Designating “human” versus “other” in a post-human world:

A pragmatic approach to the problem of human essence

INTRODUCTION

The predictions pertaining to the convergence of near-future Transhumanist technologies (i.e., mind uploading, full body prosthetics) and their machine-centric counterparts (robots made conscious with cultivated human brains) pose future complications for existing lines of demarcation between the designation of “human” versus that of “not human” or “other.” How will we separate ourselves from machines, when we ourselves have transcended our organic bodies and turned to mechanical avatars? Indeed, what will we become, and be?

A new urgency in realizing a human “essence” seems to emerge, an essence with which we could perhaps distinguish ourselves from that which we are not — viz., machine or animal. However, this aspiration to realize a “universal essence” gives rise to the question of whether there is a single “essence” which can adequately separate those of human origin from “other” machine-centric biotechnological organisms, and whether determining what human essence is, is in fact feasible.

In the following, I examine actual and future bio technologies to illustrate how they are problematic in-regards designating them as definitively human or machine. Next, in an effort to demonstrate that seeking a universal human essence which will affirm or deny the latter technologies’ “humanity” is either inconclusive or irresolvable in nature, I examine two popular conceptions of human essence: the soul and genetic background. I evaluate their respective strengths as the defining factor of what it means to be human in both today and tomorrow. Our energy is put to better use in examining how and to what effect the concept of human has been manipulated to separate ourselves from “other,” as well as hypothesizing how it will continue to
perhaps be used in the post-human future. I conclude the paper with a discussion on how we can potentially construct a model of the human concept in a way which is most beneficial to social relations in the present as well as in the future, in the context of the convergence of the aforementioned post-human organisms.

POST-HUMAN TECHNOLOGIES

A growing interest in and development of Transhumanist technologies that will allow humans to transcend their natural capacities, as well as the innovation of increasingly human-like robots, are problematic to long-standing conceptions of what it means to be human. These developments complicate the boundaries, lines, and cleavages—between that which we consider human and what we call machine.

Exponential technological advance (e.g., Moore’s Law)\(^1\) has resulted in a variety of current and predicted projects, such as conscious artificial intelligence, robots and computers with organic parts, and cybernetics. For the purpose of this paper, I describe two technologies (one of which is predicted and the other which has recently come to fruition) which illustrate the convergence of human and machine as well as the difficulty in drawing a line of demarcation between the two closely related biotechnological “organisms.”

Mind Uploading

Mind uploading, or the process of digitally “uploading” a human mind and working consciousness onto a computer, has been long prophesied by the media as well as advocates and developers of Transhumanist technologies and proponents of the Transhumanist movement

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\(^1\) See Moore, specifically page 2, for further description and discussion on Moore’s Law. Moore’s Law refers to Gordon Moore’s observation that the number of transistors in an integrated circuit doubles every two years.
(Chalmers 2014, p. 2). Philosopher of mind and cognitive scientist David Chalmers describes the ideal upload as being one in which each component, down to neural and non-neural parts of the brain, correspond to a computational element in a computer, which is “connected to input and output devices (artificial eyes and ears, limbs and bodies)” (Chalmers 2014, p.3). This system, if viable, will couple an individual’s uploaded brain with a responsive cybernetic body.

Cognitive neural prosthesis in the form of cochlear implants and a micro-chip based hippocampus demonstrate the possibility of uploading the mind onto a mechanical platform. These developments raise questions not only as to whether or not biological substrate is a necessary proponent of consciousness, but whether it is essential to our classification of others as human. Furthermore, whereas existing cybernetic prosthesis have not taken away from what the majority of the population regard as human in its essence, mind uploading challenges current conceptions of human by eliminating biological substrate from “human” in its entirety.

In addition, uploading the mind onto a mechanical interface eliminates natural risk of death by aging, injury and natural disaster. If immunity to natural factors can be overlooked as well as the absence of normalized human activities which are founded upon biological needs, some philosophers believe we can continue to be classified as human in lieu of having a human consciousness. However, we cannot yet know to what effect inhabiting a mechanical body will have on our sensory and thereby psychological experience of what it is like to be human. Because the senses are primary to human development and integral to our awareness, experience, and understanding of the world, it cannot be certain whether what is now considered “human consciousness” will be the same in the post-human future.
Robots with Brains

In contrast, rising popularity in the development of robots and computers composed of some organic parts mark a movement paradoxical to Transhumanism’s human centric approach. Rather than looking to re-embody humans in machines, some neuro-biotics researchers plan to study robots with cultivated brains in an effort to acquire insight on human neurological conditions. Kevin Warwick’s “hybrot” (hybrid robot) powered by cultured rat neurons is one among several newly developed biotechnological organisms to be studied in the interest of neuroscience. While conducting various experiments, which are documented in his philosophical article, “Implications and Consequences of Robots with Biological Brains,” Warwick observes that the robots’ neural pathways strengthen over time in a process of trial and error, in their given task to avoid path-obstructing objects—indicating a capacity to learn by repetition (Warwick 2010 p. 227). Warwick also notes that each neuronal culture is “unique in itself [and]…has its own individual identity” which manifests in the robots’ behavioral tendencies and proficiency in the execution of tasks (Warwick 2010 p. 228). Warwick’s observations suggest that the hybrid robots may not be so different than the sentient organisms from which their neurons are derived.

Warwick’s innovation and subsequent experiments are significant because they indicate the possibility of utilizing human neurons to power hybrots of human intelligence (and perhaps consciousness) in the near future. Like mind uploading, robots with biological human brains complicate current notions of “human” and “machine.” Can robots powered by cultivated human brains continue to be classified as machines with biological parts? Or must they be designated “human” as a result of having a human brain and thus “consciousness”? As discussed in Mind Uploading, it is important to consider how embodiment of a (cultivated) human brain in a mechanical body will affect the organism’s physical and psychological experience, and whether
this will affect its classification as “human” or “robot.” Perhaps most importantly, however, the nature of the latter biotechnological organism’s purpose as a tool to serve human interests poses the need for an examination of how utility, preconceived notion and biases influence the designation of human in spite of any conceptual human “essence” it may have.

Fig. 1. Irene Pereira, *Man and Machine*, Lowe Art Museum.

A UNIVERSAL HUMAN ESSENCE

As a result of the complexities demonstrated by my examination of post-human technologies, there is a renewed interest in realizing a universal essence of what it means to be human. Many past and present notions of human essence derive from religious traditions which
denote a primary attribute, viz. the soul, that separates humans from animals. Today’s technological developments have caught the attention of philosophers who endeavor to achieve a timeless conception of a universal human essence which will apply to past generations of humans, and determine whether we can consider those who utilize advanced Transhumanist technologies “human” in the post-human future. Those who believe that humans, by virtue of their essence, should continue to be classified as such in the context of a post-human world, wish to arrive at an essence which will distinguish future “humans” who utilize Transhumanist technologies, from conscious hybrid robots. However, in the event that we convene upon a universal human essence, it is possible that upon discovering human essence in hybrid robots, that we may have to recognize our “human” selves in what we consider our machines — and recognize them as human as a result.

Nevertheless, past and present attempts at locating a single human essence that distinguishes us from animals are contradicting and oftentimes inconclusive, lacking even empirical grounds to support their claim. Due to its metaphysical nature as a problem of essence\(^2\), it is probable that realizing a universal human essence will be of issue well into the post-human future. I analyze two popular conceptions of human essence (the soul and genetic background) with which I will demonstrate the futility in realizing a universal essence, as well as illustrate the need for a new approach to defining the human concept.

*An Incorporeal Mind/Soul as Human Essence*

Despite skepticism and heated disagreement among divergent schools of thought, owing to its foundation in religious tradition, the soul remains arguably the most perniciously reified\(^3\)

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\(^2\) See Carnap, especially Chapter A §161, for explanation and explication on the problem of essence.

\(^3\) See Winther, chapter 4, page 2 for definition and explication of “pernicious reification.”
conception of human essence in circulation. Influenced by the Roman Catholic church, René Descartes formulated what we now know as Cartesian dualism—a doctrine which states that the mind (otherwise interpreted as soul) and corporeal body are separate entities, the conjunction of which work together to constitute a human being (Descartes 1998 p. 33). Although Descartes acknowledged the union of mind and body, he also proclaimed the soul to be “that through which I am what I am,” thereby identifying the soul as “self.” (Descartes 1998 p.19). Since according to Descartes, humans are distinct from animals because they have the “extra dimension of a ‘soul’” we can understand the soul to be Descartes’ notion of human essence, which functions as a line of demarcation between human and animal (Cottingham 1978 p. 552-3).

Descartes’ conception of an incorporeal mind has garnered historical opposition as a result of the mind-body problem, which lies in the question of how an incorporeal mind moves the corporeal body. He is criticized by Gilbert Ryle who likens mind-body duality to a “ghost in the machine” as well as by neuroscientists who dispute the existence of an incorporeal mind, arguing that the latter is simply the “integrative activity of the brain” (Ryle et. al 2009 p. 68; Hebb 1974 p. 75). Often cited as supporting evidence is the observation that “damage to the brain produces commensurate damage to personality” (Paxinos 2016). This illustrates the brain’s direct relation to our mental stature and suggests that some of what have been traditionally regarded as the soul’s functions can be attributed to the brain. However, since our understanding of the soul and its functions vary in accordance to the theory we wish to interpret it by, there is little hope of refuting or affirming the soul’s existence by scientific means until we reach consensus as to what it is and what we are looking for.

In view of the above, it is unreasonable to designate the soul as human essence because it
has not yet been proven, and further shows little sign of achieving a possible resolution. By designating the soul as essence without concrete evidence, we unjustifiably deny other more likely postulations of essence by adhering to baseless inferences. However, in the event that the soul’s existence is proven by empirical means, it can and even should be examined as a possible answer to the problem of human essence.

*Genetic Composition as Human Essence*

Despite the perhaps obvious practicality of designating genetic composition the primary factor which distinguishes humans from animals, genetics pale in popularity to the soul in the discussion of human essence. This constituent of what makes us human may be largely ignored or unconsidered in the discussion of human essence because of a lack of grandeur in its distinction of human from animals— that the difference between what we consider human and animal lies in a sequence of DNA, almost 99% of which is identical to that of chimpanzees (Pollard 2009 p. 44).

Genes are responsible for such human characteristics as our physical form, behavior, learning capacity, brain size, and speech. New findings in the field of genetics suggest that mutations in MYH16 and FOXP2 genes distinguish us from chimpanzees by endowing us with larger brains and the capacity for speech (Fitzgerald-Hayes et al. 2010 p. 6). However, the designation of genes as human essence is disputed by the findings of University of California-Berkeley researchers Mary-Claire King and Allan Wilson, who state that, “the genetic distance between humans and the chimpanzee is probably too small to account for their substantial organismal differences” (King et al. 1975 p. 107). Accredited scientist Morris Goodman suggests that the major differences which separate us from chimpanzees may lie in our evolutionary
history, which may in turn be influenced by such factors as climate change or environment (Goodman 1999 p. 31; Figueirido, et al. 2011). Unfortunately, there remains little more than speculation as to exactly what single factor separates us from our closest living relatives in the animal kingdom.

Like the soul, the designation of genetic composition as human essence is problematic as a result of contradictions and divergent narratives by experts in their respective fields of study, and requires further affirming (or denying) empirical evidence in order to be ordained as human essence. Further, the inseparability between genetics and other fields of study such as evolutionary biology bring to the fore considerations as to whether a single factor without the supplication of related others can sufficiently define and distinguish a complex human concept. By distinguishing human from “other” on the ground of a single characteristic, we over-simplify a multifaceted concept, and conflate the importance of a single characteristic while diminishing that of others. This reasoning provokes questions as to whether “essence” is an effective means of classifying humans and other organisms. The problems and complexities inherent in convening upon a single defining characteristic of what it means to be human support my argument for a new approach to human essence.

A HISTORICAL ACCOUNT OF THE MANIPULATION OF “HUMAN”: AN ALTERNATIVE APPROACH TO THE EXAMINATION OF HUMAN ESSENCE

As demonstrated above, the endeavor to convene at a universal human essence is problematic as a result of a lack of empirical evidence and contradicting theories of essence, as well as the over-simplification of a complex human concept. Due to the inconclusive nature of the latter field of study, I suggest that philosophic efforts are better placed on the foundation of
empirical data, in the context concerning how we use the concept of human in contradistinction to what its essence is.

In the following, I examine our historical manipulation of the concept of “human” in the contexts of human rights and warfare in the examples of the Declaration of Independence and the Nanking Massacre. By analyzing the ways in which we manipulate its concept, we arrive upon an “implied definition,” whereby we separate ourselves from “other”— such that we can predict how the human concept will be used in the post-human future.

*An Archaeology of the Human Concept*

The concept of human has been historically manipulated as a means to conveniently separate those whose characteristics and ideologies are aligned with our own, from “other”— those we oppose and/or wish to exploit, often justified by variance in race, denomination, culture, sex, etc. In his book, *Less Than Human: Why We Demean, Enslave and Terminate Others*, David Livingstone Smith cites the hypocrisy underlying the language with which the ideals of the Declaration of Independence are expressed: the document, which proclaims that *all men* have basic, inalienable rights simply because they are human was penned and signed by the very men who owned slaves and profited from the slave trade. The latter written contradiction illuminates the question of who is designated human and on what grounds. The concept of human in the document is defined as such, as a consequence of the determination that African Americans were “subhuman” because of their darker complexions as well as by a self-interest to continue profiting and benefitting from slave labor (Smith 2011 p. 2).

Manipulation of the human concept is not an act restricted to any one territory: Livingstone Smith also cites the dehumanization of the Chinese inhabitants of Nanjing by
Japanese troops during the 1937 Nanking Massacre, in which the Japanese troops mutilated, tortured and killed the Chinese, who they referred to as “chancorro”— “below human, like bugs or animals” (Smith 2011 p. 18). Upon recalling the atrocities he and other Japanese soldiers committed against unarmed Chinese civilians, Japanese veteran Yoshio Tsuchiya later confessed, “If I’d thought of them as human beings, I couldn’t have done it” (Smith 2011 p.18). Tsuchiya’s confession illustrates the manipulation of the concept of human, whereby an enemy constituent’s humanity is deprived and replaced by a subhuman replica— a dirty pest whose extermination is justified and even warranted. Dehumanization is thus a psychological tool which seeks to justify immoral acts which we would otherwise regard as unethical, to acquire success in the aim of forcing those we regard as “other” into submission.

Livingstone Smith’s examples of the manipulation of the human concept bring to light what he calls an implied definition, in which “human” is used to refer to ourselves at the convenient exclusion of “other” (Smith 2011 p. 108). The historical usage of “human” is not so much founded on the components of which we are made as it is the beliefs and which make us—the latter grounded in reaction to surface level differences as well as our own misperceptions, biases, and motivations to justify our treatment of others. The concept of human as illustrated in the above is arbitrary in accordance to those we want to separate ourselves from in relation to our own self-interests. In depriving others of their human designation, we see in its place the animals and machines we wish to exploit.

An Implied Definition of Human in the Context of a Post-Human Future

With regard to the aforementioned biotechnological organisms, the realization of an implied definition of human brings to light relevant concerns with regard to who or what we will
designate as human, and how this will influence post-human relations. By designating one organism human at the exclusion (and expense) of a closely related other, we risk negatively influencing the nature of their future relations through the language we use to describe or define them, which dictate the partitioning frames\(^4\) through which they perceive themselves in relation to other. “Human,” “subhuman” and “machine” are socially constructed concepts that represent the way we understand their respective places in what we have invented and thus perceive as their relative hierarchical order\(^5\).

In observance of the historical usage of the human concept, it is likely that that organism which is designated human will in turn exploit—as we have in the past and present exploited “subhumans”—that what would be labeled machine. This forecasts a future not unlike our past and present in which we justify our behavior toward others by dehumanizing and thereby excluding them from what we regard as “human,” based on our own motivations as well as insignificant differences. So long as we continue to utilize the human concept in this way, we will continue to perpetuate unfavorable relations in the coming post-human future.

A PLURALISTIC HUMAN CONCEPT

In the previous sections, I discussed an archaeology of the concept of human, whereby the designation of human has been historically manipulated to separate “us” from those we regard as a subhuman “other,” as well as exploring the negative implications of utilizing an implied definition of human in the present and post-human future. Due to the above-mentioned consequences which result from the use of an exclusively motivated concept, I suggest the

\(^4\) See Winther, especially Chapter 4, <B> Translation Freedom p. 21-2, for explication on partitioning frames. Partitioning frames refer to different perspectives which shape the way objects of interest are viewed.

\(^5\) See Pinker, Chapter 1, page 12, for an example of how theories and concepts influence how we understand our experience in the world.
In the following, I propose a pluralistic model of the human concept constructed by the practice of “map thinking,” detailed in R.G. Winther’s book, “When Maps Become the World.” Next, I suggest that we determine which characteristics of human are relevant to its concept by utilizing the scientific method, and in virtue of using the latter method, which facets of human will be dismissed as being deemed unworthy of consideration.

Mapping the Human Concept

A pluralistic model of human can be constructed by utilizing R.G. Winther’s conception of “map thinking.” In his philosophical work, “When Maps Become the World,” Winther suggests that we utilize the map analogy as an analytical vehicle with which the philosopher can understand subjects of concern as being multifaceted in nature—just as “no single map… represents the world,” no single essence or perniciously reified characteristic can sufficiently define a complex theory or concept (Winther 2017 p. 10). Rather, the map analogy encourages the philosopher to entertain and examine diverse perspectives and recognize a multiplicity of contexts—the unity of which make up a pluralistic concept, open to revision in lieu of possible modifications in the way we come to understand its contexts.

By applying Winther’s map analogy to the human concept, “human” can be understood as an aggregate of the relevant contexts from which it can be examined and understood (e.g., from the fields of genetics, evolutionary biology, behavioral sciences, etc.). These contexts or perspectives through which we study “human” themselves contain specific elements or characteristics which are normative to a majority of the individuals we regard as human at any one time. As in the case with any species, however, anomalies often arise which do not
necessarily warrant the denial of that individual’s respective classification.

It is here I suggest we designate as human those who possess a convened upon number of contextual elements. As opposed to classing individuals human based on whether or not they meet the expectation of having certain essential characteristics, this method allows for the natural differences and anomalies which occur in a diverse species. Further, by looking for a number of contextual elements we share instead of the possession or lack of characteristics, we are forced to recognize our affinity\textsuperscript{6} with one another, as well as with like-kinds whom may not have enough human characteristics to be designated as such. By utilizing an inclusively motivated concept of human and seeking out similarities with others rather than differences, we adopt an attitude of acceptance toward others based on the characteristics in them which we see in ourselves.

Elements Relevant to the Human Concept

In order to construct a pluralistic model of the human concept, we must first determine which contexts are relevant to the classification of organisms as human. Relevant contexts—the presence or absence of which influence our decisions regarding the designation of organisms as human—cannot be founded on bias uncorroborated by empirical fact. The decision to determine a context’s relevance to the human concept must be justified by observable evidence and validated by the scientific method, and not such subjective methods as those of tenacity, authority and a priori\textsuperscript{7}. In adhering to the scientific method, we must value objectivity, and thus recognize and dispose of any biases and assumptions we may have in our construction of a pluralistic human concept.

\textsuperscript{6} On “affinity,” specifically how our understanding of ourselves as having an affinity with others, see Haraway in her chapter, “Fragmented Identities.”

\textsuperscript{7} See Peirce section V for explanation of the methods of tenacity, authority and a priori.
THE PLURALISTIC HUMAN CONCEPT: IMPLICATIONS ON OUR POST-HUMAN RELATIONS AND WHY THIS ALL MATTERS

The preceding sections have up to this point: described two post-human technologies which differently exemplify the blurring of boundaries between human and machine, motivating a search for human essence; examined two notions of essence, and demonstrated the futility in sufficiently defining the complex concept “human” by a single reified characteristic; suggested placing philosophic efforts in examining how the concept of human has been used rather than on speculating what its essence may be; explored the historical manipulation of the human concept, and its function as a definition which implies the exclusion of “other;” predicted future consequences of an “implied” definition of human and its possible negative implications on “inter-human” relations between the two post-human organisms; and outlined a pluralistic concept of human.

In the following, I will apply the pluralistic human concept to post-human technologies, arguing that the new concept will benefit future “inter-human” relations. I will conclude by discussing how applications of the pluralistic human concept may benefit our current inter-human relations and why the contents of this paper matter.

The Pluralistic Human Concept: Implications on our Post-Human Relations

The pluralistic human concept developed in the previous sections has obvious implications on what I formerly anticipated as the dynamic between future-existing biotechnological organisms. The replacement of the implied definition of human with a pluralistic concept ameliorates the problems inherent in the historically documented usage of
human by eliminating the subjectivity and bias on which has been founded. Under the application of the newly developed human concept, the designation of such post-human organisms as Transhumans and robots with cultivated human brains as human will depend solely upon whether or not the organism possesses a convened upon number of qualities relevant to the human concept. In seeking out a number of shared characteristics as opposed to searching for differences, post-human organisms who will likely be utilizing this method in the future will see themselves in what they may have otherwise regarded as “other,” perpetuating benign and perhaps even equal treatment of one another. By altering the way we understand a concept, we in effect transform our world and the attitudes towards our relations amongst ourselves with others which take place in it.

However, success in the application of the human concept with regard to post-human relations depends on the universal use and acceptance of the concept prior to their arrival. To mitigate the effects of bias, assumption and the historically documented and even inherent impulse to oppress and exploit others in the post-human future, the pluralistic human concept must be proliferated, spread among intellectuals and the general populace alike, so that it may be given fair chance to be accepted and applied. Only then will a pluralistic human concept have the strength to yield benefit to the inter-human relations between converging post-human organisms.

Why it All Matters

In today’s political climate, the discrimination of others based on differences— in race, religious preference, sexual identity, and place of origin— perpetuate hateful rhetoric and acts, as well as the unjustified belief that these people are “less than,” and even perhaps subhuman. The development of bio technologies which alter the ways the concept of human is understood will
contribute to a new level of diversity likely related in nature to contexts such as race and class, and may be a ground for future inter-human conflict.

This paper is an effort to contribute to improving upon the inter-human relations of both today and tomorrow. The adoption of an inclusively motivated, pluralistic concept of human with which we will replace its implied definition will encourage the recognition of shared characteristics, and thus our affinity with others, regardless of the differences which make us unique. By seeking out shared characteristics in others and an affinity with like-kinds, we will be more disposed to see ourselves in others, consequently creating fertile grounds for empathy, which I anticipate will bear fruits of improved social relations. Likely, the relations between post-human organisms in this way will follow.
Works Cited


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