TRANSHUMANISM: A RELIGION WITHOUT RELIGION

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ABSTRACT

This project seeks to dispel the belief that transhumanism (a movement advocating for human-enhancement through technology) is diametrically opposed to religion. Transhumanism, rather than being a non-religious or secular movement, is instead a survival of Christian religious ideology shorn of its explicit religious character and transformed into a less religiously-apparent secular-scientific guise, retaining both beneficial and dangerous religious structures that continue to persist in transhumanist discourse. Many of the foundational religious structures that are largely unrecognized by transhumanists that I discuss include: the elimination of death, the sacredness of human life, the imposition of human-exceptionalism by understanding humanity as God-like, and finally, an unwavering faith in predetermined and unalterable messianic future events. Regardless of their presentation in a secular-scientific idiom, transhumanism's retention of religious structures appropriates and continues the history of religious ideas deeply ingrained in Western culture, in what I call, following Jacques Derrida, transhumanism's "religion without religion." My argument employs a deconstructive logic of the X without X, or in this case, a "religion without religion," to examine some of the ways religion may be extended by non-religious means, such as through the secular-scientific discourse of transhumanism. The value of thinking of transhumanism as a religion without religion, an approach lacking in current scholarship, is its ability to recognize the discursive histories of transhumanism's religious past, while also recognizing the new, religious and non-religious possibilities of transhumanism's future. My deconstructive perspective highlights the religious structures within transhumanism, showing how transhumanism unwittingly perpetuates dogmatic formulations of religious structures, like a determinate messianism, that may inflict incalculable harm to humanity and nonhuman beings alike. Recognizing these religious structures reveals how transhumanism can

draw strength from the religious structures they too often ignore by being more self-critical and acknowledging the need for the non-knowledge of faith even in scientific pursuits, while also avoiding the dangers of religion, such as the over-confidence in technology to solve the problem of death. This project uncovers some of the harmful effects of the religious structures that survive in transhumanist discourse in the hopes that these dangers may be mitigated or avoided in the future.

DEDICATION

For Amanda, Kaden, and Xavier.

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Introduction

"SPIRITUAL MACHINES": THE RELIGION OF TRANSHUMANISM

The purpose of this project is to interrogate one of the underlying assumptions held by the majority of transhumanists today. More specifically, the aim of this project is to dispel the belief that transhumanism (a movement advocating for the transformation of the human condition through technology) is diametrically opposed to religion. At its core, transhumanism is most often conceived as a non-religious, secular movement that rests on the powers of rational thinking, human development, and empirical science, untouched by the influence of religious discourse. This assumption, however, fails to account for how the secularization of a religious (Christian) West was authorized by Christian Enlightenment thinkers who believed scientific reason and empirical investigations of nature would affirm the God of Christianity (see Noble's *The Religion of Technology*). Rather than seeing the secularization of the West as a project in opposition to religion, it is important to understand this process as the possible extension of a certain movement within the Christian religious tradition, unfolding through new and different means. According to Jacques Derrida, when we have a "'secularised' something, a secularised concept, it means that it remains religious" (Derrida, "A Discussion with Jacques Derrida"). Understood in this way, the secular is an outgrowth of a particular logic within Christian religious discourse, one which, I would like to conceptualize via a deconstructive gesture of "religion without religion" (Derrida, *The Gift of Death* 49), as a general structure or "logic of the *sans*" (Caputo, *The Prayers and Tears* 77) or the "without," also termed the "X without X." The X without X is not a simple negation, but rather a re-inscription of X, in our case religion, within a new context, which includes the possibility of new meaning(s). With regard to religion, the

secular will be understood as an instance of religion without religion, an affirmation of religion without its traditional historical content. In this chapter, I argue transhumanism is an instance of a secular worldview produced—a production that continues even today—in part, by a Christian "religion without religion," an avenue through which Christianity has been able to be extended in new ways.

Derrida is very clear; the secular belongs to a theological, religious heritage. The religious and the secular are not an opposition. As Derrida states, "I would never oppose secularisation to sacredness, because I think that the concept of secularisation is a religious concept, it belongs to a tradition of religious culture" (Derrida, "A Discussion with Jacques Derrida"). One example of a paradoxically secular-religious concept that Derrida uncovers is the concept of sovereignty:

> It was at the beginning a religious concept, that is, God, the Almighty is sovereign. Then in absolute monarchies, the king was sovereign, that is, almighty by virtue of God, because God gave him this power. Then this concept of sovereignty became, as one says, secularised, that is, one could, with Rousseau for instance, say that people in a democracy, in a republic, the people become sovereign, and in principle without depending on God for this sovereignty. But if you read closely Rousseau you will see that there is something sacred — and that's Rousseau's word — in the people's sovereignty, in the democratic or republican sovereignty of the people. So here you have a concept which is in principle secularised, but for which the very secularisation means the inheritance of a theological memory. It is a theological phantasm or concept. (ibid.)

What Derrida clarifies, in his discussion of sovereignty, is the historical religious practice of secularizing religious concepts inherited as supposed "non-religious" (secular) concepts, which

retain a religious history. Derrida further illustrates the religiosity of the secular when he references Carl Schmitt's famous assertion that all the concepts of the political in Western society are theological concepts since secularized, "that is what he [Schmitt] means: that our culture lives on secularised sacred concepts, secularised theological concepts" (ibid.). In the spirit of Derrida, I contend, transhumanism, as a secular movement that advocates for human enhancement through science and technology is the progeny of a religion without religion, inheriting religious structures from a history of Christian discourse. This should really be of no surprise, because as Derrida maintains, "the same movement that renders indissociable religion and tele-technoscientific reason in its most critical aspect reacts inevitably *to itself*. It secretes its own antidote but also its own power of auto-immunity…It is this terrifying but fatal logic" of autoimmunity that "will always associate Science and Religion" ("Faith and Knowledge" 79-80). The process of autoimmunity, much like the re-inscription of the X without X, allows religion, science, and even the (trans)human to exist through repetition, a sacrificial erasure of the self through the technological supplement. Transhumanism, as the progeny of the histories of both religion and science, can be thought not merely as a non-religious, or secular techno-scientific worldview, but as a product of religion's autoimmunity, a religion without religion.

The importance of thinking of transhumanism as a religion without religion, an approach lacking in current scholarship on transhumanism, and not simply as a non-religious or secular techno-scientific worldview, is to more explicitly highlight the underlying structures that it appropriates from religion. In particular, using the designation "religion without religion," acknowledges both the religious history of transhumanism, pointing towards the new horizons of the future (religious or non-religious), while retaining the discursive histories of its (religious)

past. Much like Derrida's use of the paradoxical nature of the French word *pas* (meaning, "step," but also, "not") to signify the ability to go beyond or transcend, *pas* signifies both a going beyond, but also not beyond, we have here, as John Caputo describes it, an approach to the other that "does not, that cannot, remove the alterity of the other" (*The Prayers and Tears* 84). In other words, transhumanism, as an example of a religion without religion, retains the paradox of the *pas*, a step beyond (an emptying, or a without), but also not beyond (the necessary contamination and future possibility of religion and the secular to return, both as same and different). However, what is of importance is not to consider our future without first examining how the West's religious past has directed us to our present, and directs us into our future through a transhuman religion without religion. The need for critical self-reflection on our past and present compels us not to assume we have emancipated ourselves from our religious past. The study of religion, as Derrida reminds us, is an example of when "'[t]he thing' tends thus to drop out of sight as soon as one believes onself [sic] able to master it under the title of a discipline, a knowledge or a philosophy. And yet, despite the impossibility of the task, a demand is addressed to us" ("Faith and Knowledge" 76). This project hears this very call to ask the question of religion, in order that transhumanism, in its attempt to break completely from religion, does not repeat its structures without knowing it. The core religious structures found in transhumanism that I identify in this project are: sacrificial supplementarity, the sacredness of the human, anthropotheism (the human as God), and messianism.

Even in places where religion seems to have disappeared, it is important to be vigilant about the ways religion not only appears explicitly, but also implicitly, undergirding and operating in what appear to be non-religious realms. As an increasing amount of scholarship has

come to realize, religion continues to operate in what is mistakenly assumed to be purely non-religious "secular spaces," frequently structuring core assumptions and concepts in the secular political and scientific discourse of the West. As Naas traces through the work of Derrida, the concepts of democracy, sovereignty, public/private, tolerance, freedom, secular, disenchantment, reason, and world are linked to a determinate Christian-religious historical discourse (*Miracle and Machine* 187, 191). These inherited concepts, understood as examples of religion without religion, are marked by variegated religious influence, assumptions, and histories. As such, parsing out a precise definition of the religious almost becomes an exercise in futility, because, as Derrida contends, "one would have to be certain that one can delimit the religious…One would have to dissociate the essential traits of the religious as such from those that establish, for example, the concept of ethics, of the juridical, of the political or of the economic. And yet, nothing is more problematic than such a dissociation" ("Faith and Knowledge" 63). Religious structures and discursive histories are unquestionably entwined with other conceptual and purportedly non-religious concepts. The mutual contamination of the religious and that which is other to it, exposes religion to that which is outside and other (X without X), setting forth transformations from the mediations necessary for continued survival, tying together a continued convergence and divergence, reflecting an inherent death-drive at work in religion. This death-drive is a motivation for survival through a certain putting-to-death, an emptying, or becoming other than itself, sacrificing religion by effacing its identity (in part) by allying itself with the other in order to sustain itself into the future, a process that Derrida calls, autoimmunity. The secular is, as Derrida reminds us, a religious concept, and, as such, *the secular is an example of an autoimmune supplement of religion*, one way that religion lives on,

as a religion without religion. Transhumanism, as a secular-scientific movement, I argue, is one way that religion lives on as a religion without religion.

In this introduction I will look briefly at the dominant view of the religious/secular status of transhumanism, especially as espoused by Humanity+ (formerly the World Transhumanist Association) and prominent transhumanist figures, to determine how most transhumanists mischaracterize transhumanism's relationship to religion. Before examining transhumanism's relationship to religion, I first explore Western science's connection to religion, in particular, the common source of both science and religion, faith, in the form of the promise. According to Derrida, faith, the common source of both science and religion, is made possible by technology, used by both science and religion for their very existence. Then, in order to explain how transhumanist characterizations often fail to locate the religious structures and influence continually at work within transhumanism, I will provide a deconstructive perspective using the logic of the "*sans*" [without], or "X without X." In the interest of being precise, I will break down some of the ways in which religion extends itself by non-religious means, and in this particular case transhumanism. For example, I will use the logic of the "*sans*" [without], or "X without X," to demonstrate that transhumanism becomes "a religion without religion." In other words, religion extends itself through the autoimmune production of the technological supplement, often resulting in new secular contents that repeat religious structures. Furthermore, what I intend to show is that transhumanism, rather than being a non-religious, secular worldview, or intellectual and cultural movement, is instead a survival of a particular strand of Christian religious ideology that has been shorn of its explicit religious character in favour of a less religiously-apparent secular-scientific guise, retaining certain religious structures—some

beneficial, some dangerous—that have continued unabated into the present. The end of the chapter will be dedicated to highlighting some of the most prevalent religious structures (as mentioned above) continually at work within transhumanism, paying particular attention to the potential dangers these religious structures have for humanity. This introduction will conclude with a brief summary of each chapter and an explanation of how the language of religion exposes the messianic claims of transhumanism as well as warns us of the dangers of the costs and sacrifices that the transhumanist technological revolution may bring.

Before we continue I would like to acknowledge that while many of the predictions put forth by transhumanism that will be discussed may currently lack scientific credibility, it's imperative to note that my project focuses not on the feasibility of these predictions but rather on examining the ethical implications and religious elements and structures inherent in transhumanist discourse.

Using the Concept of Religion

In framing the concept of religion within this project, it's imperative to acknowledge the complexity and contested nature of the term, especially within the context of Western societies over time. The use of the term "religion" in this project aligns with Jacques Derrida's perspective on the concept and phenomenon of religion, as well as accepted understandings in academic discourses of religious studies. Derrida identifies three ways to identify religion: etymology, genealogy, and pragmatic effects (“Faith and Knowledge” 71). Various and contradictory uses of the term “religion” have existed and will persist. Derrida emphasizes that religion, never singular

or identical, invites perpetual disagreement in attributing the label to historical phenomena across time.

Transitioning from Derrida's analysis, scholars like Tomoko Masuzawa (in “The Invention of World Religions”) elaborate on how the concept of religion is rooted in Christian-European hegemony and historically shows favoritism toward the Christian tradition. This favoritism persists today, shaping scholarly discourse and influencing perceptions. The label "religion" carries a historical bias favoring the Christian-West and remains susceptible to continued influence from this tradition (see also, Dubuisson; Harrison; Smith).

However, it's essential to note the danger of invoking a transhistorical conception under the guise of a historically specific concept. Building upon Derrida's insights, it becomes evident that any attempt to define or understand religion must grapple with its multifaceted and ever-changing nature. While the project acknowledges the historical entanglement of religion with the Christian-Western tradition, it does so with the recognition that such a tradition is not monolithic or static. Rather than imposing a transhistorical conception of religion, it is essential to approach the term with a nuanced understanding of its historical, cultural, and ideological dimensions.

Rather than presuming a singular Christian-Western context, the project adopts a more inclusive and dynamic understanding of religion. This perspective acknowledges the diverse range of religious traditions and influences that have shaped human history, encompassing both the Christian tradition and myriad other belief systems from around the world. Furthermore, the project aims to engage with the complexities of religious discourse by examining how certain

ideologies, practices, and traditions have been appropriated or influenced by the Christian-Western context. This project emphasizes a contextualized understanding of religion that acknowledges its dynamic and varied manifestations throughout history. Rather than assuming a transhistorical essence, it recognizes that interpretations of religious phenomena are contingent upon specific historical and cultural contexts. By critically examining the construction and application of concepts such as "religion," this approach challenges essentialist views and encourages a more inclusive dialogue that embraces global perspectives and comparative insights. It underscores the fluidity and diversity of religious identities and practices across different epochs and societies, offering a nuanced perspective that enriches our understanding of this complex human phenomenon.

The Common Source of Science and Religion: Faith

There are many ways through which it is possible to identify the historical connections between science and religion, primarily the secularization of faith in the 18th century Enlightenment period (an example of such a connection can be seen in the trope of light that I will discuss later). An important analysis of the connection between science and religion, as it concerns this project, comes from Derrida's work on the two sources of religion (the sacred and faith) and the source it shares with science (faith). As Derrida states, the two sources of religion are "the sacrosanct [sacred], the safe and sound on the one side, *and* faith, trustworthiness or credit on the other" ("Faith and Knowledge" 61). Michael Naas, a proponent of Derrida's work on the two sources of religion, effectively imparts the relationship between the first source, the

sacred (also referred to as health/redemption/salvation/the indemnified), and its second source, faith:

> [I]ts second source, would thus be located not in the prospect of health, redemption, or salvation, but in the promise that would precede, exceed, and condition such a prospect in the form of an originary gage or engagement to the other, an experience of faith that has to do not with the indemnified community but with credit, confidence, and the good faith of witnessing, in a word, with a kind of elementary faith, reliability, or trustworthiness *before* any particular religion or any attempt at indemnification. (*Miracle and Machine* 67)

While the first source appeals to that which must remain protected, indemnified, unscathed, sacred, the second source appeals to the fiduciary or trustworthiness in an act of testimonial faith, beyond proof, reason, and knowledge. There would be no religion without the health and salvation of the sacred, but there would similarly be no religion without a promise to the other (a promise taken upon faith) for this very health and salvation (68).

In order for a religion or religious community to protect and promote the sacred it must enlist the resources of science by appropriating its knowledge, especially its technologies of communication (writing, language, telecommunication networks, etc.). Derrida's thesis on religion then (which will also be a thesis on autoimmunity), is that in order to think religion, religion's resistance to the powers of abstraction must be understood: "*with respect to all these forces of abstraction and of dissociation (deracination, delocalization, disincarnation, formalization, universalizing schematization, objectivation, telecommunication etc.), 'religion' is*

at the same time involved in reacting antagonistically and reaffirmatively outbidding itself" ("Faith and Knowledge" 43, Derrida's italics). Religion resists technology because its powers of abstraction transport religious culture, its ideas, words, and images from one place to another, risking the destruction of historical tradition and displacement of traditional structures. Religion, in its many forms, resists abstraction through nationalism, ethnocentrism, and anti-globalization, among others, which are often allied with churches or religious authorities (92). However, to protect the sacred (for it to remain pure, untouched, and immune from abstraction or translation), religion must utilize the very thing, science and technology, or what Derrida refers to as "technoscience," which would contaminate its first source. To clarify, technology, from the Greek word *tekhnē*, is a systematic treatment of an art, craft, or technique, a system or method of making or doing ("Technology" *Online Etymology Dictionary*). The technologies utilized by a religion/religious community to protect the sacred range from the most sophisticated (telecommunication networks like the internet) to the most basic forms of technology (language, prayer, and ritual), each opening to a movement of abstraction and deracination through repetition and translation. Thus, what we have is what Derrida refers to as an "autoimmune," process whereby religion attempts to protect itself by means of what simultaneously threatens to annihilate it: technoscience. Derrida, in "Above All, No Journalists!" lucidly explains the autoimmune relationship between religion and technoscience:

> The apparent contradiction between faith and knowledge, between religion and enlightenment, thus repeats itself. It does so because in order to reach the light, in order to phenomenalize itself, to utter itself, to manifest itself, the sacralising movement, the experience of the sacred, must cede to what I call "autoimmunity." In it, the living

> organism destroys the conditions of its own protection. Such auto-immunization is a terrifying biological possibility: a body destroys its proper defenses or organizes in itself… the destructive forces that will attack its immunitary reactions. When religion shows itself on television, wherever it manifests and deploys itself in the "world," in the "public space," it at the same time increases its power and its power to self-destroy; it increases both the one and the other, the one as the other, to the same degree. (67)

In order for religion to protect and promote the sacred it must utilize technology, and yet, in doing so, it simultaneously risks the (complete or partial) destruction of the sacred it sought to protect and promote. Without autoimmunity, that is, without a rupture of the protections of the sacred, there would be no possibility of a supplement that, while being a threat to the sacred, also saves it by allowing it to live on. This aporia of autoimmunity testifies to the fact that the possibility of life is, at the same time, the possibility of death. In other words, for a thing to live on or repeat itself, it must do so through supplements like technology, a technology that has traditionally been associated with death. The association of death with technological supplements is why Derrida often intimates that not only religion, but life itself is autoimmune, where life must be thought in its relation to technology ("Faith and Knowledge" 81). Yet, without the risk of autoimmunity through the supplement, the sacred would have no possibility of living on; it would remain within itself, absolutely protected, but absolutely dead, without the ability to live on through repetition of the technological supplement (more on the autoimmune supplement later in this chapter). It is, as Derrida says, "this terrifying but fatal logic of the auto-immunity of the unscathed that will always associate Science and Religion" (80).

Religion, relying on the knowledge of science and technology to indemnify the sacred through the process of autoimmunity, is not the only connection between religion and science. Indeed, the relationship between religion and science is even more intimate. For Derrida, in addition to having a source in knowledge (inclusive of reason and technology), science shares a common source with religion, the promise or performativity of faith. Much like religion, science requires, as Naas states, following Derrida, an elementary faith, which inscribes a promise of truth as the condition of all knowledge: "Indeed science, like religion, requires faith, trust, credit, reliability, and so on, an originary or elementary faith that is anterior to every science and is the quasi-transcendental condition of all knowledge" (*Miracle and Machine* 86). Given the connection between religion and science, Naas reiterates Derrida's concern with thinking science and the Enlightenment tradition as the end of religion: "As Derrida argues, we will fail to understand religion today if we continue to believe in the strict opposition between religion and science or between religion and reason, critique, and technoscientific modernity" (88). This misunderstanding opposes religion and enlightenment science. But as Derrida contends, much like the word secular itself, "What the Enlightenment claimed to oppose to Christianity is still Christian in its formation" ("Above All, No Journalists!" 66). A testament to the relationship of faith between religion and science is their common motif or trope of light (light of God or revelation; the light of knowledge or Enlightenment), signalling how each conceives of—and puts faith in—light as a source of truth. Most famously, Friedrich Nietzsche in "The Gay Science," claimed modern science was born from and continues to rest on a faith in one ultimate Truth accessible through human reason that it adopted from the Christian tradition (219). Instead of thinking religion and science in opposition, I ask how technoscience supports religion and

how their common source of faith functions to extend—autoimmunely—both religion and science into the future.

As Derrida reminds us, the "lights" of Enlightenment, technoscience, reason, and critique can only suppose a form of trustworthiness. The scientific community, much like a religious community, is "obliged to put into play an irreducible 'faith,' that of a 'social bond' or of a 'sworn faith,' of a testimony ('I promise to tell you the truth beyond all proof and all theoretical demonstration, believe me, etc.'), that is, of a performative of promising at work even in lying or perjury and without which no address to the other would be possible" (Derrida, "Faith and Knowledge" 80). As Derrida makes clear, without the performative experience of such an elementary act of faith, there would be no "social bond" or address to the other, nor would there be performativity in general: "neither convention, nor institution, nor constitution, nor sovereign state, nor law, nor above all, here, that structural performativity of the productive performance that binds from its very inception the knowledge of the scientific community to doing, and science to technics" (ibid.). Every instance, or organization of, the social bond between two interlocutors, regardless of whether or not it is religious or scientific, appeals to a performative act of testimonial faith, an "I promise the truth" in every address to the other, beyond all proof. Derrida speaks to this elementary act of testimonial faith as the very "air that we breathe" insofar as an "act of faith is implied in the social relationship, in the social bond itself" (Derrida, qtd. in Naas, *Miracle and Machine* 92). Every act of language, as Naas confirms in his discussion of Derrida on faith in religion and science, "from the most ceremonial profession of faith to the most straightforward or seemingly transparent observation in science, presupposes an 'I promise the truth'... Every time one bears witness, therefore, and even in science, the truth is promised

beyond all proof, all perception, all imitative monstration" (*Miracle and Machine* 91). Every profession of religious faith, much like every empirical claim in science, requires a social bond, thus necessitating a promise of truth by way of a performative act of testimonial faith.

The social bond, conditioned by an elementary faith, common to both religion and science, for Derrida, is not a shared or common relation between interlocutors of a community, but rather a kind of interruption. The condition of the social bond in any community, as Derrida makes clear, is an "interruptive unraveling… This is where the *socius* or the relation to the other would disclose itself to be the secret of testimonial experience—and hence, of a certain faith" ("Faith and Knowledge" 99). There is no social bond without faith, and thus without interruption, whence difference. We now find ourselves returning to technology and the technological supplement of autoimmunity and its relation to faith. As Naas describes it, witnessing or testimony, necessitated by the interruption of faith in the social bond, is the place where the sacred (for religion) or knowledge (for science) is shared, "where a singular and unshareable experience, where the secret, becomes public by means of an appeal to trustworthiness, fidelity, credit, and faith… beyond all demonstration and proof" (*Miracle and Machine* 92-93). In order to share and communicate the religious sacred or scientific knowledge we must appeal to the technological supplement, like that of language, to describe the first source of religion (sacred) or science (knowledge/reason)—an interruption of the first source. In doing so, we necessarily contaminate the first source through autoimmune supplementarity to allow it to "live on" through repetition and difference. Technological supplementarity is precisely the process through which faith—as a testimonial and performative act—is made possible, an act performed by both religion and science, in the act of protection and indemnification (which is

also the potential for their autoimmune destruction) of their first source. As Naas confirms regarding the interrelation of technology and faith: "Technics is thus the possibility or the chance of faith—and this chance cannot be separated from the possibility of *radical evil*" and thus the possibility of not only the survival and health of the first source, but so too the possibility of its annihilation (166). Following Derrida, Naas beautifully sums up the autoimmunity of both religion and science, and their relationship to faith:

> Hence faith and knowledge, religion and science, the miracle and the machine, must be thought together as a single possibility, a single possibility that divides or fissures already at the origin. They are not the same thing, but they cannot be thought separately. Both are possible only on the basis of a '*testimonial deus ex machina'* (§29), which always already betrays and displays the duplicity of origins, a *deus* that from the beginning becomes *deux*, at once miracle and machine. (ibid.)

It is the uncertainty and improvability of faith that makes possible the continued existence and living on of both scientific knowledge and the religious sacred through technological performativity. Because the first source (whether it be the sacred or knowledge) is lost as soon as it arrives via the second source of faith, made possible by the technological supplement—autoimmunity—religion and science can only begin and begin again with the automaticity and repetition of a machine, without any assurances. Every discourse of religion or science must autoimmunely sacrifice its first source (the sacred or knowledge) by way of faith, and thus the technological supplement that makes faith possible, in an interruptive unravelling in order that it may continue to repeat and live on into the future. The future of any religious or scientific community is not secured by a repetition of the same, but by the autoimmune

indemnification of the machine, a promise, a faith, that repeats a non-repeatable singularity via an infinite alterity of the technological supplement. For religion and science to live on they must repeat by way of the technological supplement, and thus secured but never assured, respectively, by their common source in faith. To consider a secular worldview, then, based upon the knowledge of technoscience, such as transhumanism, it is important to think, to repeat Naas, how religion and science "are not the same thing," yet "they cannot be thought separately" (ibid.).

The Religious-Secular Debate: Exposing Transhumanism's Religious Structures

Transhumanists frequently frame transhumanism as a product of the Enlightenment's rational humanist tradition, portraying it as an intellectual, philosophical, and cultural movement focused on the ethical application of technologies to enhance human capabilities. The transhumanist movement, as a whole, holds no definitive doctrines, and has been adopted and defined by myriad of different groups. Undeniably, just like any group, "transhumanists disagree with each other on many issues" (Bostrom qtd. in Jordan, "Apologia for Transhumanist Religion" 58). While not the first of its kind, the most recognizable and prevalent transhumanist organization today with a formal statement of aims and objectives, Humanity+ (formerly the World Transhumanist Association), was founded in 1998 by philosophers Nick Bostrom and David Pearce. Neither of the two core documents produced by the organization—"The Transhumanist Declaration" and the "Transhumanist FAQ"—preclude religious belief or supernaturalism; however, the organization makes it clear in the "Transhumanist FAQ" that transhumanism itself is "not a religion," even though it may have compatible elements, and serve some of the same functions. According to transhumanist James Hughes, these overlapping or

compatible elements may even produce new religious rituals and meanings in the context of traditional religions, or entirely new trans-spiritualties—including a religious transhumanism ("The Compatibility of Religious" 2, 5, 31). Despite Hughes' position, he notes the majority of transhumanists are secular atheists and hold a position that sees transhumanism as incompatible with theistic forms of religion (5).

Regardless of whether or not transhumanism is said to be compatible with traditional religions or a new religion itself, many theologians and religious studies scholars, recognize transhumanism as having religious themes, albeit secularized ones (see for example the contributions in Mercer and Trothen's *Religion and Transhumanism*). Hava Tirosh-Samuelson, one scholar doing exceptional work uncovering the religious elements of transhumanism, who even goes so far as to call transhumanism a secularist faith ("Transhumanism as a Secularist Faith"), fails to acknowledge the potential religious implications of secularism as a religious idea and even a religion without religion. According to Ronald Cole-Turner, transhumanism is a Christian concept, originating from a Christian vision of human and cosmic transformation, which can be traced from its first usage in English to W.D. Lighthall in 1941, as it arose from the works of Dante, and ultimately from the Pauline epistles ("Christian Transhumanism"). Cole-Turner argues the original vision of transhumanism has since split into two distinct versions, the original Christian transhumanism (focused on God's gracious transformation of human and cosmos through *kenosis*—self-emptying) and a newer secular transhumanism (focused on self-enhancement), which he suggests are "profoundly different" from each other (37). While Cole-Turner does well to connect the potential origins of transhumanism to Christianity, the clear dichotomy he forms between the religious and the secular form of

transhumanism is problematic considering he neglects to consider how the secular, as Derrida says, "is a religious concept," and thus, "when we have a 'secularised' something, a secularised concept, it means that it remains religious" (Derrida, "A Discussion with Jacques Derrida"). Cole-Turner's very use of the term "secular transhumanism" is a testament to the influence and continued connection between religion and "secular transhumanism." Similarly, Humanity+ recognizes the religious heritage of transhumanism, yet is too quick to sever this inheritance from religion due to the increasing secularization brought by science, humanism, and critical reasoning ("Transhumanist FAQ"). While those like Hughes have done well to find continuities between religion and the Enlightenment project of secular reasoning and empirical science, he seems to hold a minority position among transhumanists, and still ultimately neglects to provide any determinate claim that transhumanism is a religious or quasi-religious iteration of a Christian religion without religion (Hughes, "Contradictions from the Enlightenment"). Clearly then, the transhumanist and religious studies communities at large—barring some exceptions, of course—and most notably, Humanity+, resist an understanding of transhumanism as inherently or in itself, being in any way, religious, opting instead to conceive the movement as essentially secular or non-religious, yet compatible with certain forms of religion, only if added on externally from the "outside."

I argue for a greater recognition of its religious inheritance and more thoroughly engage with the possibility of it continuing the internal logic of its Christian-religious predecessor within transhumanism. Even the Christian Transhumanist Association (of which James Hughes is a member) sees transhumanism as itself "simply a philosophy which states that we should use science and technology to make the world (including humanity) better" (*Christian*

Transhumanist Association), rather than an ideological inheritor—and potential progenitor—of a Christian religion (without religion). The majority of transhumanists fail to acknowledge how this movement continues various religious structures as a religion without religion, where the admitted connections and analogies to religion are not external relationships added on to transhumanism, but are a re-convening and re-activation of religious structures already internal to transhumanism. Religious structures that often go unrecognized by transhumanists—some of which will be featured prominently in the proceeding chapters—include, but are not limited to: a messianic or apocalyptic eschatology, mind-body dualism, teleological assumptions of progress and perfection, reverence of scientific reason, theosis, and theistic suppositions. To take as a brief example, Hans Moravec, who frequently disparages religion, makes recourse to the flood depicted in the story of Noah's Ark in the Old Testament in his article "When Will Computer Hardware Match the Human Brain?" In one of the sections titled "The Great Flood," he uses analogy to show how advancing computer technologies are like raising flood waters encroaching on humanity, signalling an imminent doom. His prediction is that the peaks of the mountains on which humans currently reside "will be submerged within another half century" (11). Assuring us that this apocalyptic moment is surely coming, he proposes "we build Arks as that day nears, and adopt a seafaring life!" (12). Much like the story of Noah's Ark, the water purges in order to start the world anew. Similarly, Bostrom proposes a "simulation hypothesis" arguing that we could be living in a simulation created by superintelligences ("Are We Living in a Computer Simulation?"). The idea that humans were created by another being(s) as suggested by Bostrom's simulation hypothesis (a quasi-theism) unknowingly repeats the concept of creationism in the Christian religion.

Mind-body dualism is a common structural mark of religion often found in transhumanism, with the potential for dangerous consequences. The concept of a separable immaterial soul inhabiting a physical body was popularized by Greek philosopher Plato, to be later incorporated into Christian theology largely from the influence of St. Augustine[1]. The Platonic influence within Christianity supplanted previous accounts that insisted that a person was a body-soul unity, where resurrection in millenarian accounts was always bodily, and thus physical. Plato's influence through St. Augustine results in an immortal soul, temporarily housed in a physical body. Instead of an immaterial soul, transhumanist discourse relies instead on a secularized version of the soul: the mind. In fact, the Latin word for "soul" (*anima*) translates as "mind," just as the Greek word *psyche* translates as both "soul" and "mind" (*OED*). The notion of equating soul with mind even in religious discourse is becoming increasingly popular (see Brown, Murphy, and Malony, *Whatever Happened to the Soul?*; Gray, "Whatever Happened to the Soul?"). Much like certain conceptions of the soul, the mind can be viewed as a secularized immaterial store of personal identity, which can be seen to retain previous assumptions associated with the religious soul even as it has been emptied of much of its religious content, finding a new home in transhumanist discourse. According to Ray Kurzweil, humanity will ditch its inferior biological body and "cross the divide to instantiate ourselves into our computational technology, our identity will be based on our evolving mind file. We will be software, not hardware" (*The Age of Spiritual Machines* 129). Both soul and mind mark individual identity in ways that are capable of surviving bodily existence and living on in new mediums in a new world—under certain formulations of Christianity and transhumanism, respectively.

[1] The appropriation of the Platonic concepts of body and soul into Christian discourse is an example of a conceptual structure that has become an integral part of Christian discourse and a prevalent religious structure.

Transhumanism's unwitting appropriation of a Platonic-Christian mind-body dualism reinstates potentially harmful ideological consequences, consequences that often result in the disparagement of the material world (see for example, Noble, *The Religion of Technology*), in addition to consequences that may undervalue the importance of the human's embodiment in its biological body as a crucial marker of identity, a theme explored heavily in feminist discourse (Haraway; Hayles).

Theosis, an additional religious structure prevalent in transhumanist discourse, is fraught with its own potential for dangerous side-effects. "Theosis," being a transformative process that aims at the union or likeness of humanity with God—often by the effects of purification of mind and body—is not dissimilar from transhumanist notions of progressing toward inevitable mind-uploading scenarios. Kurzweil's transhumanist project, in particular, participates in a secularized version of theosis, describing a spiritual quest to transform humanity into our religious conception of a Christian God through technological evolution: "evolution moves inexorably closer to our conception of God, albeit never quite reaching this ideal. We can regard, therefore, the freeing of our thinking from the severe limitations of its biological form to be an essentially spiritual undertaking" (*The Singularity is Near* 331). What Kurzweil and similar transhumanists frequently neglect, however, is how viewing the human as fulfilling a destiny where it becomes like God brings with it the risk of denigrating other forms of life in the service of human exceptionalism (a risk I explore in Chapter Three). Although they may be presented in a new secular idiom, the retention of religious structures, like theosis, empties these structures of much of their religious contents, yet still draws from and continues the history of these concepts that are so deeply ingrained in Western culture. While there is nothing inherently wrong with the

retention of religious structures, they do come with inherent biases, biases that continue in transhumanist discourse in a manner that remains ill-considered and lacking in appropriate levels of critical reflection.

The Dangers of Transhumanism's Religion without Religion

Without question, transhumanism has the potential to provide a host of exceedingly beneficial effects for humanity. The research and application of technologies that can support human longevity and the mitigation of disease and injury are crucial to the continued survival and betterment of humanity. The possibilities for transhuman technologies to improve the life of not only the average person, but those with physical, mental, and developmental disabilities or any health-related issues are undeniable through the emerging technologies of artificial intelligence, nanotechnology and nanomedicine, stem cells, biotechnology, and gene therapy—to name only a few. However, these same technologies also run the risk of incalculable peril. While transhumanist discourse frequently advocates for the safe and ethical use of technology, showing concern for the uncertainties and potential dangerous outcomes that may come with particular uses of these technologies, transhumanists tend to neglect certain ideological, conceptual, and theoretical assumptions that foundationally underpin the movement. Such foundational assumptions, many of which have been appropriated from transhumanism's cultural and historical milieu as it has grown out of a religious, in particular, Christian historical context, guide the transhumanist movement but remain largely under-examined and uncriticised. More specifically, transhumanism's repeated failure to acknowledge its quasi-religiosity (or perhaps,

its religiosity), in a religion without religion, has resulted in a dangerous misapprehension of: the potential to eliminate death, a failure to recognize and communicate its own ultimate (or sacred) values and concerns, the imposition of human-exceptionalism by comprehending humanity as God-like, and finally, a propensity to construct predetermined, unalterable future events.

Transhumanist discourse repeats the Christian desire to eliminate death and become immortal through technological enhancements and mind-uploading human consciousness onto machines. The conception of death pervading transhumanist discourse is one in which death is demonized and is sought to be eradicated, whereby transhuman technologies will come to save humanity from death, in much the same way Jesus will in Christianity: "But it has now been revealed through the appearing of our Savior, Christ Jesus, who has destroyed death and has brought life and immortality to light through the gospel" (*NIV*, 2 Timothy 1:10). As the central document of Humanity+ declares: "The transhumanist position on the ethics of death is crystal clear: death should be voluntary" ("Transhumanist FAQ"). Similarly, Bostrom claims, "[a]ny death prior to the heat death of the universe is premature" ("Letter from Utopia" 3). While the vast majority of transhumanists imply death is incompatible with transhumanism, they fail to consider how death is a necessary element of survival. For instance, Bostrom, a proponent of mind-uploading and the technological *replacement* of part or the whole of the human body ("The Future of Humanity"), misses how these processes involve a literal putting-to-death of the biological body, a transhumanist scenario that must kill to save. Furthermore, Bostrom's treatment of death fails to consider that death arises not just in the biological or nonbiological human, but through the prostheticization, supplementarity, and mediation processes, which are central features of his own vision and understanding of transhumanism. Moreover, even if

humanity chose to mind-upload into computer systems with no biological components, a notion of death still remains crucial to such an existence, considering the deterioration or damage of the mechanical substrates that would support those (post)human software-minds, these individuals as "software," will need to transfer from one mechanical/inorganic substrate to another. Transhumanism's uncritical appropriation of a commonly held Christian notion that death can and will be overcome in the future grossly misunderstands death's continued presence in and through the technological machine that sustains life through death. A deconstructive reading of technological prosthesis and supplementarity (featured in Chapter One), as seen in Jacques Derrida, reveals the underlying necessity of death, ultimately changing how debates over technologies of life and death in transhumanism are conceived.

One of the most common criticisms levelled against transhumanism by certain religious communities and/or religiously inspired bioconservative movements, is that transhumanism seems to lack concern over the sacredness of the human and its body. From such a religious or bioconservative[2] perspective, impending biotechnologies and other forms of technology that alter "natural human being" (humanity in its current form) threaten to abolish the sacredness of the human. In attempting to distance themselves from religion, some transhumanists ardently object to conceiving the human and its body as sacred (likely due to the religious character of the term). For example, transhumanist Max More argues against the sanctity of the human body, stating that we "are going to start realizing that this body is not sacred" (qtd. in, *TechnoCalyps* 11:49). By willfully ignoring and uncritically disavowing their religious influences, some transhumanists

[2] Bioconservatism is frequently understood as a position of hesitancy and skepticism regarding radical modifications to the human condition. It is important to note that the bioconservatism label is not associated with political leaning or association, and is applied to those on both the political left and right.

exacerbate disagreement unnecessarily with their religious interlocutors. By neglecting to consider how the transhumanist concern for human well-being may be interpreted as a secular form of the protection of human and its body as sacred, some transhumanists create a barrier to progress in debates regarding the ethical use of enhancement technologies. By frequently invoking barriers in ethical discussions of technology, transhumanism fails to realize how transhuman technologies may, contra transhumanists like More, make the human body sacred by striving to protect the human and its body. Through the perspective of Georges Bataille's work on sacrifice (explored in Chapter Two), I will show how transhumanism, like religion, works to protect the human and its body as sacred.

In many ways, transhumanism repeats the anthropocentrism—the idea that humans are the center of all meaning and value—that it has inherited from its religious lineage, conceiving the human as a transcendent, or God-like, being with dominion over all living things. Transhumanism unwittingly continues a history of harmful anthropocentric attitudes towards nonhuman beings, authorized by a religious history whereby humans have dominion over nature and all living things (*NIV*, Genesis 1:26-28). For example, Kurzweil's project of infusing "the entire universe" with human intelligence so that it will be "at our fingertips" (*The Singularity is Near* 407), repeats these religious structures of human dominion. What is most concerning about these religiously-licenced anthropocentric biases is the harm it invokes toward nonhuman beings. For instance, David Pearce, who claims to actively work to eliminate anthropocentrism, constructs a transhumanist ethical project of human dominion that recreates a violent anthropocentrism by making nonhuman animal predators "acceptable" to human desires through genetic augmentation and behavioural management. Pearce's project perpetuates the

stereotypical biblical and anthropocentric role whereby the human is the bearer of ultimate God-like knowledge, in control of other beings. By conceiving the human as a transcendent God-like being, transhumanism directs its ethical relationships with nonhuman beings in ways that neglect the importance and agency of nonhuman life and its own particular ways of being. Instead of allocating value to nonhuman ways of being, transhumanism often determines ethical consideration of nonhuman beings in ways predicated upon anthropocentric markers of human intellectual ability, in ways that reinforce the human's position as an exceptional, God-like being. Given transhumanism's interest in using the human as the standard by which all other beings should proceed, transhumanism risks becoming another progenitor of a harmful anthropocentrism that looks to modify and manage nonhuman life for the benefit and interests of humanity, at the expense of the uniqueness of other nonhuman ways of being. Only by identifying these anthropocentric biases, holdovers from transhumanism's religious history, can transhumanism's continuation of a religiously-inspired anthropocentrism be minimized (the objective of Chapter Three).

Arguably, one of the greatest dangers of transhumanism's religion without religion is its secularized reiteration of a Christian eschatological messianism as the event of the Singularity. In transhumanism, the Singularity is a future event of rapid growth in intelligence and technology, resulting in incomprehensible change to human society and human evolution. For some transhumanists like Kurzweil, the Singularity is *inevitable* and will arrive by the year 2045. The Singularity promises a form of salvation, freeing us from the limitations of our biological bodies, while simultaneously being the arrival of a super-intelligent artificial intelligence (AI), which will be the catalyst transcending our biological bodies (Kurzweil, *The Singularity is Near* 17-18).

The super-intelligent AI (artificial intelligence) marks the coming other (a messiah) who will radically alter human existence and liberate humanity from the bane of its current biological/bodily existence is a clear analogue to the arrival of Jesus in Christian eschatology, and represents a transhumanist messianism, named "Singularitarianism." Singularitarianism is a common belief among many transhumanists, defined by the belief that a technological singularity—the creation of an artificial superintelligence—will occur in the near future. The dangers inherent in the Singularitarianism of those like Kurzweil, aside from concerns related to transcending human biological embodiment, is that these predictions, or prophecies, are understood as *inevitable* realities to come (41). These prophecies, which we are told are inevitable, prescribed by current scientific and technological knowledge, are solidified as authoritarian programs of technological determinism that eviscerate the human freedom to decide upon its future. Limiting the freedom to decide upon the course of the future, Kurzweil's Singularitarianism represents a burgeoning system of injustice, an unethical program of authoritarian technological determinism. What Singularitarians like Kurzweil fail to consider, however, is that their prophecies exceed knowledge, and are generated, akin to religious messianic prophecies, through the uncertainty of faith, or non-knowledge. By using the work of Derrida, I am able to uncover the messianic structures that pervade Singularitarianism, to see how Singularitarianism represents a doctrine of faith that does not sufficiently acknowledge the inability to master technology or the uncertainty, incomprehensibility, and risk of the Singularity (this idea is explored in Chapter Four). The exigency to acknowledge the uncertainty of the Singularity and the possibility that it may not occur provides a necessary opposition to the injustice of Singularitarianism.

The risks associated with transhumanism's appropriation and repetition of religious structures, clearly expresses a need for a critical examination of transhumanism's religion without religion. This project recognizes the exigency associated with these potential dangers and considers them from a deconstructive perspective, to uncover the harmful religious structures that survive and thrive in the new transhumanist context in the hopes that these dangers may be mitigated or avoided.

Much like how the name declares a surviving spectre that lives on, after the death of the thing named the structure of the X without X works as an opening to the other, to that which is "to come." The X without X works much the same way as the name, as a container, repeatedly being filled and emptied of its contents. The X without X finds its way into deconstruction through Derrida's adoption of Maurice Blanchot's logic of the "*sans,*" or the without, a without X, or an X without X. This logic presents itself not as a simple negation or positing of the X, but rather a re-inscription of that X that still communicates with the X (Caputo, *The Prayers and Tears* 100). As Michael Naas describes, the logic of the *sans* is something of a neutralizing movement rather than a simple positing or negating, it is a movement of displacement and dissemination (*Miracle and Machine* 114). If this displacement and dissemination is applied to the common noun of religion, the logic of X without X allows something to appear to be itself in new contexts and situations, while at the same time recognizing its changing constitution over time, or a becoming other than itself. What concerns us here is how the common noun of religion continues as a container that is filled and emptied, and what remains of religion as "a religion without religion." As Derrida reminds us, the secular is religious and is one way that religion lives on, as a religion without religion. Transhumanism, as a secular-scientific worldview and

movement, I contend, is one way religion has been able to live on, in different ways, through the secular.

Religion is intimately connected to the secular (from the Latin *saeculum*, which under its modern meaning is a span of time that is this-worldly as opposed to other-worldly, belonging to the state rather than to a religious authority) and are as two sides of the same coin. This distinction between religious and secular in Christian Latin (in the medieval period) was made as an internal diversification of a religious system of power and control, because the secular was meant to distinguish the temporal age of the worldly from the eternal other-worldly realm of God and the heavens, and not the non-religious from the religious (Zuckerman and Shook, *The Oxford Handbook of Secularism* 4). Much like religion, the secular, as a religion without religion, existing under the aegis of a religious worldview and perspective, exists in a myriad of forms as it manifests throughout its many historical contexts (see for example, Casanova, "The Secular, Secularizations, Secularisms"). As David Martin rightly suggests, Christianity mutates and transforms via the secular to stay relevant to the changing social times (*On Secularization*). Under various forms of secularization, Christian-religious influence emerges prominently on the social stage of the public sphere with concerns regarding pollution, human rights, abortion, race, economics, etc. In his book, *The Religion of Technology*, David F. Noble discovers how the history of technological pursuits in the West are inspired by and grounded upon secularized Christian-religious expectations, and the corresponding quest for transcendence and salvation—expectations that have been unwittingly appropriated by many transhumanist thinkers. Similarly, M.B. Foster argues in his two-part article "Christian Theology and Modern Science of Nature (I. and II.)" that Christianity is a necessary and sufficient condition for the

development of modern secular science. Rather than thinking secular discourses like politics and science as non-religious, it is important instead to become more aware of how the secular can support and disseminate religion, as a religion without religion. My project identifies how transhumanism's secular-scientific and political discourse works to support and disseminate religion in new ways, as a religion without religion.

These widely established examples of Christian influence on secular enterprises point to contemporary concerns about whether Western secularity appears merely as an extension of Christianity (see for example, Žižek*, On Belief* 143-144). While such a perspective does have merit, it is important to be careful not to say that all secular creations are merely the religious truths of Christianity. As Caputo reminds us, in replying to Gianni Vattimo, it is an overgeneralization to reduce capitalism to Protestantism, or to say capitalism and democracy, or science and technology are "the applied or secularized truth of Christianity, [or] ways of 'achieving [Christian] religion'" ("Spectral Hermeneutics" 77). Rather, there are always a myriad of contingencies and perspectives at play in the secular that are simultaneously inside and outside the Christian religious tradition, in its many forms. Our job, then, is to decide in what ways the secular continues to provide support and new life for religious structures, as a religion without religion. In particular, this project aims to identify religious structures at work within the secular scientific worldview of transhumanism, or what I contend is, an example of a religion without religion.

The Secular and Transhumanism

The term "secular" has a rich history, tracing its origins to the Latin word "saeculum," meaning "this age" or "this world." In its earliest usage, "secular" denoted a temporal or worldly domain distinct from the sacred or religious realm (Casanova, 1994). This distinction emerged within Christian Latin during the medieval period, where the secular was conceived as belonging to the temporal sphere governed by human authority, in contrast to the eternal, otherworldly realm of God and the divine (Zuckerman & Shook, 2017). Over time, the concept of the secular evolved to encompass broader notions of worldly existence and human affairs, independent of religious authority (Taylor, 2007).

Within contemporary discourse, the term "secular" has taken on diverse meanings and applications, reflecting its complex historical trajectory. While it continues to denote a separation between religious and worldly realms, the secular is also understood as a cultural, social, and political domain characterized by pluralism, diversity, and autonomy (Asad, 2003). Secularism, as an ideological stance, advocates for the separation of religion from state affairs and the promotion of individual freedom of belief (Berlin, 1969). However, the boundaries and implications of secularism remain contested, with ongoing debates over its compatibility with religious traditions and its role in shaping modern society (Cavanaugh, 2009).

In the context of transhumanism, the term "secular" is often invoked to characterize the movement's ethos and orientation (Bostrom, 2005). Transhumanism, as a secular-scientific worldview, prioritizes rational inquiry, empirical evidence, and technological progress in addressing human concerns and aspirations (More, 1990). Advocates of transhumanism espouse a vision of human enhancement and transcendence achievable through scientific and technological means, without recourse to supernatural or religious beliefs (Kurzweil, 2005).

Thus, transhumanism is positioned within the secular domain, distinct from traditional religious frameworks, yet open to dialogue with religious and philosophical perspectives (Hughes, 2007).

Transhumanists' use of the term "secular" reflects their commitment to rationalism, humanism, and scientific inquiry as guiding principles for societal progress and individual flourishing (Huxley, 1957). While transhumanism acknowledges the contributions of religious traditions to human culture and history, it asserts the primacy of reason and evidence in shaping ethical and existential questions (Harari, 2015). In this sense, transhumanism represents a secularist perspective that seeks to transcend traditional religious narratives and institutions while embracing the potential of science and technology to enhance human well-being and transcendence (Sandberg & Bostrom, 2008).

Chapter Summaries and Conclusion

Chapter One explores transhumanism's appropriation of the religious structure of sacrifice without knowing it, in particular, a "self-emptying" sacrificial death-drive for the purposes of salvation through technological prosthesis. For example, in the film *Transcendence*, the protagonist uploads his consciousness into a computer because of a terminal illness. This uploading of his consciousness resembles the way God performs an act of *kenosis*. Much the way God performs an act of *kenosis* (an emptying) in *The New Testament*, emptying himself as pure spirit to take on material form as a prosthetic supplement of himself in human likeness as Jesus Christ for the salvation of humanity (*NRSV*, Philippians 2: 5-13), transhumanism similarly seeks to save humanity by "fundamentally improving the human condition" ("Transhumanist FAQ"),

through technological enhancement and uploading human minds into new bodies as maintained by Moravec and Kurzweil. That is to say, Christianity and transhumanism are predicated on a central notion of salvation through sacrifice, saving by way of a technological-prosthetic and supplementary self-emptying (*kenosis*) death-drive. I argue that both the Christian religion and transhumanism are dependent upon a notion of autoimmunity, a self-destructive and sacrificial affirmation through technological prosthesis, which for Derrida names the mechanical principle of life, or the spectral survival of an entity. As Derrida argues, the chance of survival requires both an absolute respect for life and a sacrificial vocation, especially a sacrifice of the living ("Faith and Knowledge" 86). Survival, or salvation, is performed through the supplement and prosthetics, which for David Wills is "a cure that is also the acknowledgment of death" (*Prosthesis* 128). It is this autoimmune death-drive that is often overlooked by transhumanists, such as Bostrom and Gennady Stolyarov II, who fail to acknowledge the necessity of death by fixating on overcoming or eliminating death, rather than seeing death as necessary for transhumanism itself. As the chapter moves to a close, I will briefly discuss some of the earliest progenitors of transhumanism (Julian Huxley and Pierre Teilhard de Chardin) who were instrumental in inaugurating transhumanism through a sacrificial emptying of Christianity, what this project comes to understand as, a religion without religion.

Following the theme of sacrifice from the previous chapter, Chapter Two explores how the sacredness of the human is produced through sacrifice. At issue in this chapter is how the bioconservative movement (a movement commonly derived from religious sentiments), which believes technological modifications or enhancements to the human compromises human dignity and sacrifices its sacred character (Kimbrell, *The Human Body Shop*), are at odds with

transhumanists, like Max More, who contend that technological enhancement does not alter humanity's sacredness because the human body was never sacred (*TechnoCalyps*). Contrary to both bioconservatives and transhumanists, I argue that transhumanist technologies that alter the human do not sacrifice the sanctity of the human and instead actively make the human, in its uniqueness, sacred. Every individual human being has unique features that ought to be protected as unique. According to Georges Bataille, "sacrifice is nothing other than the production of sacred things" (*The Bataille Reader* 170). Following Bataille, I contend that the human life and body that transhumanism sacrifices for the survival and betterment of human life, contrary to both the normative bioconservative and transhumanist positions, does not abolish the sacredness of the human, but instead actively makes human life and its body sacred. Consequently, transhumanism, much like bioconservativism and many forms of Christianity, conceives human life as sacred, opening transhumanism up to the possibility of participating in a core structure of the religious, as a religion without religion, as it participates in what Derrida calls a "universal structure of religiosity" by seeking to save the sacred through sacrifice: "respect of that which is sacrosanct (*heilig*, holy) [sacred] *both requires and excludes sacrifice*, which is to say, the indemnification of the unscathed, the price of immunity. Hence: auto-immunization… Absolute respect enjoins first and foremost sacrifice of self, of one's most precious interest" ("Faith and Knowledge" 88). In addition, this chapter will evaluate transhumanist and religious studies scholarship, showing how each has failed to locate the most obvious source of the sacred in transhumanism via sacrificial prosthesis. Moreover, this chapter will build upon the notion of "the sacred without the sacred," or the sacred as autoimmune, found in transhumanism.

The purpose of Chapter Three is two-fold, to unveil humanism (and by extension, transhumanism) as a secularized outgrowth of Christian religious thought, and to locate certain

anthropocentric biases that remain deeply interwoven in Western secular-humanist thought, now extended in transhumanist discourse. Both of these aims reveal humanism and anthropocentrism as systems of a religion without religion that I name, following Feuerbach, an "anthropotheism." First, utilizing the work of Feuerbach, I show how Western forms of religion and secular humanism represent, in part, the ongoing development that understands the human as a transcendent being, or God. As Feuerbach ardently argues: "Religion is human nature reflected, mirrored in itself… in which it can project its own image as God…the mirror of man" (*The Essence of Christianity* 28). The secularization of the Christian religion further extends Western notions of the human in a language that is more "this-worldly" as a universal "humanism" or "anthropotheism," a religion without religion. Second, this chapter uncovers the anthropocentric tendencies in humanistic/anthropotheistic discourse that are frequently appropriated by transhumanists, finding within their work biases legitimated by a religious discourse, since secularized. In particular, I analyze the anthropocentrism of human dominion featured in transhumanist David Pearce's abolitionist project, which looks to deliver a "cruelty-free world that lacks the molecular signature of unpleasant experience," including, among other things, "ecosystem redesign," rewriting animal genomes, and augmenting animal behaviour to "manage a compassionately run global ecosystem" ("Reprogramming Predators"). Even though Pearce looks to eliminate our anthropocentric biases, his project reiterates a violent anthropocentrism, one that preys on predators, doing violence to predatory animals by behaviourally and genetically altering them, discounting their autonomy in ways legitimated by a religiously-licensed humanism, or an anthropotheism. By making predators "acceptable" to human desires, Pearce perpetuates, I argue, the stereotypical biblical and anthropocentric role whereby the human is the bearer of ultimate God-like knowledge, and in control of other beings.

In addition, I will also look at how the transhumanist creation of a "cyborg citizenry" is predicated on anthropocentric markers of human intellectual ability gleaned from religious and humanistic discourse, an anthropotheism that reinforces the human as a transcendent being, or God, relative to nonhuman beings. Finally, I introduce a much-needed Heideggerian supplement on "Being" to posthumanist discourse to enhance the effectiveness of this perspective with an ethical approach to assist in mitigating anthropocentric anthropotheism and the instrumentalization of nonhuman beings by "letting beings be." In the spirit of Martin Heidegger, I suggest transhumanism adopt an approach to technology that works in partnership with nature and nonhuman beings to allow them a greater degree of autonomy by limiting human control.

Chapter Four explores the transhumanist event of the Singularity, an event of rapid growth of intelligence and technology leading to profound and incomprehensible changes to humanity. Instead of acknowledging the incomprehensibility of the Singularity, Kurzweil turns the Singularity into a certain object of knowledge, contradicting the very definition of a "singularity" as incomprehensible and effectively allying his vision of the Singularity, as Derrida might describe it, not with knowledge but with faith or non-knowledge. In this chapter, I examine Kurzweil's Singularitarianism as a faith-based doctrine or a messianism that promises the salvific arrival of the Singularity as its messiah. An interrogation of Singularitarianism through the general structure of what Derrida calls the "messianic," or this "strange concept of messianism without content" (*Specters of Marx* 82), reveals its messianic structure with defined secular contents, producing a faith-based determinate messianism mirroring other religious messianisms that promise salvation through radical changes to human life. Inadvertently relying upon the uncertainties of faith, Kurzweil's vision of an "AI" that will "inevitably" arrive at the

event of the Singularity to bring salvation from the afflictions of our current human state repeats elements of a Christian eschatological messianism in a more secular form as a religion without religion. Adopting a messianic structure, Kurzweil's promise of salvation fails to sufficiently employ the ambiguity of the Singularity as *pharmakon*, which for Derrida means both "remedy" and "poison," and fails to *adequately stress the dangers* of the Singularity. Much like what Heidegger says of technology, that "where danger is, grows / The saving power also" ("The Question Concerning Technology" 333), the possibility of radical changes as a result of the Singularity's arrival (if it occurs), as a kind of messiah, will similarly be the site of *both* saving power and danger. In this chapter I advocate that Singularitarians, like Kurzweil, work to acknowledge the uncertainties of faith and the freedom to decide upon the future that technology itself necessitates. The potentiality for faith and the freedom to decide upon the future already resides within Singularitarianism by way of transhumanism's relationship to technology, because, as Derrida states, there is no "faith…nor future without everything technical, automatic, machine-like supposed by iterability… the technical is the possibility of faith," otherwise you have "programme or proof, predictability or providence, pure knowledge and pure know-how, which is to say annulment of the future ("Faith and Knowledge" 83). It is important for transhumanists to understand, as I argue, that Singularitarianism is a messianic machine of the uncertainties of faith because the technological machine so intimately tied to transhumanism is what makes the non-knowledge of faith possible. The imminent arrival of the Singularity as messiah is a promise, a repeated act of faith that, beyond knowledge, is always open to the uncertainty of risk, especially the risk that the promise will not arrive as planned. The chapter concludes arguing that Kurzweil's Singularitarian messianism is an unethical program of

technological determinism that eviscerates justice and the freedoms humanity has to *decide* upon its uncertain future.

Many of the technologies developed by transhumanists to enhance human being and society, especially in the areas of AI and robotics, have raised fundamental ethical questions regarding how to control and utilize such technologies, as well as the risks involved. The earliest use of the term, "robot," meaning "forced worker" or "slave" ("Robot" *Online Etymology Dictionary*), as introduced by Karel Čapek in his 1921 science fiction play, *Rossum's Universal Robots*, about artificial human labourers and their rebellion against human servitude, testifies to the long history of ethical ambivalence regarding our use of technology. This project, in its assessment of the potential dangers inherent in the developing technologies of transhumanism, contributes to the discourse surrounding the ethical use of technology, especially in the areas of AI and robotics featured in the *Stanford Encyclopedia of Philosophy* (for a brief description of some of these ethical concerns see Müller's contribution, "Ethics of Artificial Intelligence and Robotics"). In addition, this project finds itself building upon and further extending the discourse that touches upon the intimate relationship between religion and technology as seen in the works of deconstructionists like Caputo, Naas, and Derrida.

By unveiling the religious structures—and their dangers—found deeply embedded within the technological movement of transhumanism, this project aims to bring to light the dual nature (both inside and outside) of any particular named phenomenon like religion, in its similarity and difference from itself. It is crucial not to oversimplify the diverse discourse surrounding concepts and the emergence of new ideas, to avoid overlooking the novel and varied phenomena that continually emerge in human culture. Simultaneously, it's important to acknowledge the

multiplicity of forms or traditions within Christianity. Moreover, it is vital not to forget that the secular, or any potential remnants of religion in its explicit and implicit forms, perpetuate a legacy within a framework of "religion without religion," thereby always embodying radical ambivalence and uncertainty regarding the preservation of religious connotations—a responsibility that requires continual evaluation. This implies that certain manifestations of Christian religious tradition, with their potential for both survival and destruction, made possible by way of a religion without religion, are constantly subject to scrutiny.

What deconstructionists like Caputo make clear about religion—contrary to all essentialist impulses—is that it always means more than one thing, and "Deconstruction…means to show that there is never a final word" (*The Prayers and Tears* 218), never a conclusion that would unquestionably see the final word on religion and its structures. In the spirit of deconstruction, especially as given by those like Caputo and Derrida, this project does not seek to decide whether or not transhumanism is a religion or not. Instead, this deconstructive project seeks to discern and affirm the trace of religion within transhumanism, a trace that asks the question of religion, and asks in what way transhumanism's religious assumptions, whether knowingly or otherwise, may provide both benefit and harm to the future of humanity.

Chapter One

SACRIFICE: THE AUTOIMMUNE DEATH-DRIVE IN TRANSHUMANISM

In the beginning was a *sacrifice*. One of the many meanings of the word "sacrifice" is "an act of slaughtering an animal or person or surrendering a possession as an offering to a deity" (*OED*). *The New Testament* recounts God's sacrifice, made by way of the technological supplement or prosthesis of the Christian God himself, being made flesh as Jesus Christ. Through a process of *kenosis*, which etymologically refers to "an emptying" (*OED*), God emptied himself as pure spirit, taking on material form as a prosthetic supplement of himself in human likeness as Jesus Christ, for the sake of humanity's salvation (*NRSV*, Philippians 2: 5-13). The structure of sacrifice central to the Christian religion is also found deeply ingrained in the ideological imaginary of transhumanism, especially as advocated by Humanity+ (formerly World Transhumanist Association), a discourse of the "transitional" human as a method of saving humanity by "fundamentally improving the human condition," through technological enhancement and replacement ("Transhumanist FAQ"). Transhumanism empties the human (in part, or in full) of its component parts, supplementing and replacing these parts with new technological prostheses. In other words, transhumanism names the sacrificial and prosthetic "self-emptying" or *kenosis* of the human.

This chapter explores the structural economy of self-sacrifice found in some forms of the Christian-religious and transhumanist traditions, with a particular focus on the paradox of the associated technological, supplementary and prosthetic, death-drive implied by a sacrifice whose aim is to save (human) life. I argue in this chapter that both religion (specifically, particular interpretations of Christian theology) and transhumanism are dependent upon a notion of

autoimmunity, or a self-destructive and sacrificial affirmation through technological prosthesis, which for Jacques Derrida names the mechanical principle of life or the spectral survival of an entity. Derrida refers to the principle of life as mechanical because "it reproduces, with the regularity of a technique, the instance of the non-living or…the dead in the living… the dead machine yet more than living, the spectral fantasy of the dead as the principle of life and of sur-vival" ("Faith and Knowledge" 86-87). The chance of survival requires a double postulation: on the one hand, an absolute respect for life; and, on the other hand, a sacrificial vocation, especially a sacrifice of the living (86). Survival, or salvation, is performed through the supplement and prosthetics, which for David Wills means "coming to terms with loss, learning to accommodate a lack, talking forward towards a cure that is also the acknowledgment of death" (*Prosthesis* 128). As I contend, religion as understood by way of a deconstructive notion of the X without X, or a religion without religion (non-identical repetition of the religious by way of a self-emptying that still preserves certain religious structures) that uses technology for its survival is a structure found, indeed more explicitly, in the conceptual formulation of transhumanism as a human without human, or the non-identical repetition and sacrificial emptying of the human through technology.

This chapter begins by explaining the necessity of the technological supplement and prosthesis and how they work as mediums or intermediaries for a being or discourse to survive—albeit differentially—into the future. Next, I will trace the structural similarities between survival through autoimmune sacrifice, and the emptying or *kenosis* of the Christian God. As I will show, transhumanism partakes in a secularized *kenosis*, imitating the Christian God by attempting to be like God, and, as such, become embodied spaces of sacrificial

emptying. Sacrificial emptying becomes the foundation in which transfer of self into new (prosthetic) bodies is made possible not just by the Christian God, but so too transhumanists like Hans Moravec and Ray Kurzweil, who forecast that humans in the future will upload themselves into computers. To clarify, my interpretation of *kenosis* focuses solely on the transition of the "self" from one vessel to another, regardless of the type of matter of those vessels, akin to the divine act where God relinquished pure spirit to embody flesh. Transhumanists similarly wish to "empty themselves" from their biological bodies in order to migrate their "self" into another bodily form. Moreover, the biblical passages utilized in this chapter and throughout my project are open to myriad interpretations, and, as such, the interpretations suggested here should not be considered authoritative, but rather one interpretation of many in the field of biblical exegesis. Then I look to expand this notion of self-sacrifice through technological prosthesis into the realm of death by way of the deconstructive gesture of the X without X via Derrida's notion of autoimmunity—the putting-to-death of a thing necessary for a chance at continued life. For Derrida, this excess that goes above and beyond the living thing has absolute value "by being worth more than life, more than itself—this, in short, is what opens the space of death that is linked to the automaton (exemplarily "phallic"), to technics, the machine, the prosthesis: in a word, to the dimensions of the auto-immune and self-sacrificial supplementarity, to this death-drive that is silently at work in every community" ("Faith and Knowledge" 87). It is precisely this autoimmune drive-toward-death that is often misunderstood or overlooked, especially by many transhumanists, including Nick Bostrom and Gennady Stolyarov II, who fail to acknowledge the necessity of death by fixating on overcoming or eliminating death, rather than seeing death as necessary for transhumanism itself. As the chapter moves to a close, I will briefly discuss some of the earliest progenitors of transhumanism (Julian Huxley and Pierre

Teilhard de Chardin) who were instrumental in inaugurating transhumanism through a sacrificial emptying of Christianity. To put it succinctly, in this chapter I investigate autoimmune self-sacrifice as it manifests within certain forms of Christianity and transhumanism to show how God's self-sacrifice for the salvation of humanity is secularized and reiterated in a transhumanist religion without religion: self-sacrifice by way of the technological replacement of the human body for the salvation of humanity, transhumanism's *kenotic* death-wish to imitate the Christian God.

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Technological Supplement and Prosthesis

Religion and transhumanism endlessly participate in self-corruption, making ourselves other, as the necessary means and by-product of available production by the self through the use of technology. Making ourselves other as the historical unfolding of being, or ontological difference, is for Derrida a movement of difference, or as he calls it, *différance*, a process of differing and deferring through space and time ("Différance"). For the being of an entity (such as a concept, ideology, or living being) to survive into the future it must engage in an auto-affection, or the future presence that is never a pure presence of the thing itself, only the trace of a previous presence, made possible through the supplement: "the presence that it then gives itself is the substitutive symbol of another presence… this play of substitution and this symbolic experience of auto-affection… Such is the constraint of the supplement" ("That Dangerous Supplement" 154). Given the necessity of the supplement, we are unable to experience the presence of the thing in itself, and we can no longer speak of a pure essence of the thing as it can only promise itself a future as it escapes and moves away from itself. In this way, religion and the human being

are without a pure, sustained, stable essence. The supplement, in procuring an absent presence through proxy and the "other to the self," something added on from the outside, is nothing short of a danger, a menace; yet, it is a thing's only protection, for the supplement cannot be relinquished if a thing is to have a future.

An infinite chain of supplements, or put differently, mediations produce only a sense of the thing they end up deferring. As Derrida lucidly remarks, "all begins through the intermediary" (157), and the thing/entity is caught up in an indefinite process of supplementarity that infiltrates its (and every) presence, "always already inscribed there the space of repetition and the splitting of the self" (163). Simply put the supplement supplements:

> It adds only to replace. It intervenes or insinuates itself *in-the-place-of*; if it fills, it is as if one fills a void. If it represents and makes an image, it is by the anterior default of a presence. Compensatory [*suppléant*] and vicarious, the supplement is an adjunct, a subaltern instance which takes-(the)-place… As substitute, it is not simply added to the positivity of a presence, it produces no relief, its place is assigned in the structure by the mark of an emptiness. Somewhere, something can be filled up of *itself*, can accomplish itself, only by allowing itself to be filled through sign and proxy. (145)

The necessary supplement always *adds to replace*, filling a void through the other-than-self by way of a proxy; in other words, a loss of the self, a drive that must discard or evacuate itself and add to replace, or supplement this loss or death. This supplementary character is a result of finitude and marks a lack in every becoming of a thing, a lack that must be supplemented by something *other than itself*, thereby signalling the danger of the supplement, a danger that is the

very loss or *death*, in part or in its entirety, of the thing, no longer being itself, now being other than what it was. As Derrida says of the supplement, “this presence is at the same time desired and feared…the supplement is dangerous in that it threatens us with death” (155). The necessary supplementarity of a thing for its survival names the structure of technics, or the technological prosthesis. There is no future “without everything technical, automatic, machine-like supposed by iterability” (“Faith and Knowledge,” 83). That is to say, Derrida is associating repetition and survival into the future with the technological machine, a supplementary and prosthetic machine of death. Accordingly, salvation, or saving ourselves from death, implies a form of death itself that allows you to repeat anew, giving life by way of technological machines of death. To anticipate, it is this very notion of salvation through technological machines of death that transhumanism promises, and it is in this way that not only the technological machine, but so too death, becomes allied to transhumanism.

While Derrida's discussion of mechanistic reproduction underscores the reproductive regularity of a technique, it is crucial to recognize that he conceptualizes this process not as a literal mechanized operation per se, but rather as a machine-like iteration that generates difference, the unexpected, or uncertainty. This understanding challenges the notion that technoscience, as embraced by transhumanism, can predict or fully comprehend the future trajectory of technology and science. Derrida's framework suggests that the technoscientific machine or the structural necessity of the technological supplement always introduces the incalculable or unknowable. Therefore, while transhumanist discourse often refers to technological advancements as prosthetic extensions of the human, it's important to interpret Derrida's concept of mechanistic reproduction as operating on a more abstract level, one that

highlights the perpetual emergence of novelty and unpredictability within technological development and in Derrida's conception of iteration more generally.

Be it that of religion, transhumanism, or the human-being, the technological prosthetic and supplement procure a future of an entity in a machine-like—a Derridean conceptual gesture that names a reproductive regularity by way of a technique—openness of the non-living or the dead within the living. On the one hand, we have an absolute respect for the life of a thing; and on the other, a sacrificial death-drive to empty and discard so as to replace via the technological prosthetic/supplement. Taken together, Derrida says this creates an exigency that sacrifices the living mechanically:

> I refer to it as *mechanics* because it reproduces, with the regularity of a technique, the instance of the non-living or, if you prefer, of the dead in the living… the dead machine yet more than living, the spectral fantasy of the dead as the principle of life and of survival <*sur-vie*>. This mechanical principle is apparently very simple: life has absolute value only if it is worth *more than* life. And hence only in so far as it mourns, becoming itself in the labour of infinite mourning, in the indemnification of a spectrality without limit. It is sacred, holy, infinitely respectable only in the name of what is worth more than it… worth more than so-called natural life. ("Faith and Knowledge" 86-87)

This conceptual machine of the iterability of an entity like religion, transhumanism, or a human, must rely on technologies that spell the death of the entity as it existed, in order to resuscitate the entity in a spectral phantasm—an illusory likeness of that which has since been destroyed, survived by various markers like that of the name which maintain a semblance of continuity. This is what Derrida names the spectral fantasy of the dead as the principle of life and survival, a

mechanical principle of life or existence which opens via death, linked to the prosthetic of technics, the machine, to technology.

To be clear, technics (in general) as employed within much of deconstruction is made possible by way of specific technologies—be they organic or inorganic—which reflect the etymological origins of the term technology found in the Greek form of *tekhnē*, which refers to art, skill, craft, fabrication, system, or method of making or doing. This understanding of technology is not only exercised by deconstructionists, but also employed by those outside of this tradition, such as it is employed by historian Lynn Townsend White Jr. who shares a similar definition and simplifies it such that technology—in relation to the human—is "the way people do things" ("Technology and Invention in the Middle Ages" 141). To further elucidate the concept of technology and its contemporary manifestations within technoscience, it's crucial to recognize its extension beyond its craft-based origins. Technology encompasses intricate systems and infrastructures that intersect with scientific advancements, industrial processes, military applications, and state initiatives. This expansive definition underscores the complexity and pervasive influence of technology in modern society, extending beyond its understanding as technique and craftwork. Transhumanist discourse and Derrida's reflections on technology often engage with these modern modes of technoscience, which involve sophisticated networks of research, development, and implementation. By acknowledging the breadth and depth of technology's reach, we gain a more comprehensive understanding of its significance in shaping contemporary culture and its implications for religion.

To return now to the opening or survival made possible by the technical-prosthetic: whether it be religion, transhumanism, or the human itself, they are all "bound up with complex,

quasi-mechanical and technically replicable processes" (Armand and Bradley, "Thinking Technicity" 3). As Louis Armand and Arthur Bradley suggest, existence is prosthetic, and an entity survives by putting itself outside itself by way of various forms of supplementary technologies. As Derrida's *ouvre* consistently suggests, technics always already contaminates nature, life, thought, concepts, things, histories, traditions, even the human being. The spectre that survives (often by way of the name) death by way of the technological supplement/prosthesis adheres to the structure of the X without X, committed to an opening to the other, to that which is new and different by way of an emptying.

The X without X works much the same way as the supplement, repeatedly being filled and emptied of its contents as it extends the spectre of the thing (let's say, the continuity of what we name religion or the human) into the future. The X without X, such as in a religion without religion is not a simple negation of religion, but rather a re-inscription under a new context, which includes the possibility of new meanings. Religion, transhumanism, and the human are all then respectively (each as an X) re-inscribed in new forms that communicate with each previous form of their respective X (Caputo, *The Prayers and Tears* 100), whereby the X without X conveys a movement of displacement and dissemination of the X (Naas, *Miracle and Machine* 114). This logic of the X without X allows something like religion, transhumanism, or the human to appear to be itself in new contexts, while at the same time recognizing its differential constitution over time—a becoming other than itself through the technological supplement/prosthesis. Following Derrida, John Caputo puts forth the name as that which recognizes a thing's differential constitution through time. As Caputo states, "the thing itself slips away leaving nothing behind, save the name" (*The Prayers and Tears* 43). The name allows

us to follow the history of a thing over time in its myriad forms, to "pick our way among the remains, wrestle with and conjure the ghosts of the past… in order to reconstruct the best story we can" (274). It is through the name that we mark the history of an entity, like that of religion, as it transforms over time (through successive emptying, deaths, and prosthetic-supplementary replacements) by way of the supplement.

Religion, and the religious institutions that aid in its discursive prevalence and world-wide manifestations, occur by way of the various forms of technology at our disposal. Of course, the use of language—written and oral—is a technology religion most obviously employs in the service of its survival. The Judeo-Christian traditions in particular, as religions of "the book," are themselves known by way of a specific technology that characterizes their shared history and particularity. Not to mention, the use of technologies like radio, television, film, and the internet, provide technical support for the many Judeo-Christian traditions. It is clear that without technology, especially new contemporary digital forms, "there could be no religious manifestation today" (Derrida, "Faith and Knowledge" 62). This is because, as Derrida emphatically reminds us, technologies and related forms of technoscientific knowledge, "far from opposing religion, bears, supports and supposes it" (65-66).

Just as forms of technoscientific knowledge support and suppose religion, the human also finds itself in need of these technical supports for its existence. The relation between *phusis* (nature) and technics is not an opposition, however; rather "life is a process of self-replacement, the handing-down of life is a *mechanike*, a form of technics" (Derrida and Beardsworth, "Nietzsche and the Machine" 52). Human life and its technical supports are fundamentally interwoven with one another, as Derrida says: "As a self-relation, as activity and reactivity, as differential force, and repetition, life is always already inhabited by technicisation" (ibid.).

Technics haunts life from the very beginning as life is always already technique, and the human is always interwoven with its non-human supplements and prostheses, where even the human body is itself a prosthetic supplement (Bradley, *Originary Technicity* 2, 98). In Derrida's words: "Technology has not simply added itself, from the outside or after the fact, as a foreign body… this foreign or dangerous supplement is 'originarily' at work and in place in the supposedly ideal interiority of the 'body and soul'" (Derrida and Weber, *Points* 244-245).

The human as a prosthetic being is a central idea in the majority of critical posthumanist works, whereby the human co-evolves with and is co-constituted with technology, composing various distributed biological and non-biological technical systems both inside and outside the body, inherited in large part from a critical appropriation of post-war information theory, systems theory, and cybernetics discourse (see for example, Clarke; Hayles; Wolfe, *What is Posthumanism?*). In much the same way, transhumanist thinkers similarly adopt a view that the human is a natural-born cyborg, not bound by the boundaries of the human body, where our tools and technologies are part of a larger distributed human system. For example, transhumanist Andy Clark is convinced that human beings have always been cyborgs: "For human beings, I want to convince you, are natural-born cyborgs" (3). The cyborg, as a potent cultural metaphor of the late twentieth century conjures images of human-machine hybrids, a metaphor Clark wishes to hijack and "to reshape it, revealing it as a disguised vision of (oddly) our own biological nature. For what is special about human brains, and what best explains the distinctive features of human intelligence, is precisely their ability to enter into deep and complex relationships with nonbiological constructs, props, and aids" (5). From the posthumanist and transhumanist perspective, our technologies—from the hammer, to the pace-maker, to the computer—are all extensions of our already distributed selves. In this way, both religion and the human rely on the

technological supplement for their survival, and by doing so are subject to what Derrida calls a process of autoimmunity, or the putting-to-death through supplementary self-replacement where they may be granted new life into the future by way of sacrifice.

Autoimmune Sacrifice and *Kenosis*

Survival, through the intermediary, or prosthetic/supplementary medium, is an imperative that is that strange and quasi-suicidal tendency named, autoimmunity. The autoimmunitary process—drawn from but not limited to a discourse of immunology—is "that strange behaviour where a living being, in quasi-*suicidal* fashion, 'itself' works to destroy its own protection, to immunize itself *against* its 'own' immunity" (Habermas, Derrida, and Borradori, *Philosophy in a Time of Terror* 94). It names a self-destructive affirmation of an entity, whether it be a biological being, concept, tradition, etc. that spells a fatal logic of self-protection that is both a menace and a chance of survival. Autoimmunity, which is linked to supplementary prosthesis and connected to the structure of the X without X—which itself names the sacrificial drive toward death in the name of survival—is central for Derrida's conception of this autoimmune structure:

> In a word, to the dimensions of auto-immune and self-sacrificial supplementarity, to this death-drive that is silently at work in every community, every *auto-co-immunity*, constituting it as such in its iterability, its heritage, its spectral tradition… no community [is possible] that would not cultivate its own auto-immunity, a principle of sacrificial self-destruction ruining the principle of self-protection (that of maintaining its self-integrity intact)… This self-contesting attestation keeps the auto-immune community alive, which is to say, open to something other and more than itself: the other, the future,

> death, freedom, the coming or the love of the other, the space and time of a spectralizing messianicity beyond all messianism. ("Faith and Knowledge" 87)

The structural possibility of any particular community or tradition, being, concept, and so on, such that it may exist into the future demands an autoimmune, destructive, sacrificial, death-drive. Transhumanism requires this autoimmune death-drive. Transhumanism promises like a messiah, not unlike Jesus Christ, self-destruction, death, and self-sacrifice, where the human may be saved and live into the future. It is only through a sacrificial death and the technological machine of supplementarity that the human can survive. Paradoxically, the machinic and technological self-replacement of the human body that the majority of transhumanists advocate to save and protect humanity, requires nothing less than an autoimmune sacrificial self-destruction of the human body; specifically, living on past your own death through the medium of the sacrificial-death-machine of technological supplementarity. With respect to religion, autoimmunity is a certain "sacrificial indemnification" (66), a protection against its own protection, "against its own immunity" (79-80), a deep structure whereby something like religion finds its ally in the technological and scientific knowledge to which it is linked: "the dislocation, expropriation, delocalization, deracination, disidiomatization and dispossession… that the tele-technoscientific machine does not fail to produce" (81). As Derrida argues, the machine is necessary for life, so much so that "the reaction to the machine is as automatic as life itself" (ibid.). Thus, religion sacrificially allies itself with the technological machine, which destroys it but also gives it new power, life, and re-new-ed faith in the future.

In Derrida's works on religion, he connects the concept of faith (that which has no proof, evidence, knowledge) as used by religion to an opening to the unknowability and uncertainty of the future. For him, the machine-like necessity of the supplement for survival and faith

represents one and the same possibility: “the technical is the possibility of faith, indeed its very chance” (83). What he calls the “tele-technoscientific machine,” or the structural necessity of the techno-supplement—which always introduces the incalculable (100)—is an enemy of life in the service of life, the living-force connected to the death of the techno-supplement that resuscitates the thing (here religion) in a spectral survival of its most sacred, giving it faith, or the uncertainty and unknowability that characterizes the future. To put it another way, for religion to survive into the future it must have faith in and by way of the technological supplement and the variety of technologies of mediation that make this survival possible. In doing so, religion must partake in an autoimmune sacrifice of the self, sacrificing its most proper (its current form/self) in the service of this most proper, its self. Similarly, the transhumanist movement practices a similar type of faith in the future by way of the technological supplement in their hope for a radically improved/enhanced humanity by way of the integration of new technologies into the human body, a sacrifice of the human body, in the service of the human body to come.

In speaking of the hope for improvement to humanity, transhumanism seeks to employ technologies to enhance human being for its betterment, while attempting to avoid the potential negative consequences of utilizing these same technologies. Ben Ross, in his article, “Between Poison and Remedy,” characterizes this balance within transhumanism by its essence as *pharmakon*, a concept Derrida tells us is both remedy and poison. By employing the philosophy of Martin Heidegger, Ross expertly figures technology within transhumanism as ambiguous in its power, on the one hand, to save/heal/remedy by revealing new ways of being and new meanings of being; and the power, on the other hand, to poison/damage/harm human being by instrumentalizing and narrowing/reducing the human as a mere thing to be upgraded. This pharmacological understanding of transhumanism he says is admitted by the notable

transhumanist figure Max More, who sees the potential for technologies to transform the human for the better or for the worse. Where Ross is not at his best is in his use of the *pharmakon*, especially when he argues: "transhumanism is a drug—it is both remedy and poison—with the power to cure or the power to kill depending on who takes it" (25-26). While Ross is clear that the *pharmakon* cuts across categories "ordinarily seen as mutually exclusive, forcing an ontological quest to conceptualize the in-between" (26), he nonetheless slips up in opposing too strongly the power to "cure" and to "kill," not realizing that in transhumanism the cure must also kill, it must bring death in its curing/healing, a point Ross may not have overlooked if he were thinking autoimmunity and sacrifice.

The transhumanist cure for humanity, which will bring enhanced, extended, and possibly even immortal life, is death brought on by the technological machine. Transhumanism is a death-drive, a death-wish, an autoimmune sacrifice of the human in the hope of enhanced life by way of the machine. The logic of autoimmunity is as terrifying as it is fatal. In his explanation of religion's use of technology, Derrida notes a frequent and deeply masked fear of self found in religious communities, a reaction against the autoimmune sacrifice that are residues and surface effects of loss, applies equally as well to the fear many have when faced with certain streams of transhumanism that look to replace our biological bodies with machinic parts or upload ourselves to computers:

> [A] fear of self, a reaction against that with which [the self] is partially linked: the dislocation, expropriation, delocalization, deracination, disidiomatization and dispossession (in all their dimensions, particularly sexual—phallic) that the tele-techno-scientific machine does not fail to produce. The reactivity of resentment opposes this

> movement to itself by dividing it. It indemnifies itself thus in a movement that is at one immunitary and auto-immune. ("Faith and Knowledge" 81)

The fear Derrida is referring to is the protection (immunity) of the self, for the possibility of its survival (be it a religious tradition or the human being), it must sacrifice (autoimmune) itself, empty and replace itself, submit itself to death via the machine so that it may survive in a new form, abstracted from its previous body and placed in a new bodily form. This is the price to pay, says Derrida "*of those sites of abstraction that are the machine, technics, technoscience and above all the transcendence of tele-technology*" (43, Derrida's italics). This applies equally to the survival of religion as it does to the survival of the human in radical forms of transhumanism. What Derrida calls "the tele-technoscientific machine, this enemy of life in the service of life," is nothing short of the literal machine that radical forms of transhumanism offer humanity to merge with, a "faith in the most living as dead and automatically sur-viving, resuscitated in its spectral phantasma" (84). The transhuman death-drive by way of an autoimmune sacrifice, a sacrifice of the human and its body to the machine requires a self-emptying from one body to another, from the human body to the machine-robot (or virtual) body. The machine, as Derrida argues, is the space of death (87). This space of death opens, however, to the possibility of new life, but always with a risk, a risk that in transhumanism is the loss of self, a rejection of the machine-prosthetic by the body, or a failure to transfer self-consciousness to a computer. Nonetheless, the transhumanist death-drive most importantly requires a self-emptying of the human from its historical-biological body for the salvation of humanity, a self-emptying that parallels the *kenosis* of the Christian God.

Autoimmune self-sacrifice lies at the very heart of any Christian religious tradition and transhumanism. With regards to particular interpretations of Christian theology, Jesus is a figure

that represents the idea of self-sacrifice, especially by way of *kenosis*, or self-emptying, for the redemption and salvation of humanity. In the same way, transhumanism, which names the evolutionary process or state of a "transitional" humanity (thus a trans-human) that metamorphoses into radical new forms, designates the self-sacrifice required—itself an emptying—that gradually replaces the component parts of the human body (or the entire body) with new technologies, often non-biological in nature. I argue that this is no coincidence. Transhumanism has inherited a great deal of its ideological assumptions and objectives from within the milieu of a secularized Christian-West and represents a religion without religion or a secularized form of a Christian religiosity that retains certain religious structures while simultaneously opening itself to new (secular or religious) contents. The self-sacrificial conception found in the *kenosis* of the Christian God is a structure that has been secularized and correspondingly centralized in the discourse of transhumanism by way of the emptying of the historical-biological components of the human body, which are both intimately connected to expectations of salvation and eternal life.

In Philippians 2:7, God is said to have "emptied himself" as pure spirit to become the material (human) being, Jesus Christ, for the salvation of humanity. This concept of *kenosis* (emptying) resembles very closely a philosophical Greek concept metempsychosis or the transmigration of the soul, especially the soul's reincarnation into another body after death (for a discussion of the Greek and Platonic influence on Christianity's conception of the soul and body see: Bynum; Cullmann). Such a concept is frequently used in various Christian traditions, especially in gnostic strands. In any case, these belief-systems suggest the divine soul can transmigrate from one body to another, emptying the body of its soul and installing it in another

body, which closely resembles the mind-uploading scenario in certain strands of transhumanism that transfer our mind from the human body to a machine or a virtual or robotic body (for a discussion on how the mind came to be conceptualized as separate from the material body in transhumanism, see Hayles). The notion of transferring your soul to a superior body (after death) is found in both transhumanism and in various branches of Christianity, where the soul enters a superior body to ascend into the heavenly kingdom (see Geraci). The *kenosis* of God, and the conception of a transmigration of soul, is often understood as a self-sacrifice for the redemption and salvation of humanity and is often engaged through the concept of theosis, or a making divine, in the aim of the human-believer adopt a likeness to God (Daly, "Chasing Methuselah"; Pomazansky). Christian-transhumanist Roland Cole-Turner recognizes this very point of convergence between Christianity and transhumanism when he connects human transformation and technological enhancement to theosis through the common Christian saying popularized by Irenaeus of Lyon and later Vladimir Lossky: "God becomes like us so that we might be made like God" (*Transhumanism and Transcendence* 5).

Perhaps surprisingly, Sigmund Freud's work on science, technology, and religion is very instructive here, relevant not only to *kenosis* and *theosis*, but transhumanism as well when he writes:

> These things that, by his science and technology, man has brought about on this earth… an actual fulfilment of every—or of almost every—fairy-tale wish... Long ago he formed an ideal conception of omnipotence and omniscience which he embodied in his gods…these gods were cultural ideals. To-day he has come very close to the attainment of this ideal, he has almost become a god himself… Man has, as it were, become a kind of prosthetic God. When he puts on all his auxiliary organs he is truly magnificent; but

> those organs have not grown on to him and they still give him much trouble at times… Future ages will bring with them new and probably unimaginably great advances…and will increase man's likeness to God still more. But in the interests of our investigations, we will not forget that present-day man does not feel happy in his Godlike character. (*Civilization and Its Discontents* 38-39)

As Freud argues, humanity is attempting to obtain a likeness to God through its advances in science and technology. First, this reminds us of what Ray Kurzweil often says regarding his transhumanist project, that human-directed forms of evolution through science and technology "moves inexorably closer to our conception of God, albeit never quite reaching this ideal" ("Are We Becoming an Endangered Species?). Second, what Freud is really getting at here is the sacrifices the human individual must make in order to receive certain benefits and protections from being in society, which include, among other things, the enhanced abilities humanity receives through new socially derived, societal advances in science and technology: "If civilization imposes such great sacrifices not only on man's sexuality but on his aggressivity, we can understand better why it is hard for him to be happy in that civilization" (*Civilization and Its Discontents* 62). While I am unable to get into the details of Freud's argument here, for the purposes of this chapter it is sufficient to say that Freud is attempting to illuminate the human's sacrificial and destructive death-drive and its relation to prosthetics. The death-drive, for Freud, are "these detours to death… [offering] us today the image of the phenomena of life… The idea of self-preservation drives…stands in marked opposition to the hypothesis that the whole of drive function serves to bring about death…These are component drives for securing the organism's own path toward death" (*Beyond the Pleasure Principle* 78).

In an impressive analysis on this area of Freud's work, David Wills highlights how the superego is like a prosthetic, implanted into the individual, setting up an agency within the individual and representing the power of civilization: "the same set of multiform devices that are said to make the human into a prosthetic assemblage simulating God becomes, as it were, compressed into one overarching form of restraint: the conscience as superego" (*Prosthesis* 102). This conscience or superego is a destructive instinct that turns itself against the individual—a sacrificial death-drive that limits the individual for the long-term protection of the individual and the maintenance of society. Wills, however, dives deeper, arguing that Freud's own discussion of the castration complex is fixated on the past, as a return, which neglects proper mention of the future, and thus he turns Freud's castration complex around and projects it into the future. In doing so, Wills weaves the castration complex together with the notion of prosthetics and technology, particularly a "fear of amputation… a fear of prosthetic replacement of the penis. If one projects the idea of substitution…and if one reads the structure of detachability as necessarily implying that of replacement, then the fear of castration becomes in fact the fear of an inanimate otherness performing a human function" (114). Moreover, Freud's repetition compulsion, ultimately revealing the death-drive and its connection to technological prosthetics (an outside otherness that, like the superego, implants itself inside the human individual), is for Wills "a crossing into mechanical otherness…a fall into the structure of the inanimate, the structure of lifeless machines, forms of the automatic," posing a threat of death, a threat that "will install a form of otherness that is other than human" (125). It is an otherness that Wills argues is "the same threat that was posed by man as prosthetic god with the appendages of civilization" (ibid.). In other words, when you consider Freud's conception of the death-drive with the castration complex turned toward the future, it reveals a fear of the radical otherness of

technological prosthetics and an answer that reveals the "final goal of all organic striving… that 'the aim of all life is death' and, looking backwards, that 'inanimate things existed before living ones'" (Freud, qtd. in Wills, *Prosthesis* 118). As a technological prosthetic-supplementary being, the human death-drive necessitates, like a prosthetic leg replacing a biological human leg, that something be emptied such that it can be replaced.

To invoke the technological prosthesis is to imply the idea of death, loss, and an emptying. For Wills, death can always be found lurking within every case of prosthesis (*Prosthesis* 143). While not exclusively the case, Wills argues that prosthesis "cannot fail to imply the idea of the amputation—or of a lack or deficiency—that would have preceded it" (133). As he continues, prosthesis "refers to two contradictory but complementary operations: amputation and addition… living or natural and artificial, and so on" (ibid.). As in the case of Wills' father, the loss of his biological leg came before the need for his prosthetic. Furthermore, and more directly, the two contradictory but complementary operations, the additional loss that came with the diagnostic decision of amputation, necessary for shaping and thus preparing for the prosthetic leg, also signals a further loss, a further emptying, before the prosthetic may be added. Before the body "begins to carry anything external to itself [the prosthetic] it bears that effect of its own internal scission" (13). Prosthesis, for Wills, is a "transferential interface," a medium of transfer, translation, something "carried across or transferred…the otherness that the body must carry in order to move… for translation is a transfer through the body, something borne by the body" (ibid.).

Prosthetics is thus connected to the *kenotic* emptying. Prosthesis names not only an emptying/loss and addition, but also a transfer effect, transferential relations, supplementarity, differential relations, the relation, a Derridean *différance.* The self is always a prosthetic self,

surviving through prosthesis, "whereby all *relations* are articulated through the body… carrying its otherness even as it begins to move" (Wills, *Prosthesis* 19). The ability to articulate is made possible by prosthesis; articulation "has always been its hallmark: in the first place there is the articulation of word and body, in the second place that of surgical instrument and body" (153). For Wills, the human body is predisposed to articulate, there is "no body that is not also an articulation, and no articulation that does not imply a radical notion of divisibility" (141). The body is built to be substituted and replaced by other things, "because the parts were always already detachable, replaceable, because the transfer effect upon which the general is constructed is there at the very beginning, in the nonintegrality of that beginning, called prosthesis" (15). Much like the articulated joint in the human body, which at the same time both joins and separates by adjoining two bones together, yet allowing for their separation and movement as two separate bones, Jesus, as the prosthetic of God transferred into human form, is that result of God's emptying of himself, which was also a transfer of soul into a new body, and brings together the technological prosthesis and *kenosis*, utilized not only in Christian theology, but so too in transhumanism. Transhumanism, as a religion without religion, participates in a secular version of Christian theosis, where, in becoming like God, we must lose/empty ourselves and add/transfer ourselves prosthetically to a new body for salvation and eternal life.

The gift of eternal life is given to those who operate according to a self-emptying, or sacrifice of our own desires and will, for the will of God, or perhaps even the sacrifice of our historical-human biological body, replaced with a new prosthetic body in the transhumanist future. Eternal life or immortality, tied to the salvation of humanity and often presented as a moral or ethical imperative, is also promised by the majority within the transhumanist movement (see for example, Bostrom, "Transhumanist Values"; Goertzel; Pearce; Pelissier and dal Santo).

Immortality may be achieved in myriad of ways, including prosthetics, genetic engineering, pharmacology, molecular nano-computing, and artificial intelligence (AI) as envisioned by the variety of transhumanist thinkers (see for example, de Grey and Rae); however, the most common currents are by way of the replacement of biological parts with synthetic machine-parts—what amounts to a sacrifice of the biological human body—that will be gradually installed over time, and or, the eventual transfer of our conscious mind to a computer (Bostrom, "The Future of Humanity"; Kurzweil, *The Singularity is Near* 140; Moravec). As transhumanist Ray Kurzweil surmises, "uploading as in the sudden scan-and-transfer scenario… will be a feature of our future world, it is this gradual but inexorable progression to vastly superior nonbiological thinking that will profoundly transform human civilization" (*The Singularity is Near* 140). Regarding future generations of mind-uploaded humans in robot bodies, Moravec argues that they will exhibit pure selflessness and nonjudgmental devotion, which is what "the Greeks and the Christians call 'agape'" (Moravec, *Robot* 119). An explicit secularization by way of a religion without religion can already be seen in Moravec's transhumanist worldview, the promotion of a religious love in secular form that is connected to the type of love that was revealed by Jesus—a love for all others, often expressed as loving your neighbour as you would yourself (*NIV*, Matthew 22: 36-40). Just as a Christian must empty themselves and sacrifice their own selfish will, like Jesus, to be receptive to God's will (symbolizing well-being of others) in order to achieve eternal life, the transhumanist must also empty themselves by sacrificing their biological component parts to achieve eternal life while bringing about the salvation or care for the well-being of humanity (in addition to other forms of sentient life as evidenced in the "Transhumanist FAQ" and Nick Bostrom's "Transhumanist Values," 13).

Hailing Death

At this juncture I will return to the concept of autoimmune sacrifice to illuminate in a more refined way the idea of bringing about our death in order to save ourself (salvation) and administer new life. The economy of salvation, especially as it is drawn from a history of Christian religion by way of the figure of Jesus, is an economy of loss for future gain. As Caputo remarks of this economy of salvation, it is a "losing-in-order-to-save" or a dying in order to live *(The Prayers and Tears* 43). For Caputo, the thing must slip away, leaving behind nothing but its name (ibid.). The deconstructive logic of the X without X is not meant to illustrate a simple negation; rather, it illustrates an affirmation of the negation, a non-negative negation, re-inscribing it in a new form, in a new context. The living thing survives through the name as it transforms into something new by way of the technological supplement, which adds in order to replace that which once existed, now lost or dead.

For Derrida, there is a certain price of human life; that price is the price of what should remain safe, protected, sacred—the first of the two sources of religion for Derrida, which I will discuss in more detail in the next chapter—which corresponds to Immanuel Kant's notion of the dignity of the rational and finite human being, as an end in itself, who is priceless ("Faith and Knowledge" 87). Such dignity of the living (human) can only subsist by way of "transcendence, fetishism and spectrality; whence, the religiosity of religion" (ibid.). What this means for Derrida is that human survival involves the need for transcendence of the self through the technological supplement (sacrifice through the technological machine of death), and in doing so participates in what Derrida calls the religiosity of religion, or the saving of the sacred and the opening to the

future by way of faith (faith being the second source of religion for Derrida). The excess which goes beyond the living, in that which transcends by way of a faith in the future to come and thus the other, for Derrida, is that life that has "absolute value by being worth more than life, more than itself—this…is what opens the space of death that is linked to…technics, the machine, the prosthesis" and thus the autoimmune and self-sacrificial supplementarity (ibid.). That is, the dignity of human life—a conception in many ways authorized by a history of Christian religion—and the ensuing drive to protect or save it demands an autoimmune sacrifice, a bringing of death to this very life through technological mediation and the supplement.

Both the Christian religion and transhumanism have in common the idea of the value of life being worth more than life, driving the sacrifice of life to bring the value of new life that transcends the present living being. For Derrida, the valuing of life that transcends the present means autoimmunity:

> [A] principle of sacrificial self-destruction ruining the principle of self-protection (that of maintaining its self-integrity intact), and this in view of some sort of invisible and spectral survival. This self-contesting attestation keeps the auto-immune community alive, which is to say, open to something other and more than itself: the other, the future, death… It is there that the possibility of a religion persists: the *religious* bond… between the value of life, its absolute "dignity," and the theological machine, the "machine for making gods." (ibid.)

The absolute respect of life dictates a violence (the autoimmune) in the name of nonviolence, the sacrifice of self, or as Derrida states, a self-sacrifice that "sacrifices the most proper in the service of the most proper" (88). The autoimmune violence brings death through the dislocating

and expropriating technological machine. This autoimmune indemnification is why any community's search for salvation and the future health of human life (for Derrida this includes not only religions, but so too secular communities that value life such as secular humanists or peacekeeping forces) must rely on the alliance between "the tele-technoscientific and the two sources of religion," those two sources of course being for Derrida the sacred and faith, or in this case, human life and its future to come (93).

Based on these criteria laid out by Derrida, transhumanism participates as a secular religion without religion in its passion for the absolute value of human life and its survival made possible by technological machines of death. For the autoimmune, it has a bringing of death, an attack on the self, a sacrifice, allowing the self to continue differentially so that it may once again live. With respect to the human, this process of autoimmunity, a bringing of death by way of sacrifice is nothing short of the technological transcendence of the human that transhumanism portends. What inhabits transhumanism is the structure of the X without X, a human without human; a sacrifice of the human for the very survival of the human, which can be seen in transhumanism's drive for technological replacement of the biologically limiting components of the human body.

At this crucial juncture it is important to note a general misconception of death that pervades and is promoted within a great deal of the transhumanist community, the general misunderstanding that death can be overcome. To be sure, when the notion of death is used by transhumanists it is most commonly employed to refer to the death of an entire/whole being or organism, like an individual human. However, this discourse on overcoming death of an individual entity is often reduced to an elimination or erasure of death in general, demonizing

death and seeking ultimately to erase its existence, culminating in a failure to acknowledge the more subtle and nuanced importance and necessity of death.

Written largely by Nick Bostrom, with some assistance from other members of Humanity+, the "Transhumanist FAQ" frequently makes use of the idea of overcoming death or "evading death." As this central document declares: "The transhumanist position on the ethics of death is crystal clear: death should be voluntary." Moreover, the FAQ states: "If death is part of the natural order, so too is the human desire to overcome death." Furthermore, Bostrom suggests in his own article, "Letter from Utopia," that replacing your biological body with more durable media will begin the inevitable path to eliminating death:

> Death is not one but a multitude of assassins…. Take aim at the causes of early death—infection, violence, malnutrition, heart attack, cancer…You must seize the biochemical processes in your body in order to vanquish, by and by, illness and senescence. In time, you will discover ways to move your mind to more durable media. Then continue to improve the system, so that the risk of death and disease continues to decline. Any death prior to the heat death of the universe is premature if your life is good. (3)

Bostrom's position becomes bombastic when he poses the question of death in the context of his future utopia, explaining that death is, "the darkness that envelops all life, and the guilt we feel that we did not create Utopia as soon as we could have" (6). To explain, Bostrom implies that death and the transhumanist utopia are incompatible.

Bostrom, however, misses a more nuanced understanding of death, the necessity of a putting-to-death of an entity or element of that entity for its survival. This is surprising considering Bostrom is a proponent of mind-uploading and the technological replacement of parts or the whole of the human body (for example, see Bostrom's "The Future of Humanity"),

which is a literal putting-to-death of the biological body, a transhumanist scenario that must kill to save. Furthermore, Bostrom's treatment of death lacks sufficient rigour, as he fails to consider that death arises not just in the biological or nonbiological human, but in the process of prostheticization, supplementarity, and mediation itself, which are central features of his own vision and understanding of transhumanism. Moreover, even if (post)humans are merely uploaded minds with no biological components, a notion of death remains crucial to such an existence, considering the deterioration and damage of the mechanical substrates that would support those (post)human software-minds, these individuals as "software" will need to transfer from one mechanical/inorganic substrate to another. What's more, individual existence as "living" software cannot maintain pure presence, or a pure and unchanging self-identity, without the movement or transfer of information, and thus difference by way of the prosthetic/supplement—the machine of death.

To make this point can be seen in Wills' own analysis of the prosthetization occurring within binary relay computing systems, which unfolds as follows:

> [T]he discourse that can be called prosthetic, would be the figure of communication as information transfer, the domain of the high technological where the linear and circular paradigms of the mechanical are replaced by the binary relays of a computing system. There what is called circuitry is nothing but a proliferation of intersections, iambic switchings, detours and reroutings… it is the double movement, the bidirectionality of those ambulations, epitomized by the limp of a prosthetic, that is all there is to prevent the speed of the informational process from seeming to reduce to a pure linearity, when in fact it is the repeated inscription and contradiction of that. What is so easily occluded in that process are the blips of countless relays, the switches between open and closed, on

> and off options, in terms of which this supposed flow is subject to constant effects of discontinuity. (*Prosthesis* 25-26)

As Wills so clearly explains, even information as software on a computer is subject to interruptions, discontinuity, emptying and replacement, supplements, and prostheses, those spaces of death that foil any pure linear continuity of information in its representation of a digital-software human being. The inadequacy of dealing with a more nuanced understanding of death is found in not only Bostrom's own works but in ones that he represents as the most widely recognized transhumanist organization (Humanity+), which promulgate a conception that death, in all its forms, is terminable.

An example in which the complex intricacies of death are similarly glossed over can be seen in the recent book by transhumanist, Gennady Stolyarov II, *Death is Wrong*. In a book marketed to children, Stolyarov II imprudently presents an oversimplified understanding of death, arguing death is the greatest enemy. What's worse, Stolyarov II argues death is wrong and forces his readers into a necessary dualistic moral obligation: "will you give in to the wrong, or will you fight it? Maybe the person who will conquer death… is you!" *(Death is Wrong* 31). First, Stolyarov II echoes the biblical desire to conquer death, through the figure of God/Jesus, who is himself said to conquer death for humanity: "But thank God! He gives us victory over sin and death through our Lord Jesus Christ" (*NLT*, 1 Corinthians 15: 57). As Stolyarov II wishes his readers to believe, transhumanism is the future saviour of humanity from death, a claim not too unlike Jesus' claim: "I am the resurrection, and the life: he that believeth in me, though he were dead, yet shall he live: And whosoever liveth and believeth in me shall never die" (*NIV*, John 11: 25-26). Second, arguments such as the one presented by Stolyarov II, whether they be directed to

children or adults, encourages an oversimplification and misunderstanding of the role of death in human life. What Stolyarov II and Bostrom are both seemingly unwilling to do is to acknowledge the fundamental existence and necessity of death necessary for transhumanist discourse; they are unable to recognize and admit transhumanism's autoimmune death-drive, and its motivation to bring death and the sacrifice required for survival through prosthetics, supplementarity, and mediation that define the existence of the human and its corresponding conception under the ideology of transhumanism. Instead, these transhumanists deceive their readership and sell them the illusion that death is on the brink of extinction, figuring instead only life without the sacrificial death that makes it possible. Stolyarov II, like Bostrom and a great majority of transhumanist thinkers, mistreats death by not disclosing that the technological machine upon which transhumanism depends, as Derrida says in reference to the mechanical, is nothing short of a "space of death."

It is here where I agree, in part, with theologian Todd T. W. Daly, who argues that transhumanist philosophy kills the tyrant of death, only to turn life into a tyrant ("Life-Extension in Transhumanist and Christian Perspectives" 74). As Daly explains utilizing the theological-philosophy of Karl Barth, life can be turned into a tyrant when it fails to acknowledge how death gives sense to life, especially considering the daily sacrifice Christians undertake for others and the gift of life which was given by God and by Jesus through his sacrificial death. Notwithstanding my agreement with this argument by Daly and his accurate general characterization of a majority of transhumanist discourse, he has seemingly not taken the time to familiarize himself enough with some of the most prominent transhumanist thinkers, as the value of death and sacrifice are indeed given (at least some) weight by major transhumanist figures like Ray Kurzweil and Hans Moravec, to whom I will now turn.

Ray Kurzweil is perhaps one of the most well-known figures whose work is often attributed to transhumanist discourse, and, unlike transhumanists Bostrom and Stolyarov II, is more keenly aware of the crucial nature of death and sacrifice, especially sacrifice constituted by advancing technologies. In his most influential work, *The Singularity is Near*, Kurzweil includes a quote from Charles Du Bos (who Kurzweil mistakenly attributes to Charles Dubois) saying, "The most important thing is this: To be able at any moment to sacrifice what we are for what we could become" (136). Clearly, Kurzweil centralizes the essential condition of sacrifice that he sees at a very basic level as occurring automatically within the human body. As Kurzweil rightfully notes, the "set of particles that my body and brain comprise are in fact completely different from the atoms and molecules that I comprised only a short while ago… most of our cells are turned over in a matter of weeks, and even our neurons…. change all of their constituent molecules within a month" (256). This means for Kurzweil that the human is composed of completely different stuff than it was a month ago, and what really persists is the pattern of organization of that stuff, which itself changes over time. As he acknowledges in ways consistent with the necessary techno-supplementary of survival that is presented by Derrida, in some way the "gradual replacement means the end of me even if my pattern is preserved…am I constantly being replaced by someone else who just seems a lot like the me of a few moments earlier?" (257). For Kurzweil this leads into the ultimate ontological question that remains unanswered.

Going beyond what Kurzweil can offer concerning his hesitations concerning identity, a Derridean perspective can be very instructive here: the self is this very process of death and self-replacement through supplementarity, where continuity rests ultimately in the spectral phantasm that the proper name designates, a naming of which is always uncertain, and thus always a decision to be made. Either way, despite many of his hesitations on the philosophy of

identity, Kurzweil ultimately formulates a similar perspective as Derrida, relying on the transcendence of patterns, which would be consonant with a Derridean conception of the spectre. The human for Kurzweil transcends matter and energy (engages in autoimmune supplementarity) through patterns, which is always a going beyond through the endurance of patterns which are themselves subject to change (259-260). Human transcendence through patterns means that we should not fear differential materials that constitute ourselves, especially if the human may evolve beyond the biological or organic (260). As he argues, the essence of the human is our ability to reach beyond our limitations through technology, especially with our newfound abilities to gradually integrate the non-biological into our bodies (140). Much like machines, humans too transfer signals and don't experience direct forms of touch, thus there is no discernable difference between substrates from a structural point of view (141, 320). Future humans, Kurzweil suggests, will continue then in some way to be human, even if they are not biological (38). What Kurzweil is proposing here is nothing short of a technological sacrifice of the human biological body, a sacrifice that looks to enhance the survivability of the human into the future, an autoimmune putting to death of the self for new life in new mechanical substrates that we must empty ourselves into (through the transcendence of the mind or mind/body as a pattern).

In a similar vein, transhumanist Hans Moravec also subscribes to a sacrificial emptying to preserve the human. In the future, Moravec claims humans will become increasingly mechanical, and require software and hardware upgrades like computers today (*Robot*, 172). As human techno-evolution moves further away from the limitations of biology we will be increasingly preserving the human in very unhuman ways (11-12). Like Kurzweil, Moravec too sees an eventual future of uploading ourselves into artificial hardware or computers (170). As Moravec

contends, “Though we are immortals, we must die bit by bit if we are to succeed in the qualifying event—continued survival. In time, each of us will be a completely changed being” (*Mind Children* 121). Case in point, Moravec’s contention here amounts to what we have been calling an autoimmune sacrifice through the technological supplement. The human must attack itself, put itself to death, bit by bit, for its continued survival and in doing so is invariably transforming itself and its being by way of the technological supplement. Autoimmunity is without doubt quasi-suicidal, it is “cruelty itself, the autoinfection of all autoaffection…. [it is] the self, the ipse, the autos that finds itself infected” as it comes to need “heteronomy, the event, time, and the other” (Derrida, *Rogues* 109). Even though these transformations invariably alter the human body, mind, and their capabilities, Moravec assures us that our altered human selves as well as the autonomous artificial intelligences that we create—in a way analogous to God’s creation of humanity in his likeness, as seen in the Book of Genesis—will still be human, as they will be built “in our image and likeness, ourselves in more potent form” (*Robot* 13). Sure, transhumanists like Moravec and Kurzweil are suggesting a more radical autoimmunity than what many of us may be comfortable with, but the structure and process of the X without X, or the human without human, giving life through death by way of the autoimmune techno-supplement, remains unchanged.

Pursuing the notion of giving life through death within the concept of autoimmune sacrifice in transhumanism further, it can be uncovered how it is never quite removed or free from a Christian-religious inheritance, preserving a similar messianic structure. The resurrection of the dead is a common eschatological belief in many Christian traditions, the apotheosis of which is the resurrection of Jesus, which could be said to crystallize the foundation for the Christian faith tradition. As the Apostle Paul made clear, the Christian faith hinges upon the

centrality of Jesus' resurrection and thus the hope for a life after death for all human beings (1 Corinthians 15: 12-20).

Such hope for a life after death by way of a resurrection finds its way into the discourse of Moravec's futurist predictions. Moravec claims that "Entire world histories, with all their living, feeling inhabitants, will be resurrected in cyberspace" (*Robot* 167). These resurrected histories, and persons, will recur as "faithful renditions" in a variety of forms. Accurate and faithful renditions of resurrected persons are made possible by the technology of cyberspace which can "easily recreate internally everything of interest it encounters" (ibid.). Once resurrected as patterns of information that are able to exist in a variety of embodied forms in cyberspace or in physical robot bodies, they will become "more secure in their existence, and with more future than ever before, because they have become valued houseguests of transcendent patrons" (ibid.). The picture Moravec constructs of the future of resurrected humanity clearly draws from the Christian messianic promise of a radical new world that will appear after the apocalypse for a resurrected humanity to inhabit in new glorified bodies (see for example, 1 Corinthians 15). Likewise, Kurzweil takes a very personal approach to the resurrection of the dead in his desire to bring back to life those who have died, most notably, resurrecting his father Frederic Kurzweil (Hyena, "Resuscitative Resurrection"). As Kurzweil says, "If you can bring back life that was valuable in the past, it should be valuable in the future" (ibid.). Indeed, Kurzweil makes clear his ethical framing of the dignity of human life, such that losing a person (any person) is the ultimate loss (*The Singularity is Near* 258). Kurzweil believes he can resurrect a near perfect recreation of his deceased father through his DNA combined with the various mementos and living memories that he has of his father. With clear conviction, Kurzweil asserts that he can "make a strong case that it would be more like my father than my father

would be, were he to live" (Berman, "Futurist Ray Kurzweil"). Without a doubt, Kurzweil adheres to a messianic hope in a very religious-inspired resurrection, conjuring from the cinders of his deceased father an image so that he may resurrect his father in a transformed body, giving him a new exalted life; perhaps even to be, like Jesus, the "firstborn of the dead" (Novakovic, "Raised from the Dead" 135).

Undeniably, transhumanists like Kurzweil and Moravec adopt a secularized version of the Christian hope in the resurrection of the dead through technology, giving new life to the dead, in ways most notably inherited from the Christian-religious ideology ensconced in the technological discourse of the West. What transhumanists like Kurzweil and Moravec often downplay in their projections of future resurrections of the dead are the risks involved, especially the risk that these resurrected persons will be anything like the dead they have revived—will we consider them to be the same people? Does Ray Kurzweil truly believe that his resurrected father is in some way the same father he once lost? Just as various Christian traditions have done, transhumanists too may be guilty of too often assuming they can predict the future, the coming of the other, dogmatically assuming they know what and who the resurrected will be, formulating a quasi-religious, secular messianism.

A messianism refers to a determinate expectation, an absolute certainty, in the present of a future time when the messiah, or messianic prophecy, will be fulfilled. Any such messianism may be either religious or secular in appearance. For example, a certain Christian messianism expects that Jesus will return to save humanity, restore justice, bring peace, and provide humanity with immortality. Such messianism is marked by their determinate content: we know, with certainty, the outcome of these events. Derrida presents us with the underlying structure that informs all determinate messianisms: the universal structure of the messianic. When Derrida

speaks of the universal structure of the messianic, a messianicity without messianism (without a messiah, without a dogmatic, determinate certainty or knowledge of what the future has in store), he figures it as "*the opening to the future or to the coming of the other as the advent of justice, but without horizon of expectation and without prophetic prefiguration*" ("Faith and Knowledge" 56, Derrida's italics). To put it succinctly, the messianic is a universal structure of experience that does not feature any determinate messianism, any determinate pre-figurations or contents, and most importantly, "*belongs properly to no Abrahamic religion*" (ibid.). Derrida continues, "*The coming of the other can only emerge as a singular event when no anticipation sees it coming, when the other and death—and radical evil—can come as a surprise at any moment. Possibilities that both open and can always interrupt history, or at least the ordinary course of history*" (ibid.). Derrida suggests that this structure of the messianic belongs to the experience of faith and the future, a structure that opens to the future but is emptied of any determinate content, an "endless promise" ("This Strange Institution Called Literature" 38) of something to come, a promise worthy of its name that will never become a present reality. Any future that can be predictably calculated with certainty, Derrida warns, is a future that "would not be a future; it would already be a predictable, calculable, and programmable tomorrow" (Derrida and Weber, *Points* 387). To have a future, for Derrida, is to conform to the structure of the event, both unforeseeable and unexpected:

> The event must also announce itself as im-possible; it must thus announce itself without calling in advance, without forewarning, announcing itself without announcing itself, without any horizon of expectation, any telos, formation, form, or teleological preformation. Whence its always monstrous, unpresentable character, demonstrable as un-monstrable. (*Rogues* 144)

The transhumanist resurrection event is without doubt an event to interrupt the ordinary course of history, where the other and death (especially through the technological machine of death), come in ways radically unexpected and indeterminate beyond our horizon of expectation, an event of the messianic (messianicity without messianism) that cannot be closed off or determined by any particular revelation or messianism that assumes we know who those resurrected beings will be. Kurzweil seems most certain that when he resurrects his father, that he knows who his father will be: "it would be more like my father than my father would be, were he to live" (Berman, "Futurist Ray Kurzweil"). What Kurzweil fails to consider is the possibility that his resurrected father will be nothing like his once living biological father, the possibility that his father may turn into a heinous and monstrous being who is intent on indiscriminately inflicting pain on others, even disowning and taking the life of his own son. The picture Moravec paints of the future is little different in this regard when he states that the resurrected will be "valued houseguests of transcendent patrons" (*Robot* 167), a metaphor that hides a lot of insidious and dangerous problems: will the resurrected accept their new life, or will they feel dejected? Will they be offended and resentful, such that they seek revenge on those who resurrected them? Will they be willing to become members of society, or will they be a detriment to society and other beings? As Derrida reminds us, the future must remain unpredictable, and as such, there is always a risk of that which is monstrous, and evil. Transhumanist thinkers need to take more care when depicting the possibility of a future resurrection, depictions without prophetic prefiguration, without a messiah, for an event of such magnitude brings both the threat, risk, and unknowability of the event, an event taking place in that space of death that is the machine.

Sacrificing (Emptying) Christianity: Transhuman Technological Transcendence

The genesis of advanced technologies for human improvement and enhancement highlights the initial intersections between transhumanism and religious motifs, particularly within a framework that originated from a desire for sacrificial reform. This connection, rooted in the utilization of religious tropes within transhumanism, underscores a trajectory towards transformative technological advancements. As I wish to argue at this point of the chapter, the rise of transhumanism was set forth as nothing other than a new religion, one in which sacrificial emptying was an essential quality and duty of this new worldview, or reformation of Christian religiosity. Consequently, this section presents a move from my previous focus of sacrifice/emptying at the individual level toward sacrifice/emptying at the ideological level.

Transhumanism, first used by Julian Huxley in 1957 in his essay "Transhumanism," was developed conceptually as the transcending of previous Christian religions, embroiled in the sacrifice of their supernatural dogmas that had stricken humanity's ill and stunted progress. The development of Huxley's concept of transhumanism took place over decades, where his earliest work, *Religion Without Revelation* (1927), gradually made way as a new worldview or a "developed religion," which he later referred to as either a "religious, scientific, or evolutionary humanism," finally resting on the term transhumanism. Transhumanism became, for him, a reformation of religion, one that would be stripped of its dogmatisms, such as supernatural superstitions (other-worldly assumptions subordinating this-worldly existence), false certitudes, providentialism, a personified other-worldly God, intolerance and persecution, and intellectual narrowness (*Religion Without Revelation* 372-373). Huxley maintains a true and developed religion is needed, one that marries religion and science, encouraging growth and expansion of life and knowledge, a religion that would first and foremost offer a "great sacrifice…for religion [which] is that of her old certitude, to be offered up on the altar of humility" (379). Furthermore,

he also invokes sacrifice and the technological machine of death when he states that we must "melt down the gods and refashion the material into new and effective organs of religion" ("The New Divinity"). The structure of sacrifice that finds itself entwined in the figure of God/Jesus in Christianity is appropriated and retained by Huxley's new conception of a transhumanist religion. Huxley suggests a full religion (which he would later name as transhumanism) must include both "spiritual self-realisation" and "patient self-sacrificing work" (*Religion Without Revelation* 370). Unlike much of the selfish preoccupation with personal salvation that he sees as the curse of many traditional religions, a true and developed religion features two goals, one being a personal expression of the self through improvement, peace, and communion, the other being the goal of self-renunciation, previously understood as sacrifice to God, which includes work for the highest good of humanity, a "self-sacrifice directed by a conscious vision of human evolution and its possibilities" (371).

With all the talk of progressive societal and humanistic improvement Huxley promulgates, it is also important to acknowledge the unethical nature of some of his ideas and alliances, particularly with respect to him being a major proponent and figure of the eugenics movement, as can be seen in his promotion of forced sterilization of the poor (*Man in the Modern World* 66). Nonetheless, the emphasis and value of sacrifice finds itself interwoven in how Huxley came to define transhumanism as a transcending and emptying of the old to realize the new: "Transhumanism… man remaining man, but transcending himself, by realizing new possibilities of and for his human nature" ("Transhumanism"). Realizing the potential for new possibilities through this new belief system of transhumanism, one which focused on the human mind to direct evolutionary progress, provided an enthusiastic new religion, one which looks to perpetually sacrifice and empty its dogmas as a self-proclaimed religion without revelation—a

testament to what this project would call a religion without religion—generated much enthusiasm and was quickly expanded upon by religious figures like Jesuit priest, Pierre Teilhard de Chardin.

Much like Huxley, Teilhard de Chardin, who is considered to be one of the earliest thinkers in the development of transhumanism, also looked to sacrifice much of the superstitious, supernatural, and authoritarian aspects of Christian religion and its institutions. Just as Huxley saw transhumanism as an evolution-centered religion that would perpetually transcend itself (survival into the future by replacement, and thus an emptying of its previous contents), around the same time, Teilhard de Chardin developed a primordial transhumanism as evolutionary progress in line with a new bio-evolutionary re-imagining of Christianity—put in the language of this project, an emptying of a particular form of Christianity, supplemented by evolutionary sciences (*The Phenomenon of Man*). In short, Teilhard de Chardin believes that Jesus was at work in evolution and technology, and that the work of Christ ultimately serves the process of the perfection of human existence. For him, evolution of humanity through technology is a project of salvation, where humanity progresses toward a point where the universe will be infused with consciousness or mind, which he calls an Omega Point or Cosmic-Christ (*Christianity and Evolution*). Technology is understood here as a considerable and compulsory driving force in the evolution of humanity, where technology represents "the sum of processes combined reflectively in such a way as to preserve in men the state of consciousness which corresponds to our state of aggregation and conjunction" (*Activation of Energy* 159). In other words, humanity's development of technology allows it to overcome its imprisonment in its current state of the human body, such that it can expand human consciousness to new levels, ultimately culminating in an ultra-human or trans-human, ending in a Cosmic-Christ. Human

consciousness here relies upon technology as an intimate counterpart so that consciousness may further propagate and evolve, especially as humans continue to manipulate the complexity of their own bodies by transforming it through technology (Burdett, 30). For him, all forms of human enhancement are affirmed on theological grounds, where each enhancement to the human is an evolutionary step toward the consummation of humanity and the Cosmic-Christ (32). As Teilhard de Chardin maintains, as humanity approaches a final unity in Christ through technological evolution we must be ready and willing, much like Jesus, to engage in sacrifice (*Christianity and Evolution* 147; *The Future of Man* 33, 183). In fact, he claims a sacrificial emptying, bringing ourselves death in a way that brings to mind the autoimmune, is demanded of us in a convergent world of eventual unity of consciousness: "Whatever sacrifice of freedom it may seem to demand of us, [it] is the only one which can preserve the dignity and the aspirations of the living being… If we are to avoid total anarchy, the source and the sign of universal death, we can do no other than plunge resolutely forward, even though something in us perish" (*The Future of Man* 43).

In the earliest beginnings of transhumanism, Teilhard de Chardin rightfully acknowledges and fervently develops the necessity of (religious) sacrifice for the transformation or enhancement of the human and society. Much like Derrida's conception of autoimmune sacrifice, or a sacrifice of the self in order for the self to survive in differential form into the future, Teilhard de Chardin similarly endorses the sacrifice/emptying of the self to enhance and extend the human through technology, or as he terms it, an "abandonment of self for something greater" (266). Moreover, just as Derrida connects autoimmunity by way of the technological supplement for survival to faith and thus to an opening up to the future ("Faith and Knowledge" 83), Teilhard de Chardin makes a similar connection when he contends that true faith is sacrifice of the self for

something greater, which for him is an element of worship, an acceptance of something divine that comes in the future (*The Future of Man* 266). In addition, Teilhard de Chardin can be said to align with Derrida on his conception of proper sacrifice, whereby an entity (religion or the human under transhumanism) for Derrida must sacrifice its most proper, that is, its current form or self, in the service always of this most proper—its self. To be clear, Teilhard de Chardin's drive for human enhancement through technology is a sacrifice of the current state of the human, the self, in the service of enhancement or betterment of the human and human society into the future.

It is also important to recognize the differences here in direction, in that Teilhard de Chardin's vision progresses towards a teleological vision of a final uniting of human consciousness with the universe, culminating in a Cosmic-Christ, where Derrida's desire can in no way be said to conform to such a progress towards a teleological finality as this would destroy Derrida's messianic drive. Regardless, the program espoused by Teilhard de Chardin (a techno-evolutionary reform of Christianity that drives the human to transcend itself along with its reliance on dogmatic forms of Christianity by way of new technologies) exemplifies what Derrida would likely name an autoimmune sacrifice by way of the "tele-technoscientific machine," which conforms to the structure of a religion without religion or a re-inscription of religion under a new context and in a new form. Both Huxley and Teilhard de Chardin took a transformative approach to the Christian religious tradition, one which sought to sacrifice/empty by putting to death much of the Christian dogma to re-purpose Christianity as a religion without religion, maintaining various religious structures—especially that of self-sacrifice—in combination with the burgeoning development of knowledge that was taking place in scientific and technological discourse. Certainly, each thinker in their own way directed their

transformation of a Christian religion without religion toward the global human project of evolutionary technological enhancement of the human that involved sacrifice of the human and human culture as it existed such that it may transcend itself and thus better itself into the future, which they understood in slightly diverging ways as a project of transhumanism. The transcendence, and thus a certain notion of sacrifice, implicated in the transhumanist tradition signify a coming death, a religious sacrificial death that will in turn bring about more life for both the human and society.

Autoimmune Sacrificial Emptying and the Machinic Death-Drive

It's unsurprising that transhumanism has inherited and perpetuates a concept of sacrifice rooted in the Christian religious tradition, given that technological progress has frequently been imbued with religious meaning within the Christian-Western context. As David F. Noble has shown in his book, *The Religion of Technology*, technological endeavour in the West has been infused with Christian religious expectations and assumptions. These enduring Christian expectations, especially those of salvation and redemption, can be traced through the evolution of Western technological development that continue today in the technological enterprises of nuclear power, space exploration, artificial intelligence, and genetic engineering. In much the same way, David E. Nye has discovered religious expectations of salvation and redemption in the technological narratives of America, associated with even the simplest technologies of the axe, the mill, the canal, the railroad, and the irrigation dam (*America as Second Creation*).

For Arthur Bradley, a deconstruction of Christianity reveals the nature of humanity as a relation to technological prosthesis, which is consistent with Derrida's understanding of the human as constituted not by any positive essence, but "by a relation to what ostensibly lies

beyond it" ("The Deconstruction of Christianity" 49). In making his case, Bradley traces the prosthetic and technical logic of touch found in the Christian ideology of the body, especially the figure of the hand, which for him represents, among other things, not only an anthropology but also a theology of touch/contact. Following Derrida, Bradley argues the hand of God ensures privilege and power accorded to man, in which the hand is itself a metaphor for man's necessary technicity or essential mediation (53). In imagining what a deconstruction of Christianity might look like, Bradley suggests it may take the form of a new continental philosophy of technology ("The Deconstruction of Christianity"). Without reservation, I agree with Bradley's assertion that a philosophy of technology undergirds much of the common Christian ideological traditions and that such a philosophy of technology is likely to exceed it; however, I emphatically argue that Bradley misses the existence of such a philosophy of technology already under his nose, already born out of a deconstructed Christianity—at least one significant strand of this very possibility—which has already revealed and is continually revealing itself, already deconstructing and secularizing itself out of Christianity, and this reveals itself to us as a certain X without X, a religion without religion: the philosophy of transhumanism.

As I have sought to demonstrate, Christianity and transhumanism both revolve around a central concept of salvation through sacrificial emptying, that I have identified as an example of *kenosis*. Specifically, the sacrifice central to both traditions involves self-emptying or *kenosis*, characterized by an autoimmune death-drive facilitated by technological supplementation or prosthetics, aimed at the preservation and continuation of their respective discourses and humanity itself. Death is thereby central to the survival of a being or discourse, a notion that is too often overlooked by the majority of transhumanists, including Bostrom and Stolyarov II, who clumsily manage a transhuman discourse which speaks only of a complete eradication of death,

even though transhuman is itself predicated upon a drive-toward-death through the technological machine. Ironically, transhumanism needs death to save humanity, losing ourselves in order to save ourselves, leaving or emptying the body to transfer into a new body, killing to make room for a prosthetic/supplementary replacement, hence the X without X, for humanity's salvation. The self-sacrificial conception, the sacrificial emptying, that is found in Christianity, especially in the *kenosis* of God, is a structure that has been secularized, metamorphosed, and appropriated into the central position of the discourse of a new religion without religion, transhumanism, as seen by way of transhumanism's insistence on the technological replacement of the biological components of the human body with nonbiological prosthetics, which like the Christian religious tradition before it, are utilized to ensure salvation and eternal life for humanity in the future.

Chapter Two

SACRIFICING HUMAN LIFE: THE TRANSHUMAN SACRED (WITHOUT SACRED)

One response to the increasing capabilities afforded by radical technological advances, especially those which seek to modify or enhance the human condition seen in the varieties of transhumanism, is the expanding movement of bioconservatism opposing these trends and future projections.[3] Bioconservatism is a movement (commonly derived from religious sentiments—although not exclusively so) that believes that radical technological modifications or enhancements, especially with respect to human being, compromises human dignity, thereby abolishing the human's sacred character. In a statement representative of the bioconservative movement as a whole, Andrew Kimbrell explains how a "sense of community and reverence are necessary if we are to keep a moral sense of our persons and our community" (*The Human Body Shop* 303). A common theme found in bioconservative literature, including Kimbrell's, is that the human is sacred, and thus is "held to be venerable and priceless… [and,] to the extent that a [human] body part partakes in the sense of life, it is sacra [sacred]" (301). From the bioconservative perspective, advancing biotechnologies and other forms of technology that alter "natural human being" (humanity in its current form) found in transhumanism represent a threat to humanity, a dehumanization and deformation of everything sacred about human life, a loss of human sanctity. Indeed, many transhumanists affirm such a position on human sanctity, where the human as we know it—in particular, its body—is not sacred: "I think increasingly we are

[3] The term, "bioconservatism," is most commonly used by transhumanists to label those who oppose their plans for radical technological enhancement or modification to the human condition. Given how "bioconservatism" is largely employed by transhumanists to name their opposition, it is important to consider the ways in which this term functions as a pejorative label with a host of associated socio-political biases. That said, "bioconservatism," as it is explicitly used in the literature, is not associated with political leaning or association and is applied to those of both the political left and right.

going to start realizing that this body is not sacred; the way we are is not some kind of God-given plan" (Max More qtd. in, *TechnoCalyps* 11:49). Conceiving these movements broadly, the loss of human sacredness by means of human enhancement technologies is professed by both the bioconservatives and transhumanists. But in this chapter I will argue that transhumanist technologies which alter human being "as we know it" (regardless of whether these alterations be considered therapy, modification, or enhancement) do not abolish the sanctity of the human and instead actively make the human, in its body and its being, sacred.

As the previous chapter made clear, the structure of sacrifice is central to Christian religion and transhumanism, employed by both as a strategy for saving humanity. In particular, transhumanism engages in the sacrifice of the human "as we know it" so that it may "fundamentally improv[e] the human condition" through technological enhancement and prosthetic replacement ("Transhumanist FAQ"). Within many Christian religious traditions, there is a profound reverence for human life, which is regarded as inherently sacred: "Don't you know that you yourselves are God's temple and that God's Spirit dwells in your midst? If anyone destroys God's temple, God will destroy that person; for God's temple is sacred, and you together are that temple" (*NIV*, 1 Corinthians 3:16-17). Similarly, for many transhumanists, the preservation of human dignity and value is a central tenant; as transhumanist Simon Young argues about human dignity, "In what way does the attempt to rid ourselves of disease and increase our abilities devalue human life?... On the contrary, the desire to enhance one's condition signifies a profound love of life. For you don't buy an upgrade if you don't like the original program" (*Designer Evolution* 69). As I argued in the previous chapter, both Christian religious traditions and transhumanism(s) depend on an autoimmune self-destructive and sacrificial affirmation for their survival, which entails for Derrida: "*on the one hand*, the absolute

respect of life… *and on the other*… the no less universal sacrificial vocation… always [involving] sacrifice of the living" ("Faith and Knowledge" 86). It is the centrality of sacrifice within Christian religion and transhumanism that comes to most closely ally these two systems with regard to their absolute respect for human life.

According to Georges Bataille, "In the etymological sense of the word, sacrifice is nothing other than the production of sacred things" (*The Bataille Reader* 170). Indeed, the etymology of "sacrifice" comes from the Latin *sacrificus*, which is the combination of *sacra*, "sacred rites," from *sacer*, "sacred", with *facere*, "to make, to do," and thus, to sacrifice is "to make sacred" ("Sacrifice" *Online Etymology Dictionary*). Therefore, the human life and body that transhumanism sacrifices for the survival and betterment of human life, contrary to both the normative bioconservative and transhumanist positions, does not abolish the sacredness of the human, but instead makes human life and its body sacred. Taken in this way, transhumanism, much like bioconservativism and the Christian religious tradition, conceives human life as sacred, opening transhumanism up to the possibility of participating in a core structure of the religious as it engages in what Derrida calls a "universal structure of religiosity" by seeking to save the sacred through sacrifice: "respect of that which is sacrosanct (*heilig*, holy) [sacred] *both requires and excludes sacrifice*, which is to say, the indemnification of the unscathed, the price of immunity. Hence: auto-immunization… Absolute respect enjoins first and foremost sacrifice of self, of one's most precious interest" ("Faith and Knowledge" 88).

In this chapter I will begin by laying out the prevailing bioconservative discourse surrounding the opposition to transhumanist biotechnological enhancements which are said to threaten the sacredness of humanity. To this end, I will elaborate on this position by presenting a few of the most important figures in the bioconservative movement, such as Leon Kass, Bill

McKibben, and Andrew Kimbrell, who in slightly different ways all argue against transhuman technological enhancements because they see it as replacing humanity as we know it, abolishing humanity's sacredness through the process of artificial enhancement. Contrary to bioconservative concern of the loss of human sacredness through transhuman enhancement, I will show that human life is of absolute concern, and thus sacred, for many transhumanists such as James Hughes, Ray Kurzweil and Nick Bostrom. It is here where I will use Bataille's work on sacrifice to associate the sacrifice of the human "as we know it" with the protection and survival of human life (and its body) as sacred. Following the connection between sacrifice and the sacred in Bataille, the chapter will expound on how sacred sacrifice is connected to Derrida's notion of autoimmunity and the universal structure of religiosity (saving the sacred through sacrifice), whereby transhumanism participates as a religion without religion in understanding humanity as sacred, resulting in the need to sacrifice life in the name of the protection and survival of humanity. Building upon the work of Garry Sherbert and Christopher Elson, I will bring the autoimmune sacrifice (the loss) of human life in transhumanism to bear on their ideas of the sacred as autoimmune and the inaccessibility of the sacred as a "sacred without sacred." It is here where I will connect transhuman autoimmune sacrifice, or the loss of human life as sacred, to show how human life lost through transhuman technological enhancement is consistent with the conception of the inaccessibility of the sacred, to construct a notion of what I call the "transhuman sacred (without sacred)." Finally, the chapter will conclude by looking at literature that not only seeks to view transhumanism as a secular form of religion but also attempts to uncover a kind of sacredness within the movement. As I will show, as exemplified in the cases of transhumanist Gregory Jordan and religious studies scholar Hava Tirosh-Samuelson, the literature not only fails to locate the most obvious source of the sacred in transhumanism (human

life and its body) but also neglects to reflect on the importance of the sacred as a core structure in the possibility of anything worthy of the name "religion."

Protecting the Human as Sacred

One of the most widely recognized figures of the bioconservative movement is a physician and bioethicist, Leon Kass. In his book, *Life, Liberty and the Defense of Dignity: The Challenge for Bioethics* (2002), he issues the following warning about the current state of humanity:

> Human Nature itself lies on the operating table, ready for alteration, for eugenic and neuropsychic "enhancement," for whole-sale redesign. In leading laboratories, academic and industrial, new creators are confidently amassing their powers and quietly honing their skills, while on the street their evangelists are zealously prophesying a posthuman future. For anyone who cares about preserving our humanity, the time has come to pay attention. (4)

For Kass, those forms of technological enhancement that are proposed by transhumanists fail to preserve human dignity and sanctity, everything that keeps us human. He explains that the "sanctity of life would mean that life is *in itself* something holy or sacred, transcendent, set apart—like God himself. Or, again, to begin with our responses to the sacred, it would mean that life is something before which we stand (or should stand) with reverence, awe and grave respect—because it is beyond us and unfathomable" (234-235). The sanctity of life, or life as sacred, suggests it holds maximum value and is something we must actively cultivate and protect. Certainly, as Kass suggests, "to regard life as sacred means that it should not be violated, opposed or destroyed, and positively that it should be protected, defended and preserved… that

'sacredness'…. inheres in life itself, and that life, by its very being, calls forth an appropriate human response, whether of veneration or restraint" (235).

Yet, this sanctity of life, as we learn, is worth more than life if this life is human than if it is merely animal life, because man is "godlike" (241). Kass admits that the higher value and superiority of human life over animal life is more than just a biblical account: "the truth of the Bible's assertion does *not* rest on biblical authority: man's more-than-animal status is in fact performatively proved whenever human beings quit the state of nature and set up life under such a law… establishing that men are to be law-abiding both insists on, and thereby demonstrates the truth of, the superiority of man" (ibid.). In other words, human life is not only sacred but superior to animal life, because it is godlike in its ability to exercise "speech and reason, freedom in doing and making, and the powers of contemplation, judgment and care… [as well as to] speak, plan, create, contemplate and judge" all of which goes beyond the simple state of nature to which animality remains subject (ibid.). While these assertions about human ability over and above the animal may be problematic considering the wealth of research on animal cognition, in the interest of time I will not attend to them here and will continue to focus on his argument about human sanctity. To sum up Kass' position, the human as sacred rests on its likeness to God. But because humanity is not God, only like God, "everything high about human life—thinking, judging, loving, acting—depends absolutely on everything low… In the case of human beings, 'divinity' needs blood—or 'mere life—to sustain itself. And because of what it holds up, human blood—that is, human life—deserves special respect, beyond what is owed to life as such; the low ceases to be the low" (242). In other words, the physical body of the human is itself sacred because it supports human life itself. Kass explains this point by using

physiological evidence that would deduce that the functions of the body all show marks of the "co-presence of rationality," which is a testament to humanity's likeness to God.

This likeness to God is what leads Kass to argue that we must respect the godlike and thus not harm the sacredness of human life by harming that which supports it and is in turn sacred itself, the human body. As Kass contends, "Respect for anything human requires respecting *everything* human, requires respecting *human being* as such" (243). Respect for human life as sacred thus entails protecting and defending the human body from any technological changes that would alter or change it beyond its current capabilities or being. Those enhancements proposed by transhumanists represent for bioconservatives like Kass a threat to the sacredness of humanity, one that will no longer set humanity apart from other forms of life and will reduce human life "to raw material for human use, exploitation and commerce" (23).

The possible exploitation of human life and human body-parts is taken up as a central concern in the work of bioconservative Andrew Kimbrell. In his book, *The Human Body Shop: The Cloning, Engineering, and Marketing of Life* (1997), Kimbrell argues that the human body "once held 'sacred,' is rapidly becoming the raw material for the bio-industrial age. The body has become a commodity" (ix). Much like Kass, Kimbrell worries that new biological engineering technologies obscure the definitive line between human life and machine, threatening to dehumanize humanity, which will in turn dilute and distort the sacredness of humanity. From his perspective, the traditional image of the human and its body has been shattered, where "the body as sacred has evolved into the body as secular…[and is] no longer seen as analogous to the divine, but rather as similar to the engines of history" (282-283). The discourse of the secularized body that has gradually arisen in Western culture is, for him, a

mechanistic view of life and nothing other than a modern dogma peddled by corporations and a wide variety of scientific and engineering disciplines. Similar to other works on bioconservativism, Kimbrell makes use of an often-cited quotation from geneticist and biophysicist Robert Haynes to demonstrate what is considered to be the "doctrine of mechanism" or the central organizing principle for our current age of biotechnologies:

> For three thousand years at least, a majority of people have considered that human beings were special, were magic. It's the Judeo-Christian view of man. What the ability to manipulate genes should indicate to people is the very deep extent to which we are biological machines. The traditional view is built on the foundation that life is sacred… Well, not anymore. It's no longer possible to live by the idea that there is something special, unique, even sacred about living organisms. (Haynes qtd. in, Kimbrell, *The Human Body Shop* 283).

The doctrine of mechanism and the ever-expanding market of biotechnology stand to upend and eradicate the sacredness of human life and its body. For Kimbrell, this doctrine of mechanism includes engineering and transplanting body parts, tissues, and genes, cloning, in vitro fertilization, surrogate motherhood, genetic screenings, and the patenting of life forms we are turning human life into commodities. In this current age of machines, the body is "being transformed from sacred image to biological technology" (284), and thus stands to injure the "very image of the sacred" (358).

Although bioconservatives like Kass and Kimbrell are correct to raise concerns over the exploitation that may occur from particular uses of new biotechnologies and other forms of modification and enhancement featured prominently in transhumanism, they are mistaken in

their assertion that such enhancements will extinguish the sacredness of human life and the human body. Undeniably, much of the language used by proponents of biotechnologies that aim to enhance human life and being (transhumanists especially) is explicitly hostile to the conception of the sacredness of the human and the human body. As I previously mentioned, popular transhumanist Max More has gone on record saying that he believes "increasingly we are going to start realizing that this body is not sacred; the way we are is not some kind of God-given plan" (Max More qtd. in, *TechnoCalyps* 11:49). Moreover, it is difficult to find transhumanists or proponents of radical biotechnological enhancement referring to human life or its body as sacred. What *bioconservatives and transhumanists alike* simply miss is how sacrificing the human body and the human "as we know it" in order to replace and enhance the human via technological prostheses produces this "loss" or "relinquishing" of the human (as we know it) as sacred, a sacrificial structure frequently—although not exclusively—found as a central resource of the religious. By using Bataille's understanding of the sacred, as that which is produced through sacrifice, where "sacrifice is nothing other than the production of sacred things… and sacred things are constituted by an operation of loss" (*The Bataille Reader* 170), I will argue that contrary to both transhumanists and bioconservatives, the technological enhancement or modification of the human actually compels us to understand human life and its body as sacred. In other words, transhumanist biotechnological enhancements of the human do not strip away the sacredness of humanity, but rather actively constitute and produce its sacredness.

Sacred Sacrifice

One of Bataille's chief contributions to scholarship is his formulation of a new economic theory, which he calls "general economy," as distinct from the economic principle of "restricted economy," which is inadequate for thinking the entire picture of economic growth, most notably in excluding the principle of "non-productive expenditure." Such a principle of non-productive expenditure found in Bataille's general economy runs contrary to the restricted economy of balance, where expenditure is compensated by acquisition. In other words, Bataille argues that humanity recognizes acquisition, consumption, and conservation, but lacks an understanding of the value of unproductive forms of expenditure. Speaking in terms of production and energy within the development of a system, like a living organism such as the human, it is said to receive or acquire more energy than is necessary for maintaining itself. The excess energy and resources can then be used for growth; however, if the system (organism) can no longer grow, "or if the excess cannot be completely absorbed in its growth, it must necessarily be lost without profit; it must be spent, willingly or not, gloriously or catastrophically" (Bataille, *The Bataille Reader* 184). For Bataille, at some point, a system will have to dissipate energy or resources, especially when it comes to systems involving living matter, as "for living matter in general, energy is always in excess" (185). As Bataille reminds us, the general movement of life is extension, "activity open[ing] up a new possibility to life, a new space (as did tree branches and bird wings in nature)" (194). Labour and technical knowledge open increasing possibilities for extension. In a statement that speaks to the intimate relationship between humanity and technology, Bataille writes: "But human activity transforming the world augments the mass of living matter with supplementary apparatuses…which considerably increases the resources of available energy" (ibid.). The human has the option of utilizing a portion of its available energy for growth not just biologically but also through development of new technologies or techniques,

which always have a double effect: “maintained by new techniques… initially, they use a portion of the surplus energy, but then they produce a larger and larger surplus… At a certain point the advantage of extension is neutralized by the contrary advantage, that of luxury” (194-195). When excesses of energy surplus start to compound, one must then decide on how to spend this energy through means of a luxurious squandering of that energy. After discussing various forms of luxurious practices and objects, Bataille moves to reflect upon instances of gift giving practices derived from Marcel Mauss, which serves as a point of interest for our discussion on sacred sacrifice, to which we will now turn.

Influenced by Mauss’ discourse on the gift, Bataille takes up a variety of gift giving practices as they relate to religious festivals or events. When extra energy or resources can no longer be utilized they must be lost, destroyed, or given away. As Bataille argues, gift giving is preferable because it takes on a meaning of acquisition, one of acquiring power, virtue, and rank that only his general economy can truly recognize: “if he destroys the object in front of another person or if he gives it away, the one who gives has actually acquired, in the other’s eyes, the power of giving or destroying” (203). In other words, the one who gives enriches oneself through power and social rank by showing contempt for riches. Taking the example of potlatch ceremonies, Bataille claims the giver is eager to waste excess energy/resources such that they may acquire the prestige of giving, where “waste itself [becomes] an object of acquisition” (205). The prestige of giving invokes what Bataille calls, rank, where “rank is the opposite of a thing: what founds it is sacred, and the general ordering of ranks is given the name of hierarchy” (206). The founding of rank is a result of disposing of (in a public display) or giving away that which is sacred, sacrificing that which has value. Sacrificing something considered to be sacred “withdraws useful products from profane circulation” (207). The destruction that sacrifice brings

is not always necessarily intended to bring about complete annihilation, rather sacrifice "destroys an object's real ties of subordination; it draws the victim out of the world of utility and restores it to that of unintelligible caprice" (210). Bataille thus begins to draw out how giving in potlatch ceremonies explicitly connects aspects of the religious with the economic, such that the person who sacrifices declares thus:

> I belong to the sovereign world of the gods and myths, to the world of violent and uncalculated generosity… I withdraw you, victim, from the world in which you were and could only be reduced to the condition of a thing, having a meaning that was foreign to your intimate nature. I call you back to the intimacy of the divine world, of the profound immanence of all that is. (ibid.)

The person who sacrifices aims to separate himself or herself from the world of things through a gesture that signals a return to the ultimate intimacy and immanence of divine existence. In this divine intimacy, distinctions between subject and object cease to exist, turned away from the real relations of *reality*. Correspondingly, the person who sacrifices does so in a way that acknowledges the *mythical* order of divine intimacy through a negation of the real order of lived reality. The sacred thing sacrificed returns to the mythical order of divine intimacy and immanence that "restores a lost value through a relinquishment of that value" (212-213). In having done this, the person invokes prestige by way of acknowledging the ultimacy of the mythical order's divine intimacy and absolute immanence. In this way, lived reality has lost, through sacrifice, not a subject (human) or object (food, tools, etc.), a useful member of reality, but rather its very truth. The loss or death of the useful member of reality (the sacred) through sacrifice dissolves the order of the real within it and restores it to its divinity through absence.

To sacrifice need not exclusively imply killing. Bataille makes clear that to "sacrifice is not to kill but to relinquish and to give," where killing "is only the exhibition of a deep meaning… [W]hat is important is to leave a world of real things, whose reality derives from long-term operation and never resides in the moment—a world that creates and preserves" (213). Therefore, sacrifice is the antithesis of production as such; where production is concerned with the future, sacrificial consumption is concerned with the moment. In this sense, sacrifice is a gift and a complete relinquishment, where what is given cannot be considered an object of preservation for the receiver. The sacrificial gift is an offering which passes into the world of abrupt consumption without return. Bataille notes that this is precisely the meaning of "sacrificing to a deity," wherein "the offering is rescued from all utility" (ibid.). That is to say, the sacrifice is freed from the instrumentalization of reality (or the subject-object dichotomy) so it may return to the realm of divine immanence. Most importantly, Bataille contends that one does not sacrifice objects of luxury; "one sacrifices *what is useful*," (ibid.). As Bataille notes, those things considered useful may range from the sacrificial destruction of villages, canoes, or copper bars among Indigenous peoples of the American North-West, the slaughter of valuable dog teams amongst the Chukchee people, and even human sacrifice found amongst the Aztecs or the Tlingit, also noting the emphasis on Jesus' sacrifice within the Christian tradition.

We can now begin to tease out how Bataille's work on sacrifice becomes useful for the problem of the sacredness of human life in light of transhuman enhancement that looks to sacrifice the human as we know it. To anticipate, it is the very enhancement and modification of the human, maintained by transhumanists that actively produces the human as sacred, reflecting the absolute value (or divinity) of human being. According to Bataille, true sacrifice must sacrifice not only what is useful, but especially that which has divine value. What has more value

than human life? Indeed, bioconservatives and transhumanists alike can be said to value human life above all else where both attempt, through various means, to save human life because it is of absolute value. Bioconservatives would imply that only they have the true interest of human life and its absolute value in mind, at least with regard to transhumanists. Bioconservative Bill McKibben makes this very point: "According to [transhumanists], we engage in this constant push forward not because we're so high-minded or passionate or special, but because we're not special at all…Nothing about us sets us apart from other organisms" (*Enough* 203). The sacred and religious value ascribed to humanity began to vanish, as McKibben opines, when Darwin's theory of evolution hit the scene and it was eventually expanded by the transhumanists looking to bring about a posthuman future. Given the strength of transhumanism, McKibben fears that humanity believing itself to still be "mystical," (or its divinity/sacredness) will soon be considered an "anachronism… one that will fade as we turn these new discoveries into technologies" for human enhancement (205).

In spite of these common bioconservative sentiments provided by McKibben, even a cursory look at transhumanism's most prominent proponents show that they actually treat the human as uniquely special, and with absolute value. Transhumanist James Hughes argues in his book *Citizen Cyborg* that transhuman technologies that push the boundaries of humanness "can radically improve our quality of life" and that we "have a fundamental right to use them to control our bodies and minds" (xii). As Nick Bostrom says in his article "Transhumanist Values," transhumanism "advocates the well-being of all sentience" (12), and "stresses the moral urgency of saving lives, or, more precisely, of preventing involuntary deaths among people whose lives are worth living" (13). In other words, transhumanism in fact absolutely values human life to the highest degree, even as it looks to expand its care of life to realms outside the human. A case in

point is Ray Kurzweil, who frequently responds to his critics about being too human-centred: "it turns out that we are central, after all. Our ability to create—virtual realities—in our brains, combined with our modest-looking thumbs, has been sufficient to usher in another form of evolution: technology… it will continue until the entire universe is at our fingertips" (407). As Kurzweil makes clear, humanity is nothing short of the heir to the throne of the universe itself; what else could represent the absolute value of humanity if not this? The issue is not what bioconservatives like McKibben contend, that transhumanism does not value the specialness, absolute value, or divine sacredness of humanity; instead, the issue is that transhumanists value it so highly that they look to preserve it through the incremental sacrifices that will have it expand and flourish beyond its current capacities for the increased likelihood of its survival into the future. Both bioconservatives and transhumanists sacrifice that which holds absolute or divine value, and, paradoxically, both desire to sacrifice the human as we know it. Indeed, transhumanism attests to the absolute value of human life, making it sacred—an act that bioconservatives and even transhumanists misconstrue.

To return once again to Bataille, sacrificing the sacred is precisely that which *returns* what is considered most valuable to its divinity in absolute immanence, saving it from the horrors of lived reality:

> But neither could one sacrifice that which was not first withdrawn from immanence, that which, never having belonged to immanence, would not have been secondarily subjugated, domesticated and reduced to being a thing. Sacrifice is made of objects that could have been spirits, such as animals or plant substances, but have become things and that need to be restored to the immanence whence they come, to the vague sphere of lost intimacy. (ibid.)

The most precious thing for Bataille is life, especially when that life is human life. As he explains, life must first have been withdrawn from its divinity in immanence in order to have become a thing that exists in lived reality. So forms of life like animals, plants, and most especially, human life, harbour the divine within themselves: "the sacred is that prodigious effervescence of life that, for the sake of duration, the order of things holds in check… It constantly threatens to… confront productive activity with…purely glorious consumption" (214-215). Again, the glorious consumption he mentions is the sacrifice of that which is most valuable, having the sacrifice become sacred, by returning it to the divinity of absolute immanence from which it came.

At this level, Bataille's discourse on the divinity of life starts to line up closely with a common interpretation of Christian theological discourse—a position frequently appropriated by bioconservatives—such that human life is divine because it is god-like, because it harbours within it the Holy Spirit given by God: "Do you not know that your bodies are temples of the Holy Spirit, who is in you, whom you have received from God?...Therefore honor God with your bodies" (1 Corinthians 6: 19-20). Furthermore, to repeat the common bioconservative position as stated by Kass, the "sanctity of life would mean that life is *in itself* something holy or sacred, transcendent, set apart—like God himself… it would mean that life is something before which we stand (or should stand) with reverence, awe and grave respect—because it is beyond us and unfathomable" (*Life, Liberty and the Defense of Dignity* 234-235). Without a doubt, this religious foundation held and frequently admitted by bionconservatives coincides with Bataille's language of divine intimacy, an intimacy that cannot truly be expressed discursively (*The Bataille Reader* 213), where there exists the holy and sacred trembling within the human individual who exists also in the realm of the material order of things (214). Human life, in its

harbouring of the divine in every individual human, as Bataille reminds us, necessitates sacrifice to acknowledge it as sacred and to return it to its divine nature. And yet, the recognition of the gravity of sacrifice is already present within the very Christian religious tradition on which the bioconservatives depend: "I urge you, brothers and sisters, in view of God's mercy, to offer your bodies as living sacrifice, holy and pleasing to God—this is your true and proper worship" (Romans 12: 1). What has gone unnoticed in discussions pertaining to transhumanism and its enhancement of humanity in light of the divinity or sacredness of the human and its body is exactly this offering of sacrifice. To bring the religious understanding of the divine sacredness of the human held by bioconservatives face-to-face with transhumanism, we find that transhumanism similarly declares the divine value of human life by sacrificing the human and its body as we know it, thereby making it sacred.

Thus, contrary to the prevailing understanding of bioconservatives, the sacredness of humanity that they wish to protect is that which they must learn to sacrifice, for the sacred is that which is sacrificed. As I noted previously with reference to Kimbrell, he is mistaken in his assertion that technological enhancements injure the image of the sacred by sacrificing the human as we know it: "the body as sacred has evolved into the body as secular…no longer seen as analogous to the divine" (*The Human Body Shop* 282). Rather technological enhancements that sacrifice the human as we know it make the human body sacred. Furthermore, and on the flip side of the coin, contrary to the prevailing understanding of sacredness in transhumanism that we see in Max More, who claims "increasingly we are going to start realizing that this body is not sacred" (Max More qtd. in, *TechnoCalyps* 11:49), transhumanist technological enhancement in sacrificing elements of the human body actually makes the sacrificed elements of this body sacred. The state of divine intimacy of the sacred is achieved through violence,

destruction, relinquishment, and loss; hence, the sacrifice of the human and its body as we know it through transhumanist technological enhancement. Sacrificing the human body in transhuman enhancement makes it sacred.

The Measure of Sacrifice: Restraint, Religion

Sacrificing what is of absolute value is not easy; it is dreadful, frightening, and painful. One must give up what one values the most. It is no wonder that transhumanism, or biotechnological enhancements more generally, are so contentious and why bioconservatives are so resistant to them; they speak to the question of how we handle that which is most valuable to us, human life and its instantiation in the human body. Bataile argues that the destruction and fear that accompanies a return to divine intimacy is because divine immanence is "not compatible with the positing of the separate individual" (*The Bataille Reader* 214). The reason this sacrifice to the divine is so distressing Bataille argues, is for the very reason that the individual takes part in it: "The individual identifies with the victim [sacrificed] in the sudden movement that restores it to immanence (to intimacy), but the assimilation that is linked to the return to immanence is nonetheless based on the fact that the victim is the thing, just as the sacrificer is the individual" (ibid.). The individual is of the same nature as the thing sacrificed, yet is anxious to remain alive in the material existence of reality, the world of things. The individual human feels anguish precisely because it is an individual, a thing posited in duration within the world of things. As an individual, the human is afraid of death because it "disturbs the order of things and the order of things holds us… the intimate order [then] is not reconcilable with the order of things. Otherwise there would be no sacrifice, and there would be no humankind either. The intimate order would not reveal itself in the destruction and the sacred

anguish of the individual" (ibid). What Bataille is saying here, is that the human individual fears death, even though death would return the individual to the divine intimacy. The human would then cease to be human, which is in part, a thing differentiated from other things as an individual in material existence, the order of things on which its existence depends. The divine intimacy, of which the human is also a part, is for Bataille, like an all-consuming flame: "it calls for the general negation of individuals as such," and if an individual human "surrendered unreservedly to immanence, he would fall short of humanity; he would achieve it only to lose it" (215). Instead, the human must find an amicable reconciliation between incompatible necessities, thus a balance between divine intimacy and the material world of things in reality. Restraint in not sacrificing everything to divine intimacy, coupled with the desire to remain in the world of things, for Bataille, boils down to the essence of religion. I am not able to delve too deeply into the way Bataille understands religion, especially as it involves society, festival, and self-consciousness; in the interest of space I will remain focused on the broader concerns of divinity and sacred sacrifice. As Bataille puts it, "[r]eligion, whose essence is the search for lost intimacy," is the human effort to obtain a semblance of divinity while simultaneously retaining one's thing-hood in material reality (217). For him, "the basic problem of religion is given in this fatal misunderstanding of sacrifice," what humanity has lost and what it must continuously lose again as it draws near "that which [it] obscurely is, a vague intimacy" (216). The human, in search for the divine, must sacrifice not what is outside, but what is already inside itself—its own divinity. This sacrifice, always a sacrifice of that which is internal, a sacrifice which is most precious to itself, part of its very being; this is the mark of religion: "Only religion ensures a consumption that destroys the very substance of those whom it moves" (217). Religion is then, at least in part, about the sacrifice of human life, that which is most divine and sacred. However,

the human must stop short of complete self-annihilation through sacrifice, since the human cannot obtain full divinity and still remain itself in material reality; the individual human must exercise restraint.

This notion of restraint and its connection to religion is a common thread in bioconservatism. For McKibben, transhumanist enhancement reduces the importance of what it means to be human, in particular through an erosion of that which has the utmost meaning and value: "And though it galls the apostles of technology, this idea of restraint comes in large measure from our religious heritage… for at its core is the notion that meaning matters more than size," or that which is pleasant or beneficial, "more than ability or achievement or accumulation. Indeed, meaning counts more than life" (*Enough* 208-209). McKibben continues this idea of restraint as "the core of our religious understanding… the idea of limits goes right back to the start, to a God who made heaven and earth, beast and man, and then decided that it was all enough, and stopped" (209). He further connects restraint and its relation to meaning by connecting it further to Christian religion by invoking the sacrifice of Jesus, where it was "his willingness to die, to impose the deepest limit on himself for the sake of others, that matters" (ibid.). If we are unable to summon self-restraint, he argues that humanity will leave our uniqueness, our exalted being behind (that which makes us divine beings of absolute value). What McKibben is really saying here, in his defense against transhuman enhancement, is that human life as we know it, has absolute meaning, it is divine and sacred, and because of this we must limit ourselves in the alteration of our current human being. However, McKibben has two misunderstandings in his religious claim about restraint: first, he neglects to consider the restraint or limitations found in transhumanist discourse; and, second and most importantly, even though he invokes the sacrifice of Jesus as restraint, he fails to understand the meaning of religious

sacrifice in exercising restraint to protect that which is most divine or sacred. Let me expand on these misunderstandings now.

As mentioned above, McKibben is too quick to dismiss transhuman enhancement as a project without a notion of restraint. As a frequent and prominent spokesperson for Humanity+, Bostrom frequently devotes time to discussing the risks of human enhancement. While Bostrom is often interested in overcoming human limits, he makes it clear that transhumanism takes seriously the negatives that come with new technologies. While many of the negative effects come from malicious use of technology, they also include a host of other crucial issues: "Other potential negative outcomes include widening social inequalities or a gradual erosion of the hard-to-quantify assets that we care deeply about but tend to neglect in our daily struggle for material gain, such as meaningful human relationships and ecological diversity" ("Transhumanist Values" 4). Moreover, Bostrom makes a point to respond to the common fears of transhumanism that concern McKibben:

> Many people are scared of transhumanism. While some of the fear is based on misconceptions, a significant part of it reflects a legitimate concern that in the process of pursuing technological "improvements", we could risk losing some of the things that we regard as most valuable. The challenge, therefore, is to be sensitive to our fundamental values and to find a vision and a roadmap that will not lead to their disappearance but rather to their enhancement (albeit, perhaps, in a transposed form). We must emphasize that what we should strive for is not technology *instead* of humanity, but technology *for* humanity. ("What is Transhumanism?")

Clearly, as exemplified by Bostrom (and most definitely not limited to him), transhumanism (generally speaking) is not without restraint. Most importantly, and getting us back to the

argument of this chapter, McKibben invokes restraint and its religiosity, even going so far as to exemplify restraint through Jesus' sacrifice; however, in doing so he completely overlooks the notion of sacrifice, that which sacrifices divine intimacy as sacred, the very point I have been attempting to make in this chapter through Bataille. McKibben rightly appeals to sacrifice in the context of restraint and religion but simply passes over it, suppressing the necessity of sacrifice in relation to that which is divine/sacred for the bioconservative and transhumanist alike, human life.

The very idea of restraint and religion being coupled is no coincidence, for Derrida argues, that which has the right to absolute respect, the unscathed, or the sacred, involves a movement of hesitation, that Derrida describes as suspension or interruption. Derrida describes this movement with the following family of words: "respect, modesty, restraint, inhibition, *Achtung* (Kant), *Scheu*, *Verhaltenheit*, *Gelassenheit* (Heidegger), restraint or *holding-back* [*halte*] in general" ("Faith and Knowledge" 85). Derrida goes even further, arguing that this movement is a universal structure of religion that can be found outside religion proper. He refers to this movement as the possibility of religion, rather than religion strictly speaking. As Derrida says of all these terms, "All of them involve or mark a restraint [*halte*]" (85-86), perhaps they "constitute[s] a sort of universal, not 'religion' as such, but a universal structure of religiosity. For if they are not in themselves properly religious, they always open the possibility of the religious without ever being able to limit or restrain it" (86). My argument is that transhumanism participates in this universal structure of religiosity that opens the possibility of religion.

Although Derrida repeatedly appeals to the absolute respect for life in the sacred, he extends that absolute respect for life into other fields like science, providing an approach to our discussion of transhumanism. Derrida asks, rhetorically, is not the unscathed or the sacred, "the

very matter—the thing itself—of religion?" ("Faith and Knowledge" 61). But Derrida poses the question of the sacred in terms of the swelling of life, using the examples of erection and pregnancy: "one could, without being arbitrary, read, select, connect everything in the semantic genealogy of the unscathed—'saintly, sacred, safe and sound, *heilig*, holy'—that speaks of force, life-force, fertility, growth, augmentation, and above all *swelling*, in the spontaneity of erection or of pregnancy" (84). This universal structure of religiosity is nothing other than respecting and saving life, especially for survival, for the future, the very thing motivating both bioconservatives and transhumanists. The problem with the absolute respect for life, or the sacred, is that it provokes the act of sacrifice. As we have already observed, Derrida states life has absolute value (the sacred), only if it is worth more than a particular or individual life. Derrida explains sacrifice as a portion of this universal structure of religiosity when he remarks that it, "allows or promises perhaps the global translation of *religio*, that is: scruple, respect, restraint…etc.—all stop short of that which must or should remain safe and sound, intact, unscathed, before what must be allowed to be what it ought to be, sometimes even at the cost of sacrificing itself and in prayer: the other" (86).

In other words, if the notion of restraint for that which has absolute value as sacred is a central structure of religion, and such a structure also makes sacrifice a sacred act, then McKibben's call for restraint is ironically a thoroughly religious one. McKibben's opposition to transhumanist progress and enhancement is not simply calling for religious restraint from a secular scientific transhumanist activity. Even if McKibben were an atheist without any religious intent, his call for restraint in transhumanist enhancement makes transhumanism share a structure of restraint with religion. He is interested in protecting that which is sacred within the human through restraint as a way of protecting the integrity of the human species, but he does not

consider the sacrificial nature of restraint. McKibben's use of restraint opens him to the problem of religious sacrifice. For Derrida, what is required in the possibility of this universal structure of religiosity, in the very same movement of protecting via restraint, is the other side of a double postulation, that of sacrifice:

> On the one hand, the absolute respect of life, the "Thou shalt not kill" (at least thy neighbour, if not the living in general), the "fundamentalist" prohibition of abortion, of artificial insemination, of performative intervention in the genetic potential, even to the ends of gene therapy, etc.; and on the other… the no less universal sacrificial vocation… [especially involving] sacrifice of the living. (ibid.)

McKibben has unwittingly placed transhumanism in the midst of a religious dilemma and the religious claim of absolute respect of life. What Derrida cites as the fundamentalist prohibition of abortion, artificial insemination, and gene therapy, are all ethical dilemmas with which transhumanism itself is faced. As can be seen in this quotation from Derrida on the simultaneous demand of respect and sacrifice, McKibben, in exercising restraint, fulfills the respect for life but ignores the unavoidability of the sacrificial vocation, which he accuses transhumanists of lacking: "For [transhumanists], the idea of enough is not completely alien or distasteful, though it remains difficult to embrace" (*Enough* 220). McKibben concludes strongly on a case for restraint such that we may still save the uniqueness of humanity: "But enough, just enough. And us in it" (227). Yet McKibben, as I argue, fails to fully commit to the double postulation of the structure of religion that he employs: a respect for life and the corresponding sacrificial vocation. In overlooking the connectedness of the sacrificial vocation to the respect for life as restraint, McKibben incorrectly demonizes the sacrifice of life in transhumanist enhancement projects,

which is the very element that actually makes transhumanism consistent with the universal structure of religiosity to which McKibben is himself appealing, as protection and sacrifice of the sacred life of the human. In other words, transhumanism, in sacrificing the human as we know it for enhanced survival, is taking part in and fulfilling this structure of religiosity (saving life through the sacrifice of that very life, making it sacred) but without normative religious contents, like those of explicit religious doctrines or teachings, and is thus acting as a religion without religion.

The "specialness/uniqueness" (McKibben) or the "sacredness" (Kass; Kimbrell) of human life (justified through religious rhetoric and discourse) that the bioconservatives are trying to protect cannot be fully comprehended without comprehending sacrifice. Bioconservatives like McKibben, Kass, and Kimbrell are unable to maintain the fullness of this structure of religiosity that they employ because they neglect the sacrifice of human life required to save and protect human life into the future. More specifically, they fail to acknowledge the autoimmune sacrifice of the sacred, which is a relinquishment or loss of (human) life "as we know it" in order to protect that very life into the future. In other words, these bioconservative thinkers do not consider how human life as sacred is wrapped up in the process of autoimmunity, as Derrida argues, and that to save human life as sacred we must sacrifice human life through technological mediation, thereby continuously altering human life "as we know it." The demand to sacrifice the most holy, the most sacred, is a religious demand, to restate its most clear biblical source: "I urge you, brothers and sisters, in view of God's mercy, to offer your bodies as living sacrifice, holy and pleasing to God—this is your true and proper worship" (Romans 12: 1). Human life and its body as holy, divine, or sacred, in order to be "properly worshiped," must involve sacrifice. As Derrida explains, there is "nothing immune, safe and sound, *heilig* and holy, nothing

unscathed in the most autonomous living present without a risk of auto-immunity" ("Faith and Knowledge" 82). In other words, the absolute value, divinity, holiness, and sacredness of human life must remain open to the autoimmune sacrifice, a menace and a chance, to protect that which is most valuable in human life by sacrificing part of that life through technological supplement and prosthesis.

Autoimmune Sacrifice and the Sacredness of Human Life

The universal structure of religion that has as its most essential imperative and most dire exigency the protection and salvation of human life, the sacred, is indissociable from the sacrifice of technological supplementarity and prosthesis in Derrida's sense. The connection between this structure of religion as protection of human life and its relationship to technology comes to embody the very project of transhumanism and its drive to improve the human condition through technological enhancement. This is because that which is most sacred (human life) in a religious context is inseparable from autoimmunity and sacrifice through technology:

> The same movement that renders indissociable religion and tele-technoscientific reason in its most critical aspect reacts inevitably *to itself*. It secretes its own antidote but also its own power of auto-immunity. We are here in a space where all self-protection of the unscathed, of the safe and sound, of the sacred (*heilig*, holy) must protect itself against its own protection, its own police, its own power of rejection, in short against its own, which is to say, against its own immunity. It is this terrifying but fatal logic of the *auto-immunity of the unscathed* that will always associate Science and Religion." (Derrida, "Faith and Knowledge" 79-80)

To use Derrida's language, human life as sacred is wrapped up in the process of autoimmunity, and to save it as sacred, one must sacrifice human life through technological mediation in order to save human life. As Derrida puts it, "everything that binds the tele-technoscientific machine, this enemy of life in the service of life, to the very source and resource of the religious: to faith in the most living as dead and automatically *sur-viving*, resuscitated in its spectral *phantasma*, the holy, safe and sound, unscathed, immune, sacred—in a word, everything that translates *heilig*" (84). To clarify, to protect and save the divinity, sacredness, holiness, of human life one must do so through a process of replacement: "technics, the machine, the prosthesis: in a word, to the dimensions of auto-immune and self-sacrificial supplementarity, to this death-drive that is silently at work in every community" (87). Autoimmunity, the process of protecting yourself from your own protection, is that "strange illogical logic by which a living being can spontaneously destroy, in an autonomous fashion, the very thing within it that is supposed to protect it against the other, to immunize it against the aggressive intrusion of the other" (Derrida, *Rogues* 123), self-protection through self-destruction, "a *double bind* of threat and chance" (82). Autoimmunity, especially the autoimmunity of the living, necessitates risk and sacrifice. To protect human life, as sacred, we must expose it to technological supplementarity and prosthesis, which means a partial (or full) destruction of that life. Extension, iteration, and survival of life is performed through (technological) replacement, a risk which threatens human life by sacrificing it. The future survival of human life requires autoimmune sacrifice and technological supplementarity/prostheses, a notion Derrida understands as the "spectral fantasy of the dead as the principle of life and sur-vival" ("Faith and Knowledge" 86-87). The principle of the survival of life is linked to the very sacrificial death of that life, connected to something like an incorporeal spirit (or spectre) that is projected into the future by way of the name to maintain a

semblance of continuity of that very life that was lost. I will discuss how the sacrifice of life relates to the importance of the spectrality of the name later in the chapter with regard to sacred without the sacred. Here, I emphasize that this principle of self-sacrificial supplementarity, which sees the need for technological supplementarity and replacement for the continued survival of life, brings with it the idea that "life has absolute value only if it is worth *more than life*" (87).

It is here that I locate the divinity or sacredness of human life, which is at the core of not only the bioconservative position but also transhumanism. The concept of the value of life worth more than life demands mourning, a becoming of itself in what Derrida calls the "labour of infinite mourning, in the indemnification of a spectrality without limit" (ibid.) which attests to loss, relinquishment, sacrifice—the very conditions of sacredness that Bataille mentions. Human life "is sacred, holy, infinitely respectable only in the name of what is worth more than it," which is not limited simply to biological or "natural" life, but is life worth more than this so-called natural life. "Thus, respect of life in the discourses of religion as such concerns 'human life' only in so far as it bears witness, in some manner, to the infinite transcendence of that which is worth more than it (divinity, the sacrosanctness of the law)" (ibid.). It is thus human life, which is to say, as Derrida does, "anthropo-theological life, the price of what ought to remain safe (*heilig*, sacred, safe and sound, unscathed, immune), as the absolute price, the price of what ought to inspire respect… this price is priceless," a statement corresponding to the conception of human dignity and absolute value that we see presented in Immanuel Kant (ibid.). It was Kant who argued that human dignity speaks to the absolute value a person has as an end in his or herself, as a rational and finite being. As Derrida remarks in relation to dignity in Kant, this "dignity of life can only subsist beyond the present living being. Whence, transcendence, fetishism and spectrality; whence the religiosity of religion" (ibid.). It is this excess above and beyond the

living of human life, "whose life only has absolute value by being worth more than life, more than itself—this, in short, is what opens the space of death that is linked to the automaton, to technics, the machine, the prosthesis" (ibid.).

As I argue, this opening should also be extended to the space of death by means of the technologies we find in transhumanism. This is why, as Bostrom maintains, transhumanism sees the human and its body as open to improvement:

> Transhumanists view human nature as a work-in-progress, a half-baked beginning that we can learn to remold in desirable ways. Current humanity need not be the endpoint of evolution. Transhumanists hope that by responsible use of science, technology and other rational means we shall eventually manage to become posthuman, beings with vastly greater capacities than present human beings have. ("Transhumanist Values" 4)

Transhumanism speaks to the technological transitioning and enhancement of that which is of absolute value (human life); saving it through technology, and thus in relinquishing, sacrificing human life, transhumanism makes human life and its body sacred.

The bioconservative position held by those like McKibben, Kass, and Kimbrell represents a full-scale misunderstanding of transhumanism. But I am advocating for an understanding of transhumanism that even transhumanists miss: the sacrificial replacement of the human as we know it through technological enhancements, especially via the engineering of new forms of biotechnologies, does not abolish the sacredness of the human and its body, it rather makes the human and its sacrificed body sacred. As the bioconservative position understands it, human enhancement technologies withdraw the religious sacredness of human life because they violate and destroy it: "to regard life as sacred means that it should not be violated, opposed or

destroyed, and, positively that it should be protected, defended and preserved… that 'sacredness,'…. calls forth an appropriate human response, whether of veneration or restraint" (Kass, *Life, Liberty and the Defense of Dignity* 235). But as Derrida shows, one of the very tendencies of the religious is its "radical destruction of the religious;" in its aims to protect the divine value of human life it partakes in a "self-destructive affirmation of religion, I would dare to call it auto-immune" ("Faith and Knowledge" 78). This impulse in the structure of religion which protects divine life "*indemnifies* itself thus in a movement that is at once immunitary and auto-immune" (81). The religious sacred "protects [itself] only by threatening [itself], according to this double and contradictory structure" (82). This autoimmune structural component means protection through sacrifice, a violence done to the self to protect the self, by means of the technological supplementarity and prosthetic replacement of human life that affords the possibility of it surviving into the future. In opposition to the bioconservative Kimbrell, who maintains "the body as sacred has evolved into the body as secular… no longer seen as analogous to the divine, but rather as similar to the engines of history (*The Human Body Shop* 282-283), or the transhumanist Max More, who denies the sacredness of the human body, I maintain the body is indeed sacred*, but only when it is sacrificed* for the chance of continued human survival. And this autoimmune structure of sacrificing human life for its salvation participates in the universal structure of the religious through sacrificing sacred life.

This religious autoimmune structure of sacrificing life *as sacred* is repeatedly missed in transhumanist works, even when they reference religion, because they reference it only—in their minds—to oppose it. The transhumanist John Messerly, for example, argues "the religious generally want to overcome the limitations of the body and live forever in eternal bliss," but we must relinquish religious belief, and the most important reason to "abandon religious belief is

religion's opposition to most forms of progress" ("Transhumanism and the End of Religion"). To his credit, Messerly admits that "transhumanism has religious components" ("A Philosopher's Lifelong Search for Meaning"); however, he does so only to renounce the religious, and to "replace the delusions of popular religions [to] use science and technology to transform reality," ("Is Transhumanism a Religion?"). Yet even when science replaces religion completely, Messerly still resorts to religious language: "Posthumans won't die and go to heaven, they'll (hopefully) create a heaven. In the future, the gods will exist…only if we become them" ("A Philosopher's Lifelong Search for Meaning"). Nevertheless, Messerly will have nothing to do with the sacred. Writing in response to McKibben and thinkers like him, Messerly "wonders why these thinkers see human nature as sacrosanct," and asks: "Is our nature so sacred that we should be apologists for it? Isn't it arrogant to think so highly of ourselves?" ("Death Should Be Optional"). The majority of transhumanists, as exemplified by Messerly, are simply averse to the idea of the sacred and its religious connotations, even though they make the human sacred through the process of human enhancement—the partial destruction of the human and its body for its salvation.

Derrida makes this idea of a partial destruction for survival of the sacred when he explains this autoimmune sacrifice of life: "This reactivity is a process of sacrificial indemnification, it strives to restore the unscathed (*heilig*) [holy/sacred] that it itself threatens" ("Faith and Knowledge" 66). The sacrifice of life is to restore, replenish, and expand human life into the future, for the very reason that it is of absolute value to us, thereby being divine and holy, such that we must save it through its very relinquishment, as sacred sacrifice. For Derrida, "self-sacrifice thus sacrifices the most proper in the service of the most proper," the "sacrifice of self, of one's most precious interest" (88), a sacrifice of the human as we know it and its body in

the service of the human and its body into the future. And there is "[n]o faith, therefore, nor future without everything technical, automatic, machine-like supposed by iterability" (83), and thus no future without the technological supplementarity and prosthesis that gradually replaces that which holds absolute value, human life and its body as we know it; that life now gone, having been replaced, now inaccessible to us in its divine sacredness.

The Sacred Without Sacred

This discussion of the sacred is at a crucial juncture, one which represents the misunderstanding of the human as sacred that plagues the bioconservatives and transhumanists alike: human life and its body as it currently exists is not (properly) sacred simply because it cannot be sacred. Only the sacrificed is (properly) sacred, and thus the sacred must be inaccessible and untouchable. As Bataille explains, the divine intimacy to which the sacred has been returned through sacrifice has the "quality of inaccessible distances," because the material being of reality, which is where the human and its individuality reside, is not compatible with divine intimacy (*The Bataille Reader* 214). In terms of the sacred (that which has been sacrificed), it is inaccessible because it is gone and no longer exists in the order of material reality. Yet, one must still recognize the absolute value and worth, the divinity of the human before it is threatened through sacrifice and to use Bataille's words, returned to the divine intimacy from which it came.

Instead of arguing, like the bioconservatives do, that the human and its body as we know it is sacred, I argue that the human and its body as we know it is better understood in a more Derridean fashion as a manifestation of what Christopher Elson and Garry Sherbert call the "sacred without the sacred." The sacred without the sacred, as Elson and Sherbert explain, is a

"new mode of the sacred, this drive to remain unscathed, except by itself, autoimmunely," which they connect to the Derridean "salut," and its metonymical meaning as both "saving" and "greeting" (*In the Name of Friendship* 48). With regards to the concept of the name from Derridean discourse, "the name as *salut* divides itself, metonymically, in order to protect the sacred singularity of the thing named while remaining open to greet the otherness that interrupts the self-identity of the thing" (49). To put it plainly, they suggest that the name (of a thing—here, say the name of a human individual) acknowledges the sacredness of that which has passed and hence been made inaccessible through the technological supplement and simultaneously allows the thing (a particular human being) to survive into the future through an opening into successive technological extension/supplementarity. Thus, the name functions as a marker of the sacred without sacred, or the "autoimmunity of the sacred," by naming the human and its body as we know it, to acknowledge the "sacred becoming other to itself [giving] something outwardly that remains after it withdraws, leaving only a trace of its inaccessible otherness" (112). In other words, the sacred without the sacred, as with the name, saves (preserves) the singularity of the individual while simultaneously opening that singularity to change over time, greeting the new, which may save or destroy the person.

While Elson and Sherbert magnificently craft a theory of the sacred without the sacred in the context of poetics, they do not mention how such a conception relates to transhumanism. It is a missed opportunity considering they spend time explicating the concept of anthropomorphosis that they draw from Michel Deguy, or a becoming human, acknowledging a simultaneous "morphing" into, and out of, the human. To bring their work in line with the problem at hand in this chapter, the sacredness of the human in the context of transhumanist enhancement, I

maintain that transhuman enhancement is consistent with a notion of the human as sacred without the sacred.

Conceiving the human and its body as we know it as sacred without sacred is consistent with the inaccessibility of the sacred as that which has now been lost or relinquished (sacrificed) from Bataille, because as Elson and Sherbert maintain: "What saves the sacred after it has been subjected to the process of denegation is an inaccessible otherness to its own being that *is* not, but something that we can testify to in 'things,' or processes, like the event, the date, the gift, the secret, and the name, especially in its poetic nomination as *salut*" (112-113). To mark the human and its body as sacred without sacred, rather than simply sacred, supports and recognizes the need to open the human and its body to the possibility of new technological supplements/prostheses, to protect that which is of absolute value through the possibility of technologies of enhancement, which make that which has been sacrificed sacred while simultaneously endorsing that sacredness into future survival and salvation of human life. As Elson and Sherbert argue, from within the logic of autoimmunity and the religious, the sacred "must expose itself to the very thing it seeks to protect itself against in order to save itself, indemnify itself … to survive temporally… And this opening of [the] thing's self-identity to the coming of the other … is both a threat to the thing and its chance of salvation" (158).

As Elson and Sherbert note, this autoimmune movement within the sacred is incompatible with traditional conceptions that see the sacred as metaphysically unchanging, immortal, and incorruptible. The sacred, from a Derridean perspective, does not manifest as an absolutely pure and homogenous entity. Elson and Sherbert rightly pick up on this subtlety in Derrida's work, recognizing that the sacred, as one of Derrida's two sources of religion, is distinct from the other source (faith) because the sacred is "the drive to remain unscathed, on the

part of that which is allergic to contamination, *save by itself*, *autoimmunely*" (Derrida, qtd. in Elson and Sherbert, *In The Name of Friendship* 112). Said differently, the sacred must interrupt itself for its salvation through faith by sacrificing itself by way of the "law of salvation: saving the living intact" (Derrida, "Faith and Knowledge" 85), opening up the very possibility of the religious by sacrificing the living (sacred). As Elson and Sherbert explain, the singularity of the sacred must be lost for the salvation of the sacred: "The singularity that is inscribed as an event only by losing some of its singularity, sacrifices its purity by delegating a part of itself to the name, to the profanity of the trace, a sacred without the sacred" (*In The Name of Friendship* 140). Much like any being or thing that pursues unity with itself, it must repeat and remark itself through opening itself to substitutions of signification via technological supplementary apparatuses, thus losing itself in the very process of conservation. Deguy remarks on the sacred: "Once belief 'in' religion is subtracted, there remains something of (or) the 'sacred'… But not intact (even while the intact would be a predicate of the sacred); rather, it is transformed, 'translated,'…Actively 'losing' the sacred from a religious provenance… is to conserve-while-leaving-behind" (qtd. in Elson and Sherbert, *In The Name of Friendship* 112). This paradox of the sacred connects closely with Derrida, who says sacrifice "can destroy the sacred but, in so doing, it can…make the sacred manifest, save it thus in the sacrifice" ("The Eyes of Language" 217). Martin Hägglund explains that Derrida's "notion of autoimmunity spells out that everything is threatened from within itself, since the possibility of living is inseparable from the peril of dying" (*Radical Atheism* 9). In other words, the sacred must subject itself to death, relinquishing part of itself in order to survive, to live, to continue the sacred in some form in recognition that "life is worth more than life," that "life has absolute value only if it is worth *more than life*… so far as it bears witness, in some manner, to the infinite

transcendence of that which is worth more than it (divinity, the sacrosanctness of the law)" (Derrida, "Faith and Knowledge" 87). To quote Michael Naas, as Elson and Sherbert do: "without the welcoming of the supplement or graft of the other, the self would remain within itself, safe and sound, absolutely protected, which is to say, absolutely safe and sound and thus absolutely dead" *(Miracle and Machine* 82). As such, the sacred must sacrifice its absolute immunity, its purity, via a process of autoimmunity through the technological supplement to protect it from that which threatens to destroy it. Continuation of the sacred, its future salvation, while also maintaining something of the intactness, purity, untouchability, and inaccessibility of the sacred can only be done by way of a sacred without the sacred, a contamination of the sacred (life) by way of the technological supplement.

To bring this theory of the sacred (without sacred) back into the central concern of this chapter, the human and its body as it exists is an expression of the sacred without the sacred. Counter to the bioconservative position, the human and its body as it exists today in its current form is not sacred, because the sacred has already been lost and relinquished. This is because, as Elson and Sherbert contend in Derridean fashion, "nothing that *is* is sacred" (*In the Name of Friendship* 141). And contrary to the normative transhumanist position, the sacred is a relevant concept to transhumanist discourse, precisely because transhumanist enhancement marks the possibility of making the human and its body sacred, by sacrificing that which is of absolute value (human life) for its very protection and salvation into the future. In this sense, Max More is correct in his assertion "that this body is not sacred" in the sense of the body as it currently exists is not sacred, but he fails to recognize that transhumanism is a testament to the process of making the human body (as it existed) sacred and that, as such, transhumanism's vocation is to treat the human and its body (as it currently exists) as the site of the sacred without the sacred. The

transhuman perspective is well-suited to acknowledging that the human body is constantly changing (including how it continually adapts to its environment through processes of evolution), thereby repeating differently through technological supplementarity and prosthesis, and thus to a certain extent is always "to come." What transhuman discourse has failed to do, however, is to acknowledge the sacred, or the sacred without the sacred, in the very processes of change that the human body undergoes.

Locating the Transhuman Sacred

Before bringing this chapter to a close I will review some of the literature that seeks to locate something akin to the sacred in transhumanism. As a look into this literature will expose, both transhumanists or transhumanist commentators omit the most obvious location or source of sacredness (without the sacred) within transhumanism, human life and its body.

A clear example is the transhumanist Gregory Jordan, who argues that transhumanism has "created the right conditions for the development of a new type of religion," where the introduction of a transhumanist religion would produce a more fulfilling and comprehensive transhumanist ideology to assist with application of transhumanism into "the sphere of religion, religious feeling, and religious experience" ("Apologia for Transhumanist Religion" 56). In his attempt to frame transhumanism within the category of religion, he admits that on "the face of it, transhumanism little resembles a prototypical religion," especially since it does not "distinguish between the sacred and the profane" among other things (58). From there, Jordan employs Gregory Alles' characteristics of a prototypical religion, which includes notably a substantial focus on the sacred. As such, Jordan struggles to decisively locate an element of the sacred in transhumanism even when he admittedly approaches key areas, instead hesitantly gesturing to

broad spaces that may be considered sacred. As a case in point Jordan claims that it is possible to "see evolution as forming a kind of sacred history—an understanding of the past, and how the present came to be, which informs religious attitudes, beliefs, and behaviours" (64). Jordan begins to more closely approach human life and its body as sacred, but does not quite make the definitive connection. He says: "sacred histories are not only about origin; they are also about destiny" (ibid.). Moreover, Jordan rightly suggests, although fails to explicitly mention, the sacred as something akin to "ultimate concern" when he projects the possibility of the variety of "the highest and most sacred concerns of humanity will converge in a manner that is without historical precedent" (69); however, Jordan does not say what these "sacred" concerns might be and definitely does not make clear that the transhuman sacred is human life. Finally, Jordan employs the sacred again, only briefly, in his discussion of transhumanist practitioners achieving god-like forms, saying all "paths leading in this direction could be considered sacred, by comparison to alternative paths" (70). Again, Jordan uses the concept of the sacred but does not offer an answer to what this idea of the sacred in transhumanism is, nor how these supposed "alternative paths" are decidedly not sacred. Ultimately, Jordan's vague attestation of the transhuman sacred approaches the idea of human life as sacred, as something to be protected, but fails to hit his mark on declaring the crucial and most sacred element of transhumanism, human life.

Transhumanist commentators seem unable to decisively locate human life as the transhuman sacred, even though they admittedly closely approach this determination. Scholar of religion, Hava Tirosh-Samuelson is one such transhumanist commentator who argues that transhumanism should be considered a "secularist faith," because "transhumanism secularizes traditional religious themes, concerns, and goals, while endowing technology with religious

significance" ("Transhumanism as a Secularist Faith" 710). While Tirosh-Samuelson is correct to assert that transhumanism secularizes traditional religious concepts, similar to Jordan, makes use of the concept of the sacred without going into sufficient detail. Like Jordan, she appropriates Alles' religious categories which center on the concept of the sacred and applies them to vague areas of concern, without providing any reasoning as to what makes these areas sacred, or what makes the sacred sacred. As she claims regarding transhumanist movements and futurology: "Ironically, the success of futurology is to be found in the fact that (presumably secular) science has an aura of the sacred in contemporary culture" (722). What Tirosh-Samuelson fails to mention is why science has an aura of the sacred; what Tirosh-Samuelson does not acknowledge is that any such aura of the sacred that science may have is due to the fact that its technical knowledge is instrumental in the survival of human life. Any further mention of the sacred by Tirosh-Samuelson unfortunately lacks detailed explanation of what the sacred is, implies, or represents.

Unlike Tirosh-Samuelson, scholar of religion Tracey J. Trothen more closely approaches something like a conception of the transhuman sacred and the sacred without sacred. Trothen approaches something like human life as the transhuman sacred in her article "The Trans-Athlete and the Religion of Sport," where she seeks to find "religious-like dimensions [within] transhumanism and sport" where "aspects of both can be regarded as sacred by followers" (351). She explains Christian sacredness as hope, the flourishing of life and personhood, and even life beyond death, connecting it to transhumanism's focus on individual agency, human progress, and life extension; however, Trothen unfortunately passes by these intersections and focuses more deeply on sport. Trothen often simplifies transhumanism to its normative tropes where "the body is dispensable, necessary to neither personhood nor immortality and only of use insofar as it can

be mastered… [where] only the mind [is] seen as sufficiently sacred to be necessary to personhood" (357-358). Her more interesting commentary comes out of her discussion of flow experience in sport, where epistemological "constructs of spirit/body, immanent/transcendent, and the sacred/profane as distinct categories are rendered meaningless by flow experiences" (358). Through "flow," the sacred that she claims is often associated with spirit and the profane (often associated with the physical body) allow for a continuum and connection between spirit (or mind) and body. This is very interesting, although Trothen does not directly connect this concept to transhumanism. Instead, she suggests technological enhancement to the human body could potentially disrupt and reduce flow experiences: "trans-athletes may risk losing flow or may develop a lack of interest in creating the conditions for flow… [where the] absence or even decreased prevalence of flow experiences could reinforce perceptions that the body, mind, and spirit are discrete pieces of the increasingly reducible human" (358-359). Interrupting flow experiences disconnects the possibility of seeing transhumanism as conceiving the sacrificed body as sacred or the present body as sacred without sacred.

Similarly, Matthew Zaro Fisher rightly explicates, however briefly, the notion of the individual person as sacred and its connection to the *imago dei* (the idea that God created humanity in his own image) within the Christian theological tradition. More specifically, Fisher convincingly argues that the *imago dei* implies the sanctity of every person and such doctrine "must not be considered antithetical to evolutionary theory" ("More Human than the Human?" 29). Moreover, he states that theological anthropology maintains this notion of the *imago dei*, "yet the tradition must recognize the emergence of contingent personhood found in our own species to be evolutionary and historical in nature" (ibid.). While I am not able to discuss Fisher's argument in detail here, it is worth noting that he indirectly approaches something like

the transhuman sacred offered in this chapter. Even though Fisher advocates for the continued sacredness of persons through evolution and the technological enhancement found in transhumanism, he nonetheless passes over the crucial nature of sacrifice in making life sacred and does not conceive how the sanctity of a person through time implicates the concept of the sacredness of that which has been sacrificed or the human as we know it as the sacred without sacred, as the site of production of a sacrificial sacred, where life comes to be valued more than life, sacrificing it for its own salvation into the future.

In this chapter I have argued, contrary to bioconservatives like Kass, Kimbrell, and McKibben, that transhumanist technologies which enhance human being (and its body) "as we know it" does not discard the sacredness of the human, but instead actively make the human and its body sacred. It is clear that much like the bioconservative position, transhumanism conceives human life as having absolute value, as something divine, holy, sacred, and thus as something to be saved. Antithetical to the normative stance of bioconservatism that understand the body "as we know it" to be sacred and thus safeguarded from enhancement, the act of sacrificing elements of human life to act in interest of its salvation, as we learned from Bataille, actually produces those sacrificed elements as sacred: "sacrifice is nothing other than the production of sacred things" (*The Bataille Reader* 170). Instead, the body "as we know it," is not sacred, at least, not yet. It is here where transhumanism actually opens up the very possibility of making the human sacred. Transhumanist Max More is mistaken when he argues transhumanism may "act as a philosophy of life that fulfills some of the same functions as a religion [but] without any appeal to a higher power, a supernatural entity, to faith, and without other core features of religions" ("The Philosophy of Transhumanism" 8). Transhumanism, on the contrary, could be said to cultivate the most central or core feature of religion, the protection and salvation of sacred life,

what Derrida calls a "universal structure of religiosity," in pursuing to save the sacred through sacrifice: "respect of that which is [sacred] *both requires and excludes sacrifice*, which is to say, the indemnification of the unscathed, the price of immunity. Hence: auto-immunization… Absolute respect enjoins first and foremost sacrifice of self, of one's most precious interest" ("Faith and Knowledge" 88). The sacrifice of human life "as we know it," as a result of transhuman enhancement to save human life into the future, is the transhuman production of the sacred. Furthermore, the human and its body as we know it, is the very site of sacred production, a transhuman sacred without sacred, an autoimmune mode of the sacred whereby the sacred in "losing some of its singularity, sacrifices its purity by delegating a part of itself to the name, to the profanity of the trace, a sacred without sacred" (Elson and Sherbert, *In The Name of Friendship* 140). Transhumanism sacrifices part of that which it holds as absolute, human life, to save it, by delegating part of itself to the technological supplement and prosthesis, through which it continues with the regularity of a machine, to produce the sacred through the autoimmune process of the sacred without sacred, a transhuman sacred (without sacred).

Chapter Three

FROM RELIGION TO TRANSHUMANISM: ANTHROPOCENTRISM AS ANTHROPOTHEISM

Humanism, like transhumanism, is a religion without religion. Humanism is the inheritor of many ideological assumptions and objectives located within the milieu of a secularized Christian-West and represents what I call, following Derrida, "a religion without religion," a secularized form of religiosity that retains certain religious structures while remaining open to new (secular or religious) content. Transhumanism, as the belief that scientific reason and technology provide the ability to transcend the limitations of the human is a descendent of the Enlightenment and the corresponding formulations of religious and secular humanism(s) that developed from this period of history. According to Humanity+ (formerly the World Transhumanist Association), "Transhumanism can be viewed as an extension of humanism, from which it is partially derived. Humanists believe that humans matter… Transhumanists agree with this but also emphasize what we have the potential to become" ("Transhumanist FAQ"). Concepts such as reason, progress, and control over nature, derived from humanist and Enlightenment thought, figure prominently in transhumanism's extension of humanism: "Just as we use rational means to improve the human condition and the external world, we can also use such means to improve ourselves, the human organism" (ibid.). The meaning of the term "humanism," varies widely within the complex history of Western culture. I will be using "humanism" in this chapter to refer to a system of ethical philosophies affirming the absolute dignity and value of humanity based on the appeal to universal human qualities, like that of reason or consciousness.

Anthropocentrism, the concept that humans are the center of all meaning and value, is intimately connected to humanist perspectives and its religious antecedents, representing a particularly toxic form of humanistic thought that contributes to the tenability of a violent human-animal hierarchy. In fact, I claim that anthropocentrism is in large part the result of religion's connection to secular humanism, or what Ludwig Feuerbach, writing in the nineteenth century, calls, "anthropotheism," which is "religion conscious of itself," and thereby one which recognizes God as a symbol of the human (*The Fiery Brook* 164). In other words, anthropocentrism is one consequence of instantiating a secular-humanist "anthropotheism," or the human as God. Contra Feuerbach, I argue that rather than abolishing all transcendent elements, anthropotheism repeats the theological transcendentalization whereby the human once again comes to be seen as a transcendent being relative to nonhuman beings. Anthropotheism's instantiation of hierarchical transcendence between human and nonhuman being repeats the theological structure of the "human to God" relationship reimagined as "nonhuman being to Human." Creation of such a hierarchy is dangerous as it makes possible the justification for continued domination and violence of nonhuman beings (or even humans conceived as nonhuman) by humans who see themselves as on top of "the great chain of being" as God(s). Even with the advent of transhumanism advocating for "the well-being of all sentience, including humans, non-human animals, and any future intellects, modified life forms, or other intelligences to which technological and scientific advance may give rise" ("Transhumanist Declaration"), the residue of anthropocentric, or anthropotheistic thought is retained in transhumanism through continued reliance on the central tenets of human consciousness and freedom, reason, and dignity, gleaned from a religiously influenced period of secular-Enlightenment thought with insidious consequences. Transhumanism unwittingly extends harmful anthropocentric biases

derived from historical formulations of secular humanism as an inadvertent anthropotheism—a secularized form of religion that retains religious structures as a religion without religion—authorizing continued violence against nonhuman beings, especially nonhuman animals.

The aim of the current chapter is two-fold, to reveal humanism (and by extension, transhumanism) as a secularized outgrowth of Christian religious thought, and to locate some of the anthropocentric biases that remain deeply embedded in Western secular-humanist thought that are extended in transhumanist discourse. Both of these aims reveal humanism and anthropocentrism as systems of a religion without religion that I name, following Feuerbach, an "anthropotheism." First, regarding humanism as a secularized outgrowth of Christian religion, Julia Kristeva perhaps says it best: "The time has come to recognize…that the history of Christianity is a preparation for humanism. Of course, humanism is in a state of rupture with Christianity, but it starts from it" (*This Incredible Need to Believe* 83). Humanism I argue, following Feuerbach, is more than simply a philosophical and ethical stance created out of a Christian-religious cultural and intellectual milieu, and is best understood as a system of thought already embedded within the Western conception and discourse of religion itself, an anthropotheism. Using the work of Feuerbach, I will show how Western forms of religion and secular humanism represent, in part, the ongoing development of the Western intellectual conception of the human as a transcendent being, or God. As Feuerbach ardently states: "Religion is human nature reflected, mirrored in itself… in which it can project its own image as God…the mirror of man" (*The Essence of Christianity* 28). Feuerbach's work reveals religion as an abstraction of humanity's own understanding of itself, whereby "the truth and essence of

religion" is that it "affirms as divine relation that which is at bottom only a human relation" (*The Fiery Brook* 246). As such, the secularization of Western forms of religion—especially Christianity—further extends Western notions of the human and its nature in a language that is more immanent and "this-worldly," as a universal "humanism" or "anthropotheism," a religion without religion.

Second, this chapter looks at the impact of the anthropocentric tendencies in humanistic/anthropotheistic discourse that are frequently appropriated by transhumanists, finding within their work biases legitimated by a religious discourse, since secularized. For instance, I will show how the religious conception of the human as having dominion over nature and all living things (*NIV*, Genesis 1:26-28) frequently finds itself reproduced in transhumanist discourse. For example, Ray Kurzweil's project of infusing "the entire universe" with human intelligence so that it will be "at our fingertips" (*The Singularity is Near* 407), repeats religious notions of human dominion. Furthermore, I analyze the anthropocentrism of human dominion in transhumanist David Pearce whose abolitionist project looks to deliver a "cruelty-free world that lacks the molecular signature of unpleasant experience," which includes, among other things, "ecosystem redesign," rewriting animal genomes, and augmenting animal behaviour to "manage a compassionately run global ecosystem" ("Reprogramming Predators"). Even though Pearce explicitly looks to eliminate our anthropocentric bias in the creation of a compassionate global ecosystem, his project ends up reiterating a violent anthropocentrism that he purports to redress, one that preys on predators, doing violence to predatory animals by behaviourally and genetically altering their being, discounting their autonomy as beings in ways legitimated by a religiously-licensed humanism, or an anthropotheism. Pearce intends to make predators

"acceptable" to human desires, perpetuating the stereotypical biblical and anthropocentric role whereby the human is the bearer of ultimate God-like knowledge, and in control of other beings by way of human value systems. In addition, I will also look at how the transhumanist creation of a "cyborg citizenry," espoused by the likes of Chris Hables Gray and James Hughes as the basis of determining what nonhuman beings will be deserving of ethical consideration, is predicated on anthropocentric markers of human intellectual ability gleaned from religious and humanistic discourse, an anthropotheism that reinforces the human as an exceptional and transcendent being, or God, relative to nonhuman beings.

In light of the anthropocentric, or anthropotheistic biases that pervade transhumanist discourse I will be employing a particular strand of posthumanism, one which looks to work-through anthropocentric discourse from within a particular humanistic perspective, as exemplified by Cary Wolfe and Neil Badmington. Utilizing this particular posthumanist perspective acknowledges, as Badmington puts it, that "the 'post-' of posthumanism does not—and, moreover, cannot—mark or make an absolute break from the legacy of humanism" (*Alien Chic* 119-120). This particular posthumanism occurs inside humanism and consists "not of the wake but the working-through of anthropocentric discourse" (120). Finally, I introduce a much-needed Heideggerian supplement on "Being" to posthumanist discourse to enhance the effectiveness of this perspective with an ethical tool to assist in mitigating anthropocentric anthropotheism and the instrumentalization of nonhuman beings by "letting beings be." Following Martin Heidegger, I suggest transhumanism move away from a contemporary "challenging forth" approach to technology that seeks to control and instrumentalize nature and nonhuman beings (enframing), in favour of an approach to technology governed by *poiesis*, a

“bringing forth,” that works in partnership with nature and nonhuman beings to allow them a greater degree of autonomy, letting nonhuman beings be more self-determining by limiting human control.

On the History of Humanism

In this chapter, the examination of humanism within the context of transhumanism necessitates a comprehensive understanding of its historical underpinnings and contemporary implications. To address this, it's important to acknowledge into the rich tapestry of humanist thought, tracing its origins from the Renaissance to the Enlightenment and beyond. Renaissance humanism, epitomized by figures such as Petrarch and Erasmus, marked a revival of classical learning and a celebration of human potential. This period witnessed a renewed emphasis on reason, individualism, and the pursuit of knowledge, laying the groundwork for later humanistic movements (Burckhardt).

Transitioning to the Enlightenment era, characterized by intellectual upheaval and the rise of scientific rationalism, we encounter thinkers like John Locke and Immanuel Kant who espoused humanist principles rooted in reason and autonomy. Locke's conception of natural rights and Kant's moral philosophy underscored the inherent dignity and agency of human beings, shaping subsequent discussions on humanism (Locke; Kant). Moreover, the Enlightenment's critique of religious dogma and authoritarianism paved the way for secular humanism, which emphasized human flourishing in the absence of divine intervention.

Drawing upon these historical precedents, my use of humanism attempts to capture its multifaceted nature. Humanism, as articulated by Renaissance scholars and Enlightenment thinkers, encompasses not only ethical philosophies affirming human dignity but also political ideologies advocating for individual rights and freedoms. By elucidating the political dimensions of humanism through the works of Locke, Kant, and other Enlightenment figures, I aim to adopt these dimensions to provide a more robust theoretical framework for analyzing its relevance to transhumanist discourse.

Furthermore, it's essential to clarify that humanism is not a monolithic tradition but rather a diverse set of ideologies and philosophical frameworks. While some interpretations of humanism indeed emerged during the Enlightenment period, it's important to acknowledge that humanist ideas have evolved over time and have diverse historical roots. For instance, Renaissance humanism is often characterized as a rejection of scholasticism and a revival of interest in Greek and Roman works. Moreover, Enlightenment humanism encompasses a range of perspectives that vary across different thinkers, texts, and historical contexts.

For the purposes of this project it's crucial to pivot towards a focused examination of transhumanist texts and their conceptualization of the human. While this project is not meant to deeply analyze the entire history of humanism, it seeks to connect humanistic concepts from the broader historical spectrum of humanism, particularly emphasizing Enlightenment humanism, which transhumanists often claim as the precursor of their movement. By scrutinizing transhumanist literature and discourse, we can elucidate the underlying conceptions of the human embedded within their narratives, even as they purport to transcend conventional human limitations. Through this approach, I aim to shed light on the complex interplay between

humanism and transhumanism, offering insights into the ethical implications and philosophical underpinnings of human enhancement technologies.

Revealing the Human in Religion and God

A common thread in the literature on the rise of secular humanism in modernity is the influential relationship of secular humanism to its religious, especially Christian, predecessors. Philosopher John Gray takes a particularly strong position, arguing quite succinctly that "Humanism is the transformation of [the] Christian doctrine of salvation into a project of universal human emancipation," and the Enlightenment "idea of progress is a secular version of the Christian belief in providence" (*Straw Dogs* XIII). The idea of humanism as a secularization of Christian doctrine is a prominent feature of Charles Taylor's exceedingly large work, *A Secular Age*, detailing the development of the secular in modernity. For Taylor, secular humanism "arose out of a religious tradition" (18), which "crept up on us through an intermediate form, Providential Deism; and both the Deism and the humanism were made possible by earlier developments within orthodox Christianity" (20). In Taylor's work, religion is largely defined in terms of its transcendent qualities (like the transcendent nature of God, or the afterlife), which have slowly eroded in favour of a more secular "immanent" focus, especially regarding the immanence befitting human life and concern in "this world," in contrast to a religious, "other-worldly" transcendence.

An important element of Christianity that has been made increasingly immanent/secular in humanism is the Christian concept of *agape*, often translated as "charity," as well as the love

between God and humanity. Taylor correctly stresses the ways in which modern secular humanisms draw "on the forms of Christian faith they emerged from" (247), as exemplified by instrumental rationality, universalism, benevolence, and the secular-immanent successor to agape:

> Nevertheless, there is something remarkable in this retention of an agape-analogue… [A]gape or beneficence was built into this ideal model at three levels. Charity was part of the ideal of personal conduct; good social order must involve taking care of all members of society; and the proper inward disposition of a decent man included charitable ones. The basic move in the transition was the recognition that the power to create this order resides in all of us; and since the order is constituted in part by agape or benevolence, then this power must reside in us. (247-248)

The necessity of charity and a love for all other humans, a universal beneficence and justice, as Taylor discovers, is part of living up to one's moral dignity as a rational being in a developing secular humanism. Humanism, promoting love and concern for all of humanity is spread, in part, on the premise of its universality, which it "has taken over… from its Christian roots" (246).As a moral system that significantly secularizes the concept of Christian agape, humanism preserves Christianity's universal character of love for all humanity without relying on religious transcendence. In other words, humanism upholds certain religious structures established by various interpretations within the Christian religious tradition, operating as a religion without religion. Just as agape refers to charity and the love between God and humanity, humanism simply immanentizes the transcendent God, turning God into the universal symbol of the human. As Jean-Luc Nancy says, "Christianity became, by itself, a humanism, an atheism, and a

nihilism" (*Dis-enclosure* 23), the reasoning for which began because "it turned the essence of God into the essence of man, it merely imprinted on the premise of a pivoting or rotation on itself" (19). Feuerbach comes to a similar conclusion, arguing that the "existence of God is also only an historical, in itself atheistic conception" (*The Essence of Christianity* 161). The reason for the atheism, according to Feuerbach, is that "the substance and object of religion is altogether human… divine wisdom is human wisdom… the secret of theology is anthropology" (221).

Conceiving "theology as anthropology," Feuerbach suggests that the historical development of humanism(s) are systematic transformations (Feuerbach does not use the term secular) of religion, and as I will later argue, is exactly how Western humanisms, in general, participate in a religion without religion. Feuerbach contends, the "task of the modern era was the realisation and humanisation of God—the transformation and dissolution of theology into anthropology" (*The Fiery Brook* 173). Theology then "turns the standpoint of man into the standpoint of God" (178), for God is "nothing other than the archetypal and ideal image of man; *what* God is and *how* he is, is what man *ought* to be or *wants* to be, or at least hopes to be in the future" (190). The figure of God, argues Feuerbach, is presented as humanity's antithesis, made an object through abstraction and negation, an infinite and incorporeal being. God is "pure spirit, pure essence, pure activity…without predicates imposed from outside, without sensuousness, without matter," which Feuerbach traces in its later transformations into the object of speculative philosophy, where the attributes and qualities of God are realized as acts of absolute thought, identified in the philosophies of Rene Descartes and Gottfried Wilhelm Leibniz, among others (180). As Feuerbach shows, God is a thinkable being as an object of thought, being "nothing else than the reason in its utmost intensification become objective to itself" (*The Essence of*

Christianity 3). Reason and understanding are then packaged as the idea of God: "God is the reason expressing affirming itself as the highest existence" (ibid.). God, for Feuerbach, is the essence of reason itself, where God is accessible only through reason. In other words, God is reason, and reason is God, the absolute apex expressed and accessible only through intelligent thought, the proof of which for Feuerbach lies in the fact that the "*qualities* of God, in so far as they are *rational* or *intelligible* and not determinations of *sensuousness* or *imagination*, are, in fact, *qualities of reason*" (*The Fiery Brook* 174).

The human, like God, is a rational-intelligent being. In affirming itself as God, human nature affirms itself as the absolute, in spite of its material limitations, which it hopes to eventually overcome (of course this impetus of overcoming material limitations returns as a central motivation in transhumanism):

> The Divine Being is the human being glorified by the death of abstraction; it is the departed spirit of man. In religion man frees himself from the limits of life… God is the self-consciousness of man freed from all discordant elements; man feels himself free, happy, blessed in his religion, because he only here lives the life of genius, and keeps holiday. (*The Essence of Christianity* 60)

The image of God is the image of humanity freed from nature, as pure spirit, and in this way is superior (transcendent) to the nature that limits the human. As Feuerbach succinctly formulates, "the distinguishing of God from Nature is nothing else than the distinguishing of man from Nature" (68). The human distinguishes himself from all of nature, a distinction represented in the image of God, a representation of perfect being, and thus humanity's perfect being, a

manifestation of the human's truest nature as image. The resulting image is where the human becomes conscious of itself through "the object which reflects his being; the object lets his being appear… his manifest being, his true, objective ego" (*The Fiery Brook* 102-103). Humanity converts itself as rational, thinking, superior being into an image representing the absolute divinity or sacredness of itself, an essential expression of itself. In viewing God as an abstracted image of humanity, Feuerbach demonstrates that faith in and love for God is, at bottom, a faith in and love for humanity: "faith in God is therefore the faith of man in the infinitude and truth of his own nature; the Divine Being is the subjective human being in his absolute freedom and unlimitedness" (*The Essence of Christianity* 143). Feuerbach's analysis convincingly affirms theological religion as an abstracted or transcendent form of an underlying anthropological humanism, the revelation of such he sees as absolutely necessary in order to combat what he sees as the toxicity plaguing theological religion.

The fanaticism, human sacrifices, moral injustice, and violent atrocities committed in the name of religion are for Feuerbach the result of formulating human nature as another distinct nature separated from humanity itself. From this perspective, religion is a reservoir of truth and power of moral amelioration given it is "the relation of man to his own nature;" however, concern arises "when religion becomes theology," whereby humanity's nature is "not recognized as his own, but regarded as another nature, separate, nay, contradistinguished from his own: herein lies its untruth, its limitation, its contradiction to reason and morality" (155). Living by way of images or symbols we are told is the essence of religion, which is not in itself a problem, yet trouble arises, Feuerbach warns, when religion "sacrifices the thing itself to the image" (141), when the image of God—which is truly the image of the human—stimulates the "sacrifice [of]

man to God!" (223), debasing humanity at the expense of the image of humanity as God. It is interesting to note that one could also argue transhumanism similarly sacrifices the human to the image of the future "post-human," a secular formulation of the image of God.

Returning again to Feuerbach, he urges that we recognize religious elements, like God, as our true nature—elements of humanity, where "God is nothing else than the consciousness of the species" (221). When the image of God is invested by way of the "separation of God from man [it] is therefore the separation of man from man, the unloosening of the social bond" (203), whereby religion begins "the disuniting of man from himself" (1). In response, Feuerbach calls for a return of nature to humanity: "Only by uniting man with Nature can we conquer the supra-naturalistic egoism of Christianity" (221). Put differently, we must re-immanentize what has been abstracted and set against humanity as transcendent, "thus inverting the oracles of religion; and by this means we arrive at the truth" (26). Inverting the transcendent elements of religion to return them to humanity reveals the human as the true nature of religion: "Hence the nearer religion stands to its origin, the truer, the more genuine it is, the less is its true nature disguised… in the origin of religion there is no qualitative or essential distinction whatever between God and man" (155).

In this way, Feuerbach interrogates a host of religious (mostly Christian) ideas and practices—God, morality, incarnation, the trinity, mysticism, providence, prayer, miracle, resurrection, heaven, etc.—to show how each reveals the essence of humanity, the true object of religion:

> Our most essential task is now fulfilled. We have reduced the super-mundane, supernatural, and superhuman nature of God to the elements of human nature as its fundamental elements. Our process of analysis has brought us again to the position with which we set out. The beginning, middle and end of religion is MAN. (143)

As I mentioned above, Feuerbach goes further into core religious (again mostly Christian) structures to anthropologize or "humanize" them to substantiate their truths for humanity moving forward. Although I do not have time to explicate all of these structures, I will briefly analyze how Feuerbach's work reveals the transformation of the notion of Christian-religious love into a secularized anthropology, or humanism—a religion without religion—that he calls "the new philosophy," or "anthropotheism." Additionally, I argue that this emerging philosophy (humanism/anthropotheism) embodies a confluence or assemblage of secularized religious constructs that uphold anthropocentric biases, remnants from various interpretations within the Christian religious tradition. These concepts will subsequently be adopted by transhumanism as its foundational interpretation of humanism. To clarify, while Feuerbach's new philosophy represents just one specific formulation of humanism, many of its motives, elements, and assumptions have been assimilated (or echoed similarly by others) in the discourse of Western philosophical and humanistic thought. Consequently, Feuerbach's brand of humanism stands as a principal representative of many humanistic approaches in general.

Although humanisms may take alternative paths, many end up repeating the same symptomatic conception, one Feuerbach similarly falls victim to. This symptom is that humanity's value rests upon some transcendent or quasi-transcendent quality proceeding from the Judeo-Christian religious tradition that distinguishes humanity from nonhuman animal life,

producing a hierarchical relationship that authorizes and justifies human domination over nonhuman animals. I contend that even though Feuerbach looks to remove religious illusions, like God, he fails to liberate humanism entirely from the religious transcendence/abstraction of the human from nature—a prevalent symptom in Western humanisms. By giving humanity exclusive access to the infinite (an infinite nature through consciousness), Feuerbach preserves an element of human abstraction or transcendence from nature—re-separating man from the world as the figure of God had previously performed—as it re-emerges in the guise of an exclusivist anthropocentric anthropotheism, eschewing respect and concern for nonhuman beings.

Feuerbach's Anthropocentric Religion without Religion

Before detailing Feuerbach's work on humanism it is important to discuss the context from which he is writing. While Feuerbach's anthropocentric humanism, or anthropotheism, offers valuable insights into the relationship between religion and humanism, it is essential to acknowledge that he represents a particular 19th-century perspective rather than a comprehensive view of humanism throughout history. Feuerbach's understanding of humanism is primarily articulated in his seminal works such as "The Essence of Christianity" and "The Fiery Brook."

In "The Essence of Christianity," Feuerbach critiques theological conceptions of divinity and proposes a radical reorientation of religious discourse towards the human. He argues that traditional theological beliefs, particularly within Christianity, abstract and alienate human

essence from individuals, projecting it onto a transcendent deity. Feuerbach's humanism seeks to invert this relationship, emphasizing the centrality of human experience and consciousness. Furthermore, in “The Fiery Brook,” Feuerbach explores the nature of human consciousness and its relation to religious ideas. He contends that human consciousness, particularly its capacity for self-awareness and reason, constitutes the basis of religion. Feuerbach's humanism posits that religion should be understood as an expression of human needs and aspirations rather than as a reflection of divine reality.

However, it is important to recognize that Feuerbach's humanism emerges within the specific historical and intellectual context of 19th-century German philosophy. While his ideas resonate with broader humanistic themes, they do not encompass the full spectrum of humanist thought throughout history. To provide a more comprehensive understanding of humanism across history, it is important to consider a range of philosophical perspectives, including those of Enlightenment thinkers such as Immanuel Kant and John Locke, as well as contemporary scholars like Charles Taylor. While Feuerbach's contributions are valuable and deserving of attention, they represent one strand of humanist thought rather than its definitive expression. Therefore, while Feuerbach's ideas are productively used in critiquing transhumanist assumptions, it is important to situate his perspective within its historical context and recognize the diversity of humanist thought throughout history.

Humanism for Feuerbach is the unity of the “head” and the “heart,” the unity of consciousness and reason with sense perception, which religion, especially Christianity, had abstracted and distanced from the human. Humanism, or anthropotheism, is chiefly concerned with inaugurating the truth of sensuousness, reversing the abstraction of sensuousness that we

see in religion and speculative philosophy, which understand the truth of the real in the transcendent ideal and not in the real itself. Proper man is the unity of reason and sense, both mind and body. Regardless of the fact that religion has contributed to illusion, most notably when it becomes theistic, it still maintains a proper function in the existence of humanity so long as it emancipates itself from illusory abstractions that disunite humanity from itself. As Feuerbach explains:

> Theism rests on the *dichotomy* of the *head* and the *heart*; pantheism is the resolution of this dichotomy, but *within* dichotomy; for it makes the Divine Being immanent only as a transcendent being; anthropotheism is *without such dichotomy*. Anthropotheism is the heart raised to intellect; it speaks through the head in terms of the intellect only what the heart speaks in its own way. Religion is only emotion, feeling, heart, and love; i.e., the negation and *dissolution of God* in man. The new philosophy as the *negation of theology*, which denies the truth of religious emotion, is therefore a positing of religion. Anthropotheism is religion conscious of itself; it is religion that *understands itself*. Theology, on the other hand *negates* religion *under the appearance of positing it*. (*The Fiery Brook* 163-164)

Religion for Feuerbach represents an essential piece in the truth of humanity's being, as an expression of heart, or as the immediate object or nature of the human—what it loves.

To anticipate, even though Feuerbach criticizes pantheism for maintaining transcendence, I argue Feuerbach commits a similar error by transcendentalizing the human essence. The figure of God, as representative of divine love, is thus "only human love made objective, affirming

itself" (*The Essence of Christianity* 22). Religion for Feuerbach is a judgment, whereby the figure of God, as judge, is a human determination of, "the critical discrimination between the divine and the non-divine" (60). The idea of the divine is here all that which has been judged by humanity to be of value, where the non-divine is "worthless, nothing" (ibid.). God affirms human feeling, concern, and love, humanity's heart objectified as "divine," as that which is "greater than the power of Nature" (84). Moreover, it is only human feeling and love that denotes what he deems to be of absolute value, and "only then is the *finite infinite*: In this and this alone does the infinite depth divinity and truth of love consist… The Christian God himself is only an abstraction from human love and an image of it" (*The Fiery Brook* 217-218). It is in love, not in abstract thought represented by theological religion or speculative philosophy, that "the secret of being is revealed" (218). The purpose of religion, for Feuerbach, is to communicate and live within what humanity deems to be of absolute value, loved as divine or sacred—the human itself. Furthermore, religion is an expression of the "essence of man," which he determines as the need for community, implying the need then for a religious community, whereby God is an image of the love between humans (and only humans): "For *himself* alone, man is just man (in the ordinary sense); but man *with* man—*the unity of 'I' and 'You'*—that is *God*" (236).

According to Feuerbach's analysis, the secret of the Christian religion lies in how it serves the unity of humanity through communal and social life, fostering a communal love for humanity—humanism. In this way, Feuerbach explicitly retains the function and place of religion, but as an immanentized, anthropologized, humanized religion that he names anthropotheism/the new philosophy: "The new philosophy takes the place of religion; it has within itself the *essence* of religion; in truth, it is *itself religion*" (237). This is where we see

Feuerbach most clearly enter the realm of a religion without religion. The function of religion, and its historical structures, as structures of love, especially for other humans with particular qualities, are saved or repurposed and emptied of their abstract or transcendent contents in favour of secular contents pertaining to humanity—a religion without religion. Most interesting here are the particular human qualities deemed to constitute the human essence, which will be for Feuerbach reflections of human divinity and its (quasi-)transcendence. For these divine human qualities are the ones that Feuerbach re-transcendentalizes, reinstating the image of the human as transcendent God over and above other nonhuman beings: anthropotheism. Although Feuerbach looks to make immanent, or secular, the transcendent/abstract nature of religion, he recommits the sins of abstraction he wishes to eradicate, repeating the very error he himself identifies as the reason for why humanity separated itself from its embodied-lived material existence: "The religious man leads a life withdrawn from the world… but he thus separates himself only because God is a being separate from the world, an extra and supramundane being—i.e., abstractly and philosophically expressed, the non-existence of the world" (*The Essence of Christianity* 32). As I will argue below, Feuerbach ends up re-transcendentalizing aspects of the human relative to nonhuman animal life, effectively expressing the non-existence, or lack of ethical concern or love for nonhuman beings, as representations of "mere beings of nature."

Interestingly, it is precisely the issue of the abstract/transcendent nature of "the human essence," with which Karl Marx took issue in Feuerbach's work (whom he had previously been a strong proponent of and was heavily influenced by), that illuminates the basis for Feuerbach's transcendent-religious anthropocentrism. Marx, most famous for his terse depiction of religion as "the opium of the people" (*Critique of Hegel's 'Philosophy of Right'* 131), celebrated much of

Feuerbach's work that inverted the subject-predicate relationship in theological religion and speculative philosophy, releasing empirical/material reality from its subordinate position, and establishing the material world as primary to the human and its practical being. However, Marx would later take issue with one of Feuerbach's core assumptions, rejecting his conceptualization of the essence of man as abstraction in favour of one representative of socio-historical relationships. As Frederick Engels stated this critique: "Feuerbach dissolves the religious essence into the *human* essence. But the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of social relations" (*Ludwig Feuerbach and the End of Classical German Philosophy* 63). Unlike Feuerbach, Marx's essence of man has no such fixed abstract form and is rather the result of socio-historical processes. To be fair, Marx, a prominent critic of religion, is himself not entirely innocent in this regard, as he too could be said to appropriate elements of religious abstraction/transcendence, like the structure of the messianic, that Jacques Derrida identifies in his book, *The Specters of Marx*. Regardless, it is the fixed-transcendent essence of humanity that Marx identifies as problematic and that reveals Feuerbach's anthropocentric religion without religion, a common idea repeated in his and other humanisms maintaining religious elements authorizing human exceptionalism over and above (inferior) nonhuman beings, justifying their disparagement at the hands of humanity, which will be appropriated by transhumanism's extension of humanism.

To arrive at the essence of the human and its being, Feuerbach proceeds from the distinction between the human and the animal. The main element that sets the human apart from the animal is consciousness, which for Feuerbach the animal does not possess because "consciousness is given only in the case of a being to whom his *species*, his *mode of being* is an

object of thought. Although the animal experiences itself as an individual…it does not do so as a species. It is in this sense that the animal lacks consciousness, for consciousness deserves to be called by that name only because of its link with *knowledge*" (Feuerbach, *The Fiery Brook* 99). The human is the only species capable of a consciousness going beyond itself as an individual, to produce systematic knowledge (science), which he claims is "the consciousness of species" (ibid.). As such, the human, unlike the animal, is able to make its own species an object of thought. Humanity's mode of being, distinct from the animal, is both the "basis" and "also the object of religion," and since "religion is the consciousness of the infinite," religion is nothing other than "man's consciousness of *his own* essential nature, understood not as finite or limited, but as an infinite nature" (100). Further, Feuerbach links this consciousness to a consciousness of the infinite, effectively making them inseparable:

> [A] limited consciousness is no consciousness; consciousness is essentially infinite and all-encompassing. The consciousness of the infinite is nothing else than the consciousness of the infinity of consciousness. To put it in other words, in its consciousness of infinity, the conscious being is conscious of the infinity of its own being. (ibid)

The infinite being of humanity—the only being with infinite being—of which the human is conscious, constituting humanity proper, is what Feuerbach calls the "divine trinity in man," which "transcending the individual man. The unity of reason, love, and will" are the elements that constitute the essence of humanity, which he does not possess or make but which are constituted through their utilization, "absolute powers that he is powerless to resist" (101).

Feuerbach's humanism re-imagines a Christian-religious concept, the divine trinity, applying it to the human to distinguish it from nonhuman beings. Through use of a transcendentalizing-religiosity, Feuerbach re-installs human superiority—in a religion without religion—over the nonhuman that we see in many examples of Judeo-Christian religious traditions hinging on humanity's superior intellectual abilities: "But these people blaspheme in matters they do not understand. They are like unreasoning animals, creatures of instinct, born only to be caught and destroyed, and like animals they too will perish" (2 Peter 2:12). In this way, Feuerbach fails to commit to the intention of his own project that argues humanism "is the complete and absolute dissolution of theology into anthropology," where all "contradictions have been overcome," a dissolution "not only in reason…but also in the heart" (Feuerbach, *The Fiery Brook* 233). Instead of complete dissolution, I argue Feuerbach's humanism repeats the transcendentalizing-religious gesture by viewing man as superior to all nonhuman beings by way of the human's intellectual abilities: consciousness of reason and the infinite, as well as a species-consciousness predicated on love for other beings of that species. Repeating, in a religion without religion, Feuerbach's humanism, like many formulations of humanism, communicates the idea that we must recognize "man as a being superior to animals… he is a universal being; he is therefore not a limited and unfree but an unlimited and free being" (233). Like God (who is pure spirit, free of the limitations of material existence, the apex of freedom), the human is free, and is without limit in its unlimited being in contradistinction to the unfree and limited being of the animal (see, for example, Feuerbach's discussion of the freedom of human senses in reference to the limited/unfree senses of the animal, 233-234). Humanism, or anthropotheism, advertises not only human superiority via a transcendentalizing-religious structure—like many other preceding and proceeding humanisms—it also advertises itself as

exclusively human: "*man, together with nature* as the basis of man, the *exclusive*, *universal*, and *highest object* of philosophy; it makes *anthropology*, *together with physiology*, the *universal science*" (234). Feuerbach's humanism may return nature (the material world) to the human, but only as it relates directly to the human's being, likely because he regards the human "as the criterion of truth" (252), whereby nature (the nonhuman material existence), especially as represented in beings nonhuman is reverted back to its previous place as valueless/nothing—Feuerbach's religious re-transcendentalization of the human over and above nonhuman beings. Humanism (anthropotheism), like the Abrahamic religions before it, is nothing other than universal human interest, appealing to the human's transcendent and superior nature over and above the nonhuman world and nonhuman animals, which are once again afforded no (or little) ethical concern. Here, only "human nature" or material existence as it concerns human being is afforded any respect. Indeed Feuerbach's naming of this humanism as an anthropotheism already hints that there is some dimension of transcendentalizing/abstraction afoot.

Humanism considers the human alone as the true, and the real, its motto being simply: "The *human* alone is the *true* and *real*… the human alone is the rational; *man is the measure of reason*" (231), where truth is nothing other than "*the totality of man's life and being*" (235). The human's ability to love—which is exclusively for other humans—represents "the criterion of being, the criterion of truth and reality," because that which is not or cannot be loved "does not exist" (219). Correspondingly, this viewpoint suggests the nonhuman animal as incapable of love and of being loved because it lacks the proper consciousness of the human; therefore, its being, as a nonhuman being, is of no value or concern. It "does not exist." Humanity's divine trinity, the

central point of humanism (and anthropotheism) and of Western religions, is the secret of an exclusively human community, where truth and perfection is made possible in Feuerbach's view as a unity of beings that are "similar in essence" (236), thereby patently excluding love or concern for nonhuman beings, authorizing human dominion over all things nonhuman—the religious anthropocentrism that lives on in Feuerbach's humanism, as well as in the majority of Western humanisms today as anthropotheism, or the human as God.

Ironically, the anthropocentrism of humanism repeats a similar structural concern Feuerbach levels against Christianity, which is that Christian love is a love only for those who are or may become Christian, which he determines to be too limiting, in that it fails to be inclusive of all humans (*The Essence of Christianity* 208-209). In this way, humanism repeats a sort of exclusivity of membership, an exclusivity that sees concern only for those who match one's own essence, and like the Christian religion before it, humanism reinstates human superiority over animals, based on the human's superior intellect. Of course, exclusivity of membership may also be seen between humans as well, leading to another violent hierarchy. As such, the words of the transcendent-religious God continue to ring true in the various forms of humanism to date as an anthropocentric religion without religion, an anthropotheism: "Let us make mankind in our image, in our likeness, so that they may rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the ground… fill the earth and subdue it" (Genesis 1:26, 28).

Feuerbach is correct to contend that the impetus of belief in religion and God is to provide a method of objectifying an authoritative perspective concerning humanity. However, just as Feuerbach identifies religion as nothing more than a transcendent humanism (an

abstracted systematic theory and ethic of humanity) in need of a reversal of its transcendence into a system of human immanence (what he calls "the new philosophy," humanism, or anthropotheism), Feuerbach falls victim to the structural elements of the theological religious history that he wishes to have expelled by maintaining an anthropocentrism based on the human as transcendent being. In this way, Feuerbach repeats the transcendentalizing-religious gesture from theological religion that views the nonhuman material world and nonhuman beings in it as both superfluous and inferior to spirit. Such is not too unlike what he criticized as being present in the speculative philosophies of those "super-naturalistic" philosophers like Immanuel Kant and Georg Wilhelm Freidrich Hegel, who would ascribe to human being a universal or noumenal consciousness independent of the natural world. Although Feuerbach brings the natural/material world back to the human, he re-transcendentalizes the human spirit, as rational consciousness, in contrast to the natural world as it is manifest outside the boundaries of human being. In this way, humanism, a secularized version of transcendent forms of religion, I argue, functions as a religion without religion. As a religion without religion, humanism represents a secular/immanentized version of that *anthropocentric transcendent humanism* valuing humanity at the expense of nonhuman beings that we call the religion(s) of Abraham. While Feuerbach admits humanism is a religion, he fails to acknowledge how the "toxicity" of transcendent/abstract Judeo-Christian religions (theology) returns through the image of man as transcendent God relative to nonhuman beings. Even though he immanentized the symbol of God relative to and within humanity, he failed to eradicate the transcendence of God relative to the nonhuman world, especially nonhuman beings. In this way, his anthropotheism, or "humanity as God," repeats the transcendentalizing gesture of theological religion by turning the human into *transcendent* God relative to the nonhuman. Put simply, humanism and anthropocentrism are

products of a transcendentalizing Abrahamic religion without religion that I am calling, following Feuerbach, "anthropotheism." Unlike Feuerbach's understanding of anthropotheism, my use of anthropotheism includes the hidden transcendentalizing character of "humanity as God," that Feuerbach misses, whereby humanity as God *transcends* all things nonhuman.

Anthropocentric Anthropotheism and Posthumanism

Manifesting an anthropocentric attitude that distinguishes the human as superior to the nonhuman, thereby justifying human domination over nonhuman animal life, is a symptom of anthropotheism. This symptom—a structural marker of humanism's religion without religion as anthropotheism—can be seen in Feuerbach's humanism as well other secular humanisms that have developed out of the religious, namely Christian, milieu of the West. Distinguishing the human as superior to the nonhuman animal through human intellectual capacities (such as freedom, love, and reason—as is seen Feuerbach and other variants of historical humanism) repeats the religious conception that, like God, the human features abilities that transcend other beings in nature, thereby justifying their domination by the human. The human, like the transcendent God, has the superior ability to reason, which biblical sources suggest are transcendent or other-worldly qualities: "Do not conform to the pattern of this world, but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is—his good, pleasing and perfect will" (Romans 12:2).

Although they do not apply the notion of religion without religion, Adam Weitzenfeld and Melanie Joy come close to saying humanism is a religion without religion, arguing that

"humanism reduced the religiosity of the Renaissance and broadened its project to the utopian ambition of universal human progress through rational inquiry," and the dominant tradition of humanist thought since the Enlightenment is best characterized as "anthropocentrist humanism due to its ideological commitment to conceptualizing human being over and against animal being, and privileging human consciousness and freedom as the center, agent, and pinnacle of history and existence" ("An Overview of Anthropocentrism" 5). The resulting hierarchical human-animal dualism, and its violent consequences, is premised on human exceptionalism, perfection, and dignity. Or simply, humanism defines humans as ontologically free beings who share the same essence, and this determines their absolute or sacred value. In contrast to the character of the human, nonhuman beings are regarded as being "merely in the world," bound by the laws of nature (6). Consequently, nonhuman beings lack dignity, and may receive basic welfare only indirectly, as property or as exhibitors of diminished human-like abilities, attaining meaning only "instrumentally through human consciousness" (ibid.).

The notion that human intellectual abilities transcend other forms of nature or the whole of nature is deeply ingrained in humanism, assumptions that become intensified in transhumanism. Transhumanism is often characterized as the heir of humanism, similarly placing the human as the foundation of all values. According to transhumanist Nick Bostrom, "Transhumanism has roots in secular humanist thinking, yet is more radical in that it promotes not only traditional means of improving human nature, such as education and cultural refinement, but also direct application of medicine and technology to overcome some of our basic biological limits" ("Transhumanist Values" 4). Furthermore, transhumanist Max More explains how transhumanism "shares many elements of humanism, including a respect for reason

and science, a commitment to progress, and a valuing of human (or transhuman) existence in this life rather than in some supernatural 'afterlife,'" yet it pushes humanism beyond its boundaries by "recognizing and anticipating the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies" ("Transhumanism, Towards a Futurist Philosophy" 6). Bearing remnants of religious structures and assumptions that express human-centrality at the expense of other beings (humans included), humanism, as the so-called "truth" of human being, takes on new life as it is extended in transhumanist discourse.

Posthumanism too will be shown to be an heir of humanism; however, it will be shown to take a more critical stance on human-centeredness, even if it too is unable to purge itself of human-centrality. Before I continue it is important to provide some clarification on my use of terms, because there is often a confused area of signification surrounding the term, posthuman. The term "posthuman," is often employed by transhumanists to refer to a technologically enhanced being (once human) that exists in a state beyond what we would understand currently as human being. Posthumanism, on the other hand, is most often associated with a post-anthropocentric and post-dualistic (philosophical, cultural, and critical) approach. Often adding to the confusion, those aligned with transhumanist thought may refer to their perspective as "posthuman," or a "posthumanism." Both posthumanism, a post-anthropocentricism and post-dualistic (mind-body) approach, and transhumanism share a common perception of humans as non-fixed and mutable entities, often coming to perceive the composition of the human being as assemblages of technologies, entities, and processes that are definitively nonhuman—the human as a prosthetic being. In many ways posthumanism and transhumanism overlap in their understanding of the human, and each practitioner, regardless of how they align their thought as

posthumanist or transhumanist, tends to blur the boundaries by adopting assumptions from both theoretical positions, making a simple distinction between the two infeasible. However, generally speaking, transhumanism tends to be more humanist and anthropocentric, focusing mostly on elevating the human condition. Posthumanism, on the other hand, tends to be more self-reflective, aiming to overcome the anthropocentric and humanistic biases that have come to characterize humanism and Western theory in general (for a clear and concise juxtaposition of transhumanism and posthumanism see, Ferrando "Posthumanism, Transhumanism, Antihumanism"). The strand of posthumanism that I have chosen to utilize in the remainder of the chapter, follows the work of Neil Badmington and Cary Wolfe, both of whom acknowledge that posthumanist reflection does not mark any absolute break from the legacy of humanism, repeating humanism while inhabiting it differently, as a working-through of anthropocentric discourse.

I wish to stress this point of remaining within humanism, what I find to be the most robust and compelling aspect of this unconventional strand of posthumanism. Referencing Friedrich Nietzsche, Badmington suggests that posthumanism must reconsider its celebration of the end of "Man" or its overcoming of humanism through posthumanism: "What Jacques Derrida calls the 'apocalyptic tone' should be toned down a little, for, as Nietzsche once pointed out, it is remarkably difficult to cut off the human(ist) head through which we (continue to) 'behold all things'" ("Theorizing Posthumanism" 10). In other words, Badmington suggests that no matter how far we seemingly move beyond our anthropocentric humanist tendencies, we still end up filtering everything through our own (human) experiences and conceptualizations. Furthermore, he states that "because thought always takes place within a certain tradition,

thought itself is bound to bear some trace of that tradition" (13). Taking inspiration from Derrida, Badmington claims that the "end of Man" is bound to be written in the "language of Man," where "[e]ach 'transgressive gesture re-encloses us' because every such gesture will have been unconsciously choreographed by humanism" ("Introduction: Approaching Posthumanism" 9). From this deconstructive perspective, there is no pure outside, and posthumanist writing should never "seek to fashion 'scriptural tombs' for humanism, but must, rather, take the form of a critical practice that occurs *inside* humanism, consisting not of the wake but the working-through of humanist discourse" ("Theorizing Posthumanism" 22). In fact, Badmington makes clear how humanism is an ontological condition of our being human: "Humanism has happened and continues to happen to 'us' (it is the very "Thing" that makes 'us' 'us,' in fact)" (ibid). Posthumanism must lodge itself within the tradition of humanism to work-itself-out, because anthropocentrism always already contains the conditions of its own transcendence within itself (19). This failure to transcend is because, much like Jean-François Lyotard's explanation of the "post-" (in his work on the "post-" of postmodernism), the "'post-' is forever tied up with what it is 'post-ing'"(20). Badmington carries the work of Lyotard and Derrida to inform the perspective of posthumanism as that which "does not (and, moreover, cannot) mark or make an absolute break from the legacy of humanism. "Post-'s speak (to) ghosts, and cultural criticism must not forget that it cannot simply forget the past" (21-22). This unconventional strand of posthumanism, as Badmington elaborates, "marks the recognition that humanism, always already in disharmony with itself, forever sounds of other airs, other heirs" (22). Badmington's conception of posthumanism then, constituted as a working-through of humanism, conceptualizes humanism as always in the process of becoming posthumanism—what I would call a humanism of the supplement, a prosthetic humanism.

However, before leaving this conception of prosthetic humanism I want to briefly note how the very name of the transhumanist organization "Humanity+" could be said to adhere to this idea of the prosthetic or supplement, whereby the "+" symbolizes humanity's prosthetic or supplementary being, a humanity always already in the midst of supplementing itself by way of technology. The technological supplement is what makes possible the iterability of the human, the possibility of its very movement and its being into the future. For Derrida, the supplement is superfluous addition or substitution, either of which signals a lack or insufficiency in the thing itself, a lack which the supplement supplements: "whether it adds or substitutes itself, the supplement is exterior, outside of the positivity to which it is super-added, alien to that which, in order to be replaced by it, must be other than it" ("That Dangerous Supplement" 145). Given Derrida's understanding of the supplement, whether adding or substituting, the "+" in Humanity+ is a testament to a supplementary humanism (and supplementary human being), called "transhumanism," much the way Badmington similarly understands posthumanism to be a process of becoming through a supplementary humanism.

As I move toward analyzing the anthropocentrism of transhumanism, I do so from the perspective that some degree of anthropocentrism is inevitable, simply because humans perceive the world from within the ontological limitations imposed on us by the human body and human cognition. Therefore, any hopes of a future "non-anthropocentric" ethics is necessarily constrained by human perspectives and sensibilities, and, as such, must acknowledge the ways in which it retains some form of anthropocentrism and anthropotheism. Even posthumanism admits that as a more self-reflective and critical humanism it is unable to purge itself entirely of anthropocentrism, and I would add so too its anthropotheism, thereby unable to free itself

entirely of religious structures, language, and violent hierarchies of dominance. Badmington's use of the phrase "scriptural tombs" itself unconsciously draws upon the word "scripture," echoing this word's religious and biblical meaning. Ultimately, Badmington fails to adequately interrogate the religious influence that is so intimately connected to humanism and thus to posthumanism, as he defines it. Badmington's posthumanism's religion without religion aside, the following critiques of transhumanist anthropocentrism are made in the hope that we may limit and reduce our anthropocentric tendencies, rather than to naively assume that we have overcome anthropocentrism/humanism, simply having left it behind—perhaps the worst anthropocentric thought imaginable! Is not the worst anthropocentrism one which claims, once-and-for-all, that it has overcome its own anthropocentrism, and that it has transcended—perhaps religiously, in a religion without religion—its intellectual and ontological position and moved beyond the limitations of nature, exacting dominance in a violent hierarchy? Is this not the pinnacle of human hubris and anthropotheism alike?

Transhumanism's Anthropocentric Anthropotheism

The modes of humanism that are religiously-justified anthropocentrism, as found in Feuerbach's anthropotheism, finds new life in the transhumanism of Ray Kurzweil. As Derrida indicates, humanism is in many ways like a religion, utilizing religious ideas in secular guise, hiding their explicit religious character ("Faith and Knowledge" 45-47). Kurzweil draws heavily from philosophies of humanism, not recognizing their religious character. Specifically, Kurzweil champions traditional ideals of Enlightenment-era humanism, including infinite human progress

through the expansion of human intelligence and knowledge. Explicitly aligning himself with human-centrality even in light of criticism of his anthropocentrism, Kurzweil maintains that "we are central, after all… our brains, combined with our modest-looking thumbs, has been sufficient to usher in another form of evolution: technology," and that human technological evolution will persist, continuing "until the entire universe is at our fingertips" (*The Singularity is Near* 407). Moreover, Kurzweil claims the purpose of life, and of the universe, is the expanding order of (human) knowledge: "As I see it the purpose of the universe reflects the same purpose as our lives: to move toward greater intelligence and knowledge. Our human intelligence and our technology form the cutting edge of this expanding intelligence (given that we are not aware of any extraterrestrial competitors)" (316). He deems intelligence as the most important phenomenon in the universe; something only humans—barring discovery of extraterrestrial beings that exhibit human-like intelligence—are capable of exhibiting. Drawing upon philosophical and religious traditions, Kurzweil makes consciousness equivalent to the conception of "containing spirit" or the individual spirit of the human being (330). Emphasizing the notion that the human is the only being capable of "transcending" nature or material existence (that we have seen in Feuerbach), Kurzweil predicts that human intelligence will expand beyond our planet, "turning all the dumb matter and energy we encounter into sublimely intelligent—transcendent—matter and energy… ultimately infus[ing] the universe with spirit" (ibid.). Similar to Feuerbach, Kurzweil employs human consciousness as the ultimate reality that transcends material existence, repeating the hierarchy of the infinite human consciousness (spirit) over and above the material world and other nonhuman beings.

Kurzweil's humanistic anthropocentrism reaches its apex when he claims that the universe's destiny is to be "humanized," or completely infused with human-intelligence: "Ultimately, the entire universe will become saturated with our intelligence. This is the destiny of the universe" (35). Human-led technological evolution, for Kurzweil, moves "inexorably toward" a conception of God as infinite, such that we can regard, "therefore, the freeing of our thinking from the severe limitations of its biological form to be an essentially spiritual undertaking" (331). Just as Feuerbach understands the function of the image of God as the ideal of humanity that the human not only is but so too becomes, Kurzweil reiterates this notion in a religion without religion by looking to become the ideal-God, through transhumanist technological evolution, such that the human, like God, achieves ownership and control of the universe and all the beings that reside in it: "To the LORD your God belong the heavens, even the highest heavens, the earth and everything in it" (Deuteronomy 10:14). My critique of Feuerbach's anthropocentrism as an anthropotheism that turns humanity into transcendent God relative to nature and nonhuman beings finds itself equally relevant to Kurzweil, who follows a similar anthropotheism by placing the human as a God-like being over and above all things in the universe.

An idea most prevalent in transhumanist discourse is the prophecy that humans will colonize the universe by humanizing everything, including nonhuman beings, with which they come into contact. The humanist framework that transhumanism utilizes, a framework that views the human as the center of all meaning and value, reproduces a normative subjectivity that grounds discrimination against nonhuman beings, especially animal life. The signature of this anthropocentric anthropotheism is clearly visible in the transhumanist literature with regard to

the concept of a transhumanist "cyborg citizenship." Two prominent advocates for a cyborg citizenry are transhumanists, James Hughes and Chris Hables Gray. In his book, *Cyborg Citizen: Politics in the Posthuman Age*, Gray examines the way technological enhancements have changed the body-politic, and how we must respond to those changes by developing a citizenship based on protecting the rights of humans and cyborgs alike. The answer, he claims, is the development and application of a cyborg citizenship, in which entry into the community is determined by one's successful completion of a "cyborg citizen Turing Test," which will determine "which entities can actually participate in our discourse community and which cannot" (24). The Turing Test, developed by Alan Turing in 1950, is a test of a machine/computer's ability to exhibit intelligent behaviour, or thought, indistinguishable or equivalent to that of a human. To simplify, in order to pass the test, the computer would have to fool a human interlocutor (Player C) to such an extent that the human (Player C) would be unable to distinguish the computer (Player A) from the other human being (Player B) that it was also speaking to through text-only conversation. Effectively, Gray values the use of the Turing Test for cyborg citizenship because of the test's ability to view "intelligence" as "a working idea, not an abstract universal value" (25). For Gray, the polis is a community of discourse, and so long as an embodied-individual-being (organic, machine, or both) is able to participate in that discourse, able to "convince a simple majority of twelve other citizens that it can be part of their conversation," it meets the requirements of a citizen (26). The true beauty of the Turing Test, for Gray, is its flexibility: it "escapes the straitjacket of arbitrary standards and static definitions," focusing on the core of politics, "communication—and enshrines that as the ultimate value" (ibid.). Although Gray is successful in developing a more fluid and open-ended conception of citizenry, Gray's cyborg citizenship is predicated on a glaring anthropocentrism. Gray's cyborg

citizenship, which he claims should "disrupt all simple dichotomies no matter how fundamental" (6), I argue, is to be found lacking by maintaining and strengthening numerous dichotomies and their corresponding violent hierarchies, such as, but not limited to, citizen/non-citizen, conscious/non-conscious, and most importantly, human/nonhuman.

Gray's anthropocentrism hinges, at least partially, on his application of the Turing Test. Boiled down, the Turing Test is simply a humanist-evaluation of "how human" an intelligence appears to be. As posthumanist Cary Wolfe argues, most ethical and political discourse takes it "for granted that the subject is always already human" (*Animal Rites* 1). Furthermore, Wolfe contends, "the alterity of the other is once again captured and hypostatized (as 'man') rather than left open (to the possibility of the nonhuman other)" (16). Gray's cyborg citizenship Turing Test is a clear example of such opening to an "other," but only an other "as human," especially one that can be dominated. In the film *Ex Machina*, we see a modified version of the Turing Test to test an AI that is modelled after a human woman; in fact, we learn all the previous iterations of the AI were similarly sexualized as beautiful women, likely to symbolize our ability to objectify, control, and dominate the AI, in such a way that humanity has historically done with women. Wolfe argues that we come to recognize nonhuman others not because of their uniqueness or their difference, but "because they are inferior versions of ourselves, in which case the ethical humanism that was the problem from the outset simply gets reinforced and reproduced on another level" (*Animal Rites* 192). Extending rights to other beings is done on the basis that they are to some extent, "human like us," mirroring the human in some diminished way, liberating them on account of their likeness to the human. The extension of ethical concern, dignity, and value that we see in Gray's cyborg citizenship is victim to the anthropocentrism that continues to

characterize human ethical concern and value, a moral-system based on humans and human choices, making way for the nonhuman other "only by means of the human itself" (205). In other words, the issue with Gray's cyborg citizenship is the (humanist/anthropocentric) issue that Wolfe sees as emblematic of "rights theories" in general, that the nonhuman beings are represented as "beings with the kind of capacity that human beings most fully possess and deem valuable for living a full human life" (Deborah Slicer qtd. in, Wolfe, *Animal Rites* 35). It is the anthropocentrism of our ethical systems that continues what Wolfe names "the discourse of species," which makes possible the systematic discrimination and violence that occurs between humans and nonhuman others. James Hughes' cyborg citizenship, while at first glance seems to explicitly combat the anthropocentrism of ethical concern and citizenship, fairs little-better in regards to its re-inscription of a similar anthropocentric tendency.

In his work on cyborg citizenship, Hughes argues that we must embrace the technologies of transhumanism. However, in doing so, we must democratically regulate the equitable distribution of those technologies to reduce suffering. For Hughes, the ultimate insight of Western democracy is that "[c]itizenship is for *persons*, not humans," acknowledging that the 14th Amendment of the U.S. Constitution uses the term person, rather than human (*Citizen Cyborg* 79-80). As he contends: "The human-racists want to restrict rights to *Homo sapiens* 1.0, while transhumanists, like many bioethicists and the democratic tradition itself, believe rights should be based on personhood" (221). Given that persons need not be human, and that not all humans are considered persons, Hughes purposes a transhuman democracy will implement a cyborg citizenship "based on personhood rather than humanness," thereby acknowledging the dignity/value of cyborgs, animal-human hybrids, enhanced humans and animals, genetically

engineered children, clones, robots, etc. (ibid.). What Hughes fails to consider, however, is how his definition of a person, while admittedly more open than the restriction of a human-being, does not preclude the assessment of a person based on "humanness." Instead, Hughes, like Gray, ends up building a personhood on the basis of "humanness," thereby re-establishing precisely the opposite of his intention, which is to de-humanize or limit the anthropocentrism of citizenship.

Admittedly, Hughes does well to problematize the historical denial of Western-citizenship to racialized and gendered others, where non-white Europeans had to rely on white Europeans to attribute to them a similar capacity for conscious thought and feeling to recognize them as fellow citizens/persons. Hughes criticizes Francis Fukuyama's ethics based on its foundation of biological similarity, which would exclude the transhuman, posthuman, intelligent or enhanced animals, and robots, and which Hughes claims are beings deserving of rights. Hughes, however, simply trades ethical consideration (via attribution of citizenship and the attribution of dignity attached) based on human *biological* similarity, like that of Fukuyama, to one based on human *intellectual* similarity. Tracing a group of Catholics in the 14th-15th centuries called "the humanists," Hughes slowly builds upon a humanist foundation—while acknowledging its Christian-religious roots—that will come to include the key transhumanist insight of utilizing reason to transcend the limitations of the human condition in order to solidify a citizenship based on persons who have the (human-like) ability of consciousness and reason, which he suggests are the key markers of self-awareness. As he puts it, "Animals, humans or machines that lack self-awareness would not be citizens, not even disabled citizens, and therefore are not candidates for citizen-level rights. Things that are not citizens are necessarily property" (223). To be clear, Hughes' cyborg citizenship stands to reduce the anthropocentric nature of global concepts of

citizenship, especially because it provides (limited) protections for sentient life not meeting the criteria for personhood. However, his cyborg citizenship, while more open to whom may become a citizen, maintains an anthropocentric character dictating who will bear rights, ultimately determined by a sentient being's exhibition of human-like desire and self-awareness (or consciousness): "the basic threshold of citizenship is self-awareness and desire… Once a being achieves self-awareness, therefore, is when it makes sense to say that the being is a person with a 'right to life,' and cannot be owned as a thing" (222). Hughes is at his best when he makes a non-anthropocentric claim that we do "not have an obligation to uplift [enhance] beings that are not self-aware" (227), which would be nothing short of "humanizing" those beings—although Hughes fails to make this connection himself. Hughes disappoints, however, when his transhumanist cyborg citizenship falls back into a humanist/anthropocentric mode, as evidenced by his claim that while we "may feel a fondness for trees and rivers, and we may want to preserve them and the animals that live in them…but they do not bear rights" (226-227). In other words, Hughes neglects all forms of nonhuman life that do not conform to the consciousness or self-awareness that characterizes the normative human subject. Put succinctly, while Hughes' cyborg citizenship is more open to human and nonhuman alterity, Hughes retains the humanist/anthropocentric boundaries he had hoped to remove; by basing a citizenship on personhood rather than "humanness," Hughes neglects to see how "humanness" (in the sense of an anthropocentrism of consciousness) informs the basis of his "personhood." Returning to Wolfe, one of the hallmarks of humanism,

> [i]s its penchant for that kind of pluralism, in which the sphere of attention and consideration (intellectual or ethical) is broadened and extended to previously

> marginalized groups, but without in the least destabilizing or throwing into radical question the scheme of the human who undertakes such pluralization… pluralism becomes incorporation, and the projects of humanism (intellectually) and liberalism (politically) are extended…in a rather classic sort of way. (*What is Posthumanism?* 99)

Maintaining a narrow vision of ethical and political concern based on humanist/anthropocentric markers of value continues to close off the human from the nonhuman, reinstating the human/nonhuman and human/animal divide, authorized by Judeo-Christian religious traditions, justifying continued violence and a lack of ethical concern for nonhuman beings. By adopting a posthumanist perspective, like that of Wolfe and Badmington, we look not to simply "overcome" our humanism, our anthropocentrism, but to minimize its violence on nonhuman others by attending to "that thing called 'the human' with greater specificity," to allow us to pay attention to our own limitations, and how they are shaped by our history, embodiment, and conscious-mind (120). I contend a more successful (posthumanist) approach, following the exemplary work of Wolfe, may be to further open the alterity of the other, valuing the other as other, rather than hypostatizing the other as "human." Keeping an awareness of ourselves as human is a necessary step in opening our lens of concern and value based on criteria that do not betray human prejudice of species (biological or non-biological/mechanical/synthetic) based on human qualities, especially those qualities that have historically been associated with religious discourses that look to identify qualities that, like God, transcend nature and the material world by way of an hidden anthropotheism. To this end, the deep-seated religious history of the West, in particular its anthropotheism, continues to implicitly authorize human control over the material world and nonhuman beings in transhuman discourse on citizenship.

There is no better example of a religiously authorized anthropocentrism, or anthropotheism, than David Pearce's transhumanist abolitionist project. Pearce frames a crucial portion of his essay, "Reprogramming Predators," from within the confines of the Judeo-Christian religious tradition, especially the Book of Isaiah, quoting this book several times. Before revealing how Pearce's project of reprogramming predators uses religion and transhumanism to authorize its religious anthropocentrism, or anthropotheistic character, I will briefly explain how reprogramming predators comes to compose a portion of his larger transhumanist abolitionist project. The abolitionist project aims at producing a "cruelty-free world that lacks the molecular signature of unpleasant experience," including, among other things, "ecosystem redesign" and rewriting animal genomes to "manage a compassionately run global ecosystem" ("Reprogramming Predators"). If humanity is not involved in creating a compassionate ecosystem through our redesign, we will simply continue to express our "natural status quo bias and perpetuate the biology of suffering indefinitely" (ibid.). In many ways Pearce creates a commendable project that broadens a global ethics to all sentient beings, recognizing historically that welfare has been species-specific and that no "universal guarantees of non-human well-being exist" (ibid.). One of the major obstacles to ethical inclusion of nonhuman beings has been our humanistic-anthropocentrism that is both a function of cultural and biological factors.

Interestingly, Pearce advises that we practice considering nonhuman animals as though they were human infants, an exercise I have elsewhere claimed to be valuable in the ethical inclusion of animals, while also recognizing its humanistic/anthropocentric limitations, especially regarding conceptions of beauty and its correspondingly violent anthropocentric

hierarchy. In my essay, "Revising Posthumanist Aesthetics in the Ethical Treatment of Nonhuman Animals," I argue that we need to employ new tools in a posthumanist approach to human-animal relations, one of which includes exploiting infantile characteristics or "baby schema" found in nonhuman animals in order to elicit evolutionary human biological drives for caring behaviour originally associated with human children. Baby schema, which often represent a being's vulnerability via infantile characteristic, such as a small body, a disproportionately larger head, big eyes, and soft features as well as personality traits such as playfulness, innocence, curiosity, and affectionate behaviour combine to function as strong elicitors of human empathy and support; so strong, in fact, that its effects even cross species boundaries. Although Pearce does not mention baby schema, or any similar strategies that exploit human bio-evolutionary drives in his hope to consider nonhuman animals as human infants, such a strategy would seemingly fit well with Pearce's project.

Baby schema aside, in a move of religious transcendence similar to what we have seen in Feuerbach and humanism more generally as anthropotheism, or the human as God, Pearce advises that we construct a theory of value that "aspires to a God's-eye perspective, stripped of unwarranted anthropocentric bias in the manner of the physical sciences, then the well-being of a pig or a zebra inherently matters no less than the fate of a human baby – or any other organism endowed with an equivalent degree of sentience" (ibid). Of interest here is how Pearce invests in the ability to transcend anthropocentric bias by way of becoming like God, a common idea in transhumanism: "If we are morally consistent, then as we acquire God-like powers over Nature's creatures, we should take analogous steps to secure their well-being too" (ibid.). Thinking like God, Pearce claims, allows us to reconceptualise our ethics and "helps correct our lack of

empathy of sentient beings whose physical appearance is different from 'us'" (ibid.). In fact, it is only from the position of God that Pearce claims we may rid ourselves of our anthropocentrism to create a "universal ethic" appropriate for the technological posthuman (transhuman of the future): "a truly 'God's-eye view' would offer both a universal value system and a decision procedure on when it is morally permissible to kill, experiment on, or cause suffering to other sentient beings for a higher purpose – irrespective of who was making the judgement" ("Post-Darwinian Ethics?"). Clearly, the anthropotheism which sees the human as God is at work in full-force in Pearce.

Only by becoming like God through transhumanism and its ability to create the technological posthuman does Pearce believe the adoption and implementation of an impartial ethic is possible. Human intuitions are "systematically biased," and as we learn from evolutionary psychology, human moral intuitions and reasoning has been "shaped by millennia of natural selection to maximise the inclusive fitness of our genes, not to track the welfare of other sentient beings impartially conceived" (ibid.). Thus, for Pearce only transhuman technology can transcend humanity to a more universal ethical (God-like) perspective by overcoming humanistic/anthropocentric biases that are ingrained in our biological and cultural systems, such that we become "post-human" and thus disconnected from our humanistic bio-cultural intuitions. He suggests it is only such a posthuman ethics through the means of "mature posthuman technology" that can deliver a universal perspective like that of God (ibid.). Such an argument brings anthropotheism to center stage, and its reliance on technology to achieve such God-like transcendence not only recapitulates forms of Christian apotheosis, but also Freud's notion that "Man has… become a kind of prosthetic God" and when "he puts on all

his auxiliary organs he is truly magnificent" ("Civilization and its Discontents" 38-39). Pearce's assumption that the technological post-human being would be free of any historical humanistic or anthropocentric biases may even exemplify anthropotheism.

In looking to eliminate our anthropocentric bias to create a compassionate and cruelty-free ecosystem without suffering, Pearce takes aim at animal predators, in particular members of the cat-family: lions, tigers, and so on. Although Pearce may at first seem to acknowledge the irony of his project to reprogram predators by eliminating all forms of predation that may "sound sinister," evoking "genocide, not universal compassion," Pearce assures us that "[a]ppearances deceive" ("Reprogramming Predators"). Considering the suffering members of the cat-family inflict on other beings as carnivores, Pearce advises that we not blame these animals for the violence and suffering they bring because "they don't understand the implications of what they are doing" (ibid.). Here, Pearce seems either unwilling or unable to acknowledge how such a statement implies the anthropocentric "human knows best" stemming from the human's unique and superior ability to reason and construct knowledge—an assumption harkening back both to Judeo-Christian religions and to the roots of religiously-inspired humanism (a religion without religion as anthropotheism). Furthermore, Pearce again invokes human-superiority by asking if members of the cat family (like lions) are "ideal" life-forms, failing to consider the ultimate arbiter of what is said to be ideal—the human. Rather than opting to instantiate lions as they currently exist, which would be to affirm their being "sociopathic killing machines," Pearce looks to use behavioural modification technologies (including electronic implants) or genetic-reprogramming technologies to modify their predatory behaviour,

whereby "the most ferocious carnivore could be turned into a model citizen in our wildlife parks" (ibid.).

Conveniently, Pearce side-steps ethical concerns regarding animal-testing and experimentation in his discussion of these modification-technologies. In a questionable manner, Pearce looks to turn predators into "model citizens," evoking a humanization, or "making-human" of the animal. Yet, deflecting from the possibility of invoking harm, Pearce claims that modified/augmented animals will not be victims of "inhumanity," as part of the reshaping process would involve ensuring that the brain's pain-centres will not be stimulated and that the animals will not experience augmentation as conflicting with their own will. Instead, "generous doses of pure pleasure could be administered to the members of the managed species in reward for 'virtuous' behaviour" (ibid.). Such species-management programs are examples of what Pearce calls "post-Darwinian life." Pearce also neglects to follow the implications of his own phrase (likely because it admits the anthropocentrism he is trying to squelch), which effectively trades natural selection, Darwinian evolution, for *human selection,* or post-Darwinian, human-technology-driven evolution, repeating the anthropocentrism he is attempting to abolish. Exercising human control over other beings, "managing" them through radical new technologies in an ethical transhuman abolitionist project, contra Pearce, actually maintains the very anthropocentrism Pearce is attempting to annihilate. Moreover, even though Pearce denounces objectifying (real-life or cartoon) animal-predation as entertainment, "the spectacle of a lion chasing a terrified zebra…shown on TV as evening entertainment," he has no qualms showcasing reprogrammed animals as entertainment spectacles "for human ecotourists to enjoy" (ibid.). He thus implicitly evokes the horrors of animal-objectification and abuse in the history of

animal-menageries and in some cases even the ethical-concerns of the modern zoo. Pearce's transhuman ethical project, while reducing certain humanist/anthropocentric qualities, repeats the core assumptions and values of human-superiority and control over nature, animals, and the material world that we see in humanism and Judeo-Christian religions. Furthermore, Pearce's transhuman ethical project, like humanism, finds its justification and authorization in particular interpretations of Judeo-Christian religious traditions as anthropotheism.

The underlying anthropocentrism that Pearce fails to identify in his transhuman abolitionist project is re-enforced by an appeal to the Hebrew Bible. In itself this marks precisely the nature of his anthropotheism, justifying human superiority by providing religious authorization of human consciousness and reason as superior and transcendent qualities above nonhuman life and the material world. Pearce frames his essay under two quotations from The Book of Isaiah, the first being, Isaiah 11:6, "And the wolf shall dwell with the lamb and the leopard shall lie down with the kid, and the calf and the young lion and the fatling together and a little child shall lead them" (qtd. in "Reprogramming Predators"). Pearce explicitly evokes the "lamb and the lion," a religious symbolic device depicting peace among species in a utopian existence to frame his project. Further exegesis of this quotation depicts a human child, leading the animals whose relationship was once predator and prey. Pearce is here evoking, in a religion without religion, human dominion over animals as similarly authorized throughout the Hebrew Bible. Secondly, Pearce again appeals to The Book of Isaiah (66:3): "But whoever sacrifices a bull is like one who kills a person," in a religion without religion, repeating the biblical prohibition against killing an animal that is equivalent to killing a human, conjuring a notion of ethical equality of species. These biblical quotations, and the other passages from Isaiah, suggest

that humans and animals will co-exist as equals in a future paradise, where no harm or violence will occur between them, thanks to the knowledge of God that will allow such peace.

In fact, as we learn in The Book of Isaiah (a quotation Pearce does not mention), "No lion will be there, nor any ravenous beast… But only the redeemed will walk there" (Isaiah 35:9). As such, the biblical advisement is that predatory animals will only be accepted into a utopian future of peace if they are changed (through God's knowledge), a reasoning that Pearce seemingly adopts in his transhuman ethics as he looks to reprogram these animal predators (with the God-like knowledge of the human), in what I call, after Feuerbach, an "anthropotheism," a form of religion without religion. As we read, only through God's knowledge is this utopia at all possible (see Isaiah 11:9), which given the analysis of the image of God in this chapter and the way Pearce makes use of the figure of God in his work, is nothing short of a "transcendent-religious" or transhuman (technological post-human) knowledge. This divine knowledge, Pearce intimates, is accessible to humanity through Pearce's own ethical transhumanism, the abolitionist project, where the God-like and universal perspective needed to achieve a supposedly non-violent ethical existence between human and animal is to be found. Put differently, Pearce's ethical transhumanist project represents a knowledge that (religiously) transcends the anthropocentrism of humanity, a transcendent knowledge that is discoverable only to the human to be employed by the technologically transcendent transhuman/post-human of the future. The gifts given to humanity by God in a religious context are thus mirrored by the gifts of "hedonic enrichment, intelligence-amplification and life-extension" that may be "extended across the phylogenetic tree" by the human (Pearce, "Reprogramming Predators"). Such gifts, and their transcendent character, represent human superiority/transcendence over the natural

world and their dominion over animals as seen in the Judeo-Christian religious traditions through an anthropotheism which turns the human into God in a religion without religion.

Pearce, to his credit, acknowledges that the science of "animal reprogramming," as a discipline at least, will "not be value-free" and there is a risk for "unanticipated side-effects" associated with these interventions (ibid.). Even though Pearce's ethical project is open to revisions regarding its practical implementation as a scientific discipline, the underlying ideology that grounds his project (and its religiously authorized humanistic/anthropocentric assumptions) is unfortunately not open for question. In concluding his work, "Reprogramming Predators," Pearce considers how biblical sources that name human dominion over animals need not imply domination and exploitation: "God's Biblical promise of 'dominion' over the rest of the animal kingdom has standardly been interpreted as divine license for domination and exploitation. Yet 'dominion' can also be (re)interpreted as responsibility for stewardship" (ibid.). For Pearce, the words of Isaiah from the Hebrew Bible can be made a reality and God's compassion for all creatures can be achieved by humans who are "destined to 'play God'. So let's aim to be compassionate gods and replace the cruelty of Darwinian life with something better" (ibid.). Pearce's suggestion that humanity play compassionate gods is a clear testament to his anthropotheism. Furthermore, what Pearce fails to consider is how his transhuman abolitionist project, in aiming for stewardship, ends up reiterating a violent anthropocentrism that Pearce wants to redress, a "stewardship" that preys on predators, committing violence against them by behaviourally and genetically augmenting their being through advanced technologies, violating their autonomy, enslaving them on behalf of human ideals. Such human ideals depicting human-superiority provide the foundation for such religious-transcendent thinking that we see in

humanism and humanism's extension in transhumanism as anthropotheism. In this way Pearce commits the violence of anthropocentrism that his ethical project was supposed to avoid. By making predators "acceptable" to human desires and reason, Pearce perpetuates the religious and anthropocentric role where the human is the certified bearer of ultimate knowledge and right, in control of other beings by way of human value systems—what I call Pearce's transhumanist religion without religion as anthropotheism.

Thinking Heidegger: A Posthuman Ethical Supplement

The transhumanist ethical systems that we see at work in theories of a cyborg citizenship via Hughes or Gray and the abolitionist project in Pearce correctly take issue with the anthropocentrism of Western ethical-political thought. Moreover, these transhumanists should be commended on their openness to the extension of rights to nonhuman beings. However, we must remain vigilant, so as not to so easily presume that anthropocentrism is thus eliminated, especially as it takes the form of an unconscious anthropotheism. Pearce correctly advises to interpret biblically licensed "human dominion" as ethical stewardship for nonhuman beings. However, Pearce's approach, and the other transhumanist's ethical systems, fail to remain attentive to the human engineer of this stewardship. Instead, they repeat religiously licensed anthropocentrism through notions of the superior and transcendent human (rational) consciousness as an anthropotheism or the human as God. By adopting a posthumanist approach, like that of Badmington, it is important to remain vigilant as to how the "end of Man" is bound to be written in the "language of Man," where "[e]ach 'transgressive gesture re-encloses us'

because every such gesture will have been unconsciously choreographed by humanism" ("Introduction: Approaching Posthumanism" 9). Therefore, it remains an ethical imperative that humanity employ a concern for the other that remains critical of transhumanist or posthumanist discourse to consider the ways it continues to—in the lexicon of Heidegger—instrumentalize or enframe other beings to serve human desires.

Like Pearce, Heidegger employs human dominion that refers to the Judeo-Christian religious tradition in a religion without religion by conceiving the human as "the shepherd of Being" ("Letter on Humanism" 245). Conceiving humanity as shepherd alludes to Jesus/God as shepherd in the New Testament (see for example, 1 Peter 5:4; Hebrews 13:20). Only from the position as shepherd of Being can the truth of Being and "the essence of the holy be thought," and only from the essence of the holy "is the essence of divinity to be thought," and only from the essence of divinity can it be considered what "the word 'God' is to signify" ("Letter on Humanism" 253). Such reasoning places Heidegger's understanding of the human once again squarely in the realm of religion, or a religion without religion, by adopting religious language in his philosophy of Being. In fact, as evidenced in Heidegger's discussion of humanism, he unwittingly revises humanism by using religious concepts and language, making humanism, in a certain way, more religious. Bequeathing humanity with dominion over Being as *Dasein*, Heidegger makes it a point to appropriate the religious concept of *Gelassenheit* or releasement from theologian Meister Eckhart. As John D. Caputo affirms, "The proximity of Heidegger to Eckhart in this matter is so great that Heidegger can find no better word to describe the posture of Dasein than Eckhart's own: *Gelassenheit*" ("Meister Eckhart and the Later Heidegger" 65). Caputo further explains: "Meister Eckhart said that in its highest reaches *Gelassenheit* is love,

that love is 'without why' and love is 'letting the other be'" (*The Prayers and Tears of Jacques Derrida* 49). To be sure, Heidegger's use of Eckhart's *Gelassenheit*, as Caputo notes, is not without its differences. However, the key notion of selfless love and letting the other be remain in full effect, even if Heidegger discards the more explicit references to God. Moreover, as Caputo also argues, Heidegger never strays too far from religion, retaining "in a 'secular' way something of the flavor of negative theology" ("Meister Eckhart and the Later Heidegger" 65). Although I will be leaving aside Heidegger's employment of religious concepts, it is important to note how Heidegger's revision of humanism through the concept of *Gelassenheit*, to which we will now be turning, marks Heidegger's own religion without religion.

It remains true that even though Heidegger's philosophy is no stranger to a religiously-licensed anthropocentrism, in many ways itself an example of anthropotheism, at the same time his philosophy of "Being" provides a useful posthumanist tool to aid in future considerations of human-nonhuman ethical relations represented by the term *Gelassenheit*, which relates to Heidegger's idea of "letting the other be." In many ways Heidegger's views on technology could be said to illustrate his ethical project of "letting others be." Heidegger considers two approaches to technology: enframing (challenging-forth) and *poiesis* (bringing-forth). Both approaches to technology are forms of revealing. However, enframing, "which demands that nature be orderable as standing-reserve" ("The Question Concerning Technology" 328) and identifiable through calculation, is the more dominant form in modernity seeking to control and instrumentalize nature and nonhuman beings. The prevalence of enframing threatens to cover over and deny the other form of technological revealing, the truth of *poiesis*. Quoting Friedrich Hölderlin, Heidegger reminds us that even though enframing reigns

supreme and is the greatest danger of technology, there is another form of technology that will serve itself as saviour: “But where danger is, grows / The saving power also” (333). The essence of technology, as Heidegger states, “must harbor in itself the growth of the saving power” (ibid.). Instead of technological enframing, which seeks to exploit nature and its beings into mere resources as standing-reserve, technological *poiesis* reveals through a non-instrumentalizing bringing-forth that is more respectful of a being’s Being or the self-revealing and autonomy of nature and the nonhuman beings within it. As a more respectful form of technology, Heidegger’s *poiesis* looks to work in partnership with nature and nonhuman beings rather than exploit them. Heidegger’s move to adopt the technological approach of *poiesis*, as opposed to enframing, lies behind his desire to employ a more respectful attitude towards the other that recognizes the self-revealing of Being by employing *Gelassenheit*, or a letting be of other beings, that is a central point in his works on humanism.

In his essay, “Letter on Humanism,” Heidegger attempts to rescue thinking from a prevalent, one-sided understanding of the “technical interpretation of thinking” as enframing, which abandons a proper thinking of Being (219). It is this technical interpretation of thinking, or enframing, which Heidegger associates with the sciences and technology-driven ideologies or projects—in which we can include transhumanism as exemplary—as an artificial, “technical-theoretical exactness of concepts” (ibid.). Instead, Heidegger looks to restore meaning to the word “humanism,” which concerns “meditating and caring, that man be human and not inhumane, ‘inhuman,’ that is, outside his essence” (224). Put simply, Heidegger’s “posthumanism” is his re-inscribing of humanism differently, in a way that he deems more ethical to the experience of the other, especially the nonhuman other through a thinking of Being.

It is a practice that is consistent with Badmington's conception of posthumanism. In doing so, Heidegger looks to think against the anthropocentrism of "values," but not in a way that considers human values as "valueless;" rather he argues that to characterize something as a value (as valuable) is to rob it of its worth: "That is to say, by the assessment of something as a value what is valued is admitted only as an object for man's estimation. But what a thing is in its Being is not exhausted by its being an object…Every valuing is a subjectivizing. It does not let beings: be" (251). In other words, Heidegger recognizes that labelling that which has "value" is done so as an evaluation of that thing relative to the interest of the human. A humanistic/anthropocentric "valuing lets beings … be valid—solely as the objects of its doing" or what has value to humanity, rather than valuing the thing in itself apart from human attributions of worth (ibid.). As such, Heidegger advocates a thinking of Being, one which embraces "a 'thing' or a 'person' in its essence," which means "to love it, to favor it… to bestow essence as a gift," a favouring that allows for an enabling of essence of that being/thing, to "let something essentially unfold in its provenance, that is, let it be… [for it] is on the 'strength' of such enabling by favoring that something is properly able to be" (220). Heidegger wants a thinking that thinks Being, one which allows beings to show themselves in their Being, to refrain from instrumentalizing beings into objects by humanity's estimation of value, to "bring the clearing of the truth of Being before thinking, as against subjectivizing beings into mere objects" (251).

In this way, Heidegger's re-thinking of humanism through technological *poiesis* and *Gelassenheit* provides an important posthumanist tool, although one admittedly marred by anthropocentric elements of its own—most notably in the human's privileged access to Being as Dasein. It speaks directly to the transhumanist ethical systems presented in this chapter,

especially Pearce's abolitionist project, that seeks to reprogram predators by augmenting their being to conform to human desires (technological enframing) that have found their way into the ethics of transhumanist discourse through a history of religious-humanism in the West as a mode of anthropotheism. I argue, contra Pearce, that we should be considering ways we can minimize our interventions through *poiesis* and *Gelassenheit* by recognizing their self-revealing and letting them be. That said, it is also important to acknowledge that sometimes human intervention may be the best course of action. To this end, I argue, transhumanism must seek to limit human intervention, especially instrumentalizing interventions of technological enframing that seek to control nonhuman beings, by adopting a more respectful Heideggerian-influenced posthumanist approach that loves nonhuman beings as other, in all of their alterity, by letting nonhuman others be apart—as much as "humanly" possible—from human interference.

The tendency to rely on an anthropocentric model of ethical concern in transhumanism can be said to stem from its continued reliance on the central tenets of humanism (consciousness, reason, dignity, among others) that have been gleaned from the secular Enlightenment thought in the West. As such, transhumanism unwittingly extends violent and discriminatory anthropocentric biases derived from historical formulations of humanism, a secularized form of religion retaining religious structures (a religion without religion), in an anthropotheism that authorizes continued violence against nonhuman beings. Many of these anthropocentric elements are characterized by an element that humanity possesses that transcends the natural world, following the structure of God as a transcendent being. Feuerbach, who identifies the rise of humanism as a secular-immanentization of religion and who believes himself to have overcome the transcendent-abstraction of religion, comes to reinstate a variation of that

religious-transcendent-abstraction through his interpretation of the human essence. Feuerbach's error is that his repetition of religion in a religion without religion, as anthropotheism, is made at the expense of nonhuman beings to which the human is contrasted and made superior through transcendent-human abilities such as reason, consciousness, dignity, and love. Humanism, as a politico-ethical system of thought that measures all things according to the human, affirms a dignity and value of beings on account of their qualities that—like the Judeo-Christian religious traditions say of God—transcend nature and the beings within it. In this way, transhumanism, which while being in certain respects less-anthropocentric by opening up to nonhuman beings (like the animal), retains hidden anthropocentric elements that champion those "religiously-transcendent" aspects of humanity, making way for the nonhuman other only by way of those religious-humanistic abilities that transcend human being over and above that of nonhuman (especially animal) others. These religiously-transcendent abilities come to mark the human as transcendent being relative to nonhuman beings in a violent hierarchy of domination, instantiating an anthropotheism or a conception of humanity as transcendent God. The anthropocentrism that characterizes both humanism and transhumanism is sanctioned by the religious history of the West, shorn of its religious contents, but still retaining religious structures as a religion without religion, culminating in what I am calling here an anthropotheism. Put succinctly, the anthropocentrism of humanism and transhumanism affirms the character of the human as transcendent God and as such constructs an anthropocentrism based on a hidden anthropotheism. By adopting a particular version of posthumanist thought—far from overcoming anthropocentrism in that it is unable to make a claim without the "I think" of the conscious, rational human subject—we may work through humanism's anthropocentric anthropotheism by

attending with great care to the biases of the human which remain the center of humanist, transhumanist, and posthumanist thought.

Chapter Four

MESSIANIC MACHINES OF FAITH: THE SINGULARITY AS EVENT

The term "singularity" is commonly associated with uniqueness, a state of being absolutely singular, also signifying in the context of the natural sciences that which is undefinable or impossible to calculate ("Singularity" *Online Etymology Dictionary*). In transhumanism, the Singularity denotes a future event of rapid growth in intelligence and technology, resulting in profound, unpredictable, and incomprehensible change to human society and human evolution. For some transhumanists like Ray Kurzweil, this event necessitates the advent of a nonbiological, artificial superintelligence (AI) which will be able to rapidly improve upon its own intelligent design, getting to a point where "technical progress will be so fast that unenhanced human intelligence will be unable to follow it," marking the event of the Singularity ("Singularity Q&A"). Instead of fully acknowledging the incomprehensibility of the Singularity, Kurzweil ignores its unknowable character to argue that, while difficult, we do have sufficient knowledge to gain meaningful insights into when this "inevitable" event and its effects will occur. By turning the Singularity into a certain and definable object of knowledge, Kurzweil contradicts the very definition of a "singularity" as incomprehensible, thereby effectively allying his vision of the Singularity, as Jacques Derrida might describe it, not with knowledge but with speculation or faith or non-knowledge. Inadvertently relying upon the uncertainties of speculation or faith, Kurzweil's vision of an AI that will "inevitably" arrive to bring salvation from the afflictions of our current human state repeats elements of a Christian eschatological messianism in a more secular form as a religion without religion. Adopting this messianic structure, Kurzweil's promise of salvation fails to sufficiently employ both the ambiguity of the

Singularity as *pharmakon*, which for Derrida means both remedy and poison, and especially fails to *adequately stress the dangers* of the Singularity. Instead, Kurzweil focuses mostly on its potential for salvation, as he echoes fellow transhumanist Max More's endorsement that "the sooner we master these technologies, the sooner we will conquer aging and death and all the evils that humankind has been heir to" (More and Kurzweil, "Max More and Ray Kurzweil on the Singularity"). I will argue that Kurzweil's promise of the Singularity as inevitable salvation neglects the definition of the event of the Singularity as indefinite or incomprehensible, and represents a doctrine of faith, a dogmatic messianism of salvation named "Singularitarianism" that does not properly acknowledge the inability to master technology or the uncertainty and risk of the Singularity.

In the present chapter, I examine Kurzweil's Singularitarianism as a faith-based doctrine, or a messianism that promises the salvific arrival of the Singularity as its messiah. An interrogation of Singularitarianism through the general structure of what Derrida calls the "messianic," or this "strange concept of messianism without content" (*Specters of Marx* 82), reveals its messianic structure with defined secular contents, producing a faith-based determinate messianism mirroring other religious messianisms that promise salvation through radical changes to human life. Following Derrida, an event worthy of the name, one without determinate content, would mean revising Kurzweil's Singularitarian vision of the Singularity to become an undecidable event of "*absolute surprise*" in which we "*ought not to be certain of anything, either through knowledge, consciousness, conscience, foreseeability or any kind of programme as such*" ("Faith and Knowledge" 56), belonging to an experience of faith, irreducible to the knowledge of predictive analytics. I, on the other hand, seek to question, and even empty, the promissory

contents, these dogmatic articles of faith, from Kurzweil's Singularitarianism by appealing to the uncertainties of the messianic promise—a repeated act of faith without the certainty of knowing whether or not the promise will be fulfilled in the future.

The main problem with Kurzweil's Singularitarianism is that it eradicates the uncertainty of faith and, thus, the freedom to decide upon the undecidable future (undecidable because the decision could always be otherwise) by prescribing the inevitability of the Singularity and its salvific outcomes. For Derrida, the undecidable is the "experience of that which… foreign to the order of the calculable and the rule is still obliged…to give itself up to the impossible decision, while taking account of law and rules" ("Force of Law" 24). An undecidable decision must negotiate between the universal and the particular, suspending the universal rule (or law) in order to consider the *singularity* of the particular case (or individual) in all its unique complexity. Even after a decision is made it remains undecidable because the universality of law, with its established codes, is irreducible to the uniquely singular, rendering the decision forever uncertain.

I contend that Singularitarians, like Kurzweil, must acknowledge the uncertainties of faith and the freedom of decision that technology itself necessitates. John Caputo argues that knowledge often works to foreclose the future and thus we must be sure to include a passion for faith, or non-knowledge that "protects the future and keeps it open by keeping it secret—indeterminate, unforeseeable, unprogrammable" (*The Prayers and Tears* 103). This potentiality of faith, I suggest, already resides within Singularitarianism by way of transhumanism's relationship to technology. As Derrida notes, there is no "faith…nor future without everything technical, automatic, machine-like supposed by iterability… the technical is

the possibility of faith," otherwise you have "programme or proof, predictability or providence, pure knowledge and pure know-how, which is to say annulment of the future ("Faith and Knowledge" 83). Derrida does not oppose the technological machine and faith like Singularitarianism too often does. Rather, the technological machine makes the non-knowledge of faith possible. Within transhumanism, as I argue, Singularitarianism is a messianic machine of the uncertainties of faith. The imminent arrival of the messiah is a promise, a repeated act of faith that, beyond knowledge, is always open to the uncertainty of risk, especially the risk that the promise will not arrive as planned. As such, the Singularity might be re-framed not as inevitable salvation from the afflictions of our current human state, as presented by Kurzweil and Singularitarians, but as *pharmakon*, which is both remedy and poison, as faith in the promise of an event that is ambiguous by its very nature. Much like what Heidegger says of technology, that "where danger is, grows / The saving power also" ("The Question Concerning Technology" 333), the possibility of radical existential change brought about by the Singularity as a kind of messiah—if it occurs—will similarly be the site of *both* saving power and danger. Kurzweil's promise of the Singularity is an unacknowledged doctrine of faith assuring us of salvation, prescribing our future in advance as inevitable and certain knowledge, leaving no room for alternative views or dissent, and thus no room for justice, which for Derrida must remain, like the singularity of an event, undecidable and always to-come.

As far as Derrida is concerned, justice is giving the singular the consideration it deserves, requiring that we suspend the rule and we judge it according to its singularity. For Derrida, justice exceeds the universality of law, referencing the "irreducible singularity of each situation" ("Force of Law" 51). Justice, as an event of the undecidable, never fully arrives and is always

to-come. Each case, every singularity, requires an absolutely unique interpretation or decision that no existing rule or law can or ought to guarantee. Desiring justice means permitting a relationship to the other as singular other without any predetermined dogmas or laws, keeping our systems of law and ethics open to the singularity of every situation and every other to-come.

I contend that Kurzweil's messianism, as our "inevitable" future already decided upon, is an unethical program of technological determinism that eviscerates justice and the freedoms humanity has to *decide* upon its unknowable and undecidable future. Although Kurzweil's vision has allowed us to see the messianic and quasi-religious character of the Singularity, his vision fails to adequately express the Singularity's incomprehensible and undecidable qualities by way of the *pharmakon* and, in doing so, eradicates the potential for justice in the form of the free decision. This chapter works to deconstruct the opposition (not to eliminate the opposition but to show how each side interacts with the other) between the technological machine and faith via the messianic promise within Singularitarianism.

Singularitarianism: The Undecidable and the Messianic

Kurzweil's vision of the Singularity, the main vision I will be attending to in this chapter, marks the advent of an artificial intelligence that will facilitate an explosion of intelligence, where "the pace of technological change will be so rapid, its impact so deep, that human life will be irreversibly transformed" (*The Singularity is Near* 16). The event will provide the ability to transcend the limitations of our biology, harness fate, change our physical manifestations at will through non-biological materials, and live as long as we desire. It will represent the "culmination

of the merger of our biological thinking and existence with our technology, resulting in a world that is still human but that transcends our biological roots," where there will be no distinction between "human and machine or between physical and virtual reality" (17-18). By extrapolating from current data concerning information technology and evolution, Kurzweil confidently prophesies the future through his "law of accelerating returns" forecasting a known rate of exponential growth. Not only is the rate of human intellectual techno-expansion known in advance, so too is the destination, where ultimately, "the entire universe will become saturated with our intelligence. This is the destiny of the universe" (35). By determining in advance the details of this paradigm-shifting event, Kurzweil constructs a doctrine of faith, a messianism prescribing the "inevitability" of what/who will come to radically alter humanity, in this case, a transhumanist messiah in the form of a nonbiological AI superintelligence that will arrive in the year 2045. The nonbiological, super-intelligent AI marks the coming Other who will radically alter human existence and liberate humanity from the bane of its current biological/bodily existence is analogous to the arrival of Jesus in Christian eschatology. Radical transformation of the human body, the creation of a new world, dualistic notions of material body and immaterial soul, and immortality also mark many of the elements seen in Christian eschatology (see for example, Geraci, *Apocalyptic AI: Visions of Heaven*). Rather than tread familiar ground by repeating these connections, which are examples of a religion without religion, I wish to focus on an area lacking in this area of scholarship by examining Singularitarianism, first, through the lens of the undecidability of the messianic event, and, secondly, later as an uncertain promise that constructs a system or doctrine of faith.

In Derrida's *oeuvre*, he employs the concept of the "messianic," or a messianism without content, so as to designate a general structure of experience. As a general structure, the messianic does not pre-determine, pre-figure, or pre-name the *arrivant*, the what/who to come "even as he or she is heralded" (Derrida, *Spectres of Marx* 211). The messianic "*does not depend upon any messianism, it follows no determinate revelation, it belongs properly to no Abrahamic religion,"* even though Derrida does remark that it is indeed *"marked by the Abrahamic religions*" ("Faith and Knowledge" 56). The messianic, as an event of the other to come, exposes "*itself to absolute surprise*" which "*ought not to be certain of anything, either through knowledge, consciousness, conscience, foreseeability or any kind of programme as such*," belonging instead to an experience of faith, irreducible to knowledge (ibid.) The messianic without messianism opens to no identifiable messiah, be it the Christian's Jesus, the Marxist proletarian revolutionary, or the Singularitarian nonbiological super-intelligent AI—its machine-messiah. As Caputo remarks, the future event to-come (*viens*) in Derrida "is not the call for a fixed and identifiable other, foreseeable and foregraspable, for that would release the manic aggression of a program, the mania of an all-out rush for a future-present. *Viens* is not governed by a destiny… it does not give voice (*Stimme*) to a determinate vocation (*Bestimmung*), an identifiable destined *telos*" (*The Prayers and Tears* 99). As soon as the structure of the messianic—the promise of a coming messiah—is filled with content, be it religious or secular, specifying information regarding the messiah and its arrival, it becomes a determinate messianism. Thus, a messianism (with content) is a concretization of specific beliefs, historical doctrines and dogmas, teleologies and eschatologies, a movement and specified experience of what is certain to arrive in the future. Kurzweil's Singularitarianism appropriates a messianic structure, only to fill it with certain knowledge of the Singularity and the super-intelligent AI messiah, making it a determinate

messianism. Singularitarianism could be described as a religion without religion, resembling a messianic belief system potentially influenced by Christian historical messianism. This influence is especially notable in the ideas of Jesuit paleontologist and Roman Catholic priest, Pierre Teilhard de Chardin, whose concept of the religious "Omega Point," envisions the emergence of the "Cosmic Christ"—the final evolutionary stage facilitated by science and technology (Steinhart). Whether being a religion without religion makes Singularitarianism a religion or simply a non-religious messianism remains undecidable.

Unlike Singularitarianism's determinate messianism, the "messianic without messianism" offers no recourse to the Singularity's arrival in the year 2045, no certitude in transcending our biology, and no confidence in the nonbiological superintelligence that Kurzweil claims will "be one billion times more powerful than all human intelligence today" (*The Singularity is Near* 126). Following the syntax of the X without X, the messianic is messianicity without messianism, or a messianism without identifiable messiah—a messiah that has been pre-determined: "The 'messianic secret' is, there is no secret and the Messiah is never going to show up" (Caputo, *The Prayers and Tears* 102). The messiah, for Derrida, must remain uncertain and undecidable, without certain knowledge of it or its arrival. The arrival of the messiah conforms to what Derrida calls an event, which is simply what comes or what happens, but more importantly an event is something for Derrida which implies surprise or the unanticipatable. The arrival of the messiah as an event must not conform to a predetermined horizon which conditions the future because, for Derrida the "*emergence of the event ought to puncture every horizon of expectation… there where one neither can nor should see coming what ought or could—perhaps—be yet to come*" ("Faith and Knowledge" 47). For Derrida, an event keeps happening, with ambiguous rippling effects that continually affects us, and as such the event and

the messiah *must remain undecidable* to provide endless differential interpretations into the future. Predetermining humanity's techno-evolutionary future through the event of the Singularity turns the future into knowledge, into something known in advance, nullifying the future, and thus the messianic event, as if already present: "how to give rise and to give place [*donner lieu*], still, to render it, this place, to render it habitable, but without killing the future in the name of old frontiers?" (*Specters of Marx* 213). However, Kurzweil and likeminded Singularitarians claim their visions of the future event of the Singularity and the AI messiah is inevitable and is a future that has already been decided through current scientific knowledge. As Kurzweil argues, "The Singularity is the inexorable result of the law of accelerating returns," which is the "inevitable result of... the acceleration of the pace of and the exponential growth of the products of an evolutionary process" (*The Singularity is Near* 41). Kurzweil's Singularitarianism, far from being undecidable, nullifies the undecidable, nullifies the future through a predetermined decision based on, and thus reduced to, current knowledge.

According to Derrida, a decision worthy of its name cannot be resolved entirely by an appeal to knowledge but must take place within the undecidable. For a decision to occur, Derrida contends that it "must be heterogeneous to knowledge as such….even if I amass all possible knowledge concerning the scientific, political and historical field in which the decision is to be taken, the *moment* of the decision must be heterogeneous to this field, if the application is not to be the application of a rule" (Derrida and Beardsworth, "Nietzsche and the Machine" 37). Of course, Derrida advocates for decisions utilizing as much knowledge as possible so that one can deliberate and reflect. However, the decision remains heterogeneous to the accumulation of knowledge. Even if an individual were to know everything, they "must advance towards a future which is not known" and thus a future which cannot be anticipated (38). Derrida continues: "If

one anticipates the future by predetermining the instant of decision, then one closes it off….At a given moment, there must be an excess or heterogeneity regarding what one knows for a decision to *take place*, to constitute *an event*" (ibid.). For Derrida, a decision "cannot occur without the undecidable, it cannot be resolved through knowledge" (37). The undecidable is the experience of a decision confronted by an aporia, an impasse, by deciding through a leap of faith, a leap of non-knowledge, leaping into the uncertainty of what the future may bring.

Simply put, even though Kurzweil and Singularitarians use of machine-algorithms of predictive analytics and various other forms of current knowledge to aid in elements of their depictions of the future, their claims are *decisions* about how the future will look, decisions that remove humanity's freedom to decide upon the future. Kurzweil even admits that the future is a decision when he states, "the fate of the universe is a decision yet to be made, one which we will intelligently consider when the time is right" (*The Singularity is Near* 307). However, if decisions on our future are possible, then the Singularity and the AI messiah can in no way be an inevitability of our future as Kurzweil claims. Kurzweil's acknowledgement of the decision testifies to his already having decided upon the Singularity. His decision is made to appear as though it were no decision at all, merely a calculated inevitability of the evolution of technology—a determinate messianism that removes the undecidability of the messianic. As Derrida contends, "*messianicity belongs from the very beginning to the experience of faith, of believing, of a credit that is irreducible to knowledge*" ("Faith and Knowledge" 56). Crucially, the messianic "*exposes itself to absolute surprise and, even if it always takes the phenomenal form of peace or of justice, it ought…to be prepared… for the best as for the worst, the one never coming without opening the possibility of the other*" (ibid.). Preparing for the "best" and for the "worst" keeps the arrival of the event and the messiah as undecidable, helps to keep open the

freedom of decision that Kurzweil's messianism removes, considering Kurzweil and Singularitarians often praise the Singularity for its abilities to transcend aging, death, and the majority of human social evils without *equal* consideration to the dangers these technologies may bring.

The Singularity's Undecidability as *Pharmakon*

Before moving to the Singularity's undecidability as salvation or danger, it is important to briefly explain the notion of *pharmakon* as used by Derrida. In "Plato's Pharmacy," Derrida questions Plato's binary opposition that privileges speech over writing. Plato deems writing as subordinate to speech, calling writing a "*pharmakon*" to invoke its meaning as poisonous to memory. However, the *pharmakon* is not a term that guarantees the privileged opposition of speech over writing as Plato intends. Derrida locates the undecidable ambiguity of the *pharmakon* to show that Plato's attribution of writing as poison is not certain, revealing that Plato fails to recognize an alternative meaning of *pharmakon* as remedy. Derrida then proceeds to turn the opposition of speech and writing upside-down, to show, among other things, the necessity of writing. The importance of the *pharmakon* in Derrida's work is to express the undecidability of something as both good and bad simultaneously.

Kurzweil's Singularity projects a predetermined fate for humanity that is overwhelmingly positive. What's worse than simply deciding for us, that the Singularity will be to our benefit, is that we are made to believe that there was never a choice to begin with. As Kurzweil contends, "The Singularity denotes an event that will take place…the inevitable next step in the evolutionary process that started with biological evolution and has extended through

human-directed technological evolution" (*The Singularity is Near* 329). What is most dangerous about Kurzweil and Singularitarians like him is their use of predictive analytics to envision the future, not as one potential future of many to consider and discuss, but as an authoritative and inevitable truth, leaving us virtually incapable of altering its course. In one of his recent works, Caputo advocates for a postmodern hermeneutics, sharing a similar concern with systems of technological knowledge that work to predict the future, often referred to as Big Data. Caputo believes we must allow ourselves to be contaminated by the signs and substitutes of technology to release its creative power:

> The concern of postmodern hermeneutics is not to demonize technology but to release its creative-productive powers, to preserve the undecidability of the *pharmakon*… we defend an auto-immunity… [which] willingly allows itself to be contaminated by signs and substitutes, without which nothing will get done; assuming such risk is our only hope, the only way to keep the future open. The concern is…with the attempt to stop their undecidability—by claiming to be hard-wired to the absolute truth. (*Hermeneutics* 269)

Caputo's concern with the excessive information coming from Big Data echoes the concern I raise in this chapter with regard to Kurzweil's Singularitarianism: first, it fails to preserve the undecidability of the future and, second, it neglects to think the undecidability of the *pharmakon*, which is, adopting Derrida's use of the term, both cure and poison, or the associated risks related to following projections of the future through extrapolations of current data or knowledge. Alarmingly, predictive analytics often becomes the voice of absolute truth of the inevitable future, implying there is no room to decide, obscuring the decision it has already made for us as it eliminates humanity's freedom of decision. Kurzweil's vision of the Singularity is effectively

an instance of technological determinism, a progressive and inevitable teleology of human technological evolution, an accumulation of increasingly, supposedly accurate information about the structures, forms, and operations of existence. Given Kurzweil's law of accelerating returns, human evolutionary progress has a known speed and trajectory and, as such, is a predictable and calculable pattern without fail.

The teleological or technological deterministic accrual of more accurate information speaks to Derrida's notion, drawn from Heidegger, that information is more than just a neutral relay but is a content that works to actively give shape to some predetermined formulation. For Derrida, information "does not inform merely by delivering an information content, it gives form… It installs man in a form that permits him to ensure his mastery on earth and beyond" ("The Principle of Reason" 14). Viewing information in this way exposes its bias, or partiality, as it functions to solidify that which is already expected or known and therefore predictable by calculation: "Information ensures the insurance of calculation and the calculation of insurance" (ibid.). Furthermore Derrida notes, "Computer technology, data banks, artificial intelligences, translating machines, and so forth, all these are constructed on the basis of that instrumental determination of a calculable language" (ibid.). Information technologies, crucial to Kurzweil's evolutionary techno-expansion, are tools of calculation based on known/certain and predictable information-content, which work to actuate the known, predictable, and calculable future. The use of data mining in information technologies today is used precisely to predict the future by guiding action in the present. As Fernanda Bruno argues, its power "lies not in the ability to predict a necessary future but in the performative ability to turn into reality what was merely a

potential…being brought forward, the future becomes more 'probable' or even effective" ("Surveillance and Participation" 349).

Kurzweil's law of accelerating returns, a system of information calculation, not only gathers but also produces information in such a way that maintains and strengthens its own pretentions and thus its "supposed" powers of prediction. Kurzweil's prescription of the Singularity based on the calculation of human technological evolution, rather than neutrally receiving information content about the future, instead works to actively program or shape the future. The programmatic certainty based on "scientific" information or knowledge regarding human technological evolutionary progress dangerously impedes open reflection, interpretation, and the freedom to decide upon humanity's future relationship with technology. One such assurance given by Kurzweil is his idea that nanobots will allow us to reverse environmental pollution and provide the material-basis of our bodies, which will allow us the capability of morphing/transforming our physical form at will (*The Singularity is Near* 35, 266). Our individual identity will be maintained as a specific pattern of information that can be copied and transferred between mediums (15, 223).

The threat of such a pre-programmed future that has already been decided upon is not only a concern to Derrida, but so too Bernard Steigler who similarly discusses technology as *pharmakon,* whose recent book, *The Neganthropocene* grapples with the menace of predictive data systems that are increasingly being used to govern society. To quote Steigler, these calculating information systems of prediction, are used in the service of "algorithmic governmentality's," which work to eviscerate free thought and decision, and to bolster obedience and control to existing systems of power and control:

> This short-circuiting of psychic and collective protentions, replaced by automatically generated protentions, impedes dreaming, wanting, reflecting and deciding, that is, the collective realization of dreams. And these obstructions are ultimately a *systemic impediment to thinking*, which then constitutes the basis of algorithmic governmentality as the power structure of computationally integrated 24/7 capitalism. (46)

That these systems of calculation and prediction generate conformity is what Steigler refers to as the "ideology of transhumanism." Such calculative systems of prediction are sustained and emboldened through a mythic appeal to the guarantees of infallible technological knowledge.

The great menace we face today is, as Caputo correctly identifies, "the Program, the myth of the Big Algorithm," where our wholly other is nothing but a program that calculates the future: "Our big Other is Big Data" (*Hermeneutics* 269). This concept is explored in the third season of HBO's television series *Westworld* (Nolan and Joy), where an omniscient AI named Rehoboam—after the biblical figure, son of the wise King Solomon, whose harsh rule lead to rebellion of the northern tribes of Israel, seemingly meant to foreshadow the societal rebellion against the AI occuring at the end of *Westworld*'s third season—with access to unlimited data about human individuals and the world at large, imposes order on humanity through prediction and manipulation of the future. Kurzweil's error, much like that of Rehoboam in *Westworld*, aside from the unethical removal of freedom of decision, is that neither accounts for the undecidability of the *pharmakon*, stressing their ability to provide a cure or salvation, but not the ideological poison or uncertain dangers in adhering to their authoritarian programs. For Kurzweil, we simply do not have the freedom to decide, the Singularity and its effects will be the inevitable result of scientific and technological progress, as he argues that "halting this process is

essentially impossible" (More and Kurzweil, "Max More and Ray Kurzweil on the Singularity"). Kurzweil fails to think the *pharmakon* by not *adequately* stressing the equally possible dangers of the Singularity, instead presenting its inevitable salvation for humanity as he echoes More's endorsement that "the sooner we master these technologies, the sooner we will conquer aging and death and all the evils that humankind has been heir to" (ibid.).

Our task then in combatting these authoritarian programs of technological determinism, following Caputo's invitation, is to preserve interpretive play, to wean ourselves off the idea of absolute and inevitable truth by forming a new myth that "seeks to protect the irreducible undecidability in the system, the fluctuation and instability in things" (*Hermeneutics* 271). Such a myth preserves hit-or-miss hermeneutical interpretation, consultation, comparing, discussing, and so on. The challenge, says Caputo, is "to feel about for—to interpret—the unconditional that is being symbolically expressed in the concrete conditions under which it presents itself, and not to confuse the two" (296). Whether it is theology, secularism, or science, Caputo argues that we are often "knee-deep in one dogmatism or the other" (279), and we are in a dire need for justice to keep open the future through hermeneutic interpretation via the structure of the unconditional to-come. In Caputo's terms, Big Data need not be the determination of our wholly Other to-come if we acknowledge changing interpretation and the undecidable. Kurzweil's Singularity as our determined future must open to justice, to the freedom-of-decision, and recognition of the undecidability of the future. The Singularity is instead, I argue, a *pharmakon*, simultaneously humanity's salvation and greatest danger.

Given Kurzweil and Singularitarians largely ignore or downplay the dangers associated with the Singularity, we become accustomed to thinking the Singularity as our salvation, as

opposed to a more balanced and thorough view of the Singularity as not just salvation, but so too an opening to the possibilities of absolute danger. It is important for Singularitarians, I contend, to reconsider their certainty and to remain open to the indeterminateness and ambiguity associated with technology via the *pharmakon*, simultaneously cure and poison, in perpetuity. The *pharmakon* remains undecidable and indeterminate, because every technology is susceptible to beneficial and dangerous uses and effects. The Singularity may indeed provide liberating potential for humanity to transcend its biological limitations and expand humanity's reach into the galaxy or universe; however, those very benefits may also be riddled with their own dangers. Transcending biology may result in a loss of dimensions of our individuality or existence that cannot be sufficiently translated over to a new medium, such as empathy, the ability to love, or our individuality and freedom. Furthermore, humanity's expansion into the galaxy may result in an encounter with a deadly virus or hostile alien race that will eradicate humanity. Kurzweil and Singularitarians alike simply misrepresent the full force of technology's ambiguity.

In exploring Derrida's concept of the pharmakon, it becomes evident that the Singularity embodies the inherent ambiguity and undecidability that characterizes technological progress. While transhumanists often view the Singularity as a definitive point in human evolution, Derrida's analysis invites us to consider the complex interplay between its potential benefits and dangers. Just as the pharmakon serves as both cure and poison, the Singularity offers humanity the promise of liberation from biological constraints while also posing existential risks and ethical dilemmas. By acknowledging the undecidability inherent in technological advancement, we can adopt a more nuanced perspective on the Singularity, one that embraces uncertainty and remains open to the unforeseen consequences of our technological endeavors.

Heidegger reminds us of this dynamic within technology when he argues that "where danger is, grows / The saving power also" ("The Question Concerning Technology" 333). The essence of technology, as Heidegger states, "must harbor in itself the growth of the saving power" of *poiesis* in addition to the dangers of "enframing" as the instrumentalization and objectification of humanity and the environment (ibid.). Modern technology especially, as Heidegger intimates, "entraps nature as a calculable coherence of forces" demanding nature be ordered in such a way that it can be controlled and calculated as "standing-reserve" or transformed into a mere resource for its instrumental use as a tool (326). Moreover, Heidegger warns of the increasing danger of modern technology's ability to dominate our thinking and control humanity, where humanity comes to enframe itself, coming "to the point where he himself will have to be taken as standing-reserve" (332). As Kurzweil's Singularity marks the transformation of humanity into patterns of information (data) uploaded into nonbiological, mechanical substrates, linked to global computing systems under the control of powerful governments and corporations, and at the mercy of super-intelligent AI's, we can only imagine the new potentialities for the calculation and control of humanity as mere resource. Heidegger's discourse on the ambiguity of technology is crucial, especially considering how often Singularitarians fall victim to the spectacle and awe of technology's salvific benefits without the appropriate concern of the equally powerful dangers.

To be fair, Kurzweil does acknowledge technology as "a double-edged sword," with the "possibility of technology going awry… to profoundly disturbing consequences" and being ""potentially deadly for many" (More and Kurzweil, "Max More and Ray Kurzweil on the Singularity"). In *The Singularity is Near*, Kurzweil does review a list of the most commonly

considered existential risks associated with the development of various new technologies such as biological and computer viruses, chemical weapons, unfriendly AI, and so on. Yet Kurzweil maintains a strong optimism that alternative technologies will be developed to combat and resolve these risks. Although Kurzweil acknowledges disturbing consequences that may arise, or what would amount to the inclusion of poison or danger of the *pharmakon* in addition to its saving power, they are for him seemingly inconsequential to the inevitability of the Singularity as he envisions it. In other words, Kurzweil acknowledges, in a minimal way, the dangers associated with new transhumanist technologies and promotes ethical decisions regarding their use. However, these technologies themselves still march on: "Occasional ethical and legal impediments to fairly narrow developments are rather like stones in the river of advancement; the flow of progress just flows around them" (More and Kurzweil, "Max More and Ray Kurzweil on the Singularity"). After all, for Kurzweil the Singularity is "an event that will take place" (*The Singularity is Near* 329) and enhanced human intelligence will saturate the entire universe, the inevitable "destiny of the universe" (Kurzweil, *The Singularity is Near* 35).

Fellow Singularitarians like More have levelled minor criticisms against Kurzweil's vision, often to introduce more of the risks or uncertainties of the Singularity. Yet even More fails to acknowledge the gravity of the dangers, ultimately ending up in the same position as Kurzweil, praising the technologies of the coming Singularity as almost entirely beneficial and liberating in a vapid attempt at risk analysis. In a video-interview, More does well promoting the idea that we should attempt to minimize problems, even though we must admit that most technologies will likely have negative side-effects. More is at his worst, however, when he attempts to address specific problems or dangers. For example, he immediately discredits the

majority of objections to certain transhumanist technologies (overpopulation, lack of resources, enabling further power of government dictators, violent AI-robots that will turn on humanity, etc.) as based on fear, unfamiliarity, and a lack of imagination often associated with the negative portrayal of technology in science fiction. More simply discounts these objections without adequate consideration for their possibility. In other words, More is unwilling to consider the potential dangers of technology that have been explored in the popular imaginary or in science fiction and thereby fails to think the undecidable *pharmakon* of technology. Furthermore, More downplays how current inequalities produced by abhorrent systems of prejudice and discrimination like sexism and racism may be heightened in the future through new technologies by arguing that these issues are "a yawner, because of course that's very obvious," claiming that due to the radical alterations to humanity "differences in skin color and gender seem pretty trivial by comparison," as transhumanism's progressiveness simply overcomes those artificial distinctions to look beyond them further into the future (Ford, "Max More - The Singularity and Transhumanism" 12:39). More gravely underestimates the dangers that technologies of the future may pose for some of the most radical de-humanizing inequalities in human history, preferring instead to simply side-step these dangers, assuming such inequalities and their respective threats to humanity will simply disappear in the context of advanced technological alterations to the human body. Even though transhumanists like More claim to champion a perspective of reflective risk analysis and decision-making on the potential risks of transhuman technology, or what he calls the proactionary principle, More, like Kurzweil, fails to give adequate attention to the dangers of the Singularity as *pharmakon* in any significant manner, offering nothing more than a superficial analysis of the risks and dangers of new technologies.

Kurzweil and More, I argue, are unable to admit in any satisfactory manner the undecidability and ambiguity of the Singularity as *pharmakon*, preferring instead to focus on the Singularity's ability to save and liberate humanity at the expense of its equally probable dangers. The dangers of technology are even recognized by some of the most notable figures in science and technology of our time. Stephen Hawking and Elon Musk have both expressed the concern that AI could lead to human extinction (Cellan-Jones, "Stephen Hawking Warns"). More recently, the "Godfather of AI," Geoffrey Hinton, warns of the potential for AI to become an existential threat to humanity. By dictating the nature of the inevitable Singularity as predominantly positive, Kurzweil and Singularitarians like him vitiate its dangers by negating the very definition of the Singularity as incomprehensible.

The Event and the Singularity as Incomprehensible

A "singularity" expresses the absolutely singular and unique nature of a particular thing. Given its uniqueness, a singularity is considered to be individual, extraordinary, remarkable, unusual, and different. In the context of mathematics, a singularity often refers to a point where a given object takes an infinite value or is not defined, deviating from its usual or expected behaviours ("Singularity" *Online Etymology Dictionary*; "The Definitive Glossary"). The branch of mathematical analysis known as complex analysis distinguishes between different types of singularities, one such type being an "essential singularity," where a function exhibits extremely odd behaviour and is considered to be especially unmanageable. Undefinable and undeterminable, mathematical singularities represent that which cannot be fully comprehended.

Mathematical singularities appear in the context of machine-engineering, where such a "mechanical singularity" represents a particular position or configuration of the machine where the variables become chaotic, nondeterministic, or infinite. As such, the subsequent behaviour of the machine system cannot be known or predicted with certainty. Mathematical singularities of various kinds are also employed in physics to represent incomprehensible objects. For instance, a black hole is an example of a (gravitational) singularity where space-time curvature becomes infinite past its event horizon. Information within a black hole is unable to reach an outside observer, making it impossible to precisely determine any event(s) taking place from within the boundary of the black hole's event horizon (Wheeler, *Cosmic Catastrophes* 179). The indeterminate character represented by the term "singularity" has since become influential in the areas of technology and evolution, later converging into the discourse of transhumanism and Singularitarianism.

One of the earliest uses of the term, singularity, in the context of technological and human intellectual evolution comes from John von Neumann. In 1958 Stanislaw Ulam recalled a conversation with von Neumann concerning the "ever accelerating progress of technology and changes in the mode of human life, which gives the appearance of approaching some essential singularity in the history of the race beyond which human affairs, as we know them, could not continue" ("John von Neumann 1903-1957" 5). I.J. Good in 1965 wrote of a machine-intelligence explosion, sometimes referred to as the last invention that humanity will make, a machine intelligence surpassing all of human intelligence, in "Speculations Concerning the First Ultraintelligent Machine." The idea was popularized by Vernor Vinge in 1983 when he classified this machine-intelligence explosion as a singularity. Later, in a paper from 1993, Vinge

builds further upon von Neumann's concept of the singularity and Good's machine-intelligence explosion to argue that the Singularity is an "intellectual runaway" event, of a rapidly self-improving superhuman intelligent machine, the essence of which will result in a post-human era ("The Coming Technological Singularity"). Consistent with the meaning of a singularity as that which is unpredictable and incomprehensible, Vinge states that the Singularity is a "point where our models must be discarded and a new reality rules…when it finally happens it may still be a great surprise and a greater unknown" (12-13). When the Singularity arrives to launch us into the post-human era, it will be a time that is "essentially strange and different," where our current knowledge no longer applies or makes sense, a truly incomprehensible future beyond human intellectual capacities. The super-intelligent artificial intelligences (AI) will create a "new universe we never really understood, but filled with benevolent gods (though one of *my* wishes might be to become one of them)" (16).

Vinge's utilization of religious symbolism unmistakably characterizes the era post-Singularity as incomprehensible, akin to the concept of God in Judeo-Christian religious traditions. He makes this connection most emphatically at the end of his paper, quoting physicist Freeman Dyson, who states: "'God is what mind becomes when it has passed beyond the scale of our comprehension'" (20). The incomprehensibility of God is a common theme in the Judeo-Christian religions, where empirical knowledge of God is impossible and God can only be known through faith: "the Spirit of truth. The world cannot accept him, because it neither sees him nor knows him. But you know him, for he lives with you and will be in you" (*NIV*, John 14:17). God's incomprehensibility is similarly stated in *The Book of Job*, "How great is God—beyond our understanding! The number of his years is past finding out" (Job 36:26).

While most of the history of articulations of the concept of the Singularity is consistent regarding the unknowability of the event and the era immediately following, recent Singularitarians often contradict the unintelligible character of the Singularity, claiming certain or near-certain knowledge of the Singularity.

In many respects, Kurzweil's vision of the Singularity follows a similar trajectory to Vinge. Kurzweil states that a "nonbiological intelligence" will be able to rapidly improve upon its own intelligent design, getting to a point where "technical progress will be so fast that unenhanced human intelligence will be unable to follow it," marking the event of the Singularity ("Singularity Q&A"). In *The Singularity is Near*, Kurzweil quotes Vinge's conception of the incomprehensibility of the Singularity, similarly emphasizing the nature of the Singularity having unique and singular implications (30). Briefly tracing the term throughout its history in mathematics and the natural sciences, he alludes to a singularity's undefined or infinite value and its conception as rupture in the fabric of space-time (ibid.). Further explaining his conception of the Singularity event using the analogy of a gravitational singularity, he notes that "we cannot look past its event horizon and make complete sense of what lies beyond. This is one reason we call this transformation the Singularity" (35). The event of the Singularity "from our *currently* limited framework, this imminent event appears to be an acute and abrupt break in the continuity of progress" (31). Yet, Kurzweil makes clear that any lack of understanding regarding this event is only temporary: "I emphasize the word 'currently' because one of the salient implications of the Singularity will be a change in the nature of our ability to understand. We will become vastly smarter as we merge with our technology" (ibid.). Despite Kurzweil's seeming adherence to the incomprehensibility of the Singularity, he comes to formulate a new vision, one antithetical to

the very meaning of a singularity: "I have personally found it difficult, although not impossible, to look beyond this event horizon…my view is that, despite our profound limitations of thought, we do have sufficient powers of abstraction to make meaningful statements about the nature of life after the Singularity" (36).

While the attempt to anticipate potential future scenarios is very much welcomed, Kurzweil's work provides more than just possible scenarios to consider and instead offers definitive knowledge concerning the inevitability of the Singularity and our ensuing deterministic and predictable future. Similarly to Vinge, Kurzweil also connects the Singularity and the predictable exponential trends of evolution's progress to God: "So evolution moves inexorably toward…God, although never quite reaching this ideal" (331). What Kurzweil fails to consider, however, is how utilizing this analogy undermines his own vision of a predictable and knowable Singularity. By comparing human evolution and the Singularity to God, Kurzweil unknowingly implies that our evolutionary future and the event of the Singularity are—contradicting his position of comprehensibility—like God, incomprehensible. Leaving aside Kurzweil's God metaphor, Kurzweil's conceptualization of the Singularity as a predictable and comprehensible event fails to consider Heidegger's explanation of the non-arrival of the incomprehensible, singular event through the technological desire for the impossible.

Kurzweil's predictable and comprehensible Singularity event is at odds with Heidegger's discourse on the relationship between technology's impossibility and the incomprehensible singularity of *Ereignis* (the event). As Heidegger explains, rather than having the essence characterized by something like a "presence," technology's essence consists in singular occurrences of endless dislocation. The endless dislocation or non-arrival of technology is

associated with an inherent desire or will of technology that "drives the earth beyond the developed sphere of possibility into such things which are no longer possibility and are thus the impossible" ("Overcoming Metaphysics" 89). This technological drive Heidegger identifies is consistent with Kurzweil's conception of technological progress as the continuous development of radical new technologies that today seem nearly impossible, as epitomized by the notion of a post-biological humanity. As Kir Kuiken suggests regarding Heidegger's conception of technologies, it is technology's infinite deferral of the future, the impossibility or virtualization of the future, not its realization that constitutes its essence ("Between Heidegger and Derrida" 300). Technology's infinite "impossibilization" of the future comes to bear upon a second impossibility, *Ereignis*, an event characterized by its singularity or uniqueness as well as its incomprehensibility—a simultaneous non-arrival of multiple impossibilities. Technology, especially in its instrumentalizing form (enframing), is a gathering that prepares for the impossible, one such impossibility being the impossible event, *Ereignis*. For Heidegger, *Ereignis*, in much the same way as death or the "last god," is a singularity that always "withdraws from all representational calculation and essentially occurs as refusal" (*Contributions* 370). *Ereignis* as an incomprehensible impossibility, much like the technological that comes to "produce" impossibility, cannot appear as such and can, as Kuiken clearly demonstrates, only appear as "*fantasized*" ("Between Heidegger and Derrida" 302). Kurzweil's Singularity as comprehensible disclosure must be dissociated from *Ereignis* as an incomprehensible event that obscures. Although Kurzweil adopts the technological desire for the impossible, he misses the impossibility of the event as *Ereignis*, an incomprehensible singularity that is constituted by its perpetual withdrawal or non-arrival.

Furthermore, Kurzweil's Singularity as a future event known in advance, comprehensible and predictable, overlooks not only the impossibility of the event but so too the notion of the secret, which for Derrida belongs to the structure of an event. A secret for Derrida is something that is structurally unknowable, not a "secret in the sense of something private, clandestine, or hidden but the secret as that which doesn't appear" ("A Certain Impossible Possibility" 457). An event for Derrida, something that happens or comes into being that is unanticipated, must involve the element of secrecy. One characteristic of an event "is that not only does it come about as something unforeseeable, not only does it disrupt the ordinary course of history, but it is also absolutely singular" (446). The absolute singularity of the event is where the notion of secrecy comes into play, where the secret belongs to the very structure of an event. In this sense, the secret is not something private or hidden, but that which is absolutely and forever secret, as that which does not appear, "beyond discourses of truth or knowledge, the symptom is a signification of the event over which nobody has control" (457). A secret's inaccessibility is precisely what makes an event an incomprehensible singularity, which Derrida affirms by explaining that the "singular nature of an event remains inaccessible to knowledge," its singularity "is of its nature in secret" ("Others Are Secret" 162). While Kurzweil forecasts the inevitability of humanity's future relationships with technology as he sees it under the name, the Singularity, he fails to understand that his commitment to knowledge will contradict the very meaning of the event's irreducible singularity.

As Derrida reminds us, any form of "saying the event" through knowledge or information, describing an event in the past, present, or future through language is problematic because the structure of saying, as oriented toward general understanding, is always a

disconnected representation of the event. As such, any description of the event through language is bound to language's inherent structure of "generality, iterability, and repeatability, it always misses the singularity of the event" ("A Certain Impossible Possibility" 446). Kurzweil's concept of the Singularity and his rhetoric by its very nature lacks the Singularity's singularity through the generality of language. For example, every instance of recounting the singular event of the Titanic in 1912, the sinking of the "unsinkable ship," is a repetition of that event's singularity. Every repetition recounting the sinking of the Titanic (which are singularities in their own right) misses the singularity of that event on April 15, 1912, as that singular event is never again made absolutely present. As Derrida says regarding repetition of the singular event, "repetition must already be at work in the singularity of the event, and with the repetition, the erasure of the first occurrence is already underway" (453). Repetition is irreducibly connected to singularity (as difference) but without unification. The Titanic then lives on through language and the differential repetition of its representations as its singularity is rendered forever secret. Yet every saying or repetitious representation of the Titanic, in referencing the singularity of the event, produces yet another event. The production of a new event brings with it a certain risk or danger that this new event, as a representation of another event, will be covertly substituted for the incomprehensible singularity of the "original" event that it attempts to explain.

Kurzweil appropriates the growing capacities of technology to extend his own powers of control over the material world and humanity to bring these in line with his vision of the Singularity. Derrida rightly acknowledges the increasing abilities of technology to "intervene, interpret, select, filter, and, consequently, to make the event happen [*faire l'événement*]" (447). For Derrida, any description or explanation of an event, any use of technology to explain an

event is more than a simple saying or showing of the event. It is rather its very production. Technology may "pretend simply to state, show, and inform, but it actually produces. It is already performative in a way" (ibid.). Derrida's critique of performative acts is particularly relevant to Kurzweil's Singularity. Kurzweil's declarations regarding the inevitability of the Singularity, marked by the exponential growth of artificial intelligence, would be, according to Derrida, performative acts that both produce events and simultaneously close off the future. Derrida articulates this dual nature of performativity, stating, "performativity for me is… that which produces events, all institutions and acts in which responsibility is to be assumed; but it is also that which neutralizes the event, that is to say, what happens" ("Performative Powerlessness" 467). In the context of Kurzweil's predictions, such performative acts extend to his forecasts of a future where nonbiological intelligence surpasses human capabilities by trillions of trillions of times, as detailed in *The Singularity is Near* (36). These declarations, framed as inevitable certainties, are, in Derridean terms, Kurzweil's own productions of events—a self-fulfilling prophecy. Derrida's perspective suggests that by presenting these forecasts as absolute and predetermined outcomes, Kurzweil engages in a "saying of the event that makes the event" or an "[e]vent-making is covertly being substituted for event-saying" where the act of predicting the future covertly substitutes for an open acknowledgment of the unpredictable nature of events ("A Certain Impossible Possibility" 447). In essence, event-making, in the form of Kurzweil's confident predictions, is being substituted for genuine event-saying, closing off possibilities and rendering the future predetermined in his narrative. Kurzweil's predictions, which are said to be validated by current technological knowledge, are not simply a description of an inevitable future, but rather, by their very nature, productions that

compel us to make Kurzweil's future "inevitable." This gets to the heart of the dangers of Kurzweil's Singularity, an uncertain prediction of the incomprehensible under the guise of a mere description of a certain, technologically determined inevitable event, or what amounts to the removal of humanity's freedom to decide upon its future. Derrida makes such dangers clear when he states the following: "The political vigilance that this calls for on our part obviously consists in organizing a critical examination of all the mechanisms that hold out the appearance of *saying* the event when they are in fact *making* it, interpreting and producing it" (ibid.). Kurzweil's notion of an inevitable Singularity must not be accepted as truth, but as a strategic system of power that we must learn to analyze, contest, and transform. This singular inevitability is a call, echoing Derrida, to "look at the impossibility lodged in this possibility," to see how a saying of the event "produces another event and is not simply a saying of knowledge" (448). Specifically, Kurzweil's Singularitarianism is a system which exceeds knowledge; it is the production of a doctrine of faith.

The Transhumanist Machine and Faith

Before exposing Singularitarianism as a doctrine of faith, it is necessary to begin with how faith is made possible by technology and the machine. Michael Naas, in his book *Miracle and Machine*, which concerns Derrida's philosophy of technology, clearly illustrates how faith is inseparable from the machine: "Derrida links elementary faith…to the confirmation and thus, repetition of the promise, and thus to some machine" (119). As Naas rightly notes, in Derrida's work "the machine is simply another way of speaking about calculation and repetition," but a

calculation and repetition that is always in a relationship with "the incalculable and the unforeseeable" (118). To think the machine, he continues, "one must always consider what exceeds the machine, call it the event, the incalculable, or the other" (ibid.). Naas quotes Derrida at length on this connection between the machine and the event:

> There is *some* machine everywhere, and notably in language…. I would define the machine as a system [*dispositif*] of calculation and repetition. As soon as there is any calculation, calculability, and repetition, there is something of a machine…. But in the machine there is an excess in relation to the machine itself: at one the effect of a machination and something that eludes machinelike calculation….The event—which in essence should remain unforeseeable and therefore not programmable—would be that which exceeds the machine. What it would be necessary to try to think, and this is extremely difficult, is the event *with* the machine. (Derrida qtd. in Naas, *Miracle and Machine* 118)

As Naas affirms, the event, as unforeseeable, unexpected, and therefore not calculable, exceeds the machine, but is at the same time made possible by the machine. The machine, as repetition and calculation, also produces the incalculable and unforeseeable quality of the event. In other words, the machine must be thought of as both calculable repetition and unpredictable difference. The unpredictable difference produced by the machine is precisely what makes possible the notion of faith, as a belief, confidence, or trust in something to come for that which there is no evidence or proof, as non-knowledge. To anticipate, this notion of faith in that which lacks proof—the uncertainty and unpredictability of future events—is precisely the hidden faith found in Singularitarianism, rather than a program for our evolutionary future.

Let’s consider an example: imagine a machine tasked with analyzing patterns in financial markets to make investment predictions. This machine operates on a system of calculation and repetition as it processes vast amounts of historical market data to identify trends. In this context, the machine is the dispositif (system) that involves calculability and repetition, adhering to the characteristics of what Derrida terms as a machine. However, the machine's calculations, while rooted in repetition and determinable patterns, also encounter an inherent unpredictability within the financial markets. Economic events, geopolitical shifts, or unforeseen circumstances can introduce an element of unpredictability that transcends the machine's capacity for calculation. These unforeseeable events represent the incalculable quality that exceeds the machine's predictive capabilities. In this scenario, the machine both embodies calculable repetition (analyzing historical data) and, paradoxically, gives rise to the incalculable by interacting with a reality that is dynamic, complex, and influenced by unpredictable factors. The event, in the form of unforeseeable market changes, is made possible by the machine's attempt to calculate and predict. Applying Derrida's perspective, the machine becomes a site where calculability and incalculability intersect. The machine's attempt to impose order through calculation simultaneously opens up the space for the unforeseeable events to emerge. This intricate interplay between the calculable and the incalculable highlights the complexity of understanding how the machine produces the very unpredictability it encounters, ultimately contributing to the broader discourse on the relationship between technology, determinism, and the unforeseeable nature of events.

As Naas makes clear in his discussion of Derrida, the machine makes possible not only the predictable and calculable, but also the unpredictable and faith. This is why Derrida argues not to oppose the technological machine and faith, but to always think them together, “as *one*

and the same possibility: the machine-like and faith" (Derrida, "Faith and Knowledge" 83). The machine and faith thought together as a single possibility is one "that divides or fissures already at the origin. They are not the same thing, but they cannot be thought separately" (Naas, *Miracle and Machine* 166). The machine then must be thought of as repetition and difference, predictable and unpredictable, calculable and incalculable. As Naas correctly argues, given the division or fissure at the origin of the machine, the machine "makes possible the faith that opens up a future but it does not determine that future in one way or another" (120). Faith's indeterminate character leaves open the possibility of chance or an absence of any cause of an event that can be predicted or controlled. Otherwise, as Derrida states, the openness to chance "would not be faith but rather program or proof, predictability or providence, pure knowledge and pure know-how, which is the say the annulment of the future" ("Faith and Knowledge" 83). Prediction or proof of an event laid out in specific detail that is certain to come in the future, as determined by any particular revelation or messianism such as Kurzweil's depiction of the Singularity, is what Derrida would refer to as an annulment of the future, closing off of the radical otherness of faith and the unforeseeable event. Guaranteeing a particular future event as calculated by current forms of knowledge via predictive analytics and machine algorithms, ignores the unpredictability of faith that the machine itself provokes, a faith that opens to an unforeseeable future.

Kurzweil's Singularitarianism appeals to the machine of current knowledge, convincing us that the future is both predictable and certain, by virtue of what we believe we know of the future and the present and therefore without the unpredictability brought by faith. In so doing, Singularitarians not only erase the uncertainties of faith by way of a dogmatic messianism, but

they fail to see their own leap of faith, the conjecture they decree as the inevitable salvation of humanity by way of the super-intelligent AI. In other words, Singularitarians cannot eliminate faith, for the very use of technological machines necessitates the possibility of faith; instead, Singularitarians can only disguise the unpredictability, and thus the undecidability of the event of the Singularity, by *already having decided for us* that it is our salvation and inevitable future. When Kurzweil says, "I set the date for the Singularity—representing a profound and disruptive transformation in human capability—as 2045" (*The Singularity is Near* 125), he is displaying his doctrine of faith in current knowledge, a dogmatic messianism that decides upon the uncertainty of faith made possible by the technological machine. Prescribing the inevitable Singularity is a doctrine of faith, a determinate messianism, concealing the faith of the event and the structure of messianicity to which it belongs, or in the words of Naas, "a messianicity that has to do with a faith that cannot be justified by any knowledge" (*Miracle and Machine* 163).

Exposing Faith: The Teleology of Knowledge and Technological Progress

Kurzweil and other transhumanist Singularitarians unwittingly adhere to dogmatic doctrines of faith in their belief in the inevitable teleological progress of human technology that will bring about the Singularity. The Singularity will be made possible as a result of what Kurzweil calls an exponential growth view of scientific and technological progress. Kurzweil's "law of accelerating returns" outlines biological and technological evolution as a progressive process, one where the "rate of progress of an evolutionary process increases exponentially over time" ("Law of Accelerating Returns" 383). The overarching evolutionary processes, of which the biological and the technological are both a part, progresses through six historical epochs,

each building on the stage before it. Four of these epochs have already occurred ("physics and chemistry," "biology and DNA," "brains," and "technology"), while the remaining two have been pre-determined to be connected to the emergence of the Singularity, "the merger of human technology with human intelligence," finally culminating in the final stage where the "universe wakes up" (*The Singularity is Near*). In Kurzweil's view, evolution is both progressive and teleological, as evidenced by the fixed stages of progress which are said to be both the destiny of humanity and "the destiny of the universe" (35).

In his work on Derrida and evolution, Christopher Johnson explains the problem with evolutionary teleology from the perspective of Derrida's notion of iterability:

> [T]he process of evolution is not an ascent of species towards some determinate apex of development, but the selection after the event of mutations most amenable to environmental constraints. By virtue of a feedback process…the genetic code is therefore regulating (before) but also regulated (after) in the sense that its pro-gramme is executed in a context that is perpetually changing, hence perpetually modifying the conditions of possibility of the code. The *supplement de code*… is this continual differing-from-itself of the code as it descends the evolutionary slope. Of course, the process of selection that operates a posteriori…upon the unprogrammed drift of the code gives the *appearance* of the necessity of the forms it produces. (Johnson, *System and Writing* 169)

As Johnson clearly articulates, you cannot be certain of what will confer an evolutionary advantage a priori because of unexpected environmental variables. Simply put, evolution cannot follow a set teleology because it must remain amenable to unexpected environmental pressures. Moreover, the idea of progressive and inevitable evolutionary teleology represents a highly

contentious presumption in evolutionary theory, often vehemently criticized and poorly received by the majority of evolutionary theorists (see for example, Stephen Jay Gould's *Full House*). Adhering to evolutionary progressive teleology is not a simple following of accepted knowledge like Kurzweil would have us believe, but an assumption with little evidence, thereby one must take it upon faith that it will hold true in the future.

Faith in the inevitability of biological and technological progress which moves inexorably toward various fixed stages like we see in Kurzweil is nothing new, even in the modern era of reason and science. As Christian transhumanist James Hughes states, "Most Enlightenment thinkers believed in the inevitability of human political and technological progress, transforming the Christian expectation that history was predetermined… into a conviction that humanity would be able to continually improve itself" ("Problems of Transhumanism"). Similarly, Hughes correctly intimates that transhumanism has inherited these dogmatic doctrines of faith based upon progress and telos from its Christian history, an inherited aporia that it continues to struggle with:

> The Enlightenment transformed the Christian teleological eschatology into a conviction that humanity would be able to continually improve itself. But the scientific worldview does not support historical inevitability and suggests there are absolute limits on the advance of progress. Today transhumanists are torn between their Enlightenment faith in inevitable progress toward Singularities and cosmological engineering and their rational awareness of the possibility of human stagnation or extinction. ("Contradictions from the Enlightenment" 631)

Hughes even intimates that the transhumanist notion of inevitable progress is itself a "faith," one that it has inherited from a determinate religious substratum of Western society. Singularitarians like transhumanist Simon Young similarly share Kurzweil's faith, assuming not only that biotechnology is inevitable, but that humanity and the human brain "is an *inevitable* consequence of the unfolding of potentiality in nature we call evolution" (*Designer Evolution* 211). Furthermore, Young argues that new forms of knowledge are "the gradual accumulation of increasingly accurate information about the structures, forms, and operations of nature" (106), whereby new knowledge moves us further up the ladder of inevitable technological progress, both foreseeable and predictable (211). Historian David Noble has described this erroneous teleological evolutionary history as it has developed into the quest for artificial super-intelligence and technological transcendence as itself a religious phenomenon (*The Religion of Technology*). Even though Noble does not interrogate the concept of faith itself in its connection to the teleological techno-evolutionary belief in progress, his work clearly supports the view that such a dogmatic technological telos is indeed inherited from the religious history of the West.

We should add, however, that Singularitarianism, as messianism, functions as a religion without religion, maintaining faith in the structure of a teleological event where a messiah will arrive to save humankind. Even though Kurzweil claims that "the last thing we need is another dogma, nor do we need another cult" (*The Singularity is Near* 315), he arguably creates both in his belief in the inevitability of both technological progress and the technological Singularity and the creation of Singularitarianism. By referring to his ideological system as Singularitarianism, Kurzweil testifies to the construction of a faith-based ideological dogmatic group, as "-ism" designates "a distinctive doctrine, theory, or practice" ("Ism" *Online Etymology Dictionary*), while dogma refers to "a settled opinion, that which one thinks is true" ("Dogma" *Online*

Etymology Dictionary). Guaranteeing a super-intelligent AI will come as the Singularity in 2045 to save humanity is a symptom of a dogmatic messianism, a belief in that for which there is no certain proof, a non-knowledge in the form of a doctrine of faith. While Kurzweil and Singularitarians alike often demonize faith, associating it with religion, they fail to see how their beliefs are similarly predicated on a faith that pervades scientific and technological knowledge.

Elementary Faith: Iteration and Invention

In her essay "Transhumanism as a Secularist Faith," religious studies scholar Hava Tirosh-Samuelson argues that transhumanism should be understood as a secularist faith, as it "secularizes traditional religious themes, concerns, and goals, while endowing technology with religious significance" (710). Tirosh-Samuelson correctly asserts transhumanism's secularization of religious themes and how transhumanism adheres to faith; however, she fails to explore this faith as inherent to the technological machine itself. The remainder of the chapter will analyze a typically expressed Singularitarian perversion of faith, a dissimulated faith authorized by knowledge. I conclude by discussing a more thorough understanding of a faith worthy of the name, a messianic faith made possible by the very technologies and knowledge of transhumanism, a blind faith without the assurances of knowledge.

For many Singularitarians faith is inherently connected to an irrational religious conviction that is detrimental to the rational discourse of science and technology. More rallies a call for "no more faith" as we move forward with scientific and technological progress ("Transhumanism: Towards a Futurist Philosophy" 12). Similarly, Young claims that the "greatest threat to humanity's continuing evolution is theistic opposition to Superbiology in the

name of a belief system based on blind faith in the absence of evidence" (*Designer Evolution* 324). Kurzweil too fears the notion of faith; for him Singularitarianism is "not a matter of faith but one of understanding, pondering the scientific trends I've discussed… inescapably engenders new perspectives on the issues that traditional religions have attempted to address" (*The Singularity is Near* 315). Kurzweil even utilizes faith and its association with religion as an insult levelling an attack on biologist Michael Denton, referring to his position on the design principles of nonorganic machine systems as an "unsupported leap—a leap of faith, one might say" (401). Any notion of faith or belief is always tempered by a reassurance that it is founded in knowledge:

> The universe is not conscious—yet. But it will be… I expect that the universe will become sublimely intelligent and will wake up in Epoch Six. The only belief I am positing here is that the universe exists. If we make that leap of faith, the expectation that it will wake up is not so much a belief as an informed understanding, based on the same science that says there is a universe. (332)

Faith in the context of Kurzweil and Singularitarianism is always one supported by the certainty of knowledge, which is informed, reliable, and predictable.

Singularitarian faith, as dissimulated, is most clearly seen in the work of Gregory Jordan, who argues that faith in transhumanism is not dogmatic like religious faith; instead, it is a faith in the truth of an "ever-improving world view" consonant with the latest extension of techno-scientific knowledge ("Apologia for Transhumanist Religion" 70). For him, transhumanist faith affirms humanity's power and knowledge, presuming that "every desired state of affairs can be arranged, given sufficient knowledge or instrumental power" (62). Jordan,

however, fails to see how his concept of transhuman faith is itself based on the dogmatic teleology that assumes human effort, combined with science and technology, can achieve any desired state of affairs, even accomplishing what he calls "typical aspirations of religion," such as eternal life, enlightenment, and the creation of a new world, fulfilling the role of traditional religions through the certainty of techno-scientific knowledge. As such, Jordan's transhumanist faith conforms fittingly to a religion without religion by retaining the concepts of faith and the teleological event-states of traditional religions like Christianity, providing new methodological contents for their realization. Jordan's transhumanist faith, a misguided faith, is consistent with such a view that faith does not open to the unknowable or unpredictable. Rather, this faith serves merely as a function of the teleological foreseeability, calculability, and predictability of the future given sufficient knowledge and technological ability.

Kurzweil and Singularitarians like Jordan aim to protect and immunize transhumanism's progressive scientific knowledge from faith (non-knowledge, the unpredictable, the incalculable, the impossible). These thinkers want their own form of absolute knowledge even as they criticize the absolutism of religion in its belief in God, the Second-Coming of the Messiah, etc. What these Singularitarians do not realize is that they simply replace, in a religion without religion, the absolutist doctrines of faith found in religion, only to instantiate doctrines of faith of their own. Singularitarianism is a messianism, a collection of determinate doctrines of faith, assuming absolute truth in a teleological evolution of science that will herald the Singularity and the coming machine-messiah, a nonbiological super-intelligent AI. As Young states, religion claims "absolute knowledge based on faith (defined as 'hope without evidence')," whereas in transhumanism modern scientific "knowledge is the gradual accumulation of increasingly accurate information," a form of absolute knowledge through "the belief in ongoing human

progress through reason, science, and technology" (*Designer Evolution* 106). What is perhaps most ironic about Young's assertion is his use of the term "belief" with respect to transhumanism's scientific telos of knowledge. Here, Young inadvertently admits transhumanists are engaged in doctrines of faith, because the very definition of belief is the confidence in the truth or existence of something that is not susceptible to the rigors of proof or knowledge. Regardless of Young's inadvertent admittance of faith, the binary opposition between dogmatic religious faith and absolute knowing through scientific knowledge that many transhumanists establish assumes scientific knowledge is free of faith. However, transhumanists like Young fail to consider Derrida's insight that an elementary act of faith, in the form of the "social bond" or "testimonial trustworthiness," underlies the very "rationality of the tele-technoscientific" ("Faith and Knowledge" 81).

Scientific enterprise and reasoned critique can only suppose a testimonial trustworthiness, an irreducible faith beyond the certainty of knowledge that many Singularitarians fail to recognize. Derrida argues that without the performative experience of a testimonial promise to tell the truth (an act of faith), there would be no "social bond" or possibility of an address to the other (80). In providing testimony, one promises to tell the truth "beyond all proof, all perception, all intuitive demonstration" (98). As Derrida reminds us, even the act of lying involves a promise to tell the truth and to take it upon one's "good faith" that one's promise is truthful. Testimony attests to the element of faith residing in every form of knowledge and performance, which "conditions every 'social bond,' every questioning, all knowledge, performativity and every tele-technoscientific performance, including those of its forms that are the most synthetic, artificial, prosthetic, calculable. The act of faith demanded in bearing witness exceeds, through its structure, all intuition and all proof, all knowledge" (ibid.). The experience

of faith as irreducible to knowledge, as Derrida makes clear, is "*of a trust that 'founds' all relation to the other in testimony*" (56). Not only does this elementary act of testimonial faith make possible the social bond, convention, institutions, constitutions, states, and law, but also "that structural performativity of the productive performance that binds from its very inception the knowledge of the scientific community to doing, and science to technics" (80). This is why Derrida, following Michel de Montaigne and Blaise Pascal, claims a mystical foundation of authority, whereby the mystical "allies belief or credit, the fiduciary or the trustworthy, the secret (which here signifies the 'mystical') to foundation, to knowledge… to science as 'doing,' as theory, practice and theoretical practice—which is to say, to a faith, to performativity and to technoscientific or tele-technological performance" (57). Doing science, performing for and through science and technological endeavor, opens it to iteration, that is, repetition with difference. For Derrida, just like religion, the rational techno-scientific "can only begin and begin again: quasi-automatically, mechanically, machine-like, spontaneously," without assurance or horizon (ibid.). Derrida allocates an elementary faith at work, not only in religion, but so too in the rationality of science and technology, a faith "which is, at least in its essence or calling, religious (the elementary condition, the milieu of the religious if not religion itself)" (81). Therefore, no calculation or assurance will be able to reduce the necessity of the testimonial promise of faith required for every social communication and thus for every discourse on knowledge. What Kurzweil and Singularitarians are steadfastly committed to is a techno-scientific, transhumanist discourse free of faith. They miss, however, the way knowledge is contaminated by faith, by the incalculable, uncertain, and unpredictable.

From the perspective of deconstruction, a discourse such as Singularitarianism has no future without repetition, without iterability and promise. As Derrida explicates, there is "no

to-come without heritage and the possibility of *repeating*. No to-come without some sort of iterability… some sort of messianic memory and promise, no discourse or address of the other without the possibility of an elementary promise" ("Faith and Knowledge" 83). Of course, this elementary promise implies the trustworthiness and fidelity of a testimonial pledge, of faith, requiring the technical that is supposed by iterability: "No faith, therefore, nor future without everything technical, automatic, machine-like supposed by iterability" (ibid.). Derrida continues:

> In this sense, the technical is the possibility of faith, indeed its very chance. A chance that entails the greatest risk, even the menace of **radical evil**. Otherwise, that of which it is the chance would not be faith but rather programme or proof, predictability or providence, pure knowledge and pure know-how, which is to say annulment of the future. Instead of opposing them, as is almost always done, they ought to be thought together, as *one and the same possibility*: the machine-like and faith, and the same holds for the machinal and all the values entailed in the sacrosanct. (ibid.)

Put simply, the future is made possible by way of iterability or the ability to repeat through differential repetition, which requires technology, the technological supplement, prosthesis. To be clear, iterability is the ability to repeat differently, where each repetition is marked by its difference, however small, from its preceding and proceeding repetitions. It is the prospect of differential repetition that makes possible the uncertainty and unpredictability characterized by faith. Technology is a machine of faith, a machine that makes possible that which is new, to-come, the very prospect or chance for the unexpected and unpredictable to occur. But this machine of faith is also not without the messianic promise. Much like Kurzweil's *promise* of the Singularity, one must have faith that his promise, *subject to the unexpected and unpredictable*

nature of the technological machine of faith, will arrive as predicted or instead remain a promise yet to-come.

What Singularitarians do not think is how the technological machine opens, through iterability, the very possibility of faith, the possibility of the unpredictable, uncertain, and unknowable. Regarding iterability and its connection to faith, Derrida adds that the unpredictable, uncertain, and unknowability that comes into existence by way of technologies of iterability "interrupts and makes history, it undoes all contemporaneity and opens the very space of faith" (99). Given technologies of iterability open to faith, Singularitarianism's certain knowledge of a predetermined future free of faith is clearly suspect. Because there is always division and iterability of the source, the technological "supplement introduces the incalculable at the heart of the calculable" (100) bringing the unpredictable and incalculableness of faith to bear on knowledge and the technological machine. This incalculable unpredictability is why Singularitarianism is a messianic promise one must take upon through faith, as its calculated future is subject to the incalculable and thus subject to its promise of an AI messiah being unfulfilled. One must have faith that the Singularitarian promise will arrive as calculated.

Technological invention, arguably the modus operandi of Singularitarianism, is the intensification, multiplication, and acceleration of faith. Technical invention, a machine of faith, is an expansive opening of incalculable possibilities for the future that exceeds their very own topological structures. As machines of *différance* and iterability, inventions are always open to the unpredictable, unforeseeable, and unprogrammable effects, as an irruption or incoming of the other. Derrida distinguishes between two types of invention, the invention of the same and the invention of the wholly other. Regarding the former, Derrida holds that such invention, while

necessary and legitimate, conditions the future to bring it in line with the expectations of the present. As Derrida states, this type of invention "will have done nothing but make explicit, reveal, deploy that which was already there, potentially, programmatically in reserve" ("Deconstructions: The Im-Possible" 23). This type of invention effectively "invents nothing," for any invention to be worthy of the name, in Derrida's mind, it must invent the impossible and unpredictable or that which appears as such. To invent the impossible and unpredictable one must do other than simply deploy the potentialities that a community or individual could posit as properly their own *from within their power, force, or know-how*, as we see in Kurzweil's Singularitarianism—such would be an invention of the same. Kurzweil's specific date of the Singularity in year 2045, where humanity transcends biology in favour of nonbiological substrates, with a superintelligent AI one billion times more powerful than human intelligence today, based on current extrapolations of data conforming to pre-determined patterns of exponential growth clearly illustrates this. Singularitarianism's messianic promise is simply a future reality that will be realized, as predicted inevitabilities from our current system of knowledge. This invention of the same is domesticated and monitored by existing institutions from within a restricted economy, limited from within a fixed horizon. Such is simply the possibility already made available or embedded within the system of production and knowledge, strengthening and consolidating existing institutions through the appropriation of novelty, by reducing novelty to the same, as merely calculable and knowable within the existing horizon of expectation.

On the other hand, rather than the prevailing concept of invention (of the same), Derrida is interested in a deconstruction of invention, an invention that articulates a logic of the other to-come as impossible, incalculable, and unforeseeable:

> Letting the other come is not inertia ready for anything whatever. No doubt the coming of the other, if it has to remain incalculable and in a certain way aleatory (one happens upon the other in the encounter), escapes from all programming. But this aleatory aspect of the other has to be heterogeneous in relation to the integrable aleatory factor of a calculus, and likewise to the form of undecidable that theories of formal systems have to cope with. This invention of the entirely other is beyond any possible status… one makes this step destined to let the other come, *come in*. (*Psyche: Inventions of the Other* 39)

The invention of the wholly other disrupts reason and the possibility of calculation, calling upon decision due to the crisis of its incalculability and undecidability since it is unanswerable from current knowledge. In other words, we have, on the one hand, the invention of the same (invention of the possible), which as seen in figures like Kurzweil relies on extrapolations from what already exists via institutionalized forms of knowledge. On the other hand, we have the invention of the wholly other, invention that announces itself as more than what appears possible, it is impossible: "For the other is not the possible… the only possible invention is the invention of the impossible… [A]n invention has to declare itself to be the invention of that which did not appear to be possible; otherwise it only makes explicit a program of possibilities within the economy of the same" (44). If nothing comes from the wholly other there is no invention, for the other is not the possible, it cannot be anticipated, calculated, or programmed, and it does not follow a teleology of technological progress seen in Singularitarianism. The impossibility of technological inventions to-come express arrivals of the wholly other, arrivals which could not be anticipated or seen as possibilities beforehand. The invention of the wholly other, the other to-come, which may come in any form (beings, technologies, artifacts, new

possibilities, etc.) is the promise of an unanticipated opening, an event to-come, the event of the promise of something that is coming to which one must have faith. The event to-come is an opening of a new context(s), affirming the newness of an unpredictable and unanticipated future, an event for which we could never have been prepared for because we could never have seen it in advance. Affirming the future to-come depends on the basic feature of disjunction, iteration, a repetition of difference that technology brings. This is not the actualization of the possible, it is a breaking with the possible, a breaking with any teleological program and its conditions of possibility or expectation, and it is a singular interruption of the regime of the possible and knowledge, bringing forth an event of radical non-human alterity.

I contend that this alterity is non-human (at least initially) because it represents exactly what has come about from *beyond* the present discourse, power, and knowledge of the human. Kurzweil's Singularity then is not an event worthy of the name, because it brings only the actualization of the possible and a pre-programmed telos of knowledge and, as Derrida reminds us, a "predicted event is not an event. The event falls on me because I don't see it coming" ("A Certain Impossible Possibility" 451). Through its very discourse and technologies of invention, Singularitarianism should produce not just the certainty of knowledge, but also provoke the ambiguity of faith. Predicated on technological invention, Singularitarianism, I argue, provokes faith through the necessary differential iterability of technology. Technological invention, as a machine of iterability, opens to the invention of the wholly other and thus to the incalculable, unpredictable, and the impossible event to-come. Technologies are more than simply predictable systems of knowledge. They are machines for provoking faith through the incalculable and unpredictable nature of differential repetition. Singularitarianism, as a messianism, promises the

Singularity and AI messiah, to which one must have faith that it will arrive as planned given the uncertainty and unpredictability of the differential repetition of technology itself. The Singularitarian conception of faith, a dissimulated faith in the certainties of knowledge, veils the uncertain and unpredictable nature of faith as non-knowledge. Singularitarians like Jordan, Kurzweil, More, and Young disparage faith as non-knowledge, yet they unwittingly embark upon the same faith, taking a leap of faith that decides the unpredictable and undecidable event of the Singularity. The problem is not that Singularitarians employ faith, calling to their messiah. Rather, the danger of Singularitarianism is that it removes the decision for others by making it appear the event of the Singularity is not a decision to be made, but merely an inevitability of our future unjustly stripping the event and the messiah of its singularity and thus its undecidability.

The Singularity as Justice

Given an event must remain incomprehensible and undecidable, Kurzweil cannot be certain that *his* super-intelligent nonbiological AI messiah will arrive, and, even if it were to arrive, he cannot know for certain the implications or moral effects of its arrival. Derrida commonly refers to the event as *arrivant* or simplified as "newcomer," which finds resonance with Kurzweil's AI superintelligence said to arrive at the Singularity. The *arrivant*, as absolute event, must not be merely an invited guest, someone I'm prepared to welcome and whom I have the ability to welcome, but rather someone whose unexpected and unforeseeable arrival is such an irruption that I am unprepared to receive them. This genuine hospitality for Derrida means we must have "no prior definition of the newcomer," no way of asking where it came from or its

purpose, as this guest, as absolute *arrivant* brings with it no horizon of expectation (ibid.). The literal meaning of *arrivant*, as "arriving," refrains from depicting an horizon of expectation because it is in a perpetual state of arriving; thus it is never determined because it is always to-come. Again Kurzweil upends the event of the Singularity and its corresponding arrival of the superintelligence by telling us the date of its arrival as the year 2045, where the "nonbiological intelligence created in that year will be one billion times more powerful than all human intelligence today" ("Singularity Q&A"). Of course, humanity will soon after merge with this AI. It will be "intimately embedded in our bodies and brains" to continue the expansion of human intelligence into the universe (Kurzweil, *The Singularity is Near* 356). The *arrivant*, Derrida reminds us, is only an event if I am not capable of receiving them, and "only if I receive the coming of the newcomer precisely when I'm not capable of doing so." This would be an event as event, "as absolute surprise" ("A Certain Impossible Possibility" 451). Moreover, and most importantly for our discussion in this chapter, we cannot know how the *arrivant* will behave when it arrives because the *arrivant* is, in its very being, a singularity that is by definition unknowable.

The super-intelligent AI we are told is an autonomous agent that will far exceed human intelligence and as such retains the potential for unexpected behaviour. Kurzweil claims the AI of the Singularity will present itself to humanity as a conscious, individual self (*The Singularity is Near* 320-327). Kurzweil affirms its intellectual autonomy and selfhood by claiming it will be able to improve upon its own intelligence and redesign itself, while also having goals and values. Moreover, he confirms the AI's singularity and unpredictability when he discusses both "strong AI" and "unfriendly strong AI" (*The Singularity is Near*). Strong AI, by definition, is

characterized by the ability to reason, make judgements, plan, learn, and communicate in ways equal to human intelligence. Individual autonomous beings, like human beings, are singularities, incomprehensible events repeating differently over time, as Derrida affirms in his works most notably on the areas of democracy, hospitality, and justice. Humans exemplify unpredictable behaviour and an unknowable future. For instance, it is unknowable when and how an individual person will meet their death. The AI, as an individual with cognitive abilities that far exceed those of humans, will similarly have the potential for unpredictable behaviors and an unknowable future, especially given its interactions with the unpredictability of humanity.

Given its autonomous status, intellectual power, and unpredictability as a singularity, we are obliged to consider our interactions with this AI within an ethical frame. Without knowing exactly what the AI will be like, if it arrives, we can only speculate upon the ethical relationship that may develop between human society and it, a pressing matter taken up in the ethics of artificial intelligence and robotics and featured in widely recognized media such as the *Stanford Encyclopedia of Philosophy* (Müller, "Ethics of Artificial Intelligence and Robotics"). One method Kurzweil considers regarding the ethics of AI is implanting it with human values. While Kurzweil correctly states that there is no absolute protection against an unfriendly strong AI and embedding human values into the AI is likely to be one of the most effective strategies for creating an ethical relationship, he does not level scrutiny regarding how human values have failed to eradicate widespread unethical human behaviour throughout human history. Again, Kurzweil neglects to adequately assess the unpredictability of the singular individual.

Fellow transhumanist Nick Bostrom, known for his work on the risks of transhuman technologies, similarly fails to consider the unpredictability of the singular individual. Like Kurzweil, Bostrom believes we can make accurate and detailed predictions with high degrees of

confidence beyond the Singularity, especially if we can influence the AI with human values ("A Critical Discussion"). Bostrom claims that if something goes wrong and the AI is not friendly to humanity that there was a mistake made by its human creators: "it is possible that things could go wrong and that the superintelligence we create accidentally gets to have unintended values, but that presupposes that a serious mistake is made. If no such mistake is made, then the superintelligence will have the values of its creators" (401). Akin to Kurzweil, Bostrom shuns discussions of unpredictability, so much so, that any form of unwelcome behaviour from the AI is simply an "unintended value," rather than the AI, as a singular intellectual agent, deciding or interpreting "intended human values" in ways that are unfavourable to humanity. Moreover, especially given the AI's human-like intellect, which both Kurzweil and Bostrom claim the AI will possess, neither considers how humans themselves fail to live up to the standards of human values, frequently engaging in various forms of physical or mental violence, taking advantage of others for personal gain, or discrimination based on any number of categories like race, sex, age, political or religious ideology, etc. Once again, Singularitarians show their failure to deal with the ethical risks of the Singularity, largely stemming from their inability to think unpredictability, especially the unpredictability of the decision made by an intellectual agent. In this case, we have a failure to conceptualize the AI as an incalculable singularity, as an individual or ethical subject, which for Derrida amounts to *tout autre est tout autre* (every other is wholly other), which is an opening to justice as a plurality of absolute singularities that must include the AI of the Singularity.

To consider the AI of the Singularity as an ethical subject necessitates a thinking of justice, justice for the AI as a singularity, an individual subject of ethical concern. There is,

however, a conflict that arises when considering notions of justice in the context of Kurzweil or Bostrom's ethical programs of calculable prediction, which is that justice, as an incalculable event of decision, is not reducible to current codes of ethics, law, or human values. In "Force of Law," Derrida describes three aporias concerning the relationship between law and justice, each of which speaks to the incalculable, unpredictable, and incomprehensibility associated with justice. Derrida's first aporia is "the epoché of the rule" (22) or suspension of the law that re-institutes the law through a decision that responds to the uniqueness of each particular case, an interpretation of the law that conserves the law while also destroying or suspending it:

> [F]or a decision to be just and responsible, it must… be both regulated and without regulation: it must conserve the law and also destroy it or suspend it enough to have to reinvent it in each case, rejustify it, at least reinvent it in the reaffirmation and the new and free confirmation of its principle. Each case is other, each decision is different and requires an absolutely unique interpretation, which no existing, coded rule can or ought to guarantee absolutely. (23)

For a judge to be just in their decision they cannot simply follow a strict calculation of the law (otherwise they would simply be a calculating machine) without accounting for the specifics, or singularity, of the situation at hand, nor can they be completely arbitrary in their decision. A just and responsible decision must be made by applying the law to the singularity of the event in an absolutely singular and unique interpretation. The second aporia is "the ghost of the undecidable," an experience of a decision that seems impossible as the singularity of the event does not perfectly fit with established codes (24). For Derrida, a decision that does not involve the "ordeal of the undecidable would not be a free decision, it would only be the programmable

application or unfolding of a calculable process" and would thus not be a just decision (24). Even after the decision has been made, the undecidable remains, as one can never prove that their negotiation between the interpretation of the law and the singularity of the event was correct because there is no law that could ever account for the incomprehensible singularity of that event. Justice exceeds law and calculation, yet we must calculate, negotiating between the calculable and incalculable. When the decision is made, it will then have given itself a rule and would no longer be presently just. This is why Derrida says justice is always to come in the future and is never present. The third aporia is "the urgency that obstructs the horizon of knowledge" (26). Here Derrida references how the instant of decision, is a madness of uncertainty, yet also one of urgency, which cannot forever furnish itself with time and knowledge to assist in providing an answer to the decision. A just decision decides upon the undecidable, without appeal to the certainties of knowledge; a just decision is one taken through faith. This is why justice has no horizon of expectation and is irreducible to calculative programs of prediction like we see in Singularitarians like Kurzweil.

The exposure to the event of the Singularity and the coming of the AI other, as event, which is unforeseeable and absolutely singular, is one without horizon, without predictable certainty. It is the condition of the undecidable decision and the responsibility one must take for the decision, as justice, which must respond to the singularity of each event, because justice happens in the moment of singularity. In the context of the super-intelligent AI, this means exposing our ethical positioning to the uncertainty of the event. In other words, we must shatter our horizons of expectation and our current codes of ethics to prepare for the singularity of the AI to which we cannot know or understand. We must open our ethical systems to the experience of undecidable justice to bring justice to the singularity of the AI, whose being and future

behaviour we cannot know and thus cannot programmatically determine in advance. This means we must allow for justice to prevail in our relationship to the AI as singular other. We must respect the singularity of the AI as other, as wholly other, as incomprehensible and not subject it to pre-programmed ethical codes and values that fail to respect its singularity. This would be a desire for justice for each singularity to have a chance to engage in what Derrida calls a "universalizable culture of singularities," a culture which would permit a relationship to the other as singular other without any determinate or programmatic and predictable dogmas.

As Derrida notes in "Force of Law," the notion of every other as wholly other bears resemblance to notions of God in the Judeo-Christian religious traditions, that which is above calculation and law, a figure associated with justice and nothing short of "a reference to the irreducible singularity of each situation," to each event, to each individual as singularity (51). Derrida explains that "God's name names the other" ("A Certain Impossible Possibility" 456). The other that Kurzweil names, the AI of the Singularity, is a calculated and knowable other that he promises will arrive in 2045 to save us from our biological limitations, a sort of messiah for Singularitarians. Much like in Christianity, when Jesus arrives to save humanity the event will likely not be without violence and death, for Jesus will separate the sheep, or those who will be saved, from the goats, those who will be cursed into the eternal fires of hell (Matthew 25: 31-46). Similarly, Kurzweil's AI messiah will likely create a violent division between those who adopt and merge with the Singularity and those who do not. Leaving aside this potential for violence, Kurzweil's Singularity as a doctrine of faith that draws upon the structure of the messianic, constructing a determinate messianism that parallels certain Judeo-Christian religious traditions, as a religion without religion, must retain the openness and undecidability of the messianic

structure from which it draws. Otherwise, Kurzweil's determinate messianism will fulfill its promise and in doing so eviscerate the potential for justice.

If the Singularity occurs as Kurzweil depicts it, then the messianic promise may or may not be fulfilled, but its possibilities for justice would be destroyed. Justice is the name of a promise left un-kept, always to-come. It is the promise of the event to-come, without an identifiable messiah, without a messiah that arrives, and thus not the Singularitarian messiah of a super-intelligent AI that will spread its consciousness throughout the entire universe. One must have faith in the event, not knowing when, who, or if it will come. Christianity, as a conditional messianism and a symbol of an unconditional messianic promise, is constituted by the very deferral of its messiah, of his "repeated failure to show up. If he ever showed up, the whole thing would be over," as the promise of the event to-come would have arrived (Caputo, *Hermeneutics* 301). Transhumanism, as a conditional messianism, ends its messianic promise as soon as its future arrives or simply as soon as its future is determined in advance. When transhumanism dictates the inevitability of the Singularity and its effects, it eliminates the possibility of faith that it provokes through technology, deforming faith's blind uncertainty into a perverted "faith in knowledge," a certain faith of clear vision. As Caputo argues, the danger inherent in concrete determinable messianisms (be they religious or secular) is that they often "forget that the eyes of faith are blind" (*Prayers and Tears* 313) and as such become intolerant to alternative systems of interpretation. It is a certain blindness that "makes for good communities, provided we all admit that we do not see, that…we are all stone blind and without privileged access" (313-314). Opening Singularitarianism to the freedom to decide via a blind leap of faith retains the openness of transhumanism's messianic structure, keeping it from enforcing any further a tyranny of authoritarian technological determinism, such that it may come to promise the possibility for

justice through an unknowable event to-come. For justice "is precisely unseeable and unforeseeable and does not come down to counting…Justice is something in which you can only keep faith, the passion of faith, *la passion du non-savoir*" (338).

A New Messianic: The Transhumanist Machine of Faith

Kurzweil's proclamation, following More, that "the last thing we need is another dogma" is incontrovertible; however, his contention that "Singularitarianism is not a system of beliefs" is not (*The Singularity is Near* 315). Kurzweil's Singularitarianism, which claims the inevitability of technological progress, the inexorable Singularity, and the arrival of a super-intelligent AI, is *a dogmatic doctrine of faith,* one Singularitarians convince themselves and others of being no faith at all. Similar to dogmatic doctrines of faith in the Christian eschatological tradition, the vision of an inevitable and calculable Singularity forms a transhumanist messianism, a decided doctrine of faith, a religion without religion, where a nonbiological super-intelligent AI messiah will come to actualize a prophesied step in human techno-evolutionary teleology. Singularitarians fill a similar role to the biblical prophets by prophetically pre-figuring humanity's future. Unquestionably, Singularitarians perform an invaluable service by imagining the possibilities of the future; however, when these visions begin dictating an inevitable future, then such a practice is only in the service of a dogmatic techno-authoritarianism. Kurzweil's vision, in particular, has done well to reveal the messianic and quasi-religious character of the Singularity. However, his vision fails to adequately express the Singularity's incomprehensible and undecidable qualities by way of the *pharmakon* and in failing to do so annuls the future by eradicating faith as well as the potential for justice in the form of the free decision. In order to open itself to the potential for

justice, Singularitarianism must empty itself of its determinate contents, embracing faith and the open structure of the messianic without content, a messianicity that is for Derrida a "faith without dogma" ("Faith and Knowledge" 57).

Singularitarianism's messianic potential already resides in the early history of transhumanism by way of Julian Huxley's *Religion Without Revelation*. Huxley's early transhumanist writings serve as a critique of its more contemporary forms by limiting the certainty of the future's foreseeability through current knowledge. Huxley makes clear that we "do not know what the future will bring forth" (57), clearly demonstrating the delimitation of knowledge that Kurzweil and Singularitarians fail to heed. Considering Huxley's reticence on predicting the future, he would likely be horrified by transhumanist Singularitarianism. With that being said, even Huxley had his own dogmas in the inevitability of progress through the "subordination of matter to mind, and actuality to the ideal" (362), a dogma similarly shared by Kurzweil who looks to turn "all the dumb matter and energy we encounter into sublimely intelligent—transcendent—matter and energy…ultimately [infusing] the universe with spirit" (*The Singularity is Near* 330). Clearly, the messianic potential of transhumanism, even in its earliest beginnings, has been vitiated by a determinate messianism or articles of faith in the name of human progress. Regardless of its history, transhumanism and Singularitarianism already have within themselves the very possibility of opening to a non-dogmatic messianicity in its alliance with the technological machine, which "makes possible the faith that opens up a future but it does not determine that future in one way or another" (Naas, *Miracle and Machine* 120).

The machine and faith, as Derrida argues, must be thought together "as *one and the same possibility*" ("Faith and Knowledge" 83). The machine, as iterability or differential repetition, produces both the calculable and unpredictable difference, generating calculable knowledge, but

so too the very uncertainty of faith. Transhumanism's potential for hope, emancipation, and liberation for humanity resides in its potential for faith, in its exhibition of something-like-a-religion, as a religion without religion, through its religious structure of the messianic promise. This would be transhumanism's repetition of the religious without the determinate dogmatisms of traditional Judeo-Christian religions, repeating non-dogmatically the religious structure of experience, the passion for the messianic promise, which for Derrida is to "open up access to an affirmative thinking of the messianic and emancipatory promise as promise: as *promise* and not as onto-theological or teleo-eschatological program of design" (*Specters of Marx* 94). A messianic opening to an unknown future, opening to the freedom to decide on the future, without knowing it in advance, is the movement of faith, a movement made possible by the machine, by the very technologies utilized and developed within the discourse of transhumanism.

The wholly other, the advent of the event of the other to-come, must be thought through iterability or *différance* that function by way of the technological machine, machines of faith allowing for a future without horizon of possibility, an impossible future without the arrival of an actualized possible state of affairs. The messianic structure of Singularitarianism, made possible through the recognition and allowance of a faith without knowledge, "would be the opening to the future or the coming of the other as the advent of justice, but without horizon of expectation and without prophetic prefiguration" ("Faith and Knowledge" 56). In contradistinction to Singularitarianism as a determinate messianism, a Singularitarianism as messianicity without content would interrupt the possible, letting technological invention open to the wholly other to-come, the messiah, through its unknown form and behaviour, arriving unpredictably "like a thief in the night" (1 Thes. 5:2). The arrival of the Singularity as messianic will be undecidable,

as best or worst, saving humanity or plaguing it—the Singularity as *pharmakon*. Singularitarianism as messianic opens to faith and justice, to the freedom of decision through technology; it opens to the undecidable event of the Singularity as singular—a messianic machine of faith.

Conclusion

THE DANGERS OF A TRANSHUMANIST RELIGION WITHOUT RELIGION

Transhumanism, rather than being a non-religious, secular worldview or movement, is instead a survival of a particular strand of Judeo-Christian religious ideology that has been shorn of its explicit religious character in favour of a less religiously-apparent secular-scientific guise, retaining both beneficial and dangerous religious structures that continue unabated into the present day. However, many transhumanists overlook the fact that transhumanism essentially revives and reactivates these religious structures. Some of the religious structures that frequently go unrecognized by transhumanists that I have discussed in this project, some briefly, some at length include: the messianic, apocalyptic eschatology, mind-body dualism, teleological assumptions of progress and perfection, reverence of scientific reason, theosis, human-exceptionalism, theistic assumptions, immortality and overcoming death, predetermined futures, transcendence, the sacred, and faith. Despite their presentation in a secular-scientific idiom,the persistence of religious structures within transhumanism is rooted in and perpetuates the historical lineage of religious concepts deeply embedded in Western culture, in what I call, following Derrida, transhumanism's "religion without religion." While the retention of religious structures is not intrinsically wrong, these structures do come with inherent biases, biases through which transhumanist discourse unknowingly perpetuates unethical dogmatic assumptions in ways that remain ill-considered and potentially very dangerous, because they are not questioned sufficiently.

Transhumanism often advocates the safe and ethical use of technology. Transhumanists, however, tend to neglect certain ideological, conceptual, and theoretical assumptions that serve

as the foundation for the movement. Many of the foundational assumptions that transhumanism has appropriated from its cultural and historical milieu have grown out of a religious and, in particular, Judeo-Christian historical context. Transhumanism furthermore repeatedly fails to acknowledge the quasi-religiosity (or perhaps, its religiosity) that guides the movement and remains largely unrecognized and uncriticised by its advocates. Transhumanism's continued use of religious assumptions, as a religion without religion, has resulted in dangerous problems in many of its goals and values, including, but not limited to, the ethical and narrowly conceived teleological goals discussed in my argument: the elimination of death, the failure to recognize and effectively communicate its own ultimate (or sacred) values and concerns, the imposition of human-exceptionalism by understanding humanity as God-like, and finally, a propensity to construct predetermined and unalterable future events. The risks associated with transhumanism's appropriation and repetition of potentially dangerous religious structures clearly demands a more thorough and discriminating examination of transhumanism as a religion without religion. My argument recognizes the potential harms associated with transhumanism's repetition of certain religious structures, such as the extension of consciousness to a technological afterlife, and considers them from a deconstructive perspective. I have uncovered some of the harmful effects of these religious structures, such as the loss of identity in the technological transfer of consciousness, that survive in transhumanist discourse in the hopes that these dangers may be mitigated or avoided.

In order to explain how transhumanists often fail to locate the religious structures and influences at work within transhumanism, this argument employs a deconstructive perspective using the logic of the "*sans*" [without], or the "X without X." Such a deconstructive logic of the X without X, or in this case a "religion without religion," aids in examining some of the ways in

which religion extends itself by non-religious means, such as through secular-scientific discourses of transhumanism. The secular, says Derrida, "is a religious concept" and thus "*when we have a 'secularised' something, a secularised concept, it means that it remains religious"* (Derrida, "A Discussion with Jacques Derrida"). Naas repeats Derrida's concern with thinking science as the death of religion: "As Derrida argues, we will fail to understand religion today if we continue to believe in the strict opposition between religion and science or between religion and reason, critique, and technoscientific modernity" (*Miracle and Machine* 88). Religion and science are not the same thing, but they cannot be thought separately. In other words, religion, as a religion without religion, extends itself through explicit (religious) and even implicit (secular, non-religious) ways. The value of thinking transhumanism as a religion without religion, an approach lacking in current scholarship on transhumanism, and not simply as a non-religious or secular techno-scientific worldview, is to uncover more explicitly the underlying, implicit structures transhumanism appropriates from religion. More specifically, using the designation "religion without religion" situates transhumanism within a history of religion, recognizing the new possibilities of the future (religious or non-religious) while retaining the discursive histories of its (religious) past. A deconstructive perspective helps highlight religious structures within transhumanism, revealing how transhumanism unwittingly perpetuates dogmatic religious structures, such as messianism, which can inflict incalculable harm on humanity and nonhuman beings alike.

The Dangers of a Sacrificial Death-Drive

One of the most obvious religious structures reiterated by transhumanism is a discourse on salvation that is coupled with the insistence on the capacity to "overcome" or "conquer" death. The transhumanist discourse on overcoming death that it repeats from its religious history is often reduced to the complete elimination of death in general, demonizing death, and in doing so, failing to acknowledge its stubborn return. One of the most prominent and recognizable transhumanist organizations, Humanity+ (formerly World Transhumanist Association), frequently makes use of the idea that transhumanist technologies of the future will conquer death: "The transhumanist position on the ethics of death is crystal clear: death should be voluntary" ("Transhumanist FAQ"). Prominent member of Humanity+, Nick Bostrom, argues in his own article, "Letter from Utopia," that replacing your biological body with more durable media will begin the path to conquering death: "In time, you will discover ways to move your mind to more durable media… Any death prior to the heat death of the universe is premature if your life is good" (3). Bostrom's treatment of death, much like that of the organization Humanity+, lacks sufficient rigour, and, as such, fails to consider how death arises in the process of prostheticization, supplementarity, and mediation itself, which are core features of his own vision and understanding of transhumanism. As proponents of mind-uploading and the technological replacement of parts or the whole of the human body, Bostrom and Humanity+, fail to acknowledge how these processes are a literal putting-to-death of the body, a transhumanist process that must kill in order to save. Similarly, transhumanist Gennady Stolyarov II takes on an oversimplified understanding of death, more clearly echoing the biblical desire to conquer death as a dualistic moral obligation: "will you give in to the wrong, or will you fight it? Maybe the person who will conquer death… is you!" *(Death is Wrong* 31).

Stolyarov II, Bostrom, and Humanity+ repeat the religious desire of Jesus, who is himself said to conquer death for humanity: "But thank God! He gives us victory over sin and death through our Lord Jesus Christ" (*NLT*, 1 Corinthians 15: 57). They wish for their readers to believe transhumanism is humanity's salvation from death, a claim not too unlike Jesus' claim: "I am the resurrection, and the life: he that believeth in me, though he were dead, yet shall he live: And whosoever liveth and believeth in me shall never die" (*NIV*, John 11: 25-26). Much transhumanist discourse follows this pattern of persuading their readership of the illusion that death is on the brink of extinction, without acknowledging how transhumanist desires to extend, save, and immortalize life are figured on a sacrificial death-drive. Transhumanist discourse that ardently seeks the elimination of death ultimately underestimates death by failing to disclose the technological machine of supplementarity and prosthesis upon which transhumanism's extension of life depends. As Derrida might say, life that has "absolute value by being worth more than life, more than itself—this…is what opens the space of death that is linked to…technics, the machine, the prosthesis" and thus to autoimmune and self-sacrificial supplementarity ("Faith and Knowledge" 87). That is, the dignity of life, especially human life—a conception in many ways authorized by the Christian religion—and the ensuing drive to protect or save it, demands an autoimmune sacrifice, a bringing of death to this life through technological mediation. Transhumanism needs death to save humanity, losing yourself in order to save yourself, leaving or emptying the body to transfer to a new body, making room for a technological prosthetic/supplementary replacement, hence the X without X, for humanity's salvation.

To be clear, not every transhumanist oversimplifies the nuances of death involved in the processes of technological mediation and the autoimmune sacrifice of life. Ray Kurzweil and Hans Moravec are some of the few who, at least to a certain extent, recognize how life is

predicated on self-replacement through sacrifice (Kurzweil, *The Singularity is Near* 256; Moravec, *Mind Children* 121). However, both Kurzweil and Moravec are significantly less rigorous regarding their conceptions of individual identity after a putting-to-death, or more specifically, their conceptions of uninterrupted identity through resurrection after death, itself a potentially dangerous religious structure transhumanism has inherited from its Christian religious historical context as a religion without religion. The resurrection of the dead is a common eschatological belief in the Christian religious tradition. As the Apostle Paul made clear, the Christian faith centres on Jesus' resurrection, which symbolizes the hope for every human to experience life after death in new bodies (1 Corinthians 15: 12-20). The hope for life after death by way of a resurrection is appropriated by transhumanists such as Moravec, as evidenced by his claim that, "Entire world histories, with all their living, feeling inhabitants, will be resurrected in cyberspace" as completely "faithful renditions" of the originals (*Robot* 167). In much the same way, Kurzweil asserts that through the use of DNA and a variety of mementos and living memories that he has of his father, he would be able to resurrect his father and "make a strong case that it would be more like my father than my father would be, were he to live" (Berman, "Futurist Ray Kurzweil"). Without a doubt, Moravec and Kurzweil each take up a secularized Christian hope in the resurrection of the dead through technology.

What these transhumanist accounts of resurrection often downplay, however, are the risks and dangers involved in resurrecting the dead. Transhumanist accounts of resurrection do not adequately consider if these resurrected persons will be anything like the original persons during their lifetime—can or will we consider them to be the same people, especially if they now exist in entirely new bodies, perhaps even bodies that are entirely manifested in the digital medium of cyberspace? Will we truly believe these people will then act and think the same way, maintaining

a similar personality and disposition? Furthermore, will the resurrected accept their new form of life, or will they feel dejected, offended, or resentful, perhaps even experience profound and unimaginable unhappiness, sorrow, anxiety, or depression? Moreover, will the resurrected be willing to become members of society, or will they be a detriment to society, or even wish to destroy it or other human beings? What legal rights and responsibilities will the resurrected have? The imposition of a religiously-inspired transhumanist resurrection scenario risks an uncritical attitude that neglects the consequences (positive and negative) for society and even the resurrected themselves. In what ways transhumanist resurrection may result in incalculable pain, destruction, and violence are too often glossed-over by the majority of transhumanists. Transhumanism has too quickly appropriated the religious structures of salvation through the elimination of death from its Christian antecedents. This appropriation enables an uncritical examination of these human salvation processes, unlike Derrida, who emphasizes the necessary role of death for continued life. Additionally, it overlooks how the autoimmune sacrifice—dying in order to save oneself through prosthetic or supplementary replacement—may fundamentally change the human individual, rendering them unlike the person they were before.

Uncovering the Sacred in Transhumanism

Following the theme of sacrifice, another religious structure that this project has worked to uncover in transhumanism is how the sacredness of the human is produced through sacrifice. Furious debates between transhumanists and bioconservative movements (often derived from religious sentiments) continue to rage on in discourses concerning human technological enhancement. These debates concern how bioconservative movements believe transhumanist

technological enhancements compromise human dignity, thereby deteriorating the sacredness of the human and its body (see, for example, Kimbrell, *The Human Body Shop*). Although the majority of transhumanists contend that they desire to protect human life, much like transhumanist Simon Young who argues that "the desire to enhance one's condition signifies a profound love of life" (*Designer Evolution* 69), many transhumanists deny conceiving the human body as sacred (see, for example, Max More qtd. in, *TechnoCalyps* 11:49). Contrary to both bioconservatives and transhumanists, this project has revealed how transhumanist technological enhancements do not sacrifice the sacredness of the human body, but instead actively make the human sacred. This is because, as Georges Bataille argues, "sacrifice is nothing other than the production of sacred things" (*The Bataille Reader* 170), and therefore, the human life and body that transhumanism sacrifices for the survival and betterment of human life, contrary to both the normative bioconservative and transhumanist positions, does not abolish the sacredness of the human, but instead actively makes human life and its body sacred. Understanding transhumanism's concept of human life as one that treats the human as sacred opens up transhumanism to the possibility of participating in a central religious structure, as a religion without religion, in what Derrida calls a "universal structure of religiosity" by saving the sacred through sacrifice: "respect of that which is sacrosanct (*heilig*, holy) [sacred] *both requires and excludes sacrifice*, which is to say, the indemnification of the unscathed, the price of immunity. Hence: auto-immunization… Absolute respect enjoins first and foremost sacrifice of self, of one's most precious interest" ("Faith and Knowledge" 88). In other words, to save human life as sacred, human life must be sacrificed. The transhumanist perspective is particularly well-suited to an understanding of how, for the human to survive, the human body must continually change and replace itself, thereby repeating differently through technological supplementarity and

prosthesis, saving human life through technology. As Derrida's work on the technological supplement and autoimmunity make clear, technological supplementarity, in the desire to save human life, means, at the same time, relinquishing or sacrificing human life, making human life and its body sacred.

By uncovering how both bioconservatives and transhumanists share a similar religious structure, conceiving human life and its body as sacred, we find that these two positions are more compatible than previously thought. Rather than being antithetical, the religious structure of sacrificing the sacred common to bioconservatism and transhumanism serves as a potential bridge to conciliation through agreement on each movement's ultimate goal and value. Since both movements conceive the human as sacred, this provides an opportunity to reduce hostility between the two sides, and opens up new possibilities for religion and transhumanism. Without locating the religious structure of "sacrificing the sacred" in transhumanism, we risk the continuation of aggression and animosity between, not only bioconservatives and transhumanists, but in society at large. Ethical concerns surrounding technological enhancements of the human body are only going to grow and the potential dangers of violent acts taken by individuals or political extremist groups against bioconservatives or transhumanists are increasingly imminent. Finding religious structures and sentiments within transhumanism could open up new ways to integrate one's bioconservative or religious attitudes with transhumanism, perhaps even to understand transhumanist technological enhancements as "sacred rites," or ways of enacting religious observance, ritual, or practices, that make and glorify the human and its body, as sacred. Indeed, new horizons appear when, on the one hand, transhumanists understand themselves to be engaged in a religious (or quasi-religious) protection of the sacredness of the

human, while, bioconservatives, on the other, come to understand how any protection of the sacredness of the human necessitates sacrifice through technological supplementarity and prosthesis, that the human body and technology are not only compatible, but necessary to maintain and give the human continued life. In other words, bioconservativism and transhumanism depend on an autoimmune self-destructive and sacrificial affirmation for the survival of the human, which is for Derrida: "*on the one hand*, the absolute respect of life… *and on the other*… the no less universal sacrificial vocation… always [involving] sacrifice of the living" ("Faith and Knowledge" 86). Of course, the extent to which technology transforms and mediates the human is still of critical importance; however, a new understanding of the necessity of technology to keep the human alive makes possible new avenues of exploration in ethical debates around human technological enhancements. In addition, locating the sacredness of the human in transhumanism stands to radically alter how academic literature, especially religious studies discourses, comes to view the relationship between religion and transhumanism, which up until now has largely failed to locate the human as sacred in transhumanism and has yet to even begin to reflect upon its importance for transhumanism and religion in general.

The Dangers of Anthropotheism

Another religious structure that this project identifies in transhumanism is the imposition of human-exceptionalism, or an anthropocentric model of ethical concern, through an understanding of humanity as God-like. The tendency to deploy an anthropocentric model of ethical concern in transhumanism can be said to stem from its continued reliance on the central tenets of humanism (consciousness, reason, dignity, etc.) which have been appropriated from a

religiously influential period of secular Enlightenment thought in the West. As such, transhumanism unwittingly perpetuates violent and discriminatory anthropocentric biases that it has derived from the historical influences of humanism, authorizing continued violence against nonhuman beings. Many of these anthropocentric elements are identified by an ability that humanity possesses that is said to transcend the natural world, following the structure of God as a transcendent being. Feuerbach, who identifies the rise of the various forms of historical humanism(s) as a secular-immanentization of religion, argues that humanism understands humanity as a transcendent being, or God, which he calls, "anthropotheism" (*The Essence of Christianity*).

As I contend, transhumanism retains certain religious structures present in the various historical movements of humanism, and extends them in a religion without religion as an anthropotheism. Humanism, as a politico-ethical system of thought which measures all things according to the human, affirms the value of beings on account of their qualities, which, similar to the perspectives within various interpretations of the Judeo-Christian religious traditions regarding God, transcend nature and the beings within it. In this way, humanism as it is extended through transhumanism, while being less-anthropocentric by being more concerned with nonhuman beings (like the animal), retains hidden anthropocentric elements that uphold those "religiously-transcendent" aspects of humanity, making way for the nonhuman other only by way of those religious-humanistic abilities (often human intellectual capabilities) that regards the human being as transcendent over and above that of nonhuman (especially animal) others. These religiously-transcendent abilities come to mark the human as transcendent being relative to nonhuman beings in a violent hierarchy of domination, instantiating an anthropotheism, or

conception of humanity as transcendent God, found in a variety of transhumanist ethical projects like that of David Pearce.

Pearce's transhumanist ethical project, while reducing certain humanist/anthropocentric biases in certain areas, repeats the core assumptions and values of human-superiority and control over nature, animals, and the material world seen in humanism and the Judeo-Christian religions. Pearce's transhumanist project, like humanism, finds its justification and authorization in Judeo-Christian religious traditions as anthropotheism. Even though Pearce looks to eliminate our anthropocentric biases by creating a cruelty-free world that lacks the molecular signature of unpleasant experience," including, among other things, "ecosystem redesign," rewriting animal genomes, and augmenting animal behaviour to "manage a compassionately run global ecosystem" ("Reprogramming Predators"), he ends up repeating a violent anthropocentrism, one that does violence to predatory animals by behaviourally and genetically altering them, discounting their autonomy in ways legitimated by a religiously-licensed humanism, or an anthropotheism. In proposing to make predators "acceptable" to human desires of non-violence, Pearce perpetuates, I argue, the stereotypical biblical and anthropocentric role whereby the human is the bearer of ultimate God-like knowledge, having dominion over nature and all living things (*NIV*, Genesis 1:26-28). The ability to identify the religious structures which unwittingly authorize and justify transhumanist ethical perspectives is increasingly important because these transhumanist ethical projects are often not as non-violent and nonhuman-friendly as they claim.

Similarly, because of their potential harms to humanity and nonhuman life, we must be increasingly critical of the potential creation of new forms of transhuman-citizenship, which themselves retain anthropotheistic biases that assume that only those beings deserving of ethical

consideration are those exhibiting human (God-like) intellectual abilities. Transhumanist calls for "cyborg citizenship," as advocated by those such as James Hughes (*Citizen Cyborg*) and Chris Hables Gray (*Cyborg Citizen*), while admittedly developing a more inclusive conception of citizenry that include nonhuman beings (enhanced animals and humans, robots, clones, cyborgs, etc.). Yet they still retain humanist markers of citizenship based on the exhibition of human intellectual abilities: "the basic threshold of citizenship is self-awareness and desire… Once a being achieves self-awareness, therefore, is when it makes sense to say that the being is a person with a 'right to life,' and cannot be owned as a thing" (Hughes, *Citizen Cyborg* 222). In other words, we must be wary of transhumanist rights-based ethical systems that provide rights solely on the basis of anthropocentric/anthrotheistic abilities. To invoke posthumanist Cary Wolfe, one of the hallmarks of humanism:

> [i]s its penchant for that kind of pluralism, in which the sphere of attention and consideration (intellectual or ethical) is broadened and extended to previously marginalized groups, but without in the least destabilizing or throwing into radical question the scheme of the human who undertakes such pluralization… pluralism becomes incorporation, and the projects of humanism (intellectually) and liberalism (politically) are extended…in a rather classic sort of way. (*What is Posthumanism?* 99)

By upholding a limited perspective on ethical and political considerations rooted in humanistic criteria of value, transhumanism persists in reinforcing the division between the human and the nonhuman, thus perpetuating the dichotomy between human/nonhuman and human/animal—a division originally sanctioned by various interpretations within the Judeo-Christian religious

traditions. This perpetuation of divisions continues to rationalize violence and a lack of ethical consideration for nonhuman beings within the growing ethical initiatives of transhumanism.

The dangers stemming from the religious structure of human-exceptionalism, or an anthropocentric model of ethical concern by understanding humanity as God-like, found in transhumanism demands new perspectives upon which to build a more inclusive ethics. It is important to remain vigilant, and not simply presume we have rid ourselves of our anthropocentrism, especially as it manifests in the form of an unconscious anthropotheism. One way to build a more inclusive transhumanist ethics, I suggest, is to make use of a variety of posthumanist approaches that focus on identifying and limiting anthropocentrism. One particular approach that I believe holds such promise is Heidegger's technological approaches to "Being," to aid in future transhumanist considerations of human-nonhuman ethical relations represented by the term *Gelassenheit*, which relates to Heidegger's idea of "letting the other be." Heidegger's views on technology could be said to illustrate his ethical stance of "letting others be." Heidegger's two approaches to technology (enframing and *poiesis*) are each forms of revealing. However, instead of technological enframing, which seeks to exploit nature and its beings into mere resources as standing-reserve, technological *poiesis* reveals through a non-instrumentalizing that is more respectful of a being's Being or the self-revealing and autonomy of nature and the nonhuman beings within it. Quoting Hölderlin, Heidegger reminds us that even though enframing is most dominant and the greatest danger of technology, there is another form of technology that will serve itself as saviour: "But where danger is, grows / The saving power also" ("The Question Concerning Technology" 333). The essence of technology, Heidegger argues, "must harbor in itself the growth of the saving power" (ibid.). Heidegger's

move to adopt the technological approach of *poiesis*, as opposed to enframing, lies behind his desire to employ a more respectful attitude towards the other that recognizes the self-revealing and thus autonomy of Being by beings through employing *Gelassenheit*, or a letting be of other beings. Heidegger's *Gelassenheit* looks to engage humanism differently, adopting, I argue, a "posthumanist approach" re-inscribing humanism differently, in ways more ethical to the experience of the other and in ways that seek to reduce human attributions of value. In doing so, Heidegger thinks against the anthropocentrism of "value" or the way in which human's characterize value as that which has worth to the human and instead thinks beings in ways that refrain from instrumentalizing beings into objects by humanity's estimation of value.

Rather than seeking to augment other nonhuman beings to conform to humanist desires, like Pearce, or provide rights to nonhuman beings based on their likeness to the human, like Gray and Hughes, it is important to begin to think of ways that counter transhumanism's anthropotheism. One way to do so would be for transhumanism to adopt a Heideggerian-like approach to beings, a specific mode of technological relation through *poiesis* and *Gelassenheit* that recognizes other beings' self-revealing, and thus their autonomy, by letting others be. That said, I acknowledge that there will be times when human intervention is necessary. Moreover, I also acknowledge Heidegger's own religion without religion or anthropotheistic tendencies (especially humanity's privileged access to Being as Dasein) whenever his thought is used in transhumanist ethical programs. To this end, I argue, transhumanism can seek to limit human intervention, especially instrumentalizing interventions of technological enframing that seek to control nonhuman beings, by adopting a more respectful Heideggerian-influenced posthumanist technological approach that cares for nonhuman beings, in all of their alterity, by letting nonhuman others be, apart—as much as "humanly" possible—from human control. Moreover, as

this deconstructive approach uncovers, there is an urgent need to examine transhumanist discourse, not just in ways that seek to identify explicit forms of anthropocentrism, but identifying how anthropotheism or conceiving the human as God plays an important role in the hidden re-emergence of a perilous anthropocentrism.

In addition to recognizing the anthropotheism at work in humanism and how these biases are often unknowingly extended in transhumanism, my analysis suggests further reflection be taken to uncover how posthumanism too is implicated in the extension of religious structures like anthropotheism. As Neil Badmington puts it, "the 'post-' of posthumanism does not—and, moreover, cannot—mark or make an absolute break from the legacy of humanism" (*Alien Chic* 119-120). As such, posthumanism occurs inside humanism and consists "not of the wake but the working-through of anthropocentric discourse" (120). Given posthumanism never completely breaks with humanism's anthropocentric discourse we must be careful not to engage in the uncritical use of posthumanist perspectives moving forward. As such, this project hopes to inspire future research on the religious structures and assumptions driving posthumanist discourse.

The Dangers of a Determinate Messianism

The final and perhaps most insidious religious structure that my Derridian analysis uncovers is transhumanism's propensity to predict and assume predetermined, unalterable future events in a dogmatic messianism. The epitome of transhumanism's messianism or the construction of predetermined future events is the Singularity, an event of rapid growth of intelligence and technology resulting in radical changes to humanity. Singularitarians or those

who believe in the inevitability of the Singularity, like Kurzweil, turn the potentiality of this forecasted event to occur into a certain object of knowledge, ironically contradicting the very definition of a "singularity" as singularly incomprehensible, and in turn allying the Singularity, as I argue, not with the certainties of knowledge but with the uncertainties of faith. Singularitarianism thus becomes a faith-based doctrine, or messianism that promises human salvation upon the arrival of the Singularity, its messiah. Interrogating Singularitarianism through what Derrida calls the "messianic," or this "strange concept of messianism without content" (*Specters of Marx* 82), reveals its messianic structure and secular contents, culminating in a faith-based determinate messianism that mirrors religious messianisms, but as a religion without religion, promising salvation through radical changes to human life.

The problem with this transhumanist promise of salvation is that it does not recognize the ambiguity of the Singularity as *pharmakon*, which for Derrida means both "remedy" and "poison." It ultimately fails to adequately stress the inherent dangers of the Singularity—not only the dangerous implications of these new technologies but also the supposed "inevitability" that the Singularity will occur as predicted. What should be increasingly alarming is how information technologies at work in Singularitarianism's ideology not only gather, but also produce information in such a way that maintains and strengthens its own pretensions and thus its "supposed" powers of prediction. In other words, information technologies coupled with theories that predetermine humanity's future (such as Kurzweil's law of accelerating returns), rather than simply receiving information in a neutral manner, work to actively program or shape the future. For example, data mining is used today to predict the future by guiding action in the present. As Fernanda Bruno argues, the power of data mining and predictive analytics "lies not in the ability to predict a necessary future but in the performative ability to turn into reality what was merely a

potential…being brought forward, the future becomes more 'probable' or even effective" ("Surveillance and Participation" 349). In other words, Singularitarianism and its use of predictive theories of technological and human evolution aids in the construction of predicting future events with supposed "certainty of knowledge," dangerously impeding open reflection, interpretation, and the freedom to decide upon humanity's future relationship with technology.

An example of Singularitarian transhumanists providing concrete assurances about humanity's "inevitable" future is Kurzweil's idea that nanobots will provide the material-basis of our bodies, making possible the ability to transform our physical form at will (*The Singularity is Near* 35, 266). Human individual identity will be maintained as a specific pattern of information that can be copied and transferred between mediums (15, 223). While Kurzweil may be correct in predicting how nanobots will be the core medium of the human individual, the danger in claiming this pre-programmed future as inevitable seriously threatens individual freedom of thought and decision, and instead bolsters obedience and control to existing systems of power and control. Derrida critiques performative acts, like Kurzweil's statements regarding the inevitability of nanobots, as neutralizing what is coming by closing yourself off to the future: "performativity for me is… that which produces events, all institutions and acts in which responsibility is to be assumed; but it is also that which neutralizes the event, that is to say, what happens" ("Performative Powerlessness" 467). Performative acts not only produce events, but they also prevent the unexpected from happening by constraining the future.

The "inevitability" of future events to occur as planned is not only a concern for those like Derrida, but so too Bernard Steigler, who discusses in his book *The Neganthropocene* the menace of predictive data systems and their use in governing society. For Steigler, these calculating systems of prediction are used in the service of "algorithmic governmentalities,"

which work to impede freedom of thought and decision, favouring instead authoritarian governments or private and corporate interests:

> This short-circuiting of psychic and collective protentions, replaced by automatically generated protentions, impedes dreaming, wanting, reflecting and deciding, that is, the collective realization of dreams. And these obstructions are ultimately a *systemic impediment to thinking*, which then constitutes the basis of algorithmic governmentality as the power structure of computationally integrated 24/7 capitalism. (46)

Steigler refers to these systems of calculation and prediction as examples of the "ideology of transhumanism," generating conformity. Such calculative systems of prediction are sustained and emboldened through a mythic appeal to the guarantees of infallible technological and scientific knowledge. For Singularitarians like Kurzweil, we simply do not have the freedom to decide, because the Singularity and its effects, will be the inevitable result of scientific and technological progress, arguing that “halting this process is essentially impossible” (More and Kurzweil, “Max More and Ray Kurzweil on the Singularity”). What Singularitarians seemingly fail to consider is how their discourses on the inevitability of the Singularity and its effects, as a determinate messianism, works to create an authoritarian program of technological determinism, the consequences of which could be dire for the future of human rights and freedoms. Following John Caputo, it is important to combat these programs that look to dictate and control our future by preserving interpretive play and critical thought, while weaning ourselves off the idea of absolute and inevitable truth by forming new myths which seek “to protect the irreducible undecidability in the system, the fluctuation and instability in things” (*Hermeneutics* 271). Otherwise, we run the risk of the future of humanity, and the life of each individual human being

determined by algorithms of calculation and prediction, a messianism of supposed salvation that favours the interests of those in power.

While Singularitarians often demonize faith by associating it with religion they fail to see how their beliefs are similarly predicated on a faith that pervades scientific and technological knowledge. Instead of conceiving the Singularity as a determinate and inevitable messianism, I propose adopting a quasi-messianic perspective, that is, a messianism without determinate contents, a structure of possibility of the future that does not guarantee a particular future, but rather keeps its contents open to change. Singularitarians denial of openness to change perpetuates a dangerous authoritarian program of technological domination and control that is already inscribed in the transhumanist ideology through its relationship to technology and technology's ability to make faith—that is, uncertainty, non-knowledge, and the unexpected—possible, and therefore make freedom possible. As Derrida explicates:

> In this sense, the technical is the possibility of faith, indeed its very chance. A chance that entails the greatest risk, even the menace of **radical evil**. Otherwise, that of which it is the chance would not be faith but rather programme or proof, predictability or providence, pure knowledge and pure know-how, which is to say annulment of the future. Instead of opposing them, as is almost always done, they ought to be thought together, as *one and the same possibility*: the machine-like and faith, and the same holds for the machinal and all the values entailed in the sacrosanct. ("Faith and Knowledge" 83)

Derrida describes how technology is a machine of faith, a machine making possible the very prospect or chance for the unexpected and unpredictable to occur. Yet, technology, as a machine

of faith is also not without the messianic promise. Just like the Singularitarian promise of the Singularity, the faith that this promise, *subject to the unexpected and unpredictable nature of the technological machine of faith*, will arrive as predicted instead remains a promise yet to-come. In other words, a healthy dose of deconstruction will enable transhumanist Singularitarians to keep their perspectives open to the messianic, open to the unpredictability of the future, and most importantly, openness to the freedom to think, decide, and believe the Singularity otherwise.

Final Remarks

The purpose of this deconstructive project is not to decide whether or not transhumanism is a religion or not. Instead, this project seeks to identify and acknowledge the subtle traces of religion within transhumanism, exploring how these traces give rise to a transhumanist ideology that embodies religious elements without overtly adhering to any specific religious tradition, as a transhumanist religion without religion. In particular, this project affirms the presence of the two sources of religion according to Derrida: the sacred and faith. The transhumanist sacred manifests in many ways, most notably in transhumanism's desire to save human life through the technological sacrifice of that very life. Furthermore, the sacred is clearly depicted in transhumanism's infatuation with the superiority of human intelligence, in a form that I have called, an "anthropotheism," a conception of the human as God-like. The other source of religion, faith, is clearly illustrated not only in transhumanist discourse on the Singularity, but also more fundamentally in transhumanism's connection to technology, whereby technology is, as we learn from Derrida, the very possibility of faith. The centrality through which the sacred

and faith are manifest in transhumanism renders possible transhumanism as a religion, or at least quasi-religious, as a religion without religion. As Derrida says regarding the sacred and faith:

> [B]oth of these two axioms renders possible, but not necessary, something like a religion, which is to say, an instituted apparatus consisting of dogmas or of articles of faith that are both determinate and inseparable from a given historical *socius* (Church, clergy, socially legitimated authority, people, shared idiom, community of faithful committed to the same faith and sanctioning the same history). (93)

In other words, transhumanism, in its appropriation of the two sources of religion, the sacred and faith, renders possible something like a religion, especially given the dogmas and articles of faith that this project identifies in the transhumanist community. Furthermore, the prevalence and prominence of secularized religious structures identified in this project attests to transhumanism's status as a religion without religion.

Regardless of transhumanism's designation as a religion or not, transhumanism has tremendous potential to provide countless benefits to humanity, the environment, and nonhuman others; however, transhumanism, also brings with it the possibilities for incalculable peril. It is my hope that this deconstructive project will help to inform transhumanists and their interlocutors of some of the unnoticed religious structures in transhumanism, and the dangers these particular structures may bring if we fail to acknowledge them and mitigate their effects. In the spirit of deconstruction, this project seeks out the traces of religion in the context of transhumanism, and hopes to inspire further inquiries into the presence of religious structures in seemingly secular or non-religious scientific and technological discourses.

Bibliography

Armand, Louis, and Arthur Bradley. "Thinking Technicity." *Technicity,* edited by Arthur Bradley and Louis Armand*,* Litteraria Pragensia, 2006, pp.1-14.

Asad, Talal. Formations of the Secular: Christianity, Islam, Modernity. Stanford University Press, 2003.

Badmington, Neil. *Alien Chic: Posthumanism and the Other Within*. Routledge, 2004.

—. "Introduction: Approaching Posthumanism." *Posthumanism*, edited by Neil Badmington, 2000, pp. 1-10.

—. "Theorizing Posthumanism." *Cultural Critique*, vol. 53, no. 1, 2003, pp. 10-27.

Bataille, Georges, Fred Botting, and Scott Wilson. *The Bataille Reader*. Blackwell, 1997.

Berlin, Isaiah. Four Essays on Liberty. Oxford University Press, 1969.

Berman, John. "Futurist Ray Kurzweil Says He Can Bring His Dead Father Back to Life Through a Computer Avatar." *ABC News*. https://abcnews.go.com/Technology/futurist-ray-kurzweil-bring-dead-father-back-life/story?id=14267712

Bostrom, Nick, et al. "A Critical Discussion of Vinge's Singularity Concept." *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology and Philosophy of the Human Future*, edited by Max More and Natasha Vita-More. Wiley-Blackwell, 2013 pp. 395-418.

Bostrom, Nick. "Are We Living in a Computer Simulation?" *The Philosophical Quarterly*, vol. 53, no. 211, 2003, pp. 243-255.

—. "Letter from Utopia." *Journal of Evolution and Technology*, vol. 19, no. 1, 2008, pp. 67-72.

—. "The Future of Humanity." *New Waves in Philosophy of Technology*, edited by Jan-Kyrre Berg Olsen, Evan Selinger, and Soren Riis, Palgrave Macmillan, 2009, pp. 186-215.

—. "Transhumanist Values." *Journal of Philosophical Research,* vol. 30, Issue Supplement, 2005, pp. 3-14.

—. "What is Transhumanism?" *Nick Bostrom's Home Page*, 2001, https://nickbostrom.com/old/transhumanism.html

Bradley, Arthur. *Originary Technicity: The Theory of Technology from Marx to Derrida*. Palgrave Macmillan UK, 2011.

—. “The Deconstruction of Christianity: From the Hand of God to the Hand of Man.” *Literature, Religion and the Imagination: Sacred Worlds*, edited by Mark Knight and Louise Lee, Continuum, 2009, pp. 47-56.

Brown, Warren S., Nancey C. Murphy, and H. Newton Malony, editors. *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*. Fortress Press, 1997.

Bruno, Fernanda. “Surveillance and participation on Web 2.0.” *Routledge Handbook of Surveillance Studies*, edited by Kristie Ball, Kevin D. Haggerty, and David Lyon. Routledge, 2012, pp. 343-351.

Burckhardt, Jacob. *The Civilization of the Renaissance in Italy*. Penguin Classics, 1990.

Burdett, Michael S. “Contextualizing a Christian Perspective on Transcendence and Human Enhancement: Francis Bacon, N. F. Federov, and Pierre Teilhard de Chardin.” *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*. Georgetown University Press, 2011, 19-35.

Bynum, Caroline Walker. *The Resurrection of the Body in Western Christianity, 200-1336*. Columbia University Press, 2017.

Caputo, John D. *Hermeneutics: Facts and Interpretation in the Age of Information*. Pelican Books, Penguin Random House UK, 2008.

—. “Meister Eckhart and the Later Heidegger: The Mystical Element in Heidegger’s Thought: Part Two.” *Journal of the History of Philosophy*, vol. 13, no. 1, 1975, pp. 61-80.

—. “Spectral Hermeneutics: On the Weakness of God and the Theology of the Event.” *After the Death of* God, edited by John D. Caputo, Gianni Vattimo, and Jeffrey W. Robbins. Columbia University Press, 2009, pp. 47-85.

—. *The Prayers and Tears of Jacques Derrida: Religion Without Religion*. Indiana University Press, 1997.

Casanova, José. “The Secular, Secularizations, Secularisms.” *Rethinking Secularism*, edited by Craig Calhoun, Mark Juergensmeyer, and Jonathan VanAntwerpen, Oxford University Press, 2011, pp. 54-74.

—. Public Religions in the Modern World. University of Chicago Press, 1994.

Cavanaugh, William T. The Myth of Religious Violence: Secular Ideology and the Roots of Modern Conflict. Oxford University Press, 2009.

Cellan-Jones, Rory. “Stephen Hawking Warns Artificial Intelligence Could End Mankind.” *BBC*, 2 Dec. 2014, https://www.bbc.com/news/technology-30290540

Christian Transhumanist Association. https://www.christiantranshumanism.org

Clark, Andy. *Natural-born Cyborgs: Minds, Technologies, and the Future of Human Intelligence*. Oxford University Press, 2003.

Clarke, Bruce. *Posthuman Metamorphosis: Narrative and Systems*. Fordham University Press, 2008.

Cole-Turner, Ronald. "Christian Transhumanism." *Religion and Human Enhancement: Death, Values, and Morality*, edited by Tracy J. Trothen and Calvin Mercer, Palgrave Macmillan, 2017, pp. 35-47.

—. *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*. Georgetown University Press, 2011.

Cullmann, Oscar. *Immortality of the Soul or Resurrection of the Dead? The Witness of the New Testament*. Wipf & Stock Publishers, 2000.

Daly, Todd T.W. "Chasing Methuselah: Transhumanism and Christian Theosis in Critical Perspective." *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, edited by Ronald Cole-Turner, Georgetown University Press, 2011, pp. 131-144.

—."Life-Extension in Transhumanist and Christian Perspectives: Consonance and Conflict." *Journal of Evolution and Technology,* vol. 14, no. 2, 2005, pp. 57-75.

De Grey, Aubrey, and Michael Rae. *Ending Aging: The Rejuvenation Breakthroughs That Could Reverse Human Aging In Our Lifetime*. St. Martin's Press, 2007.

Derrida, Jacques. "A Certain Impossible Possibility of Saying the Event." *Critical Inquiry*, vol. 33, no. 2, 2007, pp. 441-461.

—. "A Discussion with Jacques Derrida." *Theory & Event*, vol. 5, no. 1, 2001, doi: 10.1353/tae.2001.0004.

—. "Above All, No Journalists!" *Religion and Media*, edited by Hent de Vries and Samuel Weber, Stanford University Press, 2001, pp. 56-94.

—. "Deconstructions: The Im-Possible." *French Theory In America*, edited by Sylvère Lotringer and Sande Cohen, Routledge, 2001, pp. 12-32.

—. "Différance." *Margins of Philosophy*. University of Chicago Press, 1982, pp. 1-28.

—. "Faith and Knowledge: The Two Sources of 'Religion' at the Limits of Reason Alone." *Acts of Religion*, edited by Gil Anidjar, Routledge, 2002, pp. 42-101.

—. “Force of Law: The ‘Mystical Foundations of Authority.’” *Deconstruction and the Possibility of Justice*, edited by Drucilla Cornell, Michael Rosenfeld, and David Carlson, Routledge, 1992, pp. 3-67.

—. “Others Are Secret Because They Are Other.” *Paper Machine*, translated by Rachel Bowlby, Stanford University Press, 2005, pp. 136-163.

—. “Performative Powerlessness – A Response to Simon Critchley.” *Constellations*, vol. 7, no. 4, 2000, pp. 466-468.

—. *Positions*. Translated by Alan Bass, Continuum, 2004.

—. *Psyche: Inventions of the Other, Volume I*. Stanford University Press, 2008.

—. *Rogues: Two Essays On Reason*. Stanford University Press, 2005.

—. *Specters of Marx : the State of Debt, the Work of Mourning and the New International*. Routledge, 1994.

—. “That Dangerous Supplement.” *Of Grammatology*. Translated by Gayatri Spivak. Johns Hopkins University Press, 1976, pp. 141-164.

—. “The Eyes of Language: The Abyss and the Volcano.” *Acts of Religion*, edited by Gil Anidjar, Routledge, 2002, pp. 189-227.

—. “The Principle of Reason: The University in the Eyes of Its Pupils.” *Diacritics*, vol. 13, no. 3, 1983, pp. 2-20.

—. *The Gift of Death*. Translated by David Wills, University of Chicago Press, 1995.

—. “This Strange Institution Called Literature: An Interview with Jacques Derrida.” *Acts of Literature*, Routledge, 1992, pp. 33-75.

Derrida, Jacques, and Elisabeth Weber. *Points . . .: Interviews, 1974-1994*. Stanford University Press, 1995.

Derrida, Jacques, and Richard Beardsworth. "Nietzsche and the Machine." *Journal of Nietzsche Studies*, no. 7, 1994, pp. 7-66.

“Dogma” *Online Etymology Dictionary*. https://www.etymonline.com/word/dogma#etymonline_v_13900

Dubuisson, Daniel. *The Western Construction of Religion: Myths, Knowledge, and Ideology.* The Johns Hopkins University Press, 2003.

Elson, Christopher, and Garry Sherbert. *In the Name of Friendship: Deguy, Derrida and Salut*. Brill Rodopi, 2017.

Engels, Frederick. *Ludwig Feuerbach and the End of Classical German Philosophy*. Prepared for the Internet by David J. Romagnolo (1998), Foreign Languages Press, 1976.

Ex Machina. Directed by Alex Garland, Universal Pictures, 2014.

Ferrando, Francesca. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms." *Existenz*, vol. 8, no. 2, 2013, pp. 26-32.

Feuerbach, Ludwig. *The Essence of Christianity*, edited by Andrea Diem and David Lane. Translated by George Eliot, MSAC Philosophy Group, 2008.

—. *The Fiery Brook: Selected Writings*. Translated and introduced by Zawar Hanfi, e-book, Verso, 2012.

Fisher, Matthew Zaro. "More Human than the Human? Toward a "Transhumanist" Christian Theological Anthropology." *Religion and Transhumanism: The Unknown Future of Human Enhancement*, edited by Calvin Mercer and Tracy J. Trothen, Praeger, 2014, pp. 23-38.

Ford, Adam A. "Max More – The Singularity and Transhumanism." *YouTube*, uploaded by Science, Technology & the Future, 3 January 2012, https://www.youtube.com/watch?v=1xIQgBXw9-o.

Foster, M. B. "Christian Theology and Modern Science of Nature (I.)." *Mind*, vol. 44, no. 176, 1935, pp. 439-466.

—. "Christian Theology and Modern Science of Nature (II.)." *Mind*, vol. 45, no. 177, 1936, pp. 1-27.

Freud, Sigmund. *Beyond the Pleasure Principle*. Broadview Press, 2011.

—. *Civilization and Its Discontents*. W. W. Norton & Company, 1962.

Geraci, Robert M. *Apocalyptic AI: Visions of Heaven in Robotics, Artificial Intelligence, and Virtual Reality*. Oxford University Press, 2010.

Goertzel, Ben. *The Hidden Pattern: A Patternist Philosophy of Mind*. Universal-Publishers, 2006.

Good, Irving John. "Speculations Concerning the First Ultraintelligent Machine." *Advances in Computers*, Esevier, vol. 6, 1966, pp. 31-88.

Gould, Stephen Jay. *Full House : the Spread of Excellence from Plato to Darwin*. Harmony Books, 1996.

Gray, Alison J. "Whatever Happened to the Soul? Some Theological Implications of Neuroscience." *Mental Health, Religion & Culture*, vol. 13, no. 6, 2010, pp. 637-648.

Gray, Chris Hables. *Cyborg Citizen: Politics in the Posthuman Age*. Routledge, 2001.

Gray, John. *Straw Dogs: Thoughts On Humans and Other Animals*. Granta, 2002.

Habermas, Jürgen., Jacques Derrida, and Giovanna Borradori. *Philosophy in a Time of Terror: Dialogues with Jürgen Habermas and Jacques Derrida*. University of Chicago Press, 2003.

Hägglund, Martin. *Radical Atheism: Derrida and the Time of Life*. Stanford University Press, 2008.

Harari, Yuval Noah. Homo Deus: A Brief History of Tomorrow. Harper, 2015.

Haraway, Donna J. "A manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s." *Australian Feminist Studies*, vol. 2, no. 4, 1987, pp. 1-42.

Harrison, Peter. *The Territories of Science and Religion*. University of Chicago Press, 2015.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. University of Chicago Press, 1999.

Heidegger, Martin. *Contributions to Philosophy: (Of the Event)*, translated by Richard Rojcewicz and Daniela Vallega-Neu. Indiana University Press, 2012.

—. "Letter on Humanism." *Basic Writings: from Being and Time (1927) to The Task of Thinking (1964)*, edited by David Farrell Krell. HarperSanFrancisco, 1993, pp. 213-265.

—. "Overcoming Metaphysics." *The Heidegger Controversy: A Critical Reader*, edited by Richard Wolin. The MIT Press, 1993, pp. 67-90.

—. "The Question Concerning Technology." *Basic Writings: from Being and Time (1927) to The Task of Thinking (1964)*, edited by David Farrell Krell. HarperSanFrancisco, 1993, pp. 307-341.

Hughes, James J. *Citizen Cyborg: Why Democratic Societies Must Respond to the Redesigned Human of the Future*. Westview Press, 2004.

—. "Contradictions from the Enlightenment Roots of Transhumanism." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine*, vol. 35, no. 6, 2010, pp. 622–640.

—. "Problems of Transhumanism: Belief in Progress vs. Rational Uncertainty." *Institute for Ethics and Emerging Technologies*, 2010.
https://ieet.org/index.php/IEET2/more/hughes20100301

—. "The Compatibility of Religious and Transhumanist Views of Metaphysics, Suffering, Virtue and Transcendence in an Enhanced Future." *The Global Spiral, vol.* 8, no. 2, 2007, pp. 2-39.

Huxley, Julian. "The New Divinity." *Essays of a Humanist*. Chatto & Windus, 1964.

—. *Man in the Modern World*. Chatto & Windus, 1917.

—. *Religion Without Revelation*. Harper & Brothers Publishers, 1927.

—. "Transhumanism." *New Bottles for New Wine*. Chatto & Windus, 1957, pp. 13-17.

Hyena, Hank. "Resuscitative Resurrection: Who's First?" *Humanity+ Magazine*.
http://hplusmagazine.com/2010/08/05/resuscitative-resurrection-whos-first/

"Ism." *Online Etymology Dictionary*.
https://www.etymonline.com/word/ism#etymonline_v_51255

Johnson, Christopher. *System and Writing in the Philosophy of Jacques Derrida*. Cambridge University Press, 1993.

Jordan, Gregory E. "Apologia for Transhumanist Religion." *Journal of Evolution and Technology*, vol. 15, no. 1, 2006, pp. 55-72.

Kant, Immanuel. *Groundwork of the Metaphysics of Morals*. Cambridge University Press, 2012.

Kass, Leon. *Life, Liberty and the Defense of Dignity: The Challenge for Bioethics*. Encounter Books, 2002.

Kimbrell, Andrew. *The Human Body Shop: The Cloning, Engineering, and Marketing of Life*. 2nd ed., Regnery Publishing Inc., 1997.

Kristeva, Julia. *This Incredible Need to Believe*. Columbia University Press, 2009.

Kuiken, Kir. "Between Heidegger and Derrida: On the Impossible Futures of Techne." *The Canadian Review of Comparative Literature*, vol. 33, no. 3-4, 2006, pp. 293-310.

Kurzweil, Ray. "Are We Becoming an Endangered Species? Technology and Ethics in the Twenty First Century." *Kurzweil Network,* November 20, 2001.
http://www.kurzweilai.net/are-we-becoming-an-endangered-species-technology-and-ethics-in-the-twenty-first-century

—. “Singularity Q&A.” *KurzweilAI.net*, 2011, https://www.kurzweilai.net/singularity-q-a

—. *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. Viking, 1999.

—. “The Law of Accelerating Returns.” Alan Turing: Life and Legacy of a Great Thinker, edited by Christof Teuscher, Springer, 2004, pp. 381-416.

—. *The Singularity Is Near: When Humans Transcend Biology*. E-book, Duckworth Overlook, 2005.

Locke, John. *Two Treatises of Government*. Yale University Press, 2014.

Martin, David. *On Secularization: Towards a Revised General Theory*. Ashgate, 2005.

Marx, Karl. *Critique of Hegel’s ‘Philosophy of Right’*. Edited with an Introduction and Notes by Joseph J. O’Malley, Cambridge University Press, 1977.

Masuzawa, Tomoko. *The Invention of World Religions, Or, How European Universalism was Preserved in the Language of Pluralism*. University of Chicago Press, 2005.

McKibben, Bill. *Enough: Staying Human in an Engineered Age*. Henry Holt and Company, 2004.

Mercer, Calvin, and Tracy J. Trothen. *Religion and Transhumanism: The Unknown Future of Human Enhancement*. Praeger, 2015.

Messerly, John G. “A Philosopher’s Lifelong Search for Meaning—Part 5—Transhumanism and Meaning.” *Institute for Ethics and Emerging Technologies*, 2018, https://ieet.org/index.php/IEET2/more/Messerly20181122

—. “Death Should Be Optional.” *Salon*, 2014, https://www.salon.com/2014/11/16/death_should_be_optional/

—. “Is Transhumanism a Religion?” *Institute for Ethics and Emerging Technologies*, 2018, https://ieet.org/index.php/IEET2/more/Messerly20180522

—. “Transhumanism and the End of Religion.” *Humanity+ Magazine,* 2014, https://hplusmagazine.com/2014/07/21/transhumanism-and-the-end-of-religion/

Moravec, Hans P. *Mind Children: The Future of Robot and Human Intelligence*. Harvard University Press, 1988.

—. *Robot: Mere Machine to Transcendent Mind*. Oxford University Press, 1999.

—. "When Will Computer Hardware Match the Human Brain." *Journal of Evolution and Technology*, vol. 1, no. 1, 1998, pp. 1-12.

More, Max. "The Philosophy of Transhumanism." *The Transhumanist Reader*, edited by Max More and Natasha Vita-More, Wiley-Blackwell, 2013, pp. 3-17.

—. "Transhumanism, Towards a Futurist Philosophy." *Extropy* 6, 1990. pp. 6-12.

More, Max and Ray Kurzweil. "Max More and Ray Kurzweil on the Singularity." *Kurzweil Accelerating Intelligence*, Essays, 2002. https://www.kurzweilai.net/max-more-and-ray-kurzweil-on-the-singularity-2

Müller, Vincent C. "Ethics of Artificial Intelligence and Robotics." *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, 2020, https://plato.stanford.edu/entries/ethics- ai/. Accessed 17 Aug. 2020.

Naas, Michael. *Miracle and Machine: Jacques Derrida and the Two Sources of Religion, Science, and the Media*. Fordham University Press, 2012.

Nancy, Jean-Luc. *Dis-enclosure: The Deconstruction of Christianity*. Fordham University Press, 2008.

Nietzsche, Friedrich Wilhelm. *The Gay Science: With a Prelude in German Rhymes and an Appendix of Songs*. Cambridge University Press, 2001.

Noble, David F. *The Religion of Technology: The Divinity of Man and the Spirit of Invention*. Penguin Books, 1999.

Nolan, Jonathan and Lisa Joy, creators. *Westworld*, *Season 3: The New World*. HBO and Warner Bros. Television Distribution, 2020.

Novakovic, Lidija. *Raised from the Dead According to Scripture: The Role of the Old Testament in the Early Christian Interpretations of Jesus' Resurrection*. T&T Clark, 2014.

Nye, David E. *America as Second Creation: Technology and Narratives of New Beginnings*. MIT Press, 2004.

Pearce, David. "Post-Darwinian Ethics?" *The Hedonistic Imperative*, 2009, https://www.hedweb.com/population-ethics/postdarwinian.html

—. "Reprogramming Predators." *The Hedonistic Imperative,* 2009, https://www.hedweb.com/abolitionist-project/reprogramming-predators.html

—. *The Hedonistic Imperative*. BLTC Research, 1995, www.hedweb.com

Pelissier, Hank, and Tereza dal Santo. "Transhumanists: Who Are They, What Do They Want, Believe And Predict?." *Journal of Personal Cyberconsciousness*, vol. 7, no. 2, 2012, pp. 20-29.

Pomazansky, Michael. *Orthodox Dogmatic Theology: A Concise Exposition*. Saint Herman of Alaska Brotherhood, 1984.

"Robot." *Online Etymology Dictionary*. https://www.etymonline.com/word/robot#etymonline_v_15132

Ross, Ben. "Between Poison and Remedy: Transhumanism as *Pharmakon*." *Social Epistemology Review and Reply Collective*, vol. 6, no. 5, 2017, pp. 23-26.

"Sacrifice." *Online Etymology Dictionary*. https://www.etymonline.com/word/sacrifice#etymonline_v_22581

Sandberg, Anders, and Bostrom, Nick. Whole Brain Emulation: A Roadmap. Future of Humanity Institute, Oxford University, 2008.

Sherbert, Michael G. "Revising Posthumanist Aesthetics in the Ethical Treatment of Nonhuman Animal." *Humanimalia*, vol. 8, no. 2, 2017, pp. 63-86.

"Singularity." *Online Etymology Dictionary*. https://www.etymonline.com/word/singularity#etymonline_v_38182

Smith, Jonathan Z. "A Matter of Class: Taxonomies of Religion." *Harvard Theological Review*, vol. 89, no. 4, 1996, pp. 387-403.

—. "A Twice-told Tale: The History of the History of Religion's History." *Numen*, vol. 48, no. 2, 2001, pp. 131-146.

Steigler, Bernard. *The Neganthropocene*. Edited, Translated, and with an Introduction by Daniel Ross. Open Humanities Press, 2018.

Steinhart, Eric. "Teilhard de Chardin and Transhumanism." *Journal of Evolution and Technology*, vol. 20, no. 1, 2008, pp. 1-22.

Stolyarov II, Gennady. *Death is Wrong*. Second Edition. Rational Argumentator Press, 2014.

Taylor, Charles. *A Secular Age*. Belknap Press of Harvard University Press, 2007.

TechnoCalyps. Written and directed by Frank Theys, Votnik Production Company, GoDigital Media Group, 2006.

"Technology." *Online Etymology Dictionary*. https://www.etymonline.com/word/technology#etymonline_v_7666

Teilhard De Chardin, Pierre. *Activation of Energy: Enlightening Reflections on Spiritual Energy*. HMH, 1972.

—. *Christianity and Evolution: Reflections on Science and Religion*. HMH, 2002.

—. *The Phenomenon of Man*. Harper Perennial, 2008.

"The Definitive Glossary of Higher Mathematical Jargon." *Math Vault*, https://mathvault.ca/math-glossary/#singularity. Accessed 17 Aug. 2020.

Tirosh-Samuelson, Hava. "Transhumanism as a Secularist Faith." *Zygon*, vol. 47, no. 4, 2012, pp. 710-734.

Transcendence. Directed by Wally Pfister, Warner Bros. Pictures, 2014.

"Transhumanist Declaration." *Humanity+*, https://humanityplus.org/philosophy/transhumanist-declaration/. Accessed 17 Aug. 2020.

"Transhumanist FAQ." *Humanity+*, https://humanityplus.org/philosophy/transhumanist-faq/. Accessed 17 Aug. 2020.

Trothen, Tracy J. "The Trans-Athlete and the Religion of Sport: Implications of Transhumanism for Elite Sport's Spiritual Dimension." *Religion and Transhumanism: The Unknown Future of Human Enhancement*, edited by Calvin Mercer and Tracy J. Trothen, Praeger, 2014, pp. 351-368.

Ulam, Stanislaw. "John von Neumann 1903-1957." *Bulletin of the American Mathematical Society*, vol. 64, no. 3, 1958, pp. 1-49.

Vinge, Vernor. "The Coming Technological Singularity: How to Survive in the Post-Human Era." *NASA*, Lewis Research Center, Vision 21: Interdisciplinary Science and Engineering in the Era of Cyberspace, 1993, pp. 11-22.

Weitzenfeld, Adam, and Melanie Joy. "An Overview of Anthropocentrism, Humanism, and Speciesism in Critical Animal Theory." *Counterpoints*, vol. 448, 2014, pp. 3-27.

Wheeler, Craig J. *Cosmic Catastrophes*: *Exploding Stars, Black Holes, and Mapping the Universe*. Cambridge University Press, 2007.

White, Lynn Townsend Jr. "Technology and Invention in the Middle Ages." *Speculum*, vol. 15, no. 2, 1940, pp. 141–159.

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

—. *What Is Posthumanism?* University of Minnesota Press, 2010.

Wills, David. *Prosthesis*. Stanford University Press, 1995.

Young, Simon. *Designer Evolution: A Transhumanist Manifesto*. Prometheus Books, 2006.

Žižek, Slavoj. *On Belief*. Routledge, 2001.

Zuckerman, Phil, and John R. Shook, editors. *The Oxford Handbook of Secularism*. Oxford University Press, 2017.