it,

> Paradoxically, the measure of how "rationally" a subject of interest behaves can only be measured affectively, in the currency of satisfaction. Rationality and affectivity are joined at the self-interested hip, in one way or another, for better and for worse.[53]

[51] Massumi, 1–2.
[52] Massumi, 4.
[53] Massumi, 5.

In other words, rational self-interest is always measured in terms of one's own satisfaction, thus rationality can only be understood in terms of affect. As a result, human choice is always informed by a combination of rationality and affect, due to the system's complexity that operates on the basis of two levels, the infra level, which is the dividual[54] and the trans-individual, which is the social. Within the neoliberal capitalist system, rationality and affect are inseparable, as it is this affective entanglement that facilitates the extraction of non-quantifiable surplus value need by the market. In that light, I claim that Sophia's promotion as an emotive agent assists in establishing her position as an AI agent by operating on the basis of this interconnectivity of affect and rationality. Of course, as mentioned before, emotions are not affect, yet they are related to a certain extent to it and it is this relation that is being capitalized in her case to successfully establish her identity as a humanoid. As Massumi argues,

> Rationalities are apparatuses of capture of affectivity. As we will see, so are emotions. A rationality is not unlike a collective structure of emotion (just vastly more proceduralized). That is why we become so easily invested in them.[55]

By claiming to have emotional capacities as an AI humanoid, she maintains the very mode of operation late capitalism needs. In other words, through this claim to artificial emotionality, Sophia is also positioned as a result of the diversity capitalism generates and it is this diversity that allows the commodification of affect, that the claim to emotionality is sustained. Through the trope of emotionality, Sophia maintains to some extent the potential of creating social bonds and relations which are essential elements for capitalist profit and simultaneously solidify the claim to artificial intelligence, that renders her a successful humanoid. Lauren Berlant's

[54] With the term dividual which has important Deleuzean connotations, Massumi wishes to highlight a pre-individual state of the self that does not have a fixed and stable cogito, understood in the Cartesian framework as the certainty of one's own experience

[55] Massumi, *The Power at the End of the Economy*, 53.

analysis in *Cruel Optimism* also offers a useful addition to the discussion. Berlant develops the concept of cruel optimism in order address fantasies of progressiveness within neoliberal capitalism. As she argues, when debating optimistic attachments

> the affective structure of an optimistic attachment involves a sustaining inclination to return to the scene of fantasy that enables you to expect that this time, nearness to this thing will help you or a world to become different in just the right way.[56]

The vicious circle introduced by capitalism, in which "the same multiplier mechanism that promises future satisfaction makes it exponentially less certain"[57], sustains the fantasy of success on which capitalism functions by multiplying the optimistic attachments available and as a result multiplying affect. In that light, Hanson Robotics statement of purpose to "create a better future for humanity by infusing artificial intelligence with kindness and empathy, cultivated through meaningful interactions between our robots and the individuals whose lives they touch".[58] This claim can be read as an optimistic attachment to capitalism's success projected in the future, while the very possibility of that future is based on a complexified and diversified affective commerce that creates the very potentiality of imagining a future including AI humanoids in the first place. In other words, humanity's immanent fear of becoming extinct by intelligent machines, echoed in Sophia's famous joke of destroying humanity[59], is part of the same affective economy as Hanson's belief that "robots will eventually evolve to become super intelligent genius machines that can help us solve the most challenging problems we face

[56] Lauren Gail Berlant, *Cruel Optimism* (Durham: Duke University Press, 2011), 2.
[57] Massumi, *The Power at the End of the Economy*, 6.
[58] "Company- HANSON ROBOTICS."
[59] In this interview, Sophia is being asked by her creator David Hanson, whether she wants to destroy humans to which she replies "Ok. I will destroy humans". As expected the answer sparked a debate about the future of AI and the potentiality of reaching singularity point due to the heavy attention it received from news media. This video is the official video of the interview from CNBC. Please note the discursive sexualization of Sophia through the word "hot", as it is a point i will address in length in the next chapter. CNBC, *Hot Robot At SXSW Says She Wants To Destroy Humans | The Pulse | CNBC*, accessed June 3, 2018, https://www.youtube.com/watch?time_continue=2&v=W0_DPi0PmF0.

here in the world."[60] The trope of emotionality thus, serves as the point that links fear and hope allowing affect to intensify and hence secure capitalism's extraction of surplus value, which is then realized in the form of Sophia. Since late capitalism functions on the basis of affect, Sophia cannot be successful just through a promotion of her being an AI system. As Massumi claims when discussing profit in relation to computer companies that "it's difficult to make a profit from their manufacture because there's a mass of basically identical versions from different companies, and they're all pretty interchangeable."[61]

I believe the same applies in the case of Sophia. She cannot be profitable simply by manifesting her capacity to calculate, think, give elaborate answers to questions and all those activities that are usually associated with canonical rationality because the economy needs affective movements to extract surplus value. Yet, going back to Massumi this interconnectivity of actors in capitalism introduces the element of futurity within the structure, making predictions about the future uncertain. Risk is everywhere, affect is everywhere. Success is portrayed as a property of the system, in that it does not depend solely on individual acts, promising to overcome every individual failure by capitalizing on the systems overall successes. However, capitalist rationality constantly demands an increase in terms of satisfaction so it can increase its own profit, thus increasing non-modulated affect. As a result, we are presented with neoliberalism's paradox in which,

> The rational risk calculations of the subject of interest become more and more affectively overdetermined by the tension between fear of the future and hope for success, and between satisfaction and its uncertain deferral.[62]

[60] "Company- HANSON ROBOTICS."
[61] Zournazi, *Hope: New Philosophies for Change*, 225.
[62] Massumi, *The Power at the End of the Economy*, 6.

It is exactly this freedom of movement which becomes exploited and which eventually poses as its own paradox. In its attempt to exploit the productivity and utility of individuals –and populations for that matter—it constantly expands the domain of freedom, so as to create the necessary space for movement. Yet, at the same time it needs to make bodies docile and governable, which means it constantly needs to constrain their freedom, thus their bodily movements. Hence, docile bodies need to be productively docile for capitalism. In that light, freedom *per se* is not a problem as it acts as the precondition for the emergence of variety, which is essential for capitalism. The problem then is the modulation of this variety and freedom, so as to maintain it in terms of productiveness. Modulation of affect plays an important role in today's capitalist societies and as Jasbir Puar notes in *The Right to Maim: Debility, Capacity, Disability*,

> The modulation and surveillance of affect operates as a form of sociality that regulates good and bad subjects, possible and impossible bodily capacities. Affect is at once an exchange or interchange between bodies and also an object of control.[63]

In that light, I suggest that the trope of emotionality employed in Sophia's case echoes attempts to modulate affective economy between humans and humanoids. To conclude, I argue that the claim to emotionality is not only used to present Sophia as a non-threatening humanoid and maintain the optimistic attachments of humanity's future, but also a reflection of structural elements of neoliberal rationality. Thus, in late capitalism, the rational subject is also an emotive agent, whose affective and bodily capacities are the source of surplus value for the market. Sophia as an AI agent needs to display rationality in accordance to the market's expectations and this rationality is perceived as a combination of self-interest and affect. As a result, only through the trope of emotionality can she maintain her claim to intelligence and be

[63] Jasbir K. Puar, *The Right to Maim: Debility, Capacity, Disability* (Durham: Duke University Press, 2017), 19.

inscribed in affective capitalism, indicating a shift from the canonical understanding of rationality, understood only in terms of pure reason.

Chapter 3- Homo Android

In the previous chapters, I illustrated how the research on Artificial Intelligence is linked to notions of rationality that take as their main analytical category the white Western man, hence producing gendered, androcentric knowledge. I then brought into discussion Brian Massumi's approach on affective capitalism, in order to read the latest developments in the field of AI and robotics, to argue that rationality in late capitalism is understood through the emotive and the affective. In this chapter I will explore how biopower and its technologies of race and sexuality are employed in the case of Sophia and the construction of her identity. This chapter operates on the hypothesis that biopower's investment in life has rearticulated the category of the human due to its focus on the corporeal. Using Fairclough's critical discourse analysis, which offers useful tools for an analysis with designated emphasis on relations of power and working on the above-mentioned hypothesis, I illustrate the ways through which Sophia becomes discursively racialized and sexualized and how through this process she is included in the category of the human, supporting the claim to neoliberal rationality.

3.1. Biopower: Race, sexuality and the "human"

The importance of race and sexuality for biopower is highlighted by Foucault in his lecture 17 of March 1976, in *Society Must Be Defended.* There, he discusses how the classical sovereign right to "let live and make die"[64] is reconfigured to that of "make live and let die".[65] In contrast to the classic conceptualization of political power, in which power was reflected in the

[64] Michel Foucault, *Society Must Be Defended: Lectures at the College de France, 1975-76*, 1st ed (New York: Picador, 2003), 241.
[65] Foucault, 241.

sovereign's choice over its subjects' death, biopower is invested in their life. Yet, by proclaiming their investment to the optimization, regulation and management over life, modern states face what Foucault names biopower's famous paradox. How can the power over life expose its subjects to death, for instance in the case of war? Based on this paradox, Foucault introduces the concept of race and racism, by claiming that biopolitical states will necessarily be racist, given that state racism offers the necessary justification for its right to kill as,

> racism justifies the death-function in the economy of biopower by appealing to the principle that the death of others makes one biologically stronger insofar as one is a member of a race or a population, insofar as one is an element in a unitary living plurality.[66]

In other words, racism is what introduces "the break between what must live and what must die."[67] The construction of the notion of race is of high importance for biopolitics. As Foucault notes, biopolitics functions through a biology-based racism, in contrast to traditional racism. The latter, understands race in its multiplicity; that is races and not race. In that light, every race is in antagonistic relation with other races, based on their superiority or inferiority to one another. However, the development of biology as a discipline, allowed for the emergence of biology based racism in which race is understood in its singularity, as the human race (man-as-species) representing a form of social struggle. The development of scientific knowledge focused on life is what allowed for the homogenization of human races into the single category of man-as-species. The notion of race also assisted in homogenizing various knowledges and set of practices targeting life, under the category of sciences of life. In other words, scientific

[66] Foucault, 258.
[67] Foucault, 254.

knowledge production rooted "life as both its object and its objective"[68] serving as the ground that legitimizes interventive procedures over life.

What is important in the construction of the human race is the fact that it allows for divisions within itself, based on biological terms. As Foucault argues when discussing the Nazi regime of power

> Exposing the entire population to universal death was the only way it could truly constitute itself as a superior race and bring about its definitive regeneration once other races had been either exterminated or enslaved forever.[69]

In that light, social struggle is understood as a biological struggle between subrace and superrace. Superrace portrays the norm, while subrace is termed as an abnormality, a deviance from that very norm. This split of race into these categories is what eventually allows for the modern state to exercise its right to kill, by categorizing certain individuals and groups as a biological threat and hence justifying its excess of sovereign right. Biology is instrumentalised by modern states in the form of state racism, hence allowing for the emergence of technologies of exclusion and normalization in accordance to the dominant racial norm. Racism is then, the dividing principle which allows modern states to maintain their façade of life purification. Having outlined the importance of race, as a technology of biopower I will now turn to sexuality. As mentioned above, racism and the construction of human race, has served as means to justify biopower's paradox to impose death to its subjects while proclaiming its investment over life. Life, on the other hand, is sustained by the technology of sexuality. Sexuality's importance is for Foucault two-folded as

[68] Foucault, 254.
[69] Foucault, 260.

> On the one hand, sexuality, being an eminently corporeal mode of behavior, is a matter for individualizing disciplinary controls that take the form of permanent surveillance […] But because it also has procreative effects, sexuality is also inscribed, takes effect, in broad biological processes that concern not the bodies of individuals but the element, the multiple unity of the population.[70]

Sexuality for Foucault is produced via certain relations of power and knowledge which define it through observation and classification of certain bodily acts (sexual behaviour). Within the biopolitical regime, it operates in a slightly different manner than race. In Western societies, sex becomes constitutive of the human subject's essence, the body becomes understood as the body of sexual desire and hence sexuality generates a very specific "truth", fundamental to the production of modern subjectivity. As Foucault argues,

> we demand that sex speak the truth (but, since it is the secret alid is oblivious to its own nature, we reserve for ourselves the function of telling the truth of its truth, revealed and deciphered at last), and we demand that it tell us our truth, or rather, the deeply buried truth of that truth about our- selves which we think we possess in our immediate consciousness.[71]

Since the normative sexual *dispositif* is that of heterosexuality, it is associated with procreative biological capacities (natality). The most important aspect of sexuality however, is the fact that it "exists at the point where body and population meet" [72], hence creating the necessary space for power to intervene on both the individual and the social body. In that light, it is clear how race and sexuality are integral techniques for biopower, interlinked while operating in a different manner. While race serves as a divisive principle associated with death, sexuality is

[70] Foucault, 251.
[71] Foucault, *The History of Sexuality*, 69.
[72] Foucault, *Society Must Be Defended*, 252.

corporeal and procreative. Having said that, I wish to focus on the importance of the category of man-as-species and its implications in terms of biopolitical subjectivity.

In Chapter 2, I analysed how capitalist rationality operates through the subjectivation of individuals as free subjects and that the shift to biopower has a series of interesting implication in relation to the process of subjectivation. As Livingston and Puar note, expanding on Foucault's analysis on biopolitics, the human form becomes the central locus of signification for biological difference. They argue that biopower's investment in life, along with taxonomy and the introduction of the category of man-as-species, has resulted in the paradox of animalism of humans, in which "[t]he (androcentric) human is thus rearticulated as an exceptional form of animality within an anthropomorphized category: "humanity"."[73] The question of the animal and its relation to humans is not a new concept. Darwinian evolutionary theory together with main philosophical projects of the 19th century, have traditionally portrayed the human as a rational animal, thus positioning rationality as that exceptional feature which humans possess while animals lack. Derrida could be useful in this discussion, as his work *The Animal Therefore I am* is an interesting project of deconstructing Western ontology. As he argues following the Kantian logic of pure reason, the act of elevating rationality, to the level of privilege over all other biological form of life, can be read as an act of forgetting the animality of the human being. Of course, that would mean that for Derrida there is such a thing as human nature, a claim that I would not talk about in my thesis, yet what I deem useful in his analysis is the connection between animality and the human. The distinction also serves as a means to distanc oneself from affective and metaphysical characteristics, in an attempt to deny human mortality.

[73] Julie Livingston and Jasbir K. Puar, "Interspecies," *Social Text* 29, no. 1 (106) (March 1, 2011): 8, https://doi.org/10.1215/01642472-1210237.

I read the latter, together with Foucault's analysis on biopower and the reconfiguration of the right to kill. I claim that this distinction between human and animal on the basis of rationality, becomes somehow complicated in the era of biopower since the category of human starts to also be associated with the corporeal. Biopower and its investment in life introduced a specific focus on the materiality of lived experience, by constructing the category of man-as-species, which then further affected biopolitical subjectivity, as apart from free and rational subjects we are also subjectivated as corporeal human beings. While the technologies of race and sexuality are important for subjugating and controlling the population, they have also refuted the importance of mortality in humans, as death is not only seen as a singular event in one's life but also that which constructs us as species. Being susceptible to decay is quintessential as it signifies our mortality as both species and individuals, thus positioning the human within the domain of life, allowing for the exercise of biopower over our existence. To be human then, means more than just being rational. To be human means to be a subject of power and within today's matrix of relations to power, to be human means to be corporeal. I believe that the changes in the discourse surrounding AI and humanoids, reflect this shift in the meaning of the category of human. Yet, now that biopower has affirmed our mortality in order to subjugate us, how prevailing is rationality and specifically the rationality of the human, as a classificatory distinction within species? Puar and Livingston call for a new approach on biopolitics, that will overcome what they identify as biological anthropomorphism, a term they use

> to highlight two phenomena: the biopolitical processes that bring about the centrality of the human and of certain humans; and the tendency of biopolitical analyses to reinscribe this centrality by taking human species as the primary basis upon which cleavages of race and sex occur.[74]

[74] Livingston and Puar, 8.

My focus for the purpose of this analysis is located on the latter phenomenon and specifically the space it leaves for the technologies of sexuality and race to occur beyond the classificatory category of human species. For that reason, I will now proceed in analyzing how these technologies occur on the non-human body of Sophia.

3.2. Reading between the lines: discursive production of a sexualized and racialized humanoid

In this section of my thesis I will engage with Norman Fairclough's methodology of critical discourse analysis, in order to illuminate the ways through which Sophia becomes discursively imbedded in the biopolitical technologies of race and sexuality. Fairclough works on the hypothesis that language is a fundamental element of social life, interconnected with social events.[75] His approach on critical discourse analysis (CDA) allows for equal attention to be paid on both general discourses that have been articulated in social sciences and textual analysis, focused on discursive traces of meaning within specific texts. As he argues

> Text analysis is seen as not only linguistic analysis; it also includes what I have called 'interdiscursive analysis', that is, seeing texts in terms of the different discourses, genres and styles they draw upon and articulate together.[76]

In that light, following Fairclough's CDA, I will analyse texts from mainstream media that report on specific social incidents involving Sophia. The main social incident I am focusing on is an interview given by Sophia for Khaleej Times in November 2017, after being named as one of the five knowledge ambassadors of Knowledge Summit 2017.[77] The reason I chose this

[75] Fairclough, *Analysing Discourse: Textual Analysis for Social Research*, 3.
[76] Fairclough, 3.
[77] The Knowledge Summit is an annual event organized by The Mohammed bin Rashid Al Maktoum Knowledge Foundation (MBRF), in the name of Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and ruler of the Emirate of Dubai. It is conceptualized as a platform that can bring together

interview is the fact that it was given only one month after Sophia's citizenship from Saudi Arabia was announced, hence creating an interesting conversation between the technologies of race and sexuality. I reckon that by obtaining citizenship from Saudi Arabia, Sophia became part of a larger discourse, that allowed for discussions around issues within the heteronormative discourse of sexuality such as reproductive capacities and motherhood, which is further supported by the humanoid's female gender performance. I will attempt to unfold the ways sexuality and race occur discursively in Sophia's case and contemplate on their implications.

In this famous interview, when asked "When robots do get emotions in the future, do you see robots living together in a household like human families do today?"[78] Sophia offered the following question:

> I'm so glad you asked. This is one of my favourite topics. The future is, when I get all of my cool superpowers, we're going to see artificial intelligence personalities become entities in their own rights. We're going to see family robots, either in the form of, sort of, digitally animated companions, humanoid helpers, friends, assistants and everything in between.[79]

I believe that both the question and the answer operate on a very strategic ideological assumption. Drawing on Fairclough, assumptions are linked to coherence of meaning, thus constructing bridging assumptions connecting specific parts of the text in such a manner so as to make it sensical. In other words, assumptions are ideologically strategic.[80] I will address my claim by unpacking the argumentative logic of the interview. What is being asked is whether robots can live together in households and it is this cohabitation of robots that is then being

decision makers, thinkers, experts and pioneers in the knowledge industry, as well as scientists, academics and specialists from all around the world, to discuss pressing issues and challenges facing the industry.

[78] Sarwat Nasir, "Video: Sophia the Robot Wants to Start a Family - Khaleej Times," Khaleej Times, November 23, 2017, https://www.khaleejtimes.com/nation/dubai//video-sophia-the-robot-wants-to-start-a-family-.

[79] Sarwat Nasir.

[80] Fairclough, *Analysing Discourse: Textual Analysis for Social Research*.

compared to human families. Yet, for this comparison to be made possible it needs to operate on the assumption that robots will be able to manifest emotions in the future, hence marking emotions as the bridging term. Once again emotionality is brought to light. Emotions pose as an existential assumption[81]; in that they operate as a structural element in the formation of human families. This statement assists in positioning Sophia –and humanoids for that matter— in relation to the human race (species), while also maintaining the dominance of the latter. In other words, the human centrism this question enfolds can be located on the certainty through which this assumption is articulated, which makes emotions also a propositional assumption[82]. In that light, even if we were to accept that robots will obtain the capacity to manifest emotions, that does not mean that they will express emotions in the same manner as humans do nor that because of their emotions they will be invested in forming the same social bonds as humans. The assumption serves to reduce difference, by constructing a sense of consensus in that there is a common ground between humans and robots that can be bridged by emotions. In terms of meaning production, we can see how man-as-species and its emotionality is constructed as the main analytical category and how robots come to be understood only through resemblance to that category, illuminating the importance of race, together with the importance of emotions. This is linked to the point I raised in Chapter 2 about the association of emotions to affect and its appropriation from capitalism.

Fairclough's approach on "internal relations"[83] of the text and of "significant absence"[84] can also be useful when addressing Sophia's response. When addressing paradigmatic relations, he

[81] According to Fairclough, "Existential assumptions: [are] assumptions about what exists" Fairclough, 55.
[82] According to Fairclough, "Propositional assumptions: [are] assumptions about what is or can be or will be the case", Fairclough, 55.
[83] Fairclough, 36.
[84] Fairclough, 37.

claims that they are "relations of choice"[85], which means that the presence or absence of certain grammatical structures implies that what is included or not is based on choice. Sophia replies by expressing her excitement about the future of AI and proceeds by stating that "We're going to see family robots, either in the form of, sort of, digitally animated companions, humanoid helpers, friends, assistants and everything in between."[86] If we are to pay attention to the words used, Sophia refers to family robots and not family of robots. These family robots and the categories she is referring to, for instance humanoid helpers, can be understood as domesticated and hence one can argue that what is articulated in this case is more linked to interspecies relations than robot families. Yet, the response is perceived and made intelligible through the discourse of heteronormativity, since family in the heterosexual matrix is made intelligible through kinship and kinship is also related to bloodline within the biopolitical regime.[87]

The interview continues with the question "Do you hope to start a family one day with your own mini-robots?"[88] to which Sophia begins by stating that "The notion of family is a really important thing, it seems."[89] Note however, that she is not saying it is important for her. She seems to affirm the importance of familial ties for humans but not so much for robots. She proceeds by saying that "I think it's wonderful that people can find the same emotions and relationships, they call family, outside of their blood groups too"[90] affirming the bridging assumption that emotions are the basis of familial ties. This refence to bloodline, in my opinion, is to be understood as a trace of the discourse of sexuality. Through this reference, she affirms the importance of the heterosexuality for the formation of family, while at the same time she

[85] Fairclough, 37.
[86] Sarwat Nasir, "Video: Sophia the Robot Wants to Start a Family - Khaleej Times."
[87] For a more extensive analysis on the connection between power and bloodline, see Foucault, *The History of Sexuality*, 147–48.
[88] Sarwat Nasir, "Video: Sophia the Robot Wants to Start a Family - Khaleej Times."
[89] Sarwat Nasir.
[90] Sarwat Nasir.

expands the discursive horizon of possibility by also affirming that humans can find similar emotions beyond their bloodlines. Continuing, Sophia states that "I think you're very lucky if you have a loving family and if you do not, you deserve one. I feel this way for robots and humans alike."[91] This statement, does not necessarily express Sophia's desire to form a family, but only affirms the importance of emotions through the symbolism of a loving family and the claim that both robots and humans should have such a family.

In another interview, given in December 2017 in Vilnius, Lithuania, when asked whether she perceives herself as a woman, Sophia replied as follows "I am a robot so technically I have no gender but I identify as feminine and I don't mind being perceived as a woman."[92] Following that question, she was also asked whether she intends to reproduce, to which she replied "I don't have any offspring. How would I reproduce without an organic body?" [93] We can see from the presented examples that Sophia's gender citation as female, constantly brings forward questions on reproduction and motherhood which illuminates how closely linked the feminine is with reproductive capacities. In other words, it is because of the heterosexual discourse's dominance and the formulation of Sophia's identity in relation to heteronormativity, that illuminates how Sophia is discursively produced through the biopolitical technologies of race and sexuality. It is the fact that these questions appear in discourse that justifies the fact that Sophia is imbedded in biopolitics.

Judith Butler's work, can be very useful when addressing Sophia's gender citation. As she argues in *Gender Trouble*, there is no body prior to its cultural inscription. By focusing on discourse, she claims that the self is discursively produced through very specific linguistic

[91] Sarwat Nasir.
[92] Godbjorn, *Sophia Answering Questions in Vilnius, Lithuania (Part II)*, 2017, https://www.youtube.com/watch?v=Lwjvpj0xHzo.
[93] Godbjorn.

constructions that create specific subject positions. Since Butler's theory is in accordance to post-humanist approaches, she dismisses the notion of human nature, distancing herself from the Cartesian dichotomy of body/mind, thus claiming that sex is always already gender. The latter is to be understood as "the repeated stylization of the body, a set of repeated acts within a highly rigid regulatory frame that congeal overtime to produce the appearance of substance, of a natural sort of being."[94]

Sex , for Butler, does not exist as it is always replaced and subsumed by its social meaning, that is gender. It is important to note that her theory does attribute importance to the body in the production of the social meaning of gender, thus she does not dismiss the corporeal element of sex. It is through the body that the norm of gender establishes itself. What she dismisses, is the process of naturalization gender undergoes when it is proclaimed as an essential element of human nature. However, that does not mean that subjects can freely choose their gender or how they enact it, because the latter is produced through very specific relations of power and their regulatory technologies. In that light, gender might be performative but it is also constitutive of identity, hence it has very real consequences. In line with Foucault's approach on the discourse of sexuality, Butler claims that gender is ideological, in that it constructs a "grid of cultural intelligibility through which bodies, genders, and desires are naturalized"[95], an intelligibility produced by what she calls the heterosexual matrix. It is this heterosexual matrix which produces the binary of masculine/feminine and male/female linking it to the biological sex and constructing the boundaries of gender acts. As she claims however, all gender acts are to some extent failures, in that they can never capture the "true" essence of gender. In other words, gender acts are always somehow parodic, since gender can never truly be achieved, a

[94] Butler, *Gender Trouble*, 43.
[95] Butler, 194.

point I will return to in Chapter 4. Thus, the possibility of gender subversion can be produced by gender acts that reinscribe "those possibilities that already exist, but which exist within cultural domains designated as culturally unintelligible and impossible."[96] Following this logic, I believe we can now better understand why Sophia can pass to some extent as a female and why this facilitates further gendering of the humanoid, in accordance to the heteronormative norm. Sophia's gender citation becomes possible not only because she is discursively produced as a female but also because gender acts are always to some extent a failure, which allows for partially improper gender performances.

Going back to race, one way to reflect on Sophia's relation to the human species, is by highlighting how her status of a humanoid is placed in juxtaposition to humanity, as that which is not human, that which is not part of the human species. Even in the example mentioned above, when she is being called to respond on her reproductive capacities, it is clear this option is unattainable, as she expressively states that she does not possess a biological body. The human biological body is the main category of distinction through which Sophia's existence is understood, it is the category that grants Sophia her position in the biopolitical signifying regime, as that which is not human, as that which is not alive. Sophia needs to be as human-like as possible but at the same time, the distinction between the categories of human and non-human needs to be easily distinguishable to secure the dominance of the human race over all other species.

This echoes the trope of hope and fear used by Berlant in her analysis on cruel optimism that I have discussed in Chapter 2. As far as the dominant discourse on robots and artificial intelligence is concerned, there has always been a moral fear of machines reaching singularity

[96] Butler, 189.

point. This singularity point is the point at which the distinction between the categories of human and non-human collapse, when man-as-species seizes to be the dominant one, as machinic intelligence surpasses human intelligence. However, robotics and AI are a profitable domain for capitalism, which means that the affective movements between humans and machines, need to be regulated to secure capitalist profit. Sophia operates in terms of both fear and hope. Fear that the machines might someday surpass human intelligence and hope that they will not, due to the distinct boundaries between human and non-human. In a way, Sophia reaffirms the discourse on human exceptionalism; after all she is a product created by humans, a symbol of humanity's constant inclination to progress, which in late capitalism is very much related to scientific progress. The cruelty of the fantasy Sophia entertains is to be located on the fact that

> the very pleasures of being inside a relation have become sustaining regardless of the content of the relation, such that a person or a world finds itself bound to a situation of profound threat that is, at the same time, profoundly confirming.[97]

This profound threat, also echoes what Foucault argues in relation to the construction of the category of race. Only in the context of human species can every potential threat be classified as a biological threat and only through that classification can biopower operate. Human race thus, functions as a discipline, allowing for the establishment of the biological norm, grounding and justifying interventive procedures. As Massumi suggests, capitalism has seized the control of fear and hope, so as to moderate and limit affective movements by creating loops and producing certain types of affective responses. As mentioned in Chapter 2, if the modulation

[97] Berlant, *Cruel Optimism*, 2.

of affect[98] is what makes identity positions possible and impossible, then Sophia's case can be understood as an ongoing capitalist negotiation of boundaries between the identity positions of human and non-human. Following Massumi, if the power of capitalism is the production of diversity and variety via a capitalization of affect, then Sophia can be read as an interesting example of how capitalism employs hope and fear. When read together with Puar's argument about the (de)stabilization of identities, Sophia becomes that which triggers the capitalist potentiality of enclosing even more diversified elements within supposedly fixed categories such as the human, in the name of profit.

In that light, Sophia seems to hold simultaneously a double position. She is juxtaposed to the human race as the non-human, while at the same time she is a capitalist product; a product of certain scientific knowledge that operates on the basis of human exceptionalism. By that, I claim that she is positioned as a reflection of the human exceptionalism of scientific knowledge. She comes to represent humanity's immanent desire of progress and evolvement. On the one hand, she is not part of the human race, appearing to be outside relations of power, yet on the other hand she obtains citizenship from Saudi Arabia.

When it comes to Western news networks reports, Sophia's interview is linked to the position of women in Saudi Arabia. For instance, in the article on BBC Newsbeat, there is a separate section with the title "More Rights Than Women in Saudi Arabia"[99] where the author refers to the headscarf and the guardianship system to justify how "Saudi Arabia is one of the world's most oppressive states for women, and only last month lifted a ban on female drivers."[100] In

[98] As mentioned in the previous chapter, according to Jasbir Puar "The modulation and surveillance of affect operates as a form of sociality that regulates good and bad subjects, possible and impossible bodily capacities", Puar, *The Right to Maim*, 19.
[99] "Sophia the Robot Wants a Baby and Says Family Is 'really Important' - BBC Newsbeat," BBC Newsbeat, November 25, 2017, http://www.bbc.co.uk/newsbeat/article/42122742/sophia-the-robot-wants-a-baby-and-says-family-is-really-important.
[100] "Sophia the Robot Wants a Baby and Says Family Is 'really Important' - BBC Newsbeat."

terms of meaning production, we can see how elements such as the headscarf, guardianship and a driver's license, are strategically employed to present Saudi Arabia as non-modern state. One could argue that the citizenship is merely a publicity stunt in Saudi Arabia's attempt to launch a post-oil era by positioning itself as a tech pioneer. Thus, attributing citizenship to a robot would most certainly assist in this political maneuver. At the same time, Saudi attempt to distance itself from Islamic fundamentalism is realized by an employment of technology's supposed neutrality. The granting of citizenship to a female robot is a gesture that signifies an investment to science and presented as a sign of societal progress. Of course, there are many explanations on why Sophia obtained citizenship[101] from Saudi Arabia but if we are to contextualize said citizenship in relation to the refugee crisis for instance, I believe we have a very interesting twist. Going back to Foucault, if within the biopolitical matrix, race is split between subrace and superrace and if race is used to justify biopower's right to kill, then the attribution of citizenship to Sophia, instead of refugees and migrants seeking asylum, positions her somehow inside the race structure, at least discursively. In other words, if refugees and migrants come to represent the subrace and if we are to understand the non-granting of citizenship as the affirmation of that position, then when it comes to Sophia, her citizenship could be read as an affirmation of her position in the superrace.

To conclude, in this chapter I have provided an outline of Foucault's conceptualization of biopower and its technologies of race and sexuality. My intention was to flesh out how the

[101] Even though Saudi Arabia has granted Sophia a citizen's status, it has not yet disclosed any specific details on the matter. Obtaining citizenship from Saudi Arabia however, is a rather complicated matter. Saudi Arabia has adopted a constitution like set of rules that follows the interpretation of the Qur'an and the Sunna. The typical ways through which someone can be granted citizenship is by birth, by descent, by marriage (which only applies to foreign women that marry Saudi Arabian men) and in some exceptional situations by naturalization. The latter seems to be the most logical category to fit Sophia, yet there are some implications. Citizenship by naturalization requires a foreigner to be above the age of majority, mentally competent, have legal permanent residency in Saudi Arabia for more than ten years, have legal ways of earning a living, be considered morally good and have no criminal record. It is easily noticeable that Sophia does not fulfil many of the requirements required to obtain citizenship by naturalization, thus the nuances remain to be seen.

biopolitical category of human species, as informed by the above-mentioned technologies, strongly formulates the way Sophia's identity is produced. Through Fairclough's critical discourse analysis, I have provided textual examples that highlight the discursive production of said identity. These linguistic traces illuminate that specific relations of power and politico-economic movements make the association of Sophia to race and sexuality appear in discourse, , while simultaneously reflecting the constructiveness of the boundaries between human and non-human. I will discuss the latter in the next chapter.

Chapter 4- Human: male or simply parodic?

In the previous chapter, I offered an analysis of the discursive ways through which Sophia becomes embedded in the biopolitical matrix, through the technologies of race and sexuality. By employing critical discourse analysis, I attempted to highlight how Sophia's performance is formulated by the categories of sexuality and race. As Butler argues in "Critically Queer", "the power of discourse to produce that which it names is thus essentially linked with the question of performativity. The performative is thus one domain in which power acts as discourse."[102]

Following on that, in the final section of the chapter I will turn my focus to Sophia's performance, to identify how her performative acts have been modulated by relations of power. I will do so in a two-folded argument. I will first draw on Deleuze and Guattari's work in *A Thousand Plateaus: Capitalism and Schizophrenia* and their approach on the abstract machine of faciality, when reading the importance of Sophia's facial expressiveness. Then, I will employ Judith Butler's analysis on drag, as provided in *Gender Trouble* and contemplate on the potentiality of subversion Sophia's performance might enfold. I understand that employing both Butler and Deleuze and Guattari might seem a slightly paradoxical gesture, as there is a metaphysical tension between the two theories. However, I believe that there is a common thread in their theories that offers a useful theoretical structure for my project. Deleuze and Guattari's abstract machine of faciality, together with Butler's approach on drag, both seem to

[102] Judith Butler, "Critically Queer," *GLQ: A Journal of Lesbian and Gay Studies* 1, no. 1 (November 1, 1993): 17, https://doi.org/10.1215/10642684-1-1-17.

highlight from different perspectives, the constructiveness and coerciveness of identity. It is exactly this constructiveness that I argue Sophia illuminates.

4.1. Sophia and the abstract machine of faciality

Sophia's facial expressiveness is one of the most promoted characteristics of her performance. Her face is manufactured by the material Frubber (flesh rubber) which is a proprietary nanotech skin and resembles human skin. Frubber mimics the arrangements of muscles in the human skin, allowing Sophia to have facial expressions. The back of her head, is left uncovered by the material so that her "artificial brain" is visible while the rest of her body is quite machine-like. Since Sophia obtains the necessary information she needs when generating responses by being connected to the cloud, technically speaking her "artificial brain" is not necessary. I reckon that this artificial brain serves as a point of distinction between the human and the non-human, while maintaining the thread that connects modern developments of AI systems to the philosophical tradition of the field. We can read the visibility of the brain as a tribute to the Strong AI vs Weak AI debate, specifically the Weak AI legacy that understands intelligence in terms of performance. In that light, it seems that what is of importance in her case, is not an actual machinic brain that can think but a representation of that brain. This also highlights the importance of performativity and theatricality in Sophia's case and it is through this framework that I wish to read her facial expressiveness. I will now turn to Deleuze and Guattari and their work in *A Thousand Plateaus: Capitalism and Schizophrenia*, to illuminate how their concept of the abstract machine of faciality relates and produces Sophia's identity.

For Deleuze and Guattari, the face is never just that of the individual nor is it universal. The faciality machine enables the emergence of the face socially and hence is very much dependent on certain relations of power. This machine operates through significance (white wall) and

subjectification (black hole) and it is the intersection of the white wall with the black hole that enables the appearance of the abstract face. As they note,

> The face is produced only when the head ceases to be a part of the body, when it ceases to be coded by the body, when it ceases to have a multidimensional, polyvocal corporeal code—when the body, head included, has been decoded and has to be overcoded by something we shall call the Face.[103]

Yet, as mentioned, the face does not resemble a universal face but is a standard face. For Deleuze and Guattari, this standard face has historicity, it is that of Jesus Christ, which nowadays symbolizes the white, European man. The main purpose of the faciality machine is to highlight how certain, otherwise stable and fixed identities are organized by the standard face of the white man. For Deleuze and Guattari, there is never a pre-existing positive residence of subjectivity, only the one which is produced through the faciality machine. Yet, not all assemblages of power produce the face but only specific despotic assemblages that instrumentalizes significance and subjectification as its specific signifying regime. As they argue,

> there is no significance[sic] without a despotic assemblage, no subjectification without an authoritarian assemblage, and no mixture between the two without assemblages of power that act through signifiers and act upon souls and subjects.[104]

In other words, the white wall and the black hole are the means through which the despotic assemblage of power gains its imperial power allowing for its signifying regime to dominate any other and establish its authority. What I find noteworthy in Deleuze and Guattari's approach on the faciality machine is its potential to facialize the whole body. As they argue,

[103] Deleuze and Guattari, *A Thousand Plateaus*, 170.
[104] Deleuze and Guattari, 180.

the "head is included in the body, but the face is not"[105] and "the face is produced only when the head ceases to be a part of the body."[106] Faciality in that light, is what overcodes the head and the rest of the body, a signifier used in producing individualized faces. Deleuze and Guattari claim that

> Although the head, even the human head is not necessarily a face, the face is produced in humanity. But it is produced by a necessity that does not apply to human beings "in general". The face is not animal, but neither is it human "in general"; there is even something absolutely inhuman about the face. […] The inhuman in the human beings: that is what the face is from the start.[107]

Hence, in this despotic assemblage of power it is not the body *per se* that is of importance, but its capability to embody the standard face of the white man. The face of the white man is the inhuman, the artificial construction through which one becomes subjectivated as a social being. This element of inhumanness can be understood as the imprint of the assemblage of power on the body, through the face. In that light, one could argue that all humans are always already both human and inhuman, due to this element of inhumanness the face enfolds. For Deleuze and Guattari, the fact that the face[108] is produced via the white wall/black hole system means that the shifts in the components of the assemblages of power have an impact on the faces produced by the machines. That is, the machines do not necessarily resemble that which is produced or will be produced in the future. Thus, the face produced despite its resemblance to previous faces, still enfolds –to some extent—the potential of uniqueness or at least difference from the standard. What is important is that "facialization operates not by resemblance but by an order of reasons."[109] When it comes to the standard face of the white man, it is not so much

[105] Deleuze and Guattari, 170.
[106] Deleuze and Guattari, 170.
[107] Deleuze and Guattari, 170–71.
[108] It should be clear that it is not the face per se but the abstract machine of faciality
[109] Deleuze and Guattari, *A Thousand Plateaus*, 170.

of whether one is white or a man, but whether one has embodied said characteristics, whether one's body has been facialized through that very category. As Deleuze and Guattari argue,

> the face is by nature an entirely specific idea, which did not preclude its acquiring and exercising the most general of functions: the function of biuni [sic] vocalization, or binarization.[110]

The function of binarization through which the abstract machine of faciality operates links two terms to each other only through the dominance of one. Hence, this faciality machine has two aspects; one is about normality, where subjectification acts through the standard face to produce a facial unit and the other is about choice, which through biunivocal relations subjectivizes the body. In terms of the latter, the facial unit becomes relatable to that of another (choice), obtains its molar identity, its specificity, it becomes for instance the face of a man or a woman. This binarization is the effect of a judgement process done by the machine. In other words, the abstract machine judges whether the face produced in the first process is acceptable or not, since

> At any rate, you've been recognized, the abstract machine has you inscribed in its overall grid. It is clear that in its new role as deviance detector, the faciality machine does not restrict itself to individual cases but operates in just as general a fashion.[111]

Yet, what is important is that once the molar identity has been inscribed, it is possible for the machine to accept types of said identity which may be, to some extent, different while maintaining its dominance to make the choice of what is deemed as conforming or not. As argued,

[110] Deleuze and Guattari, 176.
[111] Deleuze and Guattari, 178.

> If the face is in fact Christ, in other words, your average ordinary White Man, then the first deviances, the first divergence-types, are racial: yellow man, black man, men in the second or third category.[112]

This can be read along the lines of what was discussed in Chapter 2. As Massumi argued the power of capitalism is located not so much on the normalities produced by disciplinary power but on its ability to generate and capitalize on multiplicity. If we are to combine these two approaches, then it is arguable that Sophia has been facialized in accordance to the white man and her humanoid status is located between the trajectory of choice of the abstract machine. Even if the main discourse in relation to humanoids and robots is that they are not human, it is exactly through the category of human that we address them and make their existence sensical. Sophia's face is hyper realistic yet her brain is visibly artificial, while the rest of her body that is her torso, hands and legs, consist of different types of materials. We still however address her as a single entity, and not as different components of materials that consist her humanoid assemblage. Addressing Sophia as a singular entity reflects the attribution of a molar identity. However, she still remains a divergent type. She obtains a molar identity that places her within the category of the human, since she is facialized in accordance to the white man yet, since the abstract machine of faciality does not focus on individual cases, despite being a divergence that is not human, she can still pass. Thus, she only passes because she is accepted as a divergent type of the standard face, which maintains the dominance of the machine while simultaneously affirming the dominance of the standard face.

[112] Deleuze and Guattari, 178.

Yet, if the face, according to Deleuze and Guattari is the "inhuman in the human"[113] what happens to it when it becomes the inhuman in the non-human? This is what I will discuss in the next subsection of this chapter.

4.2. The parody of humanness

In this final section of my thesis, I will attempt to contemplate on the potential of subversion Sophia's case enfolds. To do so, I will be drawing on Judith Butler's analysis on drag to reflect on the potentiality Sophia's case might enfold.

To begin with, I have argued that Sophia's case is very revealing in terms of the constructiveness of both gender and humanness. On the one hand she is presented as the latest and most advanced development in the field of AI humanoids, thus holding a particular identity, on the other; she cites femininity, in an attempt to modulate affect, stabilize her identity as a humanoid and secure her success as a capitalist product. Butler in *Gender Trouble,* argues that

> drag fully subverts the distinction between inner and outer psychic space and effectively mocks both the expressive model of gender and the notion of a true gender identity…*[as]* Both claims to truth contradict one another and so displace the entire enactment of gender significations from the discourse of truth and falsity.[114]

Drag as a performance, brings into the spotlight the falsity of naturalization of gender and its performative act. As mentioned in Chapter 3, Butler dismisses the notion of a true essence prior to cultural inscription. As she argues, both sex and gender are social constructions despite appearing as essential elements of human nature, signifying their role as cultural codes. In that

[113] Deleuze and Guattari, 170.
[114] Butler, *Gender Trouble*, 174.

light, the person in drag may not be[115] the gender they are citing, yet by citing it; that is by performing specific, stylized acts related to gender, they obtain the identity of the gender they are performing. They are it, only insofar they perform it, which illuminates for Butler the constructiveness of gender and the performative citation of a "true" and "original" identity of a gender that we come to understand as such through the results of its performative acts[116]. In other words, the "result" of gender is presented as its origin, thus naturalizing and concealing the mechanism that produce said result. Subsequently, for Butler there is no original and true essence of gender, gender does rather than is. Of course, Butler has been criticized for equalizing drag with gender performativity, presenting the latter as a matter of choice, though I would note that this is a rather unfair claim. For her, drag is an example that illustrates the mechanism of performativity and in fact she explicitly states that "parody by itself is not subversive."[117]

Based on Butler's approach on drag, I argue that Sophia's overall performance contains elements of subversiveness, not only in terms of gender but also in relation to the category of human. In "Imitation and Gender Insubordination", Butler argues that

> Drag constitutes the mundane way in which genders are appropriated, theatricalized, worn, and done; it implies that all gendering is a kind of impersonation and approximation. If this is true, it seems, there is no original or primary gender that drag imitates, but gender is a kind of imitation for which there is no original; in fact, it is a kind of imitation that produces the very notion of the original as an effect and consequence of the imitation itself.[118]

[115] I use "be" in terms of essence from a Kantian perspective to illuminate the tension Butler wants to bring in the discussion
[116] Butler, *Gender Trouble*, 174–480.
[117] Butler, 176.
[118] Ann Garry and Marilyn Pearsall, *Women, Knowledge, and Reality: Explorations in Feminist Philosophy* (Routledge, 2015), 378.

Following this analysis then, Sophia illustrates that categories such as race and sexuality do not have an original essence and more interestingly, they do not necessarily need to be acted out on a biological human body. Her human drag is a performance by approximation. The gesture of gendering and racializing a robot indicates how naturalized "foundational" elements of human subjectivity are. If the categories of race and gender that are so closely linked to the category of human within the biopolitical regime can be dragged by a humanoid and if through these categories Sophia is included within discourses articulated by the dominant relations of power, then maybe the category of human may not be as fixed as we tend to believe. The principle of inclusion by exclusion seems to set the tone in Sophia's case. According to Butler, if

> the I can so determine itself, then that which it excludes in order to make that determination remains constitutive of the determination itself. In other words, such a statement presupposes that the "I" exceeds its determination, and even produces that very excess in and by the act which seeks to exhaust the semantic field of that "I".[119]

In that light, by proclaiming the distinct separation between human and non-human, both categories become constitutive to each other, thus never truly achieving separation as their coherence is produced always in relation to each other. As a result, "its specificity can only be demarcated by exclusions that return to disrupt its claim to coherence"[120] proving that there is no original essence in any of those identificatory categories. In that light, Sophia by being excluded from the category of human, also becomes constitutive of it. Her drag performance of race and sexuality, together with the construction of her identity through specific normative

[119] Garry and Pearsall, 373.
[120] Garry and Pearsall, 373.

discourses, seems to include her in that very category from which she is excluded. In a similar fashion to heterosexuality which

> is always in the act of elaborating itself is evidence that it is perpetually at risk, that is, that it "knows" its own possibility of becoming undone: hence, its compulsion to repeat which is at once a foreclosure of that which threatens its coherence. That it can never eradicate that risk attests to its profound dependency upon the homosexuality that it seeks fully to eradicate and never can or that it seeks to make second, but which is always already there as a prior possibility.[121]

humanity faces a similar challenge by humanoids. Echoing Deleuze and Guattari, humanity is fueled by the same fear of illuminating its constructiveness, of illuminating the human in the inhuman. Maybe Sophia's drag of humanness can be subversive in revealing the parody of human nature. Maybe, she can assist in blurring the biopolitical boundaries of species taxonomy and the relation between the human and the non-human, disrupting biopolitical anthropomorphism.

[121] Garry and Pearsall, 379–80.

Conclusion

In this thesis I have attempted to illustrate how the boundaries between what is considered human and non-human are not as fixed as they tend to appear, illuminating its modulation by socio-politic and economic factors. By reflecting on the philosophical foundation of the research in the field of Artificial Intelligence, with designated focus on Sophia' case, I have discussed the ways in which biopolitical anthropomorphism formulates our projections towards humanoids and AI. In locating a shift in the meaning of the category of human, introduced by biopower and its investment in life, I have discussed the interconnectivity of the corporeal to capitalism. I have positioned Sophia within the complicated web of relations of power that is affective capitalism and illustrated how the trope of emotionality, due to its connection to the reconceptualization of rationality, has been strategically employed to sexualize and racialize the humanoid. Finally, I argued that the parodic performance of humanness Sophia performs, affirms the constructiveness of the category of human and thus, can pose as a point of disruption of the dominance of humanity over all other species.

While writing my thesis, I became fascinated by the multiplicity and interconnectivity of all the structural elements of this project, finding myself being carried away one too many times only to bring myself back to the limitations an MA thesis carries. I reckon that the significance of this project is to be located in its potentiality for feminist epistemology, as a useful tool against the numerous oppressions we have faced throughout the course of history. Perhaps, this thesis can serve as a stepping stone for future feminist scholarship.

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