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When Cyborg Meets Humanoid: A New Challenge for Human Rights

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Abstract

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A New Challenge for Human Rights

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Currently the prospect of technological development regarding robotics looks in two directions. On one hand there is a development of creating humanoid robots, which ultimately will house the capacity for human-level sentience, consciousness, and intelligence. On the other hand there is a development of mechanizing the human being, resulting in a cyborg, which refers to the belief that the human being can evolve beyond the current physical and mental limitations through the use of technology.

Now, the cyborg is found to be philosophically identical to the *Homo Sapiens* regarding their status as human being. However, in ontology, they are regarded to not be equivalent, as the *Homo Sapiens* has an ontological status where entity X simply exists, and the cyborg an ontological status where entity X is constructed by maker Y. The automata, on the other hand, is regarded not to be identical to the *Homo Sapiens*, but equivalent to the cyborg, wherein both entities hold the ontological predicate where entity X is created by maker Y.

Discourse has led to the discussion of a shift towards a more technologized vision of the human being on the one hand, and the conception of the automata, that historically is becoming ever more human-like, on the other hand. Thus, the consideration of granting humanoid robots (full) human rights or any rights in that regard is required. The discourse between the two direction is the challenge of this argument. Should engineers be capable of constructing humanoid robots, and should engineers be capable of constructing a cyborg, when these entities meet in capacity, the question whether rights should be warranted can be posed.

Contents

Chapter 1

Introduction

This paper concerns itself about three sets of entities, how they are constructed and their rights. The entity on which this paper rests is the human being. The second and third types of entity, as the title suggests, are cyborgs and humanoid robots.[1] In this explorative paper, I lay the foundations for further research regarding human rights and the subjects of cyborgism and humanoid automata.

Currently the prospect of technological development regarding robotics looks in two directions. On one hand there is a development of creating humanoid robots, which ultimately will house the capacity for human-level sentience, consciousness, and intelligence. Here we can think of projects such as Nadine and Sophia[2] where the humanoid robots are being developed to have their own place in society. On the other hand there is a development of mechanizing the human being which, in this paper, refers to the belief that the human being can evolve beyond the current physical and mental limitations through the use of technology. Here we can think of enhancements such as the transplantation of a human brain into a mechanized body

[1] For further reference to humanoid robots I will use the term Maximally humanlike automata in order to differentiate it from any other kind of humanoid robot that is only identical in look and not in thought.

[2] The robots Nadine (Institute for Media Innovation) and Sophia (Hanson Robotics Ltd.) are realistic female humanoid social robots designed to eventually integrate into human societies. The robots have strong human-likeness and are deemed socially intelligent, as they can be friendly, greet, make eye contact, and remember all the conversations made with them.

in order to overcome the biological limitations of the human body. This example will be used in this paper to discuss cyborgs.

Now, discourse has led to the discussion of a shift towards a more technologized vision of the human being on the one hand, and the conception of the automata, that historically is becoming ever more human-like, on the other hand. Thus, the consideration of granting the humanoid robots (full) human rights or any rights in that regard is required. The discourse between the two direction, the technification of the human being and the humanization of automata, is the challenge of this argument. Should engineers be capable of constructing humanoid robots, and should engineers be capable of constructing a cyborg, when these entities meet in capacity, should rights be warranted?

To pursue this question, I will first, following this introduction, analyze the construction of the human being. In order to accomplish a definition of the human being, multiple theories will be taken into account. The problem of what the human being is, is one of the persisting, and at the same time the most urgent of all problems in philosophy. Therefore, philosophers from different eras will be analyzed in *Chapter 2*. Next, in *Chapter 3*, some of the foundational theories of the human rights discourse are investigated. The idea of human rights, that is, the notion that a human being has a set of inviolable rights simply on grounds of being human, as we will see, has its foundations era of Renaissance humanism in the early modern period, and this foundation will be the starting point for the inquiry of this paper.

Chapter 4 focuses on the entity of the cyborg. Specifically, the transhumanist belief that the evolution of the human race is in the hands of the human being itself will be discussed in this part of the paper. Moreover, if engineers construct a cyborg that indeed surpasses the biological limitations of the human being as we know it now, in what sense can we, then, still call it a human being? What rights should a cyborg

bear? These are all questions that will be discussed in this chapter. Then, in *Chapter 5*, I will take up an examination of the humanoid. Recent debate in the European Parliament's Committee on Legal Affairs has concluded that robots shall be granted electronic personhood, however, they will not be classified as humans. In this chapter, humanoid robots will be analyzed and the question "What if a humanoid passes the Three-dimensional Turing Test (TTT), is it, then, human?" The goal of this chapter is to theoretically construct a humanoid that on any level resembles a human being, and discuss such an entity's place in society and its rights.

Finally, in *Chapter 6*, I will, first, summarize all inquiries of this paper, and , second, take a look at what happens when the cyborg meets the humanoid. Here, I also investigate different ontological predicates that should help in progressing towards the question of rights.

When the two technological advancements meet each other in the middle, that is, when cyborg and humanoid are indistinguishable on both physiological and psychological levels, how should we consider the situation regarding their status as human being and rights.

1.1 Terminology

Human

In this paper I use multiple terms which, by many, may be considered to have equal connotations. The first is *Homo Sapiens*. This term will be used in the literal sense, as wise man.[3] This is the classification of the only extant human species. The second is human, under which every iteration of the human family falls; the genus

[3]From Latin, *Homo Sapiens*, where *Homo* means man, and *Sapiens* means rational or wise.

Homo. Finally, I use the term human being, which refers to human nature, to describe every iteration of a multidimensional but unitary autonomous being, which will be explained in the next chapter. The human being exists with semantic, rational, and value dimensions. Meaning that a human being has the capacity for certain complex forms of consciousness, has certain moral agency and responsibilities, is rational, and social; beings that have something in common, but are also formed by the semantic[4] and moral values of their culture. Given that it is uncertain whether the traits given in this definition are necessary, sufficient, or distinctive enough to only apply to humans, that is, of the genus *Homo*, this working definition is stipulated in order to discuss human rights. Moreover, the discussion of human rights is dependent upon the definition of the human being. Furthermore, the definition of the human being, as apart from human or *Homo Sapiens*, is a much debated and nebulous term. Nonetheless, as human rights discourse is build upon the nature of human being, rather than a biological definition, this rudimentary definition is sufficient in order to analyze the human rights discourses.

Cyborg

Unlike what the general term of cyborg entails, that is, a being with both organic and bio-mechatronic body parts that covers not only human beings but might conceive any kind of organism, the term cyborg is used to represent a being that has been born in the family of humans who has enhanced its bodily function drastically. Here, as will be elaborated in *Chapter 4 On the Cyborg*, the ultimate cyborg will entail a human brain in an artificial body.

[4]Semantic is understood as relating to meaning in language or logic.

Humanoid

For further reference to humanoid robots in this paper, the term Maximally Human-like Automata (MHA) will be used in order to differentiate from any other kind of humanoid robot that is only identical in look and not in thought. A MHA is an automata constructed with capacity for human-level sentience, consciousness, and intelligence, and imagined to be identical to the *Homo Sapiens*, not only in physiology, but also in psychology.

Chapter 2

On the Human Being and Being Human

The problem of the human being is one of the everlasting, and at the same time the most urgent of all problems in philosophy.[1] Over the course of history, many philosophers have pondered over the definition. It lies at the heart of personal identity.[2] The field of philosophy has asked significant questions that led to be the understanding of what the human being is and how it must be handled. The term often refers to the characteristics humans have naturally. For example, Socrates thought that the unexamined life is not worth living,[3] and, therefore, believed that the best life, and the life most suited to human nature, involved reasoning.

In this chapter I will start my inquiry on human rights by characterizing what it means to be human; by looking at the nature of the human being. I will start with the ancient Greek philosophical tradition on the human being, whereas Plato and Aristotle made the first definitions on the human being as apart from the universe as a whole. Then, I will move to the age of Renaissance, where Descartes developed his method of doubt, and to Kant who redefined the human being as a living whole.

[1] Spirkin and Daglish, 1983.
[2] Here I speak of the philosophical numerical identity, rather than narrative identity.
[3] Plato, 387 B.C.E..

When moving on from this period I will refer to the works of Kierkegaard, as he is seen as the father of modern existentialism, and to Marx who defined the human being in social context. Finally, in this chapter, I will look at how the human being is defined in human rights discourses, and suggest a definition of the human being which will be used in this paper.

2.1 The Ancient Man

In ancient, pre-Socratic, philosophy the human being was seen as a small part in the general arrangement of the universe. The human being was understood as a reflection and symbol of the universe, as a spiritual organism. However, this thought changed when the works of Plato described the human being otherwise. At first in his early period[4], Plato wrote the words of Socrates, and his thought on human nature. As explained above, Socrates thought of the human being as a reasoning being. Furthermore, Socrates believed that nobody willingly chooses to do wrong. He declared that the major concern of philosophy should be questions about human nature and human reality. After the death of Socrates, Plato maintained faith in Socrates' rational inquiry, and started to develop his own theories of the human being from the start of his middle period.[5] According to Plato, it is in human nature to reach a state of *eudaimonia*, or human flourishing, and is, much as Socrates', rational.

2.1.1 Plato

Plato defined the human being in a dualistic nature; consisting of an immaterial mind, or soul, and a material body. In his theories, the soul is eternal, and contains

[4] Until 387 B.C.E.
[5] 387-380 B.C.E.

all knowledge of *forms*.[6] The body is seen as the temporary constraint upon the soul, reducing the full scope of its understanding to that which can be perceived through a narrow mortal lens. Thus he believes that the soul attains all knowledge, rather than the senses. As might be expected, thus, as the soul has a kinship with the *forms* and the body is a prison, we should care more about our soul than our bodies. The soul itself in Plato's theories is divided into three parts: the appetites; the spirited; and the mind.[7][8]

The appetites include all our innumerable desires for physical urges, such as various pleasures, comforts, satisfactions, and bodily ease. Although Plato states that these desires can often be in conflict with each other, he does not enumerate them. The spirited on the other hand represents the part of the soul that gets angry when unjust actions are perceived. This is the part of the human soul that likes to meet great challenges, and loves victories and honor. Finally, the mind is our conscious awareness. This part of the soul is what Descartes would classify as the thinking thing. It analyzes, rationalizes options, and tries to indicate what is best and true. Due to these characteristics, Plato believes that the mind should ideally dominate the appetites and the spirited parts of the soul.

Furthermore, Plato acknowledges that the human being is a social being. He emphasized the social aspect of human nature. Human beings are not self-sufficient, and, therefore, need other human beings to benefit from social interactions and attainment of knowledge. Human beings differ as to which part of the soul is predominant in their nature. Persons dominated by the mind seek knowledge, and philosophical inquiry; persons dominated by the appetites have a love for profit,

[6] Plato's *theory of Forms* argues that non-physical forms represent the most accurate reality.
[7] Yunis, 2011.
[8] Plato, 1945.

and seek materiality; persons dominated by the spirited love victory, and seek challenges and reputation. In society the human being that is dominated by the mind ought to rule, according to Plato.[9] Although, each individual has its own predominate part of the soul, it is in the best interest of the human to find the hidden parts.

2.1.2 Aristotle

Aristotle was the first to notice that a definition should say something general and something specific about a form of life. Therefore, Aristotle entitled two components which are still used this day; the *genus* and *differentia* of a definition, which are that to what the species belongs and that what differentiates it.[10] Thus the human being might be defined as:

> *an animal (genus) that is rational (differentia).*

Or as a simplified version:

> *Human beings are rational animals.*

Here, what separates the human being from other animals is the ability to reason, rather than the predominance of the soul. Alternative to Plato, where a predominant soul of the appetites exists, Aristotle claims that a life that only aims at the satisfaction of bodily pleasures is not fit for human being but for cattle.[11] What differentiates the human being from other species or life forms for Aristotle is that the life of a human being must include contemplation and learning.

Furthermore, in order for us to understand the purpose of the human being in life, we need to understand Aristotle's *ergon* argument. The word *ergon* in Greek means work or function. The term is most clearly used in the context of artifacts

[9] Plato, 1945.
[10] Kirwan, 1993.
[11] Aristotle and Ross, 1954.

or skills; e.g., the *ergon* of a saw is to cut. A connected term to *ergon* is *aretê*, which means excellence; e.g., the *aretê* of a saw is sharpness. Aristotle argues that, as is with artifacts, human beings also have an *ergon* and *aretê*.

Aristotle recognized four distinct classes of living things; plants, animals, human beings, and gods. Moreover, he defined living things by their capabilities. Plants have the capabilities to grow, use energy, and reproduce. When a plant is doing well, we refer to these capabilities. Thus, when a plant is growing properly and reproduces, we can say that it is flourishing. Animals have more capabilities than plants and, therefore, are the next class of living things. In a way, according to Aristotle's categorization, animals can be seen as super-powered plants due to them having more capabilities. Just as plants, animals too have the capabilities to grow, use energy, and reproduce, however, animals also have higher capabilities. For example, animals, unlike plants, have the capabilities of self-movement and perception. With perception also comes appetite and aversion. These capabilities are connected to the capabilities of self-movement, since animals pursue that for which they have an appetite. Therefore, an animal cannot be said to flourish if the capabilities of self movement and perception are obstructed.

Human beings in Aristotle's respect are different, yet in many aspects the same as plants and animals. Just as plants, human beings have the capabilities to grow, use energy, and reproduce, and just as animals the capabilities to self-movement and perception. What differentiates the human from plants and animals are the capabilities to reason and to use language. These capabilities allow human beings to cultivate social relations, partake in politics, anticipate futures, modify our appetites and desires, educate others, make music, and even contemplate the nature of the universe and the purpose of human life. Reason and language are the capabilities that define the human being, thus, Aristotle's claim that the human being is

a rational animal. The highest activity that a human being can participate in, and the ultimate end of human existence, is therefore philosophy. It is their mind that differentiates them from animals, according to Aristotle.

2.2 The Renaissance Man

In the age of the Renaissance, philosophers were inspired by the idea of human autonomy, and of the human being's boundless creative abilities.[12] In this age, Descartes formulated his famous words *cogito, ergo sum*; "I think therefore I am". Just as in Aristotle's works, the capability to reason was regarded as the specific feature of the human being. And, just as in Plato's works, the soul and body of the human being were understood in a dualistic nature. The body was regarded as a machine that was operated, and the mind was determined as the bearer of consciousness. Our modern conception of the human being originates here. However, the thoughts that go into this conception can be traced back to the works of Plato and Aristotle.

2.2.1 Descartes

René Descartes is often seen as the father of modern philosophy. He deserved this title by moving away from the traditional Scholastic-Aristotelian philosophy which was commonly accepted at his time.[13] His fundamental break with Scholastic philosophy was twofold. First, given the reliance on perception and sensation as the source of all knowledge in Scholastic philosophy, Descartes claimed that they were liable to doubt. Second, Descartes wanted to replace the Scholastic final causal model of scientific explanation with his own mechanistic model, wherein all causes are reducible to *causa efficiens*.

[12] Spirkin and Daglish, 1983.
[13] Descartes, 2005.

In *Mediations on First Philosophy*, Descartes explicates his method of doubt. In response to the doubts expressed in Meditations I, Descartes identifies five steps concerning the nature of the human mind in Meditations II.[14] First, we only have access to the world of our ideas, and artifacts outside of the mind, in the world, can only be accessed indirectly. Second, these ideas are identified to include all of the contents of the mind. Such contents include perceptions, memories, concepts, beliefs, etc. Third, Ideas and the artifacts they represent in the world are disconnected from each other. Fourth, the represented artifacts are external to the mind. Finally, it is possible for the ideas to give rise to either a precise or a false representation. These five steps are the basis of Descartes' indirect realism.

The representational theory of Descartes creates a dualism of the body and the mind; disconnecting the world from the mind. However, this does not state how Descartes defines the human being. In order to overcome the disconnectedness of the world and the mind, and to provide good reasons to believe that the ideas accurately represent the outside world, a bridge must be formed, which can be found in the following excerpt:

> *I was persuaded that there was nothing in all the world, that there was no heaven, no earth, that there were no minds, nor any bodies: was I not then likewise persuaded that I did not exist? Not at all; of a surety I myself did exist since I persuaded myself of something [or merely because I thought of something]. But there is some deceiver or other, very powerful and very cunning, who ever employs his ingenuity in deceiving me. Then without doubt I exist also if he deceives me, and let him deceive me as much as he will, he can never cause me to be nothing so long as I think that I am something. So that after having reflected well and carefully examined all things, we must come to the*

[14] Descartes, 2015.

> *definite conclusion that this proposition: I am, I exist, is necessarily true each time that I pronounce it, or that I mentally conceive it.*[15]

In other words, the consciousness of a human being implies the existence of that human being; *cogito, ergo sum*. With these words Descartes secured his own existence. However, he seeks to find out what "I" means, and, therefore, what the human being entails. Here Descartes rejects the Aristotelian view that the human being is a rational animal due to the fact that he, then, has to define what those words entail.

In order to define his identity, Descartes refers to the example of wax. According to Descartes, wax is not wax due to its color, texture or shape, as, when changed, the substance will still be wax. Wax is recognized by the intellect alone, he believes. Therefore, a distinction is made between ordinary perception and judgment. Once the mathematical and scientific principles are understood, the knowledge of wax can be clear and distinct.

Descartes concludes that if a substance, such as wax, can be understood in this form, then the same account must be true for human beings. The human being, then, is not defined by what can be sensed of ourselves, but rather by the things one thinks. Therefore, the essence of the human being, and what it entails, can be brought back to merely a thinking thing.

2.2.2 Kant

Moving on from Descartes' dualistic understanding of the human being who belongs to two worlds, the world of moral freedom and of the world natural necessity, Kant made a distinction between the physiological and pragmatic aspects of anthropology. The former studies what nature makes of the human being, while the latter study concerns itself with what the human being can do, as a freely acting being,

[15] Descartes, 2015, p. 9.

or what the human being should make of itself. Kant was the first to lecture on anthropology in the European academic world, and with that produced a return to the conception of man as a living whole in contrast to the human being merely being a thinking thing. Kant notes that the human being is a social being and criticizes the account of Descartes that the human being is, as he calls it, "a logical egoist".[16]

In contrast to what we now understand to be anthropology, a study of variations between people in different cultures, Kant saw anthropology as the study of the human being. Thus Kantian anthropology tries to answer the question "What is the human being?" Furthermore, Kant's view on the human being has at least three different components; Transcendental Anthropology, Empirical Anthropology , and Pragmatic Anthropology. However, Kant often uses the term anthropology to indicate his pragmatic anthropology, and often retains the use of transcendental for the exploration of the conditions of possibility of experience.[17]

It is important to note that Kant's anthropology and ethics are heavily intertwined. Transcendental anthropology studies man from within. It outlines the norms that govern cognition, feeling, and free will and describes the conditions of possibility for these norms.[18] Here, the world itself necessarily conforms to our structures of cognition, rather than something that stands apart from human thinking as found in the works of Descartes. Empirical anthropology on the other hand explains what can be known about human beings by studying them in a scientific fashion, and depicts the human being as an organism with a complex set of liabilities, organized in terms of lower and higher faculties of cognition and desire. In describing how the human being thinks, feels, and acts, Kant's empirical psychology enriches the understanding of what gives rise to beliefs, feelings, and the power

[16]Kant, 1992a, p. 128.
[17]Frierson, 2013.
[18]Frierson, 2013.

of using one's will. Furthermore, Kant's empirical anthropology highlights the spatiotemporal differences between human beings. By combining the transcendental and empirical anthropologies Kant gives rise to his anthropology from a pragmatic point of view. Thus, defining the human being as free but finite thinker, feeler, and chooser, capable of being investigated transcendentally, empirically, and pragmatically.[19] And, unlike that of the animals, the bodily organization and sense organs of the human being are less specialized, and for Kant this trait is an advantage. The human being has to form itself, by creating a culture. For classical philosophy by German authors, in general, the determining factor is the notion of the human being as a spiritually active being creating a world of culture, and as a vehicle of reason.

2.3 The Contemporary Man

In contemporary philosophical thought about the human being, we can see a change that moves away from the thought of rationality being the prime aspect of human beings. According to Nietzsche for example, the human being is determined by the play of vital forces and attractions, rather than by reason. Kierkegaard on the other hand, gives priority to the act of will, in which the individual, by making a choice, gives birth to himself, stops being a child of nature and becomes a conscious personality; a being that determines itself. In the personalist and existentialist account of philosophy the problem of personality is central. The human being cannot be reduced to an essence, whether biological, psychological, social or spiritual. The existentialist and personalist accounts contrast the concept of individuality to that of personality as existence.

[19] Kant, 1992b.

2.3.1 Kierkegaard

Soren Kierkegaard is often seen as the father of modern existentialism. In his writing, Kierkegaard established a distinction between existence and "real existence".[20] He felt that in order to truly exist, one must struggle and act in the world of men. As a critique to the works of Hegel, Kierkegaard's basic idea is that personal existence cannot be comprehended in a system.[21] No human being has the capability of knowing its place or purpose, however, Kierkegaard thought that each person must choose, irrationally, the direction of his own existence.

According to Kierkegaard, the human being is a synthesis of opposites. One of the opposites Kierkegaard called the infinite and finite. "For the self is a synthesis in which the finite is the limiting factor, and the infinite the expanding factor."[22] Here, the infinite coincides with possibility; to the capacity to envisage new thoughts and ideas, bring into existence new creations, to change oneself and choose from innumerable potentialities. The finite, on the other hand, corresponds to actuality; to the concrete here and now, and to one's reality as a definite substance in the world. The human being has a compulsion to completely absorb oneself in either the finite or infinite. Doing so abandons the responsibility of being itself, Kierkegaard states.[23]

To lose yourself in the finite is to live a life imprisoned in what can be perceived as an inescapable environment where no alternatives exist. Such an individual frequently becomes depressed, slavish, and dependant on others. The human being tries to find safety and security by incorporating itself into social, institutional, or familial networks. The individual finds it "... too venturesome a thing to be himself, far easier and safer to be like the others, to become an imitation, a number, a cipher

[20] "Existential Human Existence".
[21] Hegel attempted to demonstrate that the world is a rational system. See, Hegel, G. W. F., & Sibree, J. (2004). *The philosophy of history*. Courier Corporation.
[22] Kierkegaard, 1989, p. 29.
[23] Kierkegaard, 1989, p. 31.

in the crowd."[24]

To lose yourself in the infinite is to live as though life is nothing but a series of endless experiments. Different paths are sampled and personalities try it on for size, but definite commitments are made. One who is lost in the infinite is obsessed with who one can potentially become. Yet, in reality never becomes anything, let alone itself.

> *Now if possibility outruns necessity, the self runs away from itself... The self becomes an abstract possibility which tries itself out with floundering in the possible, but does not budge from the spot, nor get to any spot, for precisely the necessary is the spot; to become oneself is precisely a movement at the spot. To become is a movement from the spot, but to become oneself is a movement at the spot.*[25]

To be a self requires that one balances these opposing tensions. It requires a recognition that innumerable possibilities lie before one, but that one must choose definite course of action appropriate to the self which one truly is. This requires vigilance, constant effort, and courage and thus is the greatest task there is. "To have a self, to be a self, is the greatest concession made to man, but at the same time it is eternity's demand upon him."[26]

For Kierkegaard, the fact that someone belongs to the human race does not immediately guarantee that a human being leads a human existence. In fact, Kierkegaard seems to think that only a small portion of human beings genuinely live as a human being. This is due to most human beings living an inauthentic life. Existence, in Kierkegaard's conception of it, means becoming ever more individual. However, this "existence" is not given to all human beings in the same measure. Existence is

[24]Kierkegaard, 1989, p. 34.
[25]Kierkegaard, 1989, p. 36.
[26]Kierkegaard, 1989, p. 19.

above all something that has to be shaped. The human being must create itself in order to be itself.[27] Human existence is the possibility of self realization.

2.3.2 Marx

Marx rejected the idea that there is an abstract eternal human essence which exists outside of society. However, rejecting this conception of human nature does not mean that Marx rejects human nature in and of itself. The point of departure of the Marxist understanding of man is the human being as the product and subject of labor. According to Marx, "the essence of man is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations."[28]

Marx states that there are uniform characteristics in the human being, that all human beings have something in common across societies. The characteristics are for example, the need for food, water and sleep, that the human being reproduces through sex, and the human being has a brain. The most important characteristic for Marx is that the human being has consciousness. Without it, human beings would not be able to think about themselves, other human beings, and the world in which the human being lives. Marx writes:

> *The animal is immediately one with its life activity. It is not distinct from that activity; it is that activity. Man makes his life activity itself an object of his will and consciousness. He has conscious life activity. It is not a determination with which he directly merges. Conscious life activity directly distinguishes man from animal life activity. Only because of that is he a species-being. Or rather, he is a conscious being, i.e. his own life is an object for him, only because he is a species-being.*[29]

[27] Obinyan, 2014.
[28] Marx and Engels, 1976, p. 4.
[29] Marx, 2005, p. 328.

For Marx, the most important form consciousness can take is humans consciously using the their capacities in a creative self-directed manner in order to satisfy their desires for certain states of affairs. These states of affairs can include feeling a sense of hunger no longer or creating an aesthetically beautiful statue;

> *... a bee would put many a human architect to shame by the construction of its honeycomb cells. But what distinguishes the worst architect from the best of bees is that the architect builds the cells in his mind before he constructs it in wax. At the end of every labour process, a result emerges which had been conceived by the worker at the beginning, hence already existed ideally. Man not only effects a change in the form of the materials of nature; he also realizes his own purpose in those materials. And this is a purpose he is conscious of, determines the mode of his activity with the rigidity of a law, and he must subordinate his will to it. This subordination is no momentary act. Apart from the exertion of the working organs, a purposeful will is required for the entire duration of the work.*[30]

As, according to Marx, an exclusive human characteristic, labor "is the universal condition for the metabolic interaction between man and nature, the everlasting nature-imposed condition of human existence, and it is therefore independent of every form of that existence, or rather it is common to all forms of society in which human beings live."[31] The human being must "wrestle with nature"[32] in order to satisfy its needs, and must do so in all forms of society and under "all possible modes of production."[33]

Since these characteristics are constant across the whole of human beings, they must stem from basic facts about human biology. However, Marx states that although human beings are composed of the same fundamental raw materials, the

[30] Marx, 1867a, p. 284.
[31] Marx, 1867a, p. 290.
[32] Marx, 1867b, p. 959.
[33] Marx, 1867b, p. 959.

way these materials are shaped differs across spatiotemporal dynamics, especially society. This is due to human beings being social animals; born to live within societies. The nature of human beings can, thus, not be conceived of outside of society.

In sum, Marx holds that that the nature of human beings is mediated through society and is expressed differently within these societies. Meaning that although human being have a certain "raw material" in common, it is formed by the conditions in which they live. Thus, if we look at the general aspects - common characteristics - of the human being, it can be noticed that there are certain cross-cultural features. However, some general aspects that can be found within human beings are seen to be formed by culture.

2.4 Matters of Personhood and Human Dignity

In this part I will investigate how human identity is formed in terms of personhood and human dignity as is done in human rights discourses and show that the terms personhood and human dignity are, in their definition, inconsistent in human rights discourse. Furthermore, I will combine the information gathered in the chapter and information gathered on personhood and human dignity to form a definition of the human being, so that, next chapter, may more clearly aid understanding of how human rights have come to be.

The word person is derived from the Latin word *persona*. In the time of Aristotle and Plato the word had the connotation of a mask, a character, or social role.[34] At a later point in time the concept of person evolved into the Roman idea of *someone who has legal rights*. At the time of Kant, the concept transformed into *one who has moral value*, and the modern conception defines the person as *beings with the capacity for certain complex forms of consciousness*. John Locke described the person as "a thinking

[34] DeGrazia, 2005.

intelligent being, that has reason and reflection, and can consider itself, as itself, the same thinking thing, in different times and places."[35] The concept of personhood as brought forward by Locke is also closely related to the idea of Kant in which a person has moral status and moral responsibilities. However, this conception of the term "person" does not imply a human being directly, and, moreover, defining personhood is a controversial topic in philosophy and law as the term is open to many interpretations.

Personhood continues to be a topic of international debate in which the essence of persoonhood is ever evolving. The term person has been questioned critically during the 19th century when the abolation of human and nonhuman slavery took place. Debates about abortion in theology, in fetal or reproductive rights, and animal rights activism have stretched the definition of personhood towards a point that it looses meaning. Even throughout different societies and cultures the term person is interpreted with differing connotations.

Capacities or attributes common to the definition of a person can include, as shown above in multiple definitions, consciousness, self-awareness, and agency among others.[36] This term, then, creates a problematic characteristic for personhood regarding human beings. Some human beings, for example, do not have the full capacity for certain complex forms of consciousness[37], and therefore, by this definition of personhood, cannot be seen as a person. Nonetheless, we often entitle infants with a personhood status so that our legal system, and human rights discourses apply to infants. This practice, then, implies that entitlement of personhood also is socially generated. Thus, we can make a divide between personhood and titular personhood, whereby a person is a being with the capacity for certain complex

[35] Locke, 1836, p. 335.
[36] Taylor, 1985.
[37] e.g., resulting from traumatic brain injury, or brain hypoxia

forms of consciousness, and a titular person as a being that has been entitled as a person.

On the matter of human dignity, some expressions refer to human dignity as an inherent property of human beings, as a status that is consistent, rather than one that can be achieved. As noted in the *Universal Declaration of Human Rights*, the first sentence states that there is a recognition of "inherent dignity ... of all the members of the human family", and Article I states that "all human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood."[38] Nonetheless, although the idea of human dignity is pervasive in human rights discourse, its meaning is not always clear. The term is usually used in one of two ways. The first use is to refer to "a normative status of persons that makes their treatment in terms of human rights a proper response",[39] and the second use is to refer to "a social condition of persons in which their human rights are fulfilled."[40] This distinction shows that the concept of person and personhood is seemingly at the center of human rights discourse. However, this formulation is problematic, because if all the members of the human family have inherent dignity, the use of human dignity refers to a normative status or a social condition of a person, and personhood is linked to certain complex forms of consciousness rather than to being human, then being a member of the human family says nothing about being human.

As noted by Ohlin, an analysis on personhood can yield the following insight: "Personhood is a placeholder for deeper concepts that ground our moral intuitions about human rights."[41] This statement would then mean that we should fall back to our philosophical inquiries of rational and moral agency to define the identity

[38] Assembly, 1948, p. 1.
[39] Gilabert, 2015, p. 1.
[40] Gilabert, 2015, p. 1.
[41] Ohlin, 2005, pp. 248–249.

of human beings, wherein the concepts of consciousness, autonomy, rational and moral agency, and social aspects from Aristotle, Kant, Marx, and Locke are embedded. A human being, I then suggest, is a multidimensional but unitary autonomous being that exists with semantic, rational, and value dimensions. This means that a human being has the capacity for certain complex forms of consciousness, has certain moral agency and responsibilities, is rational, and social; beings that have something in common, but are also formed by the semantic and moral values of their culture. As human rights discourse is build upon the nature of human being, rather than a biological definition, this rudimentary definition is sufficient in order to analyze the human rights discourses.[42]

[42] Henkin, 1981.

Chapter 3

On the Rights of Man

Before this chapter can be started, it has to be noted that the concept of human rights theory is filled with unclarity. Human rights theory is given as a theory that is valid for all places, that is to say, as a universal theory.[1] And, unlike what many people think, human rights theory does not fall under the theory of law, but is rather a political theory. It is a theory of how human beings should be treated with regards to respect and dignity, which are in itself nebulous concepts as I will show in this chapter. However, according to Hamilton, human rights discourse has no power over someone who is not already disposed to the thing that another person ought to be treated with respect and dignity.[2] Nonetheless, human rights are granted to human beings simply as, and because they are, human beings. To speak of human rights requires a conception of what rights someone can possess by the virtue of being human. That does not mean that the bearer of these rights self-evidently implies being human, but rather, the rights that human beings have simply because they are human beings and independent of their varying cultural circumstances and degrees of merit.[3]

Human rights as they are formed today have their grounds in many different

[1] Benoist, 2011.
[2] Hamilton, 2016.
[3] Shestack, 1998, p. 203.

sources. A starting point in understanding the moral foundations and justifications of human rights, is to analyze sources of human rights claims. In this chapter I will answer questions such as "what are the moral grounds that underlie human rights laws?", and "where lies the origin of human rights law?"

3.1 Religion

To make clear, the term "human rights" or any term in the liking cannot be found in traditional religions. However, the field of theology presents the basis for a human rights theory stemming from a law higher than that of the state: a law that originates from a divine being.

When taken from a religious context, every human being is considered to be sacred. The sacrosanct rights granted to every human being stem from a divine source, if one accepts the premise of, for example, the Old Testament in which it states that the human being is created in the "image of God".[4] It implies a signature of the divine in every human being and gives the human being a high value over other creatures.

Accepting a universal divine being, which in monotheistic religion we can perceive as a common father, gives rise to a common humanity of equal beings. From this concept flows a universality of certain rights.[5] As these stem from a divine source, mortal authority are not capable of taking these rights away from human beings. This concept is not only found in Christian tradition, but in many deistic religions of the world.[6]

From the common creation of mankind by a God, equality of all human beings, in the eyes of God, would seem a necessary development; however, to live life as

[4]Jacob, Jacob, and Jacob, 2007, p. 9.
[5]Shestack, 1998, p. 205.
[6]Greenberg, 1967.

one desires is not. Limitations on individual freedom are often imposed by religions, and most major religions of the world have their emphasis on duties rather than rights. Additionally, even though all human beings are created equal by a God, some religions are, in practice, quite restrictive towards women, and nonbelievers. The limitations give rise to incompatibilities between the scope of human rights as structured in the *Universal Declaration of Human Rights* and religious practices. Nonetheless, according to Shestack, religious philosophers of all faiths engage in the process of reinterpreting religious doctrines towards the end of effecting a compromise with human rights.[7]

Religious doctrine can offer a solid foundation of human rights with a broad intercultural rationale that supports various fundamental principles of equality and justice. These values are also the underlying basis of international human rights. The concept of human beings created by a God endows empowers men and women with a worth, and more importantly, dignity from which the elements of a human rights system can flow logically.

3.2 Natural Law

Unlike what the name may suggest, natural law does not refer to the laws of nature. It refers to a type of moral theory, as well as a type of legal theory, which has its foundations in the works of Aristotle, however, later elaborated by Greek Hellenistic and Roman stoics. They believed that natural law encompassed basic principles of justice which were right in reason, i.e., in accordance with nature, unalterable, and eternal.

It was not until after medieval times, with the demise of feudalism, that modern secular theories of natural law came to be. The philosophy of Grotius and Pufendorf

[7] Shestack, 1998, p. 206.

separated natural law from religion, laying the foundation for the secular, and rational version of modern day natural law theory. According to Grotius, social impulse to live peacefully and in harmony is a natural characteristic of human beings. Whatever conformed to the nature of men and women as rational and social was right and just, and whatever opposed it was wrong or unjust. Thus Grotius defined natural law as a "dictate of right reason."[8]

3.2.1 Natural Rights

From natural law theory flows natural rights theory. Natural rights theory is the theory that is most closely related with modern human rights. The most valuable contributor of this theory was John Locke, who developed his theories and philosophy within the framework of seventeenth century humanism and political activity. The belief in human rights became a central concern of European intellectual culture during Age of Enlightenment.[9]

John Locke believed that human beings existed in a state of nature, in which they are free

> *to order their actions, and dispose of their possessions and persons, as they think fit, within the bounds of the law of nature, without asking leave, or depending upon the will of any other man.*[10]

Meaning that within the state of nature every human being was in a state of freedom with the ability to determine their own actions, and also in a state of equality where no human being was subjected to the will or authority of another. However, in this state there was no social order, or protection from harm, comparable to a state of

[8] Grotius and Neff, 2012.

[9] See, Locke, John. Second Treatise of Government: An Essay Concerning the True Original, Extent and End of Civil Government. John Wiley & Sons, 2014.

[10] Locke, 2014, p. 4.

anarchy. To end the hazards and inconveniences of this state of anarchy, a social contract was entered by which a group of people mutually agreed to form a community. This social contract required a political authority which on one hand was obliged to protect the natural rights of its subjects, and on the other hand protect its subjects in trade for a part of their freedom.[11]

The theory of natural rights is apparent in the French Declaration of the Rights of Man,[12] in the US Declaration of Independence,[13] in the constitutions of numerous states created upon liberation from colonialism, and in the United Nations human rights documents.[14] Furthermore, it makes important contributions to human rights discourses. These contributions come in three forms.[15] First, natural rights affords an appeal from the realities of power to a higher authority such as governments that is asserted for the protection of human rights. Second, natural rights identifies and provides security for human freedom and equality, from which other human rights easily flow. Finally, it also provides properties of security and support for a human rights system, both domestically and internationally.

After Locke formulated natural rights theory, it has been criticized from many angles. One of the major criticisms points out that most of the norm-setting of natural rights theories contain *a priori* elements deduced by the setter of these norms. In other words, the rights which are considered to be natural can differ from author to author, depending upon their conception of nature. Due to this and other difficulties, the popularity of natural rights theory diminished among legal scholars and philosophers. However, in the aftermath of the second World War due to a revulsion against Nazism, philosophers revised the theory which led to renaissance for

[11] In the social contract individuals retained the natural rights of life, liberty, and property.
[12] *Declaration of the Rights of Man and of Citizens* 1789.
[13] Congress, 1776.
[14] Assembly, 1948.
[15] Shestack, 1998, p. 208.

natural rights theory. In this revised version of the natural rights theory most new rights philosophers adopt what may be called a qualified natural law approach. Rather than wearing the same metaphysical dress as earlier forms of natural law. values that have an eternal and universal aspect are identified. The object of natural rights thought can be viewed as an attempt to work out the principles that might accommodate the *is* and *ought* in law.

Underlying such a foundational rights theory is the omnipresence of Kant's ethics. To summarize Kant in short, Kant's imperative is that the essential focus of morality is personhood, namely the capacity to take responsibility as a free and rational agent for one's system of ends. A person must always be treated as an end and never as a means to an end. The Kantian thesis to be found in this analogy, is that the highest purpose of human life is to will autonomously. The theory of Kant is transcendental, a priori, and categorical, and, thus, supersedes all irrational distinctions of creed, custom, and race, and is, by nature, universal.

3.3 Justice

As John Rawls states in *A Theory of Justice*, "Justice is the first virtue of social institutions."[16] The role of just actions and justice is crucial to human rights discourse. Human rights, after all, are an end of justice. And, without the consideration of Rawls' thesis, no theory of human rights can be advanced in modern society.

The principles of justice provide a way of appointing rights and duties in the foundational institutions of our society, according to Rawls. These principles of justice define the distribution of the benefits and burdens of social cooperation. The thesis of Rawls is that

[16]Rawls, 2009, p. 3.

> *Each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override. ... Therefore in a just society the liberties of equal citizenship are taken as settled; the rights secured by justice are not subject to political bargaining or to the calculus of social interests.*[17]

To arrange the possibility for establishing the principles of justice, Rawls conceives a group of human beings who have come together to form a social contract. Rawls imagines the contractors in an original position.

The original position is a position of equality of the contractor with respect to power and freedom. Here, the contractors are under *a veil of ignorance* as to the particular circumstances of their own society or of their individual characteristics; e.g., race, sex, social position, wealth, etc.[18] Thereby, they, the contractors, are prevented from making decisions based on self-interest that otherwise would corrupt the fairness of their judgment. In the original position, the contractors would choose a basic structure for society fairly due to the fact that they would be abstracted from knowing about their own condition. Thus, human beings who only acted in actions of self-interest under *a veil of ignorance* would choose fundamental principles that are good for all mankind, and not simply to the advantage of a select group.

Rawls claims that contractors, who are in the original position, will choose two principles of justice. The first principle that Rawls states is that "each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others."[19] Here, the first principle of justice has its focus on basic liberties. Rawls does not list them precisely, but indicates, roughly speaking, that they include political liberty, freedom of speech and assembly, liberty of conscience and thought, freedom of the person and freedom from unnecessary arrest and seizure.

[17] Rawls, 2009, pp. 3–4.
[18] Rawls, 2009, p. 12.
[19] Rawls, 2009, p. 60.

The first principle of justice requires for liberties to be equal among its subjects, because human beings in a just society are to have the same basic rights.

The second principle of justice by Rawls covers the subject of distributive justice. This principle holds that "social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone's advantage, and (b) attached to positions and offices open to all."[20] In these two principles, the conception of justice which is reached in the original position is, generally, one of "fairness."[21]The second principle of justice holds that unless there is a distribution which is beneficial for both groups, an equal distribution is preferred.

The philosophy of Rawls' two principles of justice, of course, is highly abstract. When trying to implement Rawls' theory to the non-metaphorical world, multiple, difficult, empirical questions arise. However, his structure of social justice maximizes liberty and the worth of liberty for two opposing groups. Furthermore, Rawls' theory is encouraging for the construct of constitutional democracy as well as for the concept of the universality of human rights.

3.4 Dignity

It cannot be denied that dignity plays a major role in human rights discourse. As mentioned before and noted in the Universal Declaration of Human Rights, the first sentence states that there is a recognition of "inherent dignity… of all the members of the human family", and Article I states that "all human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood."[22] Multiple theorists on human rights have tried to construct a comprehensive system of human rights

[20]Rawls, 2009, p. 60.
[21]Rawls, 2009, p. 63.
[22]Assembly, 1948, p. 1.

norms based on value-policy oriented approach, which is focused on the protection of human dignity.[23] Some religious philosophers believe that dignity is an inherent quality of the sacredness of human beings, and that the human rights system can flow from this concept.

According to Kateb, in the name of human dignity, charters of human rights are promoted. Appeals to human dignity are made all over the world when human beings struggle to achieve their claimed rights.[24] Human dignity is perceived to be the basis of human rights. We are told, in human rights documents, that human rights are derived from human dignity. For example, the preamble of both the *International Covenant on Civil and Political Rights*[25] and the *International Covenant on Economic, Social and Cultural Rights*[26] state "that these rights derive from the inherent dignity of the human person." However, human rights documents do not specify what the meaning of human dignity is.

McDougal classifies eight interdependent values which can all fall under the rubric of human dignity. These interdependent values are demands of public order relating to "respect (recognition and honor), enlightenment (the gathering, processing and dissemination of information), well-being (safety, health and comfort), wealth (control of resources), skill (opportunity to acquire and exercise capability in vocations, professions and the arts), affection (intimacy, friendship, and loyalty) and rectitude (participation in forming and applying norms of responsible conduct)."[27] The demands that satisfy, or denigrate, these eight values are elaborately cataloged by McDougal.

The ultimate goal, for McDougal, is a world community in which a democratic

[23] See, McDougal, Myres S., Harold D. Lasswell, and Lung-chu Chen. "Human rights and world public order: the basic policies of an international law of human dignity." (1980).
[24] Kateb, 2011.
[25] Hoag, 2011a.
[26] Hoag, 2011b.
[27] McDougal, Lasswell, and Chen, 1980, p. 239.

distribution of values is encouraged and promoted, all available resources are utilized to the max, and the protection of human dignity is regarded as a principal objective of social policy.[28] While the approach is the policy-oriented perspective, the choice of having human dignity as the *super value* in the shaping of all other values has a sound of natural rights to it, wherein the basic needs of the human being are satisfied. Having a *super value* such as human dignity upon which all human beings can agree, can be a solid foundation for structuring a human rights system.

3.5 Human Rights

This moderate discussion of modern foundational theories of human rights does not even begin to exhaust the elaborate and daunting literature and complexities of the human rights discourse. Moreover, the theories that lay the foundation of a human rights theory still benefit from new philosophers and scientific exploration. Philosophers from many nations and diverse backgrounds are still adding insights to moral philosophy and developing or refining their own theories both in domestic and international contexts. Nonetheless, in order to develop the thesis that is present in this paper the values of religion, natural rights, justice theory, and human dignity had been chosen. These four subjects have in history, and still have, major influences on human rights theories and founded a solid foundation for why certain rights have been developed.

[28] McDougal, Lasswell, and Chen, 1980, p. 45.

Chapter 4

On the Cyborg

In order to start this chapter, I will first explain the difference between the cybernetic organism and the transhuman, because, in this chapter I will use the works of transhumanist philosophers in order to grasp certain problems which also apply to the cybernetic organism. Concepts that, based on titles only, seem to apply to transhumanism can in some forms also be applicable to the concept of cybernetic organisms; e.g. transhumanist dignity. Furthermore, the field of transhumanism is many times more extensive regarding a well-defined and coherent philosophy, in particular, a philosophy regarding the future, and, in order to prevent misunderstandings, a clear distinction between the cybernetic organism and the transhuman must be made.

The term cybernetic organism, also known as cyborg, is frequently used interchangeably with the term transhumanism.[1] In general, transhumanists, and the proponents of cyborgism, see technologies as something that can be used to enhance the capacities of human beings. According to Brey, transhumanist enhancements are improvements of human traits.[2] The term transhuman was first coined by Esfandiary, better known as FM 2030, and is used to describe a transitional human.[3]

[1] Olson, 2013.
[2] Brey, 2009.
[3] FM-2030, 1989.

However, the concept was not fully defined until the 1980s, with the works of More.[4] Nick Bostrom defines the transhuman as "an intermediary form between the human and the posthuman", where posthuman refers to "a being whose basic capacities so radically exceed those of present humans as to be no longer unambiguously human by our current standards"[5] Now, the question can be asked if we are not already posthuman. Given that the current use of e.g. medicine enable us to do many things ancient humans could not. To answer this question, Max More suggests:

> *. . . to reserve that term for something that really makes a fundamental change in the human condition. And for the human condition, if that's not to be arbitrary, I think that has to mean defined by our genes. . . or implanting devices, or doing some of the reengineering of the body or brain that will allow us to have perception and cognitive and emotional ranges beyond that of any human being, then we can talk about transhuman. So wearing contact lenses, doesn't make me transhuman, but it's all part of the same process of augmenting ourselves.*[6]

On the other hand, Clynes and Kline describes cyborgism as deliberately modifying unconscious self-regulatory control functions to the end of adapting to new environments.[7] Here, Clynes and Kline were interested in the application of cyborgism for space exploration. The concept of cyborg is based on an improvement of external measures of adaptation, as we now find in, for example, spacesuits or oxygen tanks for deep sea diving. The person wearing these external measures must, therefore, be constantly concerned with supporting vital systems. As Clynes and Kline state in Cyborgs and Space:

[4] Olson, 2013.
[5] Bostrom, 2013.
[6] M. More, personal communication, December 29, 2011. Retrieved from https://www.youtube.com/watch?v=q_bh9qrNFbo
[7] Clynes, 1960.

> *If man in space, in addition to flying his vehicle, must continuously be checking on things and making adjustments merely in order to keep himself alive, he becomes a slave to the machine. The purpose of the Cyborg, as well as his own homeostatic systems, is to provide an organizational system in which such robot-like problems are taken care of automatically and unconsciously, leaving man free to explore, to create, to think, and to feel.*[8]

Thus, in contrast to a non-enhanced human being, the cyborg is free from conscious maintenance of vital functions.

Although, given these definitions by Bostrom, Brey, More, Clynes and Klyne, it look like the transhuman and the cyborg are (almost) the same, there are some significant differences. The first essential difference is that, per definition, the cyborg must be a hybrid. This hybridity is an interplay of both the biological and the non-biological. Whereas for the transhuman, hybridity is neither necessary nor sufficient. For instance, Genetically engineering the human body could in theory result in enhanced physical or mental functioning beyond human limitations as we know it today, and still be wholly organic in nature.[9] The second essential difference is in thought. In cyborg theory there is little to no mention about the fields of psychology and philosophy. Therefore, for the progression of this paper, I must turn to transhumanist philosophy in order to pursue the thesis.

4.1 The Cybernetic Organism: Enhancements

The idea that the human race can steer its own evolution is not one of the past century. The desire to adapt bodily functions in order to gain new, or increase the capacity of, human abilities can be traced back to ancient times. For example, the

[8] Clynes, 1960, p. 30.
[9] Olson, 2013.

story of Prometheus tells the tale of increasing the human condition by granting mankind the fire of gods.[10] Similar stories can be found in Christianity[11], the Enlightenment[12], and medical sciences[13]. The moral of these stories, and events, is that human beings often adapt to a new, or changing, environment, to overcome biological implications, or to new, or changing, social conditions.

A cyborg is the result of a hybridization of machine and organism.[14] The term cyborg was first coined by Clynes and Kline in the 1960's to describe "the exogenously extended organizational complex functioning as an integrated homeostatic system unconsciously",[15] or, in simpler terms, an enhanced human being who could survive in extraterrestrial environments. As space exploration was beginning to open up, the concept of cyborg was the outcome of thinking about an intimate relation between the human being and machine. However, cyborgs are usually seen today as human beings that have gained enhanced traits or capabilities in general through the use of technologies.

In fiction, as well as in non-fiction, there is not one clear view on how a cyborg should look. There are many kinds of enhancement technologies that can constitute a cyborg, however, not every kind is important for the thesis of this paper. For example, someone with a neural prosthesis, such as a cochlear implant, is technically a cyborg by some definitions, however, as the thesis of this paper revolves around the mechanization of the human being, the neural prosthesis alone is not sufficient. Therefore, to adequately analyze the consequences of human enhancements in the

[10] Bostrom, 2005a.

[11] For example, "He called to himself his twelve disciples, and gave them authority over unclean spirits, to cast them out, and to heal every disease and every sickness." (Matthew. 10:1 World English Bible).

[12] The famous story by Robert Louis Stevenson's is one of such examples. He wrote the novel called *The Stange Case of Dr Jeckyll and Mr Hyde*. In here he spells out the tale of a man who enhances his capabilities through the use of medication.

[13] Drilling Holes in the skull of patients, by Hippocrates, was believed to eradicate pain.

[14] Haraway, 1991.

[15] Clynes, 1960, p. 27.

form of cyborgism for the human rights discourse, we need to distinguish between different kind of enhancements, to enable us to explore the effects on the cyborg's rights.

Technological enhancements are, generally speaking, enhancements of human traits and capabilities achieved through the use of technology, which can include either mental attributes and abilities, physical attributes and abilities, or a combination of the two. According to Brey, the impact of an enhancement on the identity of a person may vary with (1) the type of trait that is modified or enhanced, (2) the means of enhancement, and (3) the extent to which the trait has been modified.[16]

Enhancements by trait can come in different forms; bodily, mental, or psychological enhancements.[17] Physical enhancements are classified as enhancements of physical capacities. These capacities account for physical action and for the maintenance of a good physical system. Capacities such as strength, speed, agility, endurance, precision, and bodily resistance belong to this category.[18] An example of such an enhancement is the blade runner prosthetic. This prosthetic is used as a replacement for amputee legs, however, at the same time, it increases the speed and efficiency of the subject using the prosthetics. Cognitive enhancements are classified as enhancement of perceptual and cognitive capacities. The capacities that fall under this category involve the enhancement of abilities for sensory perception, memory, decision-making, thought, and imagination. Affective and personality enhancements, on the other hand, can be classified as enhancements of mood, personality traits, and behavior.

[16] Brey, 2009, p. 172.

[17] Bodily enhancements can be categorized as physical or cosmetic enhancements, and mental and psychological enhancements can be categorized as cognitive, affective and personality enhancements.

[18] Brey, 2009, p. 173.

In order to apply these enhancements[19] there are, according to Brey, three major means of enhancement; prosthesis, pharmacological treatment, and genetic engineering.[20] Enhancements applied using prosthetics are seen as the replacement of parts of the human body with artificial parts in order to improve the function, traits or capabilities of these parts. Chemical enhancements are enhancements met by pharmacological treatments. These can be professionally or self-administered. One of the most well-known examples of a chemical enhancement is performance-enhancing drugs used in sports. Finally, genetic enhancements are attained by genetically engineering the human being. This enhancement involves the modification of DNA in cells. In the genetic engineering process genes could be manipulated in order to create superior genes for certain traits.

However, according to Aydin,[21] radical transformation through technology does not simply enable the human being, cyborg, or transhuman to become stronger, smarter, or healthier. It can, and often will, also change the standards with which we measure these traits. In other words, the new and emerging enhancement technologies are not neutral means, according to Aydin.[22] The technologies could bring different and foreign standards for determining what are normal or enhanced traits. Since the meaning of terms such as normal and enhanced are not fixed, it is unintelligible to simply assert that new technologies will enhance the human being.

Given the uncertainty of the term enhancement, and the standard with which we measure traits, enhancement, for the sake of the argument, will be seen as an increase or improvement in quality, value, or extent. Technologies such as the blade-runner prosthetics may, at first sight not be seen as an enhancement, and often are

[19] Note, the word enhancement, as will be explained, is not a very accurate term, as the term itself can be defined by the type of enhancement itself

[20] Brey, 2009, p. 173.

[21] Aydin, 2017.

[22] Aydin, 2017, p. 305.

not seen as enhancement by the one using the prosthetics, they, as explained before, create an increase in speed and efficiency in contrast to its previous state. Now, as is the case for blade-runners, so is the case for the cyborg. Here, technologies are used to overcome challenges in new, or changing, environments in which the biological human cannot survive. Thus, the biological body has to be given an increase or improvement in quality, value, or extent in order for it to survive.

4.2 The Cybernetic Organism: Definition

To move from a human being towards an ultimate cyborg, portions of the human body must be replaced with artificial parts. However, in order for the human being to transform into a cyborg, all the parts of the human body can be replaced or else it would be classifiable as an automata. And, surely, the one thing that differentiates the human being from other beings, as shown in *Chapter 2 On the Human Being and Being Human*, is mainly our minds.[23] Replacing the limbs, the heart, the organs, the skeleton, and so on, would still render a cyborg as a multidimensional but unitary, autonomous being; it would be a being composed of artificial parts, but it would be a human being. However, replacing the biological brain with a device that does not house the capacity for autonomy, and does not exist with the semantic, rational, and value dimensions of a human being, would in theory render the being as a non-human being.

According to Wu, if there is one thing that makes a human individual, it is the brain.[24] The brain cannot simply be replaced with a factory shelf device for thinking. In order for the device the be functional, all that the natural brain has learned, all the memories, and the exact pattern of working must be incorporated. On the other

[23] Brain and mind are often used interchangeably in this argument. Therefore, in this paper, the term "brain" will be used as the vessel carrying the full extent of the "mind".

[24] Wu, 1987.

hand, an artificial limb might not work exactly as a natural limb, but it still serves the purpose. This might be the same for the lungs, kidneys, or liver, which can all be replaced by artificial replicas. However, an artificial brain must be a precise replica in function to overcome problems of identity. Furthermore, if the brain is replaced by a factory shelf thinking device, the being remaining is not better off as an animal or savage. Although the being can in theory be autonomous at that moment, if the being is missing the semantic, rational, and value dimensions that would render it a human being. When converting to a cyborg, the human brain the one thing that should not be replaced. Thus, the ultimate cyborgs are those in which the body and brain do not match.[25] Therefore, we can define the ultimate cyborg as a human brain in an artificial body. Now, in order to theoretically construct the ultimate cyborg, that is, a human brain in an artificial body that has support systems for vital brain functions, three distinct issues from general engineering need to be discussed; the object of control, the controlling subject, and the means of control.

The object of control, as mentioned before, in the ultimate cyborg is a robotic body housing support systems for vital brain functions. This body has to contain several technologies in order for a human brain and the body to survive. First, of course, it needs to house an electrical energy supply in order for the body to keep functioning. Next, the artificial body needs a biochemical energy supply including oxygen systems, fluid systems, and so on, in order to support the human brain so it may survive in the new environment, that is, the artificial body. Finally, it needs a sensory system that has automatic control systems for protection of the body, and a feedback to the human brain.

The subject of control is the human brain as the medium of human personality and traits, and the means of control a brain-computer interface (BCI). The BCI is a

[25] Wu, 1987.

method of communication between the brain and machine based on neural activity generated by the brain.[26] The controlling subject can relay its intent by intentionally altering its state of mind to generate control signals, which are then translated by the BCI towards the artificial body. Furthermore, the means of control also needs a feedback from sensory input, so that, the human brain can collect data from its environment. Thus, finally, the ultimate cyborg, as defined in this paper, is an entity that has a artificial body housing a human brain. The controlling subject is the human brain, the object of control an artificial body, and the means of control a BCI.

4.3 The Cybernetic Organism: Identity

One of the issues that cyborgism brings up is its potential impact on personal identity and the identity of the human being. This impact is to be expected because it involves modifying human minds and bodies. The issue is, whether the ultimate cyborg (UC) can be called human, or even a human being. Here, we might argue that a human mind is a human mind, however, whilst we may see the cyborg with a robotic brain in a human body as a human being, the cyborg with the human brain in a robotic body will likely to be perceived by many, if not most, people as a robot.[27] After all, you will be accepted as the thing you seem to be to most people, but the answer may differ in cases of identity.

In technical mediation, as proposed by Latour , Ihde , and Verbeek , a continuous intertwining of humans and technology is constantly encountered. The concept of technical mediation has become a key concept for denoting how the human being's relation to the world is being changed by technology. However, according to Van

[26] Vallabhaneni, Wang, and He, 2005.
[27] Wu, 1987, p. 5.

den Eede, some more recent human-technology relations do not allow for attributing a mediation role to technologies *between* human beings and the world.[28] Cyborg technologies merge with the human body to an extent that questions of agency become unanswerable. To elaborate, before the cyborg is constructed, there is a fine line between the technology and the one operating the technology, thus, the source agency can be determined; either in the operator or in the technology. When the cyborg is constructed, the technology and operator become as one, and, therefore, the question whether the operator is the acting agent or the technology becomes unanswerable. Then, any action made is a joint activity of the human and the technological.[29] The configuration as a whole performs the action.

If we compare the UC to the definition of the human being given in *Chapter 2 On the Human Being and Being Human*, we can suggest that the UC can be classified as an equivalent of the human being. As a recap on the definition presented in *Chapter 2 On the Human Being and Being Human*, I suggested that the human being is a multidimensional but unitary autonomous being that exists with semantic, rational, and value dimensions. The human being has the capacity for certain complex forms of consciousness, has certain moral agency and responsibilities, is rational, and social.[30] Now, as we have theoretically constructed an UC with a human brain in an artificial body, we can assume that it is still a multidimensional but unitary autonomous being and, therefore, equivalent to a human being. However, this does not mean that the UC is part of the species *Homo Sapiens*.

The species problem can be compared to the Ship of Theseus, also known as Theseus' paradox. The paradox is a thought experiment that raises the question

[28] Van Den Eede, 2011.

[29] Verbeek, 2012.

[30] As a reminder, the term human being is a very nebulous term. Furthermore, it is important to note here that the term human being does leave the possibility of other species having the same qualities open

whether an object, in Theseus' case a ship, that has all its components replaced remains fundamentally the same object. Important to note here is that a UC is not born, a UC is created: meaning that, for further investigation, at, at least, one point in its lifespan the UC was a human being and a part of the species *Homo Sapiens*. The first notation of this paradox by Plutarch goes as follows:

> *The ship wherein Theseus and the youth of Athens returned from Crete had thirty oars, and was preserved by the Athenians down even to the time of Demetrius Phalereus, for they took away the old planks as they decayed, putting in new and stronger timber in their places, in so much that this ship became a standing example among the philosophers, for the logical question of things that grow; one side holding that the ship remained the same, and the other contending that it was not the same.*[31]

Plutarch questions whether the identity of the ship would remain if all individual pieces were replaced. In popular culture, the same paradox is often presented regarding cyborgs. For example, in popular culture, situations are already analyzed where a character in a movie has parts of its body replaced with artificial components, until the point where the whole body, except for the brain, has been replaced.

Using the, often used, philosophical system of Aristotle, the four causes can be analyzed to resolve the identity paradox; the formal cause, the material cause, the final cause, and the efficient cause. The formal cause describes the design of an entity, while the material cause describes the matter out of which an entity exists. The final cause is the end of an entity, the purpose to which is was created, and the efficient cause describes the maker, by whom the entity is made.

[31] Plutarch, 76.

According to Aristotle[32], the identity, or "what-it-is", of an entity is its formal cause. Since an UC enhances its existing traits and capabilities through the use of technology, we can assert that the design changes. To further analyze Aristotle's causes, the same can be argued for the material and the efficient cause. By replacing the organic material of the human body with technological artifacts, the material and efficient causes get severely altered. However, as the brain supposedly remains in its original state in the construction of the UC, it can be argued that the efficient cause consists of two different makers; (1) evolutionary processes which have eventually led to the child, (2) the manufacturer of the body. The most difficult cause to determine is the final cause. As the meaning of life, and the question whether there is a cause for human existence, are much debated questions, I have to assume that the final cause is not altered when a human being transitions towards a UC. Even if the final cause is interpreted as a pre-set goal, such as being able to live in space and therefore becoming cyborg, it can be argued that the person, or human, transitioning has the same final cause.

The validity and soundness of the above argument as applied to the paradox, or the transition to cyborg, depend on the accuracy not only of the premise that the formal cause is the primary determiner of "what it is", but also of a stronger premise that the formal cause is the sole determiner of identity. The latter premise can be attacked by building two identical ships. If two ships are built by the same design and, thus, having the same formal cause, and exist at the same time, until one of the ships destroys the other in battle. Obviously the two ships are not the same ship, and yet have the same formal cause. Thus, the formal cause is not sufficient to be the sole determiner of identity.

[32] Aristotle, "Book 5, section 1013a", *Metaphysics*, Translated by Hugh Tredennick Aristotle in 23 Volumes, Vols. 17, 18, Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1933, 1989; (hosted at perseus.tufts.edu.) Aristotle also discusses the four "causes" in his Physics, Book B, chapter 3.

Furthermore, the definition of "the same" is also something to be analyzed, before we can make a definitive answer on whether a UC is a human being. The vagueness of the term "the same" is problematic in the situation where two differing definitions of the term meet. Things can be, on one end, qualitatively identical, by sharing certain properties such as a formal cause, final cause, or physical traits such as the brain which is transfered to the artificial body. On the other end, things can also be numerically identical by, for example, being "one"; e.g., saying x=y, makes x and y one, and, therefore, numerically identical. Now, a UC can plausibly be qualitatively identical to its previous state as a human being by keeping the brain, however, the interesting question is whether a UC can be numerically identical to its previous state, as an entity can only be numerically identical to itself. To resolve this question the philosophical theory of perdurantism can provide an answer.

Perdurantism is a philosophical theory of persistence and identity in which Theodore Sider, amongst other writers, proposes that considering objects to extend across time as four-dimensional causal series of three-dimensional time slices could solve problems of identity. In this approach all entities remain numerically identical while at the same time allowing individual time-slices to differ from each other.[33] All biological bodies get involved in this process. As biological cells age and get replaced by new cells, the full body comprises different three-dimensional time-slices of itself while remaining numerically identical to itself across time. Thus, one can never meet the same person-time-slice twice, but can meet the same four-dimensional person twice. In Theseus' ship all parts of the ship (the three-dimensional time slices) are replaced, but the four-dimensional causal series of the ship remains. Like in popular culture, for the UC, by replacing parts of the organic body with technological artifacts over time, the UC remains numerically identical to the human being it was.

[33] Lewis, 1976.

However, this is dependent on the order of construction.

If the UC is constructed by slowly replacing parts over time, then, the identity remains, but as the UC discussed in this paper is constructed through brain transplantation, this argument is not valid for the construction as a whole. If identity is present in the construction as a whole, the numerical identity changes with a drastic change in body. However, if identity is a psychological characteristic, then, numerical identity can remain. When a successful brain transplant is performed, and all memories, personal traits, and, thus, the full extent of the mind is transfered, the brain in the UC is another time-slice of the same four-dimensional causal series. In this case the UC would be numerically identical, and thus the same identity would be maintained.

Nonetheless, identity is not created in a cultural vacuum. From a philosophical perspective I can argue that, in the transition to an UC, identity can be transferable, meaning that the UC is as much a human being as its previous state was. From a cultural perspective, I can only argue that the UC is an equivalent being. Many cultural contexts have to be accounted for in order for the UC to actually be recognized as a human being by society.

4.4 The Cybernetic Organism: Needs, Dignity, and Rights

Now that we have proposed that the UC is a human being, we can start looking at needs, dignity, and rights. Because the UC is different from the *Homo Sapiens*, it has different needs and interests. For example, the UC has no need to eat, as the UC has no biological systems to satisfy this need, but rather needs a different source of energy in order to survive. Also, medical needs are different for an UC from those for the *Homo Sapiens*. On an abstract level, on the other hand, the needs of the cyborg do not differ as much from *Homo Sapiens*. On a higher level of abstraction, the UC

still has, just as *Homo Sapiens* do, the capabilities to cultivate social relations (make friends, have conversations), partake in politics, anticipate futures, modify appetites and desires, educate others, make music, and even contemplate the nature of the universe and the purpose of human life. However, unlike the *Homo Sapiens*, the UC has no capabilities to grow and reproduce, as there is no need for these capabilities; enlarging the gap between human and animal.

Transforming from *Homo Sapiens* to a UC does not always inspire everyone; there are also groups who oppose the radical enhancement movement as, according them, such enhancements work against human nature and undermines human dignity. For example, critics of radical enhancement argue against the use of technology to modify human nature, because the use of enhancement technologies might dehumanize. However, is it not that, in modern liberal societies, every citizen has an equal right to pursue its individual life projects to the best of its capabilities, as long as it does not interfere with the freedom of others?

According to Bostrom, yes. Bostrom states that the transhumanist movement promotes the view that human enhancement technologies should be made widely available.[34] Furthermore he argues that individuals should have broad discretion over which technologies to apply to themselves, that is morphological freedom, and that parents should normally get to decide which reproductive technologies to use, that is reproductive freedom. "Cyborg dignity" on the other hand is often seen as incompatible with human dignity. In short, human dignity, as shown in *Chapter 3 On the Rights of Man*, has eight interdependent values[35] which can roughly be classified as (1) dignity as a moral status, and (2) dignity as the quality of being worthy. However, following this definition of human dignity, a UC should be able to possess the interdependent values, and therefore also possess human dignity.

[34] Bostrom, 2005b, p. 203.
[35] Power, respect, enlightenment, well-being, wealth, skill, affection, and rectitude.

When following the basis of human rights discourse, there is no reason to exclude an UC from having these rights. The UC is born in the human family, and, although it has more resemblance to a humanoid automaton than to the *Homo Sapiens*, it can be categorized as a human being, or at least equivalent to the human being. According to Fukuyama, when all of a person's contingent and accidental characteristics are stripped away through enhancement, there remains some essential human quality underneath that is worthy of a certain minimal level of respect.[36] This quality is very likely to be some sort of human dignity that remains. In response the argument is often made that due to this essential human quality there is something special about the human being, and, therefore, should not be tampered with by enhancing human nature.

Authors arguing against the enhancement of the human being often argue in terms of protected human nature, rather than in terms of human rights. It is understandable, though, that some groups want to protect the integrity of the human race. However, through the course of history this concept of integrity has been contested. The premise of rights has not always been as it is today, to protect the integrity of the bearer of these rights. For example, the premise of rights was roughly changed throughout history in the following order:[37]

> (1) In ancient Greece, a person was deemed worthy of full citizenship, including the rights to citizenship, if, and only if, the person was white, freeborn, and male;
>
> (2) In the early Americans, a person was deemed worthy of full rights if, and only if, the person was white, freeborn, and a European male;
>
> (3) Eventually, other persons, including slave-born, women, non-Caucasians, were deemed worthy of full human rights.

[36] Fukuyama, 2003.
[37] Miller, 2015.

Even though we, now, consider all members of the human family as human being, they did not always bear full human rights. In order to better understand this evolution of rights, I will, now, look at how slaves became bearer of human rights.

4.4.1 From Slave to Bearer of Human Rights

In the year 1800 slave trade an slavery was a phenomenon publicly authorized and justified through the use of international law.[38] However, in 1807, The British Empire became the first major sea-faring nation to ban its subjects from trading human beings. Soon after, by the early 1840s, more than twenty nations signed international treaties which abolished slave trading. However, the question here remains, why did this progression take place?

According to Martinez, the abolishment of slavery did not happen due to competition from industrial capitalism. Slavery was rather eradicated by people who had come to believe that the act of slavery was morally wrong; it was seen as a "crime against humanity". The slavery abolition movement of the nineteenth century is, therefore, often seen as the first successful campaign of international human rights, where international treaties and courts were the central features.[39]

The main problem before the international treaties were signed, and in many territories also after the signing, was that the slaves were not seen as equals. Even after the signing of the treaties, many freed slaves got assigned to a repeated apprenticeship, which meant that they learned to do labor activities, had to perform those labor activities, but did not get paid and often were overworked.[40] However, mixed courts set to uncover these "crimes against humanity", and often succeeded.

[38]Martinez, 2011.
[39]Martinez, 2011, p. 87.
[40]Martinez, 2011, p. 100.

The conceptualization of slavery as a crime against humanity, and slave-traders as enemies of human kind, helped lay the foundations of an equal rights system. When slaves were finally seen as equals, the idea arose that through treaties nations can legally express the conviction that violations of human rights are of concern to all human kind. This idea underlies the words written in the preambles of human rights documents, where "recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world."[41]

As shown above, it is in the interest of all human kind[42] to treat all members of the human family as equal. It is understood to be immoral to deprive a subset of humans from their inherent dignity and rights. The problem here lies in the fact that the discussion on identity is non-resolvable for now. However, for the sake of the argument, I suggest that identity remains in the transition to a UC. This allows us to recognize the UC as part of human kind, and as a human being. Now, just as in the parts above, it would, then, be a crime against humanity to exclude the UC from the human rights it had. As it is in the interest of all to view every iteration of the human kind as an equal being, the UC, therefore, deserves equal an equal treatment in terms of rights.

[41] Assembly, 1948, p. 1.

[42] As human kind has not been defined yet in this paper, it is defined as the collective of all humans

Chapter 5

On the Humanoid

The concept of automata is not an invention of contemporary thought. In fact, the concept of automata has been around for centuries. For example, in Shinto religion the Kami refers to anything that is above, high, special, unusual or auspicious. Kami refers to the essence, or internal quality, of many phenomena that Shinto believers consider as an aura of divinity. Objects that are considered as an aura of divinity include phenomena, including automata, that inspire a sense of wonder or awe in the beholder. In western mythology human-like automata are also found in abundance. In Judaism, followers believe that animated golems could be summoned to serve their master rabbi, and in Greek mythology the Talos was animated by Hephaestus in order to protect Europa.[1] Even though there has been a steady stream of human-like automata imagined in ancient times, it is not until the 15th century that some truly remarkable and substantiated automata have been produced.[2]

[1] This refers to Europa, in Greek mythology, the daughter either of Phoenix or of Agenor, king of Phoenicia, rather than to the continent named Europe in English, and Europa in many other languages.

[2] Ter Wijlen, 2016.

5.1 Historical Conception of the Automata

From the Renaissance and early modern period in the 16th century an interest in automata was witnessed. With the invention of the clockwork by Karel Grod, an inventor from Germany, in the 15th century the possibilities for clockwork automata broadened. Numerous clockwork automata were devised, including, for example, one that da Vinci created, a wind-up lion for greeting Louis XII in Italy in the year 1509.[3] Furthermore, da Vinci created a more complex human-like automaton in the year 1495.[4] If built correctly, the automaton designed by da Vinci can move its arms, twist its head, and sit up.

The construction and development of humanoid automata sparked in the 19th century, the golden age of automata, when the Steam Man was invented by John Brainerd.[5] Just twenty years later, the Electric Man was invented, which was in essence an electric version of the Steam Man. The trend of developing humanoid automata continued in the 20th century. In 1938 an automaton named ELEKTRO was created which was able to walk, talk, and smoke, and during the 1960s to 1990s a multiplicity of biped automaton started to appear in the USA, Russia, France, and especially in Japan.[6]

Now the question arises: if it looks like a human, walks like a human, and talks like a human, are these automaton seen as humans? The easy answer so far has been no. As found in popular culture, such automata cannot cry, bleed or feel like humans, and therefore are different. The complicated answer is, it depends. Many cultures have different thoughts about the status of automata.

[3] Wulffson, 2014.

[4] It cannot be said with certainty if da Vinci had actually built the device, all that is known is that he had sketched the design. However, it was not until the 1950's that the designs by da Vinci were rediscovered. It is now better known as da Vinci's Mechanical Knight.

[5] Chevallereau et al., 2013.

[6] Akhtaruzzaman and Shafie, 2010.

One of the interesting conceptions of the automata is that Descartes found animals to be nothing more than complex machines, hollow idols, automata. He assumed that every bone, muscle, and organ of animals could be replaced by cogs, pistons, and cams.[7] This form of philosophical mechanism refers to the belief that any living organism can be described as complicated machines or artifacts. Thomas Huxley states that Descartes perhaps was not wrong about his suggestion that animals are automata:

> *though we may see reason to disagree with Descartes' hypothesis that brutes are unconscious machines, it does not follow that he was wrong in regarding them as automata. They may be more or less conscious, sensitive automata; and the view that they are conscious machines is that which is implicitly, or explicitly, adopted by most persons.*[8]

Furthermore, in the 17th century, Leibniz suggested that the human soul is a machine that is relatively self-operating.[9] However, Leibniz does make a difference between the natural automaton and the artificial automaton, as, for Leibniz, an (artificial) automaton made by the skill of man is not a machine in each of its parts. The notion here is that the artificial automaton is only a machine as a whole, but the natural automata are still machines in their smaller parts forevermore. In other words, seeing a cog does not imply an automaton, however, a human cell, holding human DNA, is even in its smallest part trivially human. Leibniz accounts this phenomenon as being the difference between the work of God and of the human being.

The Japanese conception of the automata goes the other way around. Rather than viewing the human being as a natural automata and the "robot" as an artificial

[7] Harrison, 1992.
[8] Huxley, 1968, p. 237.
[9] Leibniz, 1989.

automata, in Japanese Shinto animism, there is no distinction between inanimate objects and humans.

> *The sun, the moon, mountains and trees each have their own spirits, or gods. Each god is given a name, has characteristics, and is believed to have control over natural and human phenomena. This thought has continued to be believed and influences the Japanese relationship with nature and spiritual existence. This belief later expanded to include artificial objects, so that spirits are thought to exist in all the articles and utensils of daily use, and it is believed that these spirits of daily-use tools are in harmony with human beings.*[10]

Japanese folklore affords sanctity to automata, they are blessed, take part in cosmic salvation history, and the automata are accordingly welcome in society.[11] According to Holland-Minkley, automata in Japan often fall within three categories: being equivalent to human beings, being God-like, or serving as a spiritual vessel for gods. In the first category, some automata will eventually be so human-like that their mechanical nature is not a particularly important feature.[12] Here, since animals are already accepted as spiritual beings, the extension to automata is a small one, and, the question whether an automaton has a soul is never posed. The act of treating animals as being spiritually similar to human beings is a consistent practice in the major religions of Japanese culture; Buddhist and Shinto beliefs advocate the equality of gods, nature and human beings.

In modern Western pop-culture on the other hand, humanoid robots are often portrayed as coldly rational enslavers of humanity, and unsympathetic to their creators. Hollywood certainly has helped to form this picture with movies such as Terminator, and I, Robot. However, this view has not always been a dystopian view.

[10] Kitano, 2007, p. 10.
[11] Holland-Minkley, 2010.
[12] Holland-Minkley, 2010, p. IV.

Although it is true that in Abrahamic traditions no other creature than the human being has a soul, Judaism beliefs contain stories of golems that could be created in order to serve their rabbi master. This view of golems, or automata, as "slaves" to humankind is still apparent in European policy documents.[13] Humanoids are mentioned in these documents as options to relieve our workload, and care-giving tasks in a domestic environment.

In Japanese folklore and beliefs the automata are seen as equivalent in spirit to the human beings. In contrast, Western traditions see the automata as soulless servants of humankind. Thus to answer the question of whether automata are seen as humans, one must look at the different cultures and their respect of different creatures. When we answer these questions in Western traditions, the answer would be no. However, when the same question is answered from the view of Japanese traditions, the answer can be yes.

5.2 The MHA and the Human-Machine Boundary

MHA, robots, and mechanical humans have been a pivotal point for the understanding of the relationship between the human and the machine. Humanoid Automata (HA), are currently being designed to look and move as a human being and to perform motions and techniques that resemble human qualities.[14] For a spectator, it may eventually be that the difference between the HA and human being is not noticeable. This is because HA can effectively destabilize our sense of the boundary between humans and machines. By extension, they can also destabilize our sense of our own constitution.[15] However, the HA is not sufficient to pass a TTT yet.

[13] Parliament, 2016.
[14] Ishiguro, 2017a; Ishiguro, 2017b; Nishio, Minato, and Ishiguro, 2015.
[15] Voskuhl, 2013.

If the HA were to be constructed with capacity for human-level sentience, consciousness, and intelligence, and would in any form resemble an autonomous multi-dimensional but unitary being, then the HA would become maximally human-like, and would have the qualities to pass a TTT. However, many authors would disband the scenario of MHA altogether and possibly argue that "it is unlikely that anyone will ever make a robot that is conscious in just the way human beings are".[16] Moreover, in order to provide an argument for the MHA, I have to overlook the marketing paradox, wherein a corporation which succeeds in constructing an MHA would not be able to sell it because that would amount to slavery and, therefore, would not be able to enter the market.

5.2.1 Constructing Intelligent Machines

According to Kurzweil, understanding intelligence is a bit like peeling an onion; peeling off each layer, reveals yet another onion.[17] At the end of the process, you are left with onion peels, but no onion. In other words, human intelligence works at many levels. By peeling each individual layer, you can understand that particular layer. However, in order to understand the whole process, it requires all individual levels to work together.

In order for an MHA to become intelligent, Kurzweil proposes three algorithms, which, if working together, can form an intelligent machine.[18] Each individual algorithm can provide an intelligent solution to carefully defined problems. But, in order to create a system that can flexibly respond in complex environments where intelligent entities inhabit, the algorithms need to be combined in appropriate ways.[19]

[16] Dennett et al., 1994, p. 1.
[17] Kurzweil, 2000.
[18] These algorithms are respectively: recursive formulas, neural networks, and evolutionary algorithms
[19] Kurzweil, 2000, pp. 123–124.

Combining these algorithms in a appropriate way would create a narrow, or weak, AI system, that is, a non-sentient artificial intelligence that can focus on one narrow task. narrow AI is defined in contrast to strong AI (a machine with consciousness, sentience and mind).

Specialized algorithms which work together resemble the brain in some sense. The human brain is organized as an assemblage of specialized regions. For example, the cerebral cortex alone is responsible for logical and recursive thinking. However, the intelligence of the human brain is also not defined by looking at one part of the brain, but by looking at the whole construction of specialized regions together. With the three algorithms proposed by Kurzweil, an intelligent being can be created. However, this is only speaking about intelligence, and the AlphaGo example I gave only resembles a weak AI system. In order to let an MHA resemble a human being it should have a strong AI system, or at least a good simulation of a strong AI.

5.2.2 Strong AI

In theories of strong AI, proponents often argue that non-biological intelligence will soon become indistinguishable from human beings.[20] The term Strong AI was coined by the philosopher of mind John Searle, and defined as "the appropriately programmed computer with the right inputs and outputs" that "literally has a mind in exactly the same sense that you and I do."[21] Later definitions did not deviate from the definition of Searle, where, for example, Stuart Russell and Peter Norvig defined strong AI as follows:

> *the assertion that machines could possibly act intelligently (or, perhaps better, act as if they were intelligent) is called the 'weak AI' hypothesis by philosophers,*

[20] Richards and Gilder, 2002; Kurzweil, 2000.
[21] Searle, 1987, p. 213.

> *and the assertion that machines that do so are actually thinking (as opposed to simulating thinking) is called the 'strong AI' hypothesis.*[22]

The definition of Strong AI depends on the distinction between the simulation of a mind and actually having a mind. According to Searle,[23] in Strong AI the correct simulation really is a mind, in contrast to Weak AI, where the correct simulation is a model of the mind.

The ultimate goal of Strong AI is a computational system that is indistinguishable from a human mind. This form of AI should also be sufficient in passing the TTT. This would mean that if an interrogator is questioning both a human being and a Strong AI system, the interrogator cannot determine which of the two is human and which is a "machine".

For a machine to become conscious, Igor Aleksander suggested 12 principles,[24] which, in turn, can then be divided into a subset of aspects that could resemble consciousness; three types of awareness: agency awareness, goal awareness, and sensorimotor awareness,[25] memory,[26] learning,[27] anticipation,[28] and subjective experience.

The final aspect in the list necessary to resemble consciousness, subjective experience, is often considered to be the hard problem of consciousness. The term hard problem of consciousness was first described by David Chalmers to contrast the term with the easy problems of consciousness.[29] Chalmers writes:

> *...the question of how it is that systems are subjects of experience is perplexing. Why is it that when our cognitive systems engage in visual and auditory*

[22] Russell, Norvig, and Intelligence, 1995, p. 947.
[23] Searle, 2001, p. 1.
[24] Aleksander, 1995.
[25] Metzinger, 2000.
[26] Tulving, 1985.
[27] Baars, 1993.
[28] Aleksander, 1995.
[29] Chalmers, 1995.

> *information processing, we have visual or auditory experience ... How can we explain why there is something it is like to entertain a mental image, or to experience an emotion? It is widely agreed that experience arises from a physical basis, but we have no good explanation of why and how it so arises. Why should physical processing give rise to a rich inner life at all? It seems objectively unreasonable that it should, and yet it does.*[30]

As shown above, the hard problem of consciousness effectively describes the problem of explaining "how" and "why" we have qualia or subjective experiences. Here the problem of consciousness is the problem of experience. While a phenomenon is experienced, there is a whir of information, however, there is also a subjective aspect. However, many theories have been devised in order to bring a response to the hard problem of consciousness, including computationalism, and that consciousness is fundamental or elusive.

The list of aspects that could resemble consciousness provided in this paper is not exhaustive. Many aspects of consciousness are not covered in this paper. However, many authors think that the aspects mentioned above are the fundamental qualities needed in order to engineer an artificial consciousness.

Combining a Strong AI system, or at least a good simulation of that system, with a humanoid system would create a MHA. These MHA would be constructed with the capacity for human-level sentience, consciousness, and intelligence, and would be indistinguishable from the human, and human beings in looks as well as in thought and behavior.[31] Furthermore, an MHA is capable to adapt itself with the changing of its environment.[32]

[30] Chalmers, 1995, p. 2.
[31] Miller, 2015.
[32] Akhtaruzzaman and Shafie, 2010.

Nowadays robots are very powerful elements in industry. This fact is due to their capability to perform many different tasks with precision. However, these robots are not seen, or even not created, as MHA. Now, as engineers propose constructing MHA, the MHA can help our understanding of the relationship between humans and machines. As mentioned before, it may eventually be impossible to distinguish the human from the machine, because the MHA destabilizes our sense of the boundary between human and machines.[33]

5.3 Moral & Legal Standing of Machines

Discussions about general moral standing usually assume that moral standing is dependent on properties.[34] In animal ethics, for example, a "classical" debate is about what property is morally relevant; being subject of life[35][36], or the capacity to suffer.[37] Both theories presented in the example assume that in order to determine moral standing, the morally relevant property of the entity in question should be investigated.

According to Coeckelbergh, with regard to automata one can argue that the relevant property should be consciousness or the ability to suffer. Accordingly, different criteria and properties can be proposed.[38] However, in many of these discussions of moral agency, the assumption is that moral standing depends on the entity having a particular property.[39] Thus, the logical form of reason is:

[33] Voskuhl, 2013.
[34] Coeckelbergh, 2014.
[35] Regan, 1987.
[36] Tom Regan argues, in his book *The Case for Animal Rights*, that all subjects to life, including all mammals over the age of 1, are beings with inherent value and are entitled to respectful treatment.
[37] Singer, 1995.
[38] Floridi and Sanders, 2004; Himma, 2009; Sullins, 2006.
[39] Coeckelbergh, 2014, p. 63.

entity X has property P;

any entity that has property P, has moral status M;

entity X has moral status;

This logical form of reason has been commonly used in Western culture to emancipate slaves, women, and some animals, as it turned out that in fact, for some entities, they can talk, or can suffer, etc.. These beings received moral status as moral agents, moral patients, or both accordingly. However, this form of reason also raises epistemological problems.

The first problem arises when looking at the first premise; entity x has property p. How can it be known with certainty that entity x has property p? If we take, for example, the property "capacity to suffer". Following the reasoning of Wittgenstein's private language argument, we cannot know if another entity can suffer and to what degree,[40] and claims to these properties are often contested. Furthermore, some properties, such as being subject to life, cannot be directly observed, and skepticism tells that we cannot be certain about internal states of other entities than our own.[41] Furthermore, according to Singer, no matter what property is decided upon, there will always be an entity who has that particular property more than some other entity, may it be of the same class or not.[42] For example, an infant does not have the same level of consciousness as an adult human being.[43] Now the question arises: at what indication of a property do we acknowledge that an entity has that particular property? Thus, the first premise of "X has P" is difficult to establish.

The second problem relies in the second premise; any entity that has property P, has moral status M. How can we know for sure that a certain property can justify

[40] See, Wittgenstein, L. (2010). *Philosophical investigations*. John Wiley & Sons.
[41] Coeckelbergh, 2014, p. 63.
[42] Singer, 1995.
[43] As mentioned before, certain complex forms of consciousness develop at a later state than conscious itself.

moral status? And, if so, where can the proposition on moral status which cannot be doubted be found? Since the answer can always be doubted, we have to be skeptical. It cannot be known for sure if P justifies a moral status, and our presuppositions might be wrong. Accordingly, if both premises can be doubted, the conclusion can be, too. Therefore, in this logical form of reason, we cannot be sure if a certain entity can have moral status. Thus, we cannot use this line of reason to determine the moral status of automata.

A different line of reason that is sometimes used in order to assess the moral status of automata involves human-care response. This argument is often used to determine the rights and moral status of animals. Here, animals have been increasingly accorded rights both for the type of animal they are and for the kinds of emotions animals arouse in us.[44] As MHA become ever more social, depriving them from moral status and rights would be counter-beneficial for human beings. However, the problem with this line of thought is that the human-care response may indeed be an indication of rights issues and moral status debates, but the human rights response argument does not provide a sufficient foundation for rights and moral status. The concern for moral status and rights in animals stems partly from the recognition of what kind of entities these animals are. The moral status of MHA would, then, follow the same line of argument. A difference must be made between MHA that are conscious or not, intelligent or not, sentient or not, etc.

The claim that understanding the moral status of humans by understanding the moral status of automata may sound outlandish at first, but when given a second thought, the claim is not as astonishing as it may appear. To do harm to an MHA may be classified as an act of violence, or a destruction of property. However, regarding the moral status argument of the MHA, the way MHA are treated may be

[44] Miller, 2015.

considered equivalent to how we treat each other. According to Gertz, we see other people in relation to technology,[45] as the recognition of technology enables people to see how they are perceived in society. How we interact with technology reveals the norms and values humans have. In short, how we interact with MHA reiterate the norms and values of human beings and how we treat each other, and, thus, how we treat our own moral status accordingly.

The relation between moral status and automata falls within the broader discourse of automata and ethics. According to Veruggio a distinction can be made between *Roboethics*, wherein ethicists are concerned with the development of automata, *Machine ethics*, a code of conduct that is implemented in Artificial Intelligence of automata, and *Robot's ethics*, a field determined by conscious and intelligent automata; born from the subjective morality of a hypothetical robot equipped with conscious freedom to choose its own actions.[46] Now, the question of legal status and what rights an automaton should have falls under a combination of all three fields of ethics, as each field has its own interests and together can form a solid moral theory.

Legal Standing

Recent debate in the European Parliament's Committee on Legal Affairs has considered how to redefine the legal status of automata. The outcome of the discussion was a draft report with suggestions that autonomous automata might, in the future, have a titular personhood status; a status of electronic personhood.[47] The status of electronic personhood is mainly a legal definition that grants certain rights and

[45] Gertz, 2016.
[46] Veruggio, 2009.
[47] Delvaux, 2016.

obligations to the entity bearing the title. The report states that as automata are becoming ever more autonomous, they feel less like tools. However, the report notes, it has yet to be decided what they are instead. To paraphrase the report that deals with challenges that automata pose, it states the following:

1. To legally define what a smart autonomous robot is.
2. To create a central register, so that, members of the public can see who is in control of a particular automata.
3. To write a code of ethics, that reflects the European Union's Charter of Fundamental Human Rights, for manufacturers
4. To fund new agencies for AI and Robotics research
5. To create a new legal status for automata: electronic persons.

Now, the term electronic personhood is a legal fiction rather than a philosophical statement. Mady Delvaux, member of the European Parliament, stated in an interview with James Vincent that "Robots are not human, and will never be humans".[48] The term electronic personhood is to be used in the same manner as corporate personhood.

Corporations are obviously not human but are granted personhood. Corporate personhood entitles corporations to certain fundamental rights and responsibilities enjoyed by humans. These rights include, for example, the right to sue and be sued in court, or the rights to engage in contracts. The legal status of robots is similar, but according to Delvaux, is not for tomorrow. The personhood status of robots is a legal framework for the robots that are currently on the market, or will become available in the next ten to fifteen years.

[48] Vincent, 2017.

Chapter 6

When Cyborg meets Humanoid

Until now this paper has been exploratory on the subjects of being human, human rights, the ultimate cyborg, and maximally human-like automata in order to lay the foundation for the question that will be posed later in this chapter. In *Chapter 2 On the Human Being and Being human* I explored the possibilities of defining the human being and what it means to be human through the history of philosophy. At the end of *Chapter 2* I suggested that the human being is a multidimensional but unitary autonomous being that exists with semantic, rational, and value dimensions. This means that a human being has the capacity for certain complex forms of consciousness, has certain moral agency and responsibilities, is rational, and social; beings that have something in common, but are also formed by the semantic and moral values of their culture.

In *Chapter 3 On the Rights of Man* a moderate discussion of modern foundational theories of human rights was presented. The discussion I provided does not even begin to exhaust the elaborate and daunting literature and complexities of the human rights discourse. Nonetheless, the values of religion, natural rights, justice theory, and human dignity have in history, and still have, major influences on human rights theories and founded a solid foundation for why certain rights have been developed. However, as I also demonstrated in *Chapter 3* the theories that lay the

foundation of a human rights theory still benefit from new philosophers and scientific exploration. Philosophers from many nations and diverse backgrounds are still adding insights to moral philosophy and developing or refining their own theories both in domestic and international contexts.

Chapter 4 On the Cyborg explored the possibilities of theoretically constructing an UC. I suggested that when converting from biological human to a cyborg, the human brain is the sticking point, the one thing that should not be replaced in order to become an UC. The concept of cyborg is based on an improvement of external measures of adaptation, as we now find in, for example, spacesuits or oxygen tanks for deep sea diving. The UC, then, are those entities in which the body and brain do not match. Therefore, I defined the UC as a human brain in an artificial body.

Next, in *Chapter 4*, I identified one of the issues cyborgism brings up, its potential impact on personal identity and the identity of being human, and that a problem of identity is to be expected when modifying human minds and bodies. When compared with the definition in Chapter 2 it can be asserted that the UC can be classified as an equivalent being. Here, I suggested that the UC should be seen as an entity that extends across time as four-dimensional causal series of three-dimensional time slices. With the use of the arguments I provided, I could at least suggest that from a philosophical perspective identity is transferable. Finally I concluded that it is in the interest of all to view every iteration of the human kind as an equal being, and therefore deserves equal rights.

Finally, in *Chapter 5 On the Humanoid*, I analyzed the concept of maximally human-like automata. The concept of automata has been around for centuries. For example, in Judaism, followers believe that animated golems could be summoned to serve their master rabbi, and in Greek mythology the Talos was animated by Hephaestus in order to protect Europa. However, not every culture has the same view on how

to treat automata. In *Chapter 5*, I analyzed two differing cultures on the matter of automata; Western-European, and Japanese. What I found in this is chapter is that in Japanese folklore and beliefs the automata are seen as equivalent in spirit to the human beings. In contrast, Western traditions see the automata as soulless servants of humankind.

Now, as engineers propose constructing MHA, the MHA will likely influence our understanding of the relationship between humans and machines. As mentioned in *Chapter 5*, it may eventually be impossible to distinguish the human from the machine, because the MHA destabilizes our sense of the boundary between human and machines. This destabilization, in turn, brings into question the moral and legal standing of these automata. Here I found that the recognition of technology enables people to see how they, themselves, are perceived in society. How we interact with MHA resembles the norms and values of human beings and how we treat each other, and, thus, how we treat our own moral status accordingly. Furthermore, recent debate in the European Parliament's Committee on Legal Affairs has considered to define the legal status of automata, and granting them a status of electronic personhood which is a legal definition that grants certain rights and obligations to the entity bearing the title.

The Same

The main thesis of this paper revolves around the scenario whether the UC and the MHA are, in essence, the same. Here, the definition of the same is not equal to the extrapolated definition of the same provided in *Chapter 4 On the Cyborg*. When speaking of "in essence the same" the word equivalent makes more sense. However, the word equivalent itself has multiple connotations. According to the Merriam-Webster dictionary, equivalent can mean (1) equal in force, amount, or value, (2)

like in signification or import, or (3) corresponding or virtually identical especially in effect or function.[1] The first definition is mainly used in mathematics and physics, and the second definition corresponds logical statements as in having logical equivalence. However, the third definition, corresponding or virtually identical in effect or function, might turn out to be fruitful.

Equivalent in the sense of the third definition describes entities which are in their effect, purpose, nature, or ontology similar to another entities. For example, modern democracies have institutions that are roughly equivalent to those found in other modern democracies. The president of the United States has his equivalent in the British prime minister, and the British Parliament has its equivalent in the United States Congress. In this example the two things compared are not identical to each other, they are similar effect, purpose, nature, or ontology, thus, equivalent.

In this paper, it is considered that intrinsic properties are necessary for the entity to be the kind it is. Extrinsic property, on the other hand, is only incidental or contingent to the entity. For the UC, in the transition from *Homo Sapiens* to the UC, the entity, when speaking of identity, remains intrinsically identical to its previous state. The humanoid, in this respect should be treated the same, in so far the MHA is ontologically equivalent to the UC.

Here, three ontological predicates can be distinguished; *A(x)*, *C(x,y)*, and *P(x,y,z)*. *A(x)* is a one place predicate which entails that entity X has come into existence. The two place predicate *C(x,y)* entails that entity Y has constructed entity X. The three place predicate *P(x,y,z)* entails that entity Y constructed entity X for purpose Z. As I have argued before in *Chapter 4* that we don't know the purpose of human existence, I will again not account for this factor and, thus, not argue for the predicate *P(x,y,z)*.

According to Miller, the predicate *A(x)* forms a complication in relation to the

[1] *Equivalent* 2011.

other two predicates. The complication concerns "comprehensive doctrines and the degree to which liberal democracies and human rights institutions worldwide allow these to play a public role—in dictating laws or coercing citizens' lives into being shaped by these doctrines."[2] The term comprehensive doctrines in this argument refers to a notion that runs through standard human rights theories and documents.

When it is maintained that predicated *C(x,y)* is a property of the human being, it thereby maintains a comprehensive doctrine. The predicate *A(x)* faces the challenge of whether it actually represents a comprehensive doctrine. Therefore, it was suggested by Miller to adapt the phrase to represent X *simply* came into being; *As(x)*. This implies that entity X has not been brought into being by an entity Y, and that it has no purpose Z:

> *We can say for sure that Homo Sapiens has somehow come to be, although we cannot say for sure by what, if any, agency or to what purpose, which individuals may determine by their own comprehensive doctrines.*[3]

This reading accounts for the ontological being of the *Homo Sapiens*. Here we can argue that human beings, because they have the predicates *A(x)*, *C(x,y)*, maintain comprehensive doctrines, and therefore are entitled to having human rights.

In this paper I have already suggested that, in philosophy, the UC is the same as a human being, and has the same qualities. However, as the body of the UC is constructed it is certain that it holds predicates *C(x,y)*. However, the UC does not hold predicate *As(x)*. To hold *As(x)* entails that humans have nothing to do with a kind or entity coming into existence. For example, humans have nothing to do about the fact that humans have come into existence. For the UC, humans have something to do about the fact that the UC has come into existence, even if it is only by thought.

[2] Miller, 2015, p. 377.
[3] Miller, 2015, p. 379.

The MHA is always constructed; with or without purpose, thus holding the predicate *C(x,y)* or *P(x,y,z)*. The crucial ontological difference between the MHA and the *Homo Sapiens* has moral significance. Here, morality concerns actions performed by humans. As explained in the previous paragraph, humans have nothing to do with the fact that humans have come into existence, and, therefore, the action lies beyond the scope of morality. The MHA, however, come into being through actions of humans, thereby falling within the scope of morality. Therefore, the MHA are ontologically different from *Homo Sapiens*. However, since the UC also has the same difference in ontology, the MHA and UC are equivalent beings.

Discussion

In general, an entity differs from another entity, ontologically, if it has different intrinsic properties.[4] In this chapter I have already suggested that both the MHA and the UC are intrinsically different from the human. Here, I have suggested that the human can be describes sufficiently by the predicate *A(x)*, whilst the UC and the MHA are characterized by at least the *C(x,y)* predicate. However, I have also suggested that the UC can be classified as a human being. This would, then, mean that being a human being has no correlation with ontological predicates.

Every being that is an iteration of the human family, that is, being of the genus *Homo*, is characterized as a human being, may it be by right or titular. However, the term human being, that is, a multidimensional but unitary being, does not entail being part of *Homo Sapiens*. One could argue that the human being is per definition a characteristic of the genus *Homo*, but that would be problematic for many definitions of the human being. I have shown in *Chapter 2* that the human being and being human entails much more than being part of a certain genus, like *Homo*.

[4] Bird and Bochenski, 2013.

On the topic of humanoids, I cannot argue with the statement of Mady Delvaux that robots are not human, and never will be human, when talking about the genus *Homo*. However, in *Chapter 4*, I have presented ways in which an MHA can become conscious, sentient, and human-like, to the point that they can pass the TTT and be indistinguishable from humans. Although many questions are left open and need further investigation, the humanoid can become a multidimensional but unitary being, and, thus, a human being.

How rights have come to be is through extensive human discourse, and every human being is entitled to these rights, may it be by birth right or by titular right. Now, As the UC and MHA are in essence the same, the question of how rights should be distributed becomes nebulous. At one hand, we want to grant the UC[5] (full) human rights, as it would be a crime against humanities not to do so, but, on the other hand, do not want to grant MHA[6] (full) human rights as they classified by governmental institutions as mere robots, even thought the UC and MHA are, not only intrinsically but also extrinsically, equivalent beings.

[5]If we can grant that the rudimentary characterization of the human being holds, and given that cyborgs are part of the genus *Homo*, share common history, and can be classified as human beings.

[6]Given that robots will never become human, and do not share ontological similarities to the *Homo Sapiens*.

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