‘Bereft of the Soul’: Biblical and Augustinian Views of Death as they pertain to Measuring the Existential Threat of Transhumanist Anthropological Destiny

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KEY WORDS

| Transhumanism | Technology | Existential Threat | *imago Dei* / Image of God | Death | Human Destiny |

ABSTRACT

Proponents of the movement known as transhumanism have attempted to view the biological human form as something inherently flawed and therefore something that will inevitably be transcended via a process of technological evolution. As an emergent worldview, a theological interaction and response to transhumanism should be carefully articulated. This study will attempt to first identify the essential elements of transhumanist anthropological destiny, surveying the history and beliefs of prominent transhumanist figures; it will then respond by resourcing the biblical and Augustinian understanding of anthropology and the *imago Dei*, with particular attention given to their respective categories of death as states of separation as they pertain to measuring transhumanism’s existential threat to humankind.

INTRODUCTION

Beginning in the 1980’s, transhumanism started as a fringe movement, the result of the exponentially-booming computer technologies industry whose flame had just been sparked and where the boundaries thereof seemed to have been endless. Transhumanism thus sought to answer a question concerning the potentiality of technology for the human race, prognosticating about the extent to which technology could further human connectivity on the most essential level, which is precisely the theme expounded upon by Vernor Vinge in his 1983 article, ‘First Word.’ Therein Vinge posits what can generally be considered the far extent of technological possibility: a ‘singularity event’ wherein humankind’s existential state will be dramatically altered via its direct encounter with computational capabilities and artificial intelligence (AI), which he believed would outpace and transcend human intelligence altogether.[1] Vinge’s consideration attempted to fuse technological progress with evolutionary progress; in a later article, he posed at once the possibility of existential threat through the supersession or annihilation of the human race by technology altogether and a sort of infinite existential gain via superhuman ‘immortality,’ usually construed as some sort of augmentation or fusion with technology.[2] His apprehensions, however, took the form of a direct philosophical question concerning what such an indefinite digitized immortality would look like for a personal humanity: would an

1 Vernor Vinge, ‘First Word,’ *Omni*, Vol. 5 No. 4 (January, 1983), pp. 10-15.

2 Vinge, ‘The Coming Technological Singularity: How to Survive in the Post-Human Era,’ *San Diego State University*, web, https://edoras.sdsu.edu/~vinge/misc/singularity.html (accessed 24 November 2018).

indefinite extension of existence feel more like infinite torture if growth and variety was not also emulated in this state?[3]

For many decades it has been difficult to take the grand claims of the transhumanist movement seriously, which seems to give the immediate impression of good science fiction writing rather than good philosophical or technological forecasting. Indeed, Vernor Vinge's own implementation of transhumanist concepts in a series of science fiction novels has not lent itself to legitimizing the movement. Even Oxford University's Nick Bostrom, professor of philosophy and director of the Future of Humanity Institute, dismissed the singularity movement as 'millenarian' and 'techno-utopian.'[4] Nevertheless, the movement has gained considerable traction in recent years, garnering attention by way of popular publications like Yuval Noah Harari's Homo Deus, its consideration as a serious threat by SpaceX entrepreneur Elon Musk, Stephen Hawking, and others in the scientific community, and the growing interest in such possibilities as personified in the Singularity University in the Silicon Valley.[5] Indicatively, the 2017 report on AI released by the Gallup organization demonstrates a generally optimistic outlook by the American people in relation to the hopes that advanced computing technology will aid and improve human life, the hopes that such superintelligence will improve standard of living (76% of those polled) being balanced out by what seems to be an underlying cognizance of the threat of functional supersessionism (73% of those polled)—both statistics indicating an implicit certainty that technology will continue to progress in this exponential fashion.[6] Even religious organizations such as Christopher Beneke's Christian Transhumanist Association or the Church of Perpetual Life have attempted to find a middle way between Christian theology and transhumanism, with the latter serving as a means to further an eschatological agenda.[7] Considering the actual potentiality of achieving such a state of transhumanist singularity is outside both the capabilities and intent of this essay; instead, the growing interest in transhumanism poses a very important question concerning not only what it means to be human, but also the inherent value thereof; subsequently, it raises the importance of assessing what technologists refer to as 'existential threat' to the human race, which will be evaluated here via the implementation of salient theological categories.[8]

3 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

4 Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford, UK: Oxford University Press, 2017), p. 4. The sensationalistic nature of the language and hopes of some proponents of transhumanism will be discussed in a separate section below.

5 Harari, *Homo Deus: A Brief History of Tomorrow* (New York: HarperCollins Publishers, 2017); Matthew Sparks, 'Top scientists call for caution over artificial intelligence,' *The Telegraph* (13 February 2013); Singularity Educational Group, 'Singularity University,' web, https://su.org/ (accessed 28 February 2019).

6 Gallup, Inc., 'Optimism and Anxiety: Views on the Impact of Artificial Intelligence and Higher Education's Response,' January 2017. Cf. also the mixed emotions and responses involved in the February 2019 debate between Harish Natarajan and IBM's 'Miss Debator' technology; although 'Miss Debator' lost, the fact that a sustained 25-minute dialogue between a computer and a human being was possible is symbolic of both hopes and concerns for the future capabilities of AI. Olivia Carville and Jeremy Kahn, 'A Human Just Triumphed Over IBM's Six-Year-Old AI Debater,' Bloomberg.com, web, https://www.bloomberg.com/technology (accessed 14 February 2019).

7 'Christian Transhumanist Association,' web, https://www.christiantranshumanism.org/ (accessed 13 February 2019); 'Church of Perpetual Life,' web, https://www.churchofperpetuallife.org/ (accessed 28 March 2019).

8 For an overview of critical objections to the singularity hypothesis, see Toby Walsh, 'The Singularity May Never Be Near,' *AI Magazine*, Vol 38 No 3 (Fall 2017), pp. 58-62. The issue will largely devolve into a discussion of the extent of computational abilities to emulate human empathy; for the classic treatment of this, see John R. Searle, 'Minds, Brains, and Programs,' *The Behavioral and Brain Sciences*, 3 (1980), pp. 417-457; for the concept of mirror neurons and the shared manifold hypothesis, which is seen as a possible inroad to machine emulation of human empathy,

DEFINING TRANSHUMANIST ANTHROPOLOGY

Actually solidifying positions within transhumanism as an emerging philosophy can prove to be a challenge.[9] In order to accurately diagnose and respond to any philosophy generally requires an adequate understanding of certain common denominators therein; thus, what is required is a broad analysis of the various voices in play in relation to transhumanist philosophy. This section will thus attempt to find the most basic principles that define transhumanist anthropology.

The transhumanist movement was largely launched by Vernor Vinge in an article written in 1983 for Omni magazine entitled, 'First Word.'[10] In this article Vinge proffered for his readers the concept of a singularity event wherein technology would come into full-orbed and irrevocable contact with humanity; however, it was not until the 1990's that the so-called singularity movement would begin to emerge in the public discourse, Vinge offering a more extensive consideration of the simultaneous problems and prospects posed by computational advancement. Therein Vinge outlines four potential varieties in which a singularity event may occur: the development of variegated computational sentience; the development of a network of computational sentiences; the collapse of the communicative barrier between computer and user; and a significant bio-technological advancement.[11] Importantly, in this consideration Vinge notes the possibility of limitations to the first three processes built inherently into the capability of material means; however, he still holds out hope that the event in question—which he defines as 'a point where our models must be discarded and a new reality rules'—will occur in the 21st century.[12] '…[I]f the technological Singularity can happen,' he states, 'it will.'[13] Although Vinge speaks of superintelligent computers as 'benevolent gods,' he also considers in tension the perils such machines could pose on the level of existential threat, noting the very real possibility of 'physical extinction.'[14] Ultimately, for Vinge, the reward of a singularity event may outweigh the existential risk, where the reward amounts to the immortality and transcendence of the human mind.[15]

Vinge's forecasting sowed the seeds for the writings of technological entrepreneur Ray Kurzweil, author of the 1999 book, *The Age of Spiritual Machines* and its younger, more tractate-like sister, *The Singularity is Near: When Humans Transcend Biology* (2005).[16] In

see Vittorio Gallese, '"Being Like Me": Self–Other Identity, Mirror Neurons, and Empathy,' in Hurley, Susan and Nick Chater eds., *Perspectives on Imitation: From Neuroscience to Social Science, Vol. 1, Mechanisms of Imitation and Imitation in Animal* (Cambridge, MA: MIT Press, 2005), pp. 101-118.

9 The problem is discussed by Max More, 'The Philosophy of Transhumanism,' in Max more and Natasha Vita-More eds., The Transhumanist Reader (West Sussex, UK: John Wiley & Sons, Inc., 2013), p. 3.

10 The key term here is 'largely'; Max More attempts to trace the movement's origins all the way from Dante and into the Enlightenment, but this is unconvincing. At most, one sees a prototypical formulation of the term 'transhumanism' in the 1960's works of cryonicist Robert Ettinger, but the sort of direct formulation in the modern technological sense in relation to digitization does not occur till the 1980's. The parallel movement spearheaded by Natasha Vita-More will be considered below. More, *The Transhumanist Reader*, pp. 8-12.

11 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

12 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

13 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

14 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

15 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

16 Kurzweil notes the influence of Vinge directly in the introduction to *The Singularity is Near*. Ray Kurzweil, *The Singularity is Near: When Humans Transcend Biology* (New York: Penguin Books, 2006.), p. 23.

the former, Kurzweil advocates a theory of technological evolution, positing a model of exponential growth in time that fuses together the three essential advancements in the capabilities of computing hardware, the knowledge of the human brain, and the advent of so-called 'strong' AI.[17] Therein Kurzweil projects the convergence of technology with the human mind, stating, 'We will become software, not hardware,' which he believes will be able to correct any conceivable problems incumbent on humankind's present state.[18] In his later work, *The Singularity is Near*, Kurzweil attempts to both sketch his meta-evolutionary scheme of six epochs—the present being the fourth—as well as devote considerable time to rebutting his critics.[19] In both works Kurzweil is clear that a transcendence of biological limitations is the desired and inevitable goal: through a purely data-driven worldview he calls 'patternism,' humankind will transcend its humanity both biologically and intellectually, ceasing to be human for the better and diffusing its intelligence throughout the universe via nanotechnology until the entire universe is 'intelligized,' where his concept of 'evolution moves inexorably toward this concept of God' as 'infinite knowledge, infinite intelligence, infinite beauty, infinite creativity, infinite love, and so on'; 'an essentially spiritual undertaking.'[20]

Vinge and Kurzweil can be joined by Natasha Vita-More and Max More, the former writing the Transhuman Manifesto directly contemporaneously with Vinge's Omni essay in 1982/3 and later developing a Transhuman Art Manifesto (1992) focusing on aesthetics, which laid the groundwork for her 2002 Primo Posthuman design for a body that is ageless, gender fluid, upgradeable, without error, and superintelligent.[21] Max More is known for formally delineating the Principles of Extropy (2003) in conjunction with the Extropy Institute.[22] More defines the Principles of Extropy as consisting in 'the principles of perpetual progress, self-transformation, practical optimism, intelligent technology, open society, self-direction, and rational thinking.'[23] Important to this formulation is the concept of perpetual progress, where the transhuman state is in an ever-growing dynamic state of becoming, More distinguishing sharply between 'extropia' and 'utopia.'[24]

From the above survey certain commonalities begin to emerge which are definitive of the most dominant strain of transhumanist beliefs. Helpful in this section will the abbreviated definition of transhumanism given by Max More as 'a class of philosophies that seeks the continued evolution of human life beyond its current human form as a result of science and technology guided by life-promoting principles and values.'[25] This definition, a consolidation of

17 Ray Kurzweil, *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* (New York: Penguin Books, 1999), pp. 9-39.

18 Kurzweil, *The Age of Spiritual Machines*, p. 129.

19 Kurzweil, *The Singularity is Near: When Humans Transcend Biology*, pp. 14-21, 427-484.

20 Kurzweil, *The Singularity is Near*, pp. 388-389. It is important to note the intensely emotional aspect of Kurzweil's beliefs, where he is driven by the hope that, someday, his father will be technologically reincarnated. See Sherry Turkle, *Alone Together* (New York: Basic Books, 2017), p. 66.

21 More, p. 12; Natasha Vita-More, 'Radical body design 'Primo Posthuman,' Kurzweil Network, 2019, web, http://www.kurzweilai.net/radical-body-design-primo-posthuman (accessed 21 February, 2019). This focus on the capability of technology to circumvent the social problems of gender and sex is the focus of the 1991 article by Donna Haraway, 'A Cyborg Manifesto,' in *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Free Association Books, 1991).

22 'Extropy Institute,' web, http://www.extropy.org (accessed 4 March 2019).

23 More, in *The Transhumanist Reader*, p. 5.

24 More, in *The Transhumanist Reader*, p. 6.

25 More, in *The Transhumanist Reader*, p. 1.

the elements delineated in the prior sections, will thus be expounded upon here for further clarity.

One particularly recurrent theme is the inadequacy of humanity's biological finitude, apparent from the given definition's emphasis on the bypassing of the human form; elsewhere More describes the transhumanist anthropology as one that 'champions morphological freedom,' giving the human mind the ability to circumvent 'aging, damage, and disease,' as well as improve and enhance sensory capabilities.[26] More dislikes the portrayal of transhumanist as 'loathing' the human body, showing bewilderment as to how this impression is made; yet it is Ray Kurzweil, whose work More is seen advocating as an accurate depiction of transhumanist sentiments, who often implements language that directly militates against any view of the human body that makes it essential to the human person, stating the necessity for humankind to become 'non-biological' and implementing the term 'plastic' in relation thereto.[27] It would certainly seem as though an aversion to the finitude of human physiology and a desire to literally transcend this biological finitude is one of the basic commonalities of the transhuman philosophy, related fundamentally to a modified psychological view of the person, where linear consciousness is the only element of personhood and can be emulated or transferred onto a digital medium.[28]

This leads to a second element: an emphasis on non-biology and a circumvention of epistemic questions concerning the mind, what More calls 'science and technology guided by life-promoting principles and values.'[29] This is what Harari interprets as a new transhumanist metaphysic, that of Dataism, i.e. Kurzweil's 'patternism,' where the quintessential element is algorithmic information itself.[30] Within this framework, everything can be distilled to an algorithmic logic—even human emotion and the senses.[31] This means that patterns, knowledge, algorithms, and information are the transcendental element above and beyond anything in the material world. Importantly, this relates directly to the prior anthropology: if human personhood is only that which is distillable to patterns and algorithms, this means that personhood essentially remains the same if a single linear psychological consciousness is preserved.[32] Simultaneously, within this general

26 More, in *The Transhumanist Reader*, p. 15.

27 Kurzweil, *The Singularity is Near*, pp. 9, 310, 369-390.

28 James Hughes in *The Transhumanist Reader*, p. 230; see the treatment of this element of transhumanism by Celia Deane-Drummond, 'Taking Leave of the Animal? The Theological and Ethical Implications of Transhuman Projects,' in Ronald Cole-Turner ed., *Transhumanism and Transcendence : Christian Hope in an Age of Technological Enhancement* (Washington, D.C.: Georgetown University Press, 2011), pp. 115-130. Cf. Susan Grove Eastman, *Paul and the Person* (Grand Rapids: William B. Eerdmans Publishing Co., 2017), pp. 63-79, who notes the insufficiency of the singular and independent psychological person inherent in Cartesian anthropology, which sociologists and psychologists are tending away from. Likewise, a critique of reductionistic dangers of over-emphasis on linear self-consciousness is provided by Rowan Williams, 'What is Consciousness?' in *Being Human: Bodies, Minds, and Persons* (Grand Rapids: William B. Eerdmans Publishing Company, 2018), pp. 1-27.

29 More, in The Transhumanist Reader, p. 1. Later he goes on to explain that transhumanists '…believe that our thinking, feeling selves are essentially physical processes. While a few transhumanists believe that the self is tied to the current, human physical form, most accept some form of functionalism, meaning that the self has to be instantiated in some physical medium but not necessarily one that is biologically human – or biological at all. If one's biological neurons were gradually replaced, for example, with synthetic parts that supported the same level of cognitive function, the same mind and personality might persist despite being 'in' a non-biological substrate…' More, in *The Transhumanist Reader*, p.7.

30 Harari, pp. 83-90, 356, 393-402.

31 Harari, pp. 83-90; Kurzweil, *The Singularity is Near*, p. 388.

32 'In *The Singularity is Near* (2005), Kurzweil advocates for … 'Patternism,' and this is the dominant view among transhumanists in general. Patternism permits radical changes to the body and brain so long as the sense of continuity, the memory of a flow of mental states leading to the present, is maintained. Even something as radical as the

assumption of patternism transhumanism suffers from a lack of definition in relation to its own epistemology, attempting to promote life within algorithmic consciousness, yet without adopting any concrete way of knowing or measuring personhood itself; thus Kurzweil ends his considerations on human personhood by stating two seemingly contrary positions, i.e. that, on the one hand, personhood in continued consciousness is not knowable, yet, '[d]espite these dilemmas,' 'losing a person is the ultimate loss.'[33]

A final element that becomes apparent is that of an hopeful optimism in the progression of technology through an upward trajectory of technological evolution.[34] One key assumption is that a theory of biological evolution directly segues into the realm of technology and data, 'where humans direct their own evolution to their benefit.'[35] That is to say, for the transhumanist, 'Evolution is not a closed system,' pulling even on human consciousness to bring order out of chaos.[36] This had led Kurzweil to envisioning his sextuple epochal system revolving around the Singularity event in Epoch Five, 'a future period during which the pace of technological change will be so rapid, its impact so deep, that human life will be irreversibly transformed.'[37] This upward evolution assumes that there will be no retrogression, disruption, or stagnation of technological development into the near future, as well as the fact that the synthetic process of evolution, generally considered as a biological phenomenon, can be adequately mapped onto technological and ideological development via a model of exponential growth based on Moore's law, the law that states that '…each new generation of computer chip … provides twice as many components per unit cost…'[38] This optimism lends itself to a cynical dismissal of any critical interaction with transhumanist futurism in relation to existential threat, where technological progress is seen as a *Deus ex machina* in and of itself—a reward that exponentially outweighs the potential threat.[39]

recording of a personality in a brain and its reinstantiation in a computer would count as personal identity if the mind in the computer remembered the process leading to the change and identified with the prior biological person.' Hughes, in *The Transhumanist Reader*, p. 230.

33 Kurzweil, *The Singularity is Near*, p. 386. More also writes of this epistemic confusion: '…It would not be accurate to speak of a universally accepted 'transhumanist epistemology'…' More, in *The Transhumanist Reader*, p. 6.

34 Kurzweil, *The Singularity is Near*, pp. 7-22; Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era'; 'An optimistic flavor necessarily permeates transhumanism. Someone cannot believe that radical transformations of the human condition are both possible and desirable while also believing that we are doomed to failure or disaster.' More, in *The Transhumanist Reader*, p. 13.

35 More, in *The Transhumanist Reader*, p. 11.

36 Kurzweil, *The Singularity is Near*, p. 41.

37 Kurzweil, *The Singularity is Near*, p. 7.

38 Kurzweil, *The Singularity is Near*, p. 41; cf. pp. 13, 56-71. The potentiality of an actual stagnation of technological growth due to limitations in physics is beyond the scope of the present endeavor; for an example, see Max Schulz, 'The end of the road for silicon?' *Nature*, Vol. 399, Iss. 6738 (Jun 24, 1999), pp. 729-730; with regards to Moore's Law, see Rob Aitken, 'Moore's Law Ending? No Problem,' *EETimes*, 27 March 2019, web, https://www.eetimes.com/author.asp?section_id=36&doc_id=1334474 (accessed 27 March 2019); for the topic of technological disruption, see Joseph A. Coates, 'Historical lessons from technological disruptions: Will the storm always pass?' *Technological Forecasting and Social Change*, Vol 113 Part A (December 2016), pp. 85-88. It is notable that both Kurzweil and Vinge had made what must now be considered exaggerated prognostications of the 'Singularity Event' as occurring in the early 21st century, with Vinge's date having expired and Kurzweil's fast approaching without sight of near fruition; nonetheless, More asserts that future forecasting of such a specific chronological manner, although ubiquitous, is not a definitive element of transhumanism. More, in *The Transhumanist Reader*, pp. 14-15.

39 Note the hypothetical conversation with an interlocutor posed by Kurzweil, *The Singularity is Near*, pp. 310-312; his discussion of existential risk on pp. 400-408; the somewhat cavalier dismissal of objections by Eric Dietrich, 'Homo sapiens 2.0: why we should build the better robots of our nature,' *Journal of Experimental & Theoretical Artificial Intelligence*, 13 (2001), p. 328; More, in *The Transhumanist Reader*, pp. 13-14, who notes that some transhumanists have actually shifted to a view that an overratiocination of risks will actually lead to a great existential threat. For a more moderate transhumanist perspective that considers existential risk, see Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies*.

Considering the above, the central tenets of transhumanist anthropology can be distilled into three primary elements: 1. the person as distinctly psychological / non-biological and consisting in linear self-consciousness with human suffering as thus related to biological limitation, 2. the assumption of a non-material 'Dataist' / 'patternist' metaphysic consisting in information, knowledge, and algorithms, and 3. a virtually unmitigated hope in the upward synthetic progression of technological evolution as the solution to the problems inherent within human finitude. It is with this understanding that the study will move forward.

IMAGO DEI AS BODY AND SOUL, AND DEATH

One of the great theological debates that has persisted throughout Judeo-Christian history is the nature and extent of the image of God in humankind. This has been generally considered along either partitive or holistic trajectories, the former considering the *imago Dei* as rooted either in a single element or function that is *borne* by humanity, and the latter considering the image as pertaining directly to and thus encompassing the entire person of the human being—that is, directly definitive of humanity within a biblical and theological anthropology.[40] Integral to this essay's thesis is the concept that the image of God is A. something essential to humanity, human identity, and human purpose and destiny, and thus B. subject to existential threat if any aspect of humanity were altered, mutated, circumvented, or dispensed with.[41] As such, this essay will attempt to posit a view of the image of God as consisting in an holistic psycho-somatic dualism and thus the dissipation of this union as a state of death, constructed from biblical and Augustinian perspectives.

It is the Genesis account that provides the most salient biblical data for *imago Dei* theology, containing six verses in its opening chapters that detail what it means to be human. This study will consider not only Genesis 1:26-30, but also Genesis 2:7, which is a sort of retrospective commentary intended to supplemented the prior with further details about the creation of humanity in God's image, i.e. supplying the how to the what of Genesis 1:26-30.[42] Humanity is viewed here as the climax of creation, where God immediately interposes himself via a divine soliloquy to create humanity in his own image.[43]

A great deal of theological weight has been placed on a differentiation between image (בְּצַלְמֵנוּ) and likeness (כִּדְמוּתֵנוּ) in church history.[44] The Reformation and post-Reformation periods, with their retrieval of exegesis and syntax, have generally observed

40 The former could be referred to using the term 'accidental' and the latter, 'essential.' However, using the term 'accidental' may seem to imply that these elements are somehow non-essential to humankind's nature or essence, which is not what is meant by proponents of partitive views. Likewise, essences can be analyzed partitively and by individuated qualities and compounds the problem by seeming to imply humanity is the *imago substantialis*—something which is reserved for Christ alone. As such, these terms will be avoided in this study. For a similar approach to theological anthropology as 'holistic,' see John Cooper, *The Body, Soul, and Life Everlasting Biblical Anthropology and the Monism-Dualism Debate* (Grand Rapids: William B. Eerdmans Publishing Company, 1989).

41 It is Wolfhart Pannenberg who notes the integral relationship the doctrine of the image of God and a theological anthropological have in relation to fundamantal doctrines of the Christian religion and human destiny. See Wolfhart Pannenberg, Geoffrey W. Bromiley trans., *Systematic Theology* (Grand Rapids, MI: Wm. B. Eerdmans Publishing Co., 1994), three volumes, p. 2:180.

42 Kenneth A. Mathews, *Genesis 1-11:26* (Nashville, TN: B&H Publishing Group, 1996), pp. 188-191. A canonical and theological interpretive strategy is taken here, which does not regard questions concerning Adam's historicity.

43 This assumes God himself as both subject and object of this discourse. For a critical engagement with the view that this is a divine dialogue between God and angels, see Bryan Murphy, 'The Trinity in Creation,' *The Master's Seminary Journal*, 24 No. 2 (Fall 2013), pp. 167-176.

44 Alister McGrath, *Christian Theology*, 5th edn (West Sussex, UK: Wiley-Blackwell, 2011), p. 348-350; Pannenberg, p. 2:210-211.

that the two are used by way of a synonymic emphasis: the singular referent here is Adam (אָדָם), which is patronymic and thus generic for the whole human race.[45] There is an immediate equation in the text between the creation of humanity and God's image, as denoted by the matching singular number as well as the prepositions in the phrase אָדָם בְּצַלְמֵנוּ כִּדְמוּתֵנוּ, the prepositions carrying an agreement in kind yet also an analogous distance: humanity itself is the image of God, yet analogously, not essentially.[46] Importantly, it is only after this divine declaration that God assigns function thereto, where humankind is to rule over creation while, at the same time, being a creature itself.

This is expanded upon in 2:7, where the ontology of the image of God is described. Here the uniqueness of the human body as made from the material particular of the earth (עָפָר מִן־הָאֲדָמָה), molded and formed intimately by God (וַיִּיצֶר יְהוָה אֱלֹהִים), is the focus: there is something special about the human body, as God has taken a unique and special care in his creation of humanity's physical form.[47] God forms Adam's body first, then provides his soul, i.e. the breath of life (נִשְׁמַת חַיִּים), which the text says is breathed into his nostrils (בְּאַפָּיו); only then, with both body and soul, that humanity becomes a living being (לְנֶפֶשׁ חַיָּה).[48] This indicates that the union of body and soul to one another is essential to human nature and the human person.

Reflecting upon this creation account is Psalm 8, with its particular interrogative focus on humankind in verse 4. The text does not directly mention the *imago Dei*, yet the poetic language is directly connected to the Genesis creation account and thus roots it to its antecedent theology.[49] This theological riddle concerning the uniqueness of humanity revolves around

45 Cf. Bruce Waltke and Michael O'Connor, *An Introduction to Biblical Hebrew Syntax* (Winona Lake, IA: Eisenbrauns, 1990), 4.4.1; hereafter, Waltke-O'Connor. In Hebrew, appositions at best function epexegetically, further explaining the prepositive word. Bill T. Arnold and John H. Choi, *A Guide to Biblical Hebrew Syntax* (New York: Cambridge University Press, 2003), 2.4. Importantly, the words are used interchangeably in Gen 5:3. Cognate usages of these words attests to their general semantic synonymity. Mathews, p. 167. Note also that a prepositional value denoting agreement in kind is native to both בְּ and כְּ prepositions; see 'בְּ' and 'כְּ' in Ludwig Koehler and Walter Baumgartner eds., *The Hebrew and Aramaic Lexicon of the Old Testament* (Leiden, Netherlands: E.J. Brill, 1994), hereafter, HALOT. For the patronymical and generic nature of אדם, see Leonard J. Coppes, '25 אדם,' in R. Laird Harris, Gleason L. Archer Jr., and Bruce K. Waltke eds., *Theological Wordbook of the Old Testament* (Chicago: Moody Press, 1999), hereafter, TWOT; Howard N. Wallace, 'Adam (PERSON) [Heb ,ādām (אדם)],' in David Noel Freedman ed., *The Anchor Yale Bible Dictionary* (New Haven, CT: Yale University Press, 1992), six volumes, hereafter, AYBD; 'אדם,' HALOT.

46 The usage of the בְּ may be a 'beth of norm' and denotes the manner; cf. Isaiah 16:9 (Waltke-O'Connor, 11.2.5e). Likewise, the כְּ specifies an agreement in norm and manner (Waltke-O'Connor, 11.2.9b).

47 Cf. the usage of עָפָר in Lev 14:41, 42, 45; יָצַר in Isa 29:16; 41:25; Jer 18:4, 6; 1 Chr 4:23; Lam 4:2; Zec 11:13. 'עָפָר' and 'יָצַר,' in Francis Brown, Samuel Rolles Driver, and Charles Augustus Briggs eds., *Enhanced Brown-Driver-Briggs Hebrew and English Lexicon* (Oxford: Clarendon Press, 1977).

48 Note that the word נִשְׁמַת is seen as used in synonymous parallel construction with the other word for immaterial spirit, רוּחַ, in Job 34:14.

49 The focus on natural revelation is an apparent dialogue on Genesis, the psalmist calling immediate attention to the initial work (מַעֲשֵׂי) of creation by invoking God's heavens (שָׁמֶיךָ; cf. Gen 1:1, 8. 14, 15, 17) and the celestial spheres thereof (יָרֵחַ וְכוֹכָבִים) in verse 3. Likewise, although not directly present in the creation narrative, the resultative pi'el form of כּוּן is distinctly cosmogonical, used also of the creation of the heavens in Prov 3:19 (for the import of the pi'el as resultative, see Walte-O'Connor 24.3). Likewise, the focus on humanity as a son of Adam (וּבֶן־אָדָם; note singular number and thus the consideration of humankind in solidarity) and the regency language (e.g. תַּחַת־רַגְלָיו; cf. Jos 10:24; Psa 47:3; 110:1) in relation to the rest of creation in vv. 6b-9 clearly calls attention to the unique nature of humankind as *imago Dei*. Thus Dahood sees parallels to ANE creation myths throughout. Mitchell Dahood, *Psalms I: 1-50* (New Haven, CT: Yale University Press, 1995), pp. 49-51. Most generally-speaking, the psalter at large may be viewed as a theological and liturgical commentary on Torah and precedent canon; see Nahum Sarna, *On the Book of Psalms: Exploring the Prayers of Ancient Israel* (New York: Shocken Books, 1993), p. 17; John H. Sailhamer, *NIV Compact Commentary* (Grand Rapids: Zondervan, 1994), pp. 219-220; John H. Walton, 'Psalms: A Cantata About the Davidic Covenant,' *Journal of the Evangelical Theological Society* 34/1 (March 1991), pp. 21-31.

humankind's creatureliness, focusing on its frailty (אֱנוֹשׁ) as well as its cosmogony in Adam (וּבֶן־אָדָם).[50] The psalm considers humanity's creation as hierarchical, and the hierarchy itself as grounds for its eminence: humanity has been created 1. lower than the angels (אֱלֹהִים), yet 2. higher than the beasts of the earth, which is 3. related to its glory and majesty (וְהָדָר תְּעַטְּרֵהוּ) and its ability to rule (תַּמְשִׁילֵהוּ) spatially and embodied in the terrestrial sphere, 'under his feet' (תָּחַת־רַגְלָיו).[51] Thus Robert Alter notes that this '…sets humankind in an hierarchal ladder: God at the very top, the gods or celestial beings below Him, then man, and below man the whole kingdom of other living creatures.'[52] That is to say, it is because of this unique station that humanity bears its relationship to the God who created it so.

In the New Testament, Paul considers the *imago Dei* in an ultimate and glorified sense in 1 Corinthians 15. There, Paul talks about the resurrection of the body in relation to the resurrection of Christ, specifying the uniqueness of human flesh as distinguished from the flesh of beasts or fish. Although it is easy to read a certain Platonism into Paul's language of 'earthly' and 'heavenly,' it is important to realize that, for Paul, 'heavenly' language does not mean immaterial or intangible, but rather, a very real realm that bears proximity to God.[53] Thus, in the resurrection, bearing 'the image of the heavenly' is related to the real, physical body of Christ, who is the vouchsafe for bodily resurrection, Paul's comparison being cosmological, with Christ as the second Adam. The focus on Christ as a second Adam is continued in 2 Corinthians 3:18, Romans 8:29, and Colossians 3:10, where Christ, as *imago substantialis*, is viewed as the pattern for the renewal of the *imago Dei* in humanity, a present spiritual reality obtained by the Holy Spirit with a view toward future glorification obtained through renewal into what was lost in Adam's fall, what John Barclay refers to as the 'recreative dynamic' in Pauline anthropology.[54]

Similar concerns are seen in James 3:9, which attempts to draw from Old Testament language concerning the *imago Dei* in order to speak into moral problems of orthopraxy plaguing the nascent church.[55] Much like Paul, James' argument is distinctly cosmological, his earlier language of comparison with 'every species of beast and bird, of reptiles and creatures of the sea' invoking the creation context of Genesis.[56] Humanity is thus seen as sitting atop

50 The root of אֱנוֹשׁ means 'to be weak, frail' and can even invoke sickness (Sarna, p. 62).

51 For the rendering of אֱלֹהִים as 'angels,' see Sarna, p. 63; Dahood, p. 51; Allen P. Ross, A Commentary on the Psalms: Volume 1 (1-41) (Grand Rapids: Kregel Publications, 2011), p. 296. Note that this translation breaks with the NASB, 'Yet you have made him a little lower than God.' Such a rendering is supported by the LXX ἀγγέλους and the subsequently dependant citation thereof in Heb 2:6 (UBS 4).

52 Robert Alter, *The Book of Psalms: A Translation with Commentary* (New York: W.W. Norton & Company, Inc., 2007), p. 23.

53 '…[T]his phraseology would not mislead a Hebrew, who was accustomed to designate the restored Davidic Kingdom a heavenly Kingdom, and the country enjoying its restoration and Theocratic blessings, a heavenly country. The expression does mean 'the third heaven' … but something that pertains to, or partakes of, the heavenly, as heavenly vision, body, calling, etc.' George Nathaniel Henry Peters, *The Theocratic Kingdom of Our Lord Jesus, the Christ, as Covenanted in the Old Testament and Presented in the New Testament* (New York: Funk & Wagnalls, 1884), p. 295; cf. Helmut Traub, 'Οὐρανός, Οὐράνιος, Ἐπουράνιος, Οὐρανόθεν,' in TDNT. For Paul's Hebraistic and rabbinic upbringing, see Richard N. Longenecker, *Paul: Apostle of Liberty* (New York: Harper & Row Publishers, 1964), pp. 2, 31-32.

54 John M.G. Barclay, *Paul & the Gift* (Grand Rapids, MI: William B. Eerdmans Publishing Company, 2015), p. 496.

55 Note that καθ' ὁμοίωσιν in Jas 3:9 is identical to LXX Gen 1:26, which translates כִּדְמוּתֵנוּ.

56 Jas 3:7. The progression of this four-fold classification is intertextually traceable through the Hebrew Bible (e.g. Deut 4:17-18) as it expands on the Genesis account; thus Hartin notes, 'The language of creation is preparatory for the reference to human beings as created in God's likeness in 3:9.' Patrick J. Hartin, *Sacra Pagina: James* (Collegeville, MN: Liturgical Press, 2003), p. 178.

corporeality, yet it is done via a distinctly moral and even bodily envisioning of the *imago Dei*, where the tongue (γλῶσσα) is tied directly to the body as a whole (ὅλον τὸ σῶμα) and thus bears a spiritual value, a sense experience of interpersonal communication that implies a personal and relational distinction.[57] As such, it can be a tool for good or a tool for evil, the author stating that speech and the tongue are tied to the whole person, as water comes forth from a fountain.[58] This is reinforced by the prior literary context and the concern for holistically-transformative faith: where he here states that the abuses of the tongue lead to death (μεστὴ ἰοῦ θανατηφόρου) and even bear reference to hell (φλογιζομένη ὑπὸ τῆς γεέννης), in 2:26 he had specified that the consistency of death is the separation of body from soul (τὸ σῶμα χωρὶς πνεύματος νεκρόν ἐστιν), which launched his discussion of the whole body (ὅλον τὸ σῶμα) in 3:2.[59] That is to say, James assumes an essential dependency on the body to the soul and vice versa for the conditions of life to proceed, which he then segues into his view of the image of God in the following chapter. As such, James retains a dualistic view of composite parts in psycho-somatic unity.

Proceeding into ecclesiastical theology, the emphasis of the *imago Dei* as encompassing humanity as a holistic dualism is picked up in the writings of Augustine of Hippo. It may initially seem surprising to group Augustine with a holistic and personal view of the image of God; indeed, the popular strain of thought regarding Augustine's view of human destiny is that it is distinctly platonic in nature.[60] However, a closer analysis of Augustine's language reveals a consideration of the image of God that pertains uniquely to the whole human person, not simply to partitive qualities.[61] Although Augustine may at times over-emphasize the role of the intellect within the image of God, he also extends the image even to the flesh; speaking of the holistic redemption attained by Christ incarnate and the hope in a bodily resurrection to be attained to, Augustine writes of the body in his work, *The Trinity*, 'This too can be called the image of the Son of God in which like him we shall have an immortal body,' going on to draw from Johannine and Pauline literature and observing the parity in biblical theology between Adam and Christ: 'as we have been mortal after the manner of Adam, so we truly

57 Gordon H. Clark, 'The Image of God in Man,' *Journal of the Evangelical Theological Society*, 12:4 (Fall 1969), pp. 215-222. It is Vern Poythress who devotes considerable time to tracing the role of language within the image of God, summarily writing, 'Since man is made in the image of God, his speaking ability images God's speaking ability. When God speaks, there are three aspects similar to [ours]: (1) God has his purposes, (2) he speaks a specific utterance, and (3) he has a system against the background of which he speaks,' i.e. intent, action, and language. Vern S. Poythress, *In the Beginning Was the Word: Language—A God-Centered Approach* (Wheaton, IL: Crossway Books, 2009), p. 265.

58 Jas 3:9-12. By further invoking a sort of reductio by way of the image of trees of certain kinds bearing mismatched fruit (v. 12) James seems to be invoking Christ in the Sermon on the Mount, e.g. Matt 7:16-17, where Christ is drawing a direct spiritual connection between the words of the mouth and the spiritual state of the heart. Hartin, p. 180. For this section as demonstrating cognizance of Jesus' teachings, see Luke Timothy Johnson, *The Letter of James: A New Translation with Introduction and Commentary* (New Haven, CT: Yale University Press, 2005), pp. 253-258.

59 The word χωρὶς is strongly dissociative, entailing the severance or independence of two elements that bear relationship with one another, e.g. Jhn 1:3; 1 Cor 11:11; Eph 2:12; etc. Louw-Nida, '89.120 ἄνευ; ἄτερ; χωρίς'. James may, in turn, be drawing from Christ in Matt 10:28. Considering this strong assertion of a holistic psycho-somatic unity, it is surprising to see James go untreated in the otherwise expansive treatment of New Testament anthropology by John Cooper. Cooper, pp. 121-146.

60 John Cooper notes that, although Augustine's anthropology does have distinctly platonic flavors and an emphasis on the preeminence of the soul in personal identity, his teachings on the whole and especially later in his life reflect a body-soul holism. See Cooper, pp. 10-11; cf. McGrath, p. 349, who holds to the view of Augustine as adopting the imago intellectualis.

61 See esp. Augustine, 'Sermon 159B,' *Sermons, III/11: Newly Discovered Sermons* (Hyde Park, NY: New City Press, 1997), ed. John E. Rotelle, trans. Edmund Hill, pp.146-166; cf. Gerald P. Boersma, 'The Body and the *Imago Dei*,' in Augustine's *Early Theology of Image: A Study in the Development of Pro-Nicene Theology*, pp. 207-208, 257-258; Cooper, pp. 10-11.

believe and firmly hope that we are going to be immortal after the manner of Christ.'[62]

Concordantly, as with the considerations from James, Augustine perceives that to be cut-off or separated from this reality is death—depending on extent, a spiritual death in functional moral separation from God as *telos*, a physical death as separation of body from soul, or an ultimate death as separation of both body and soul from God.[63] Thus Augustine writes that the first state of death is where 'the soul is bereft of God' and the second state of death is when 'the body is bereft of the soul.'[64] Where the restoration of the image in Christ implies a sealing of created finitude by the Spirit in ever-increasing participation with God in felicitous life eternal, the opposite would logically imply an increasing retrogression resulting in increasing separation from God—the third state of death he refers to as 'the last or second death,' a 'state where death itself will be deathless' and where the will and the passions of the flesh are so opposed as to be at a perfect impasse for all eternity, the will forever unable to dispose itself.[65]

62 The context is the immortality of the body in relation to Christ's ascension. Augustine, *The Trinity*, 14.18 pars. 24, 25. In more specific theological terms, Augustine draws a similitude between Christ as the *imago substantialis* and the renewal to take place of the *imago Dei* in humanity.

63 Augustine, *Concerning the City of God Against the Pagans,* 13.11-12; cf. Eph 2:1; Jas 2:26; Rev 20:14.

64 Augustine, *Concerning the City of God Against the Pagans*, 13.12. This taxonomy bears notable affinities to Lactantius' earlier two-fold paradigm of the death of the body and the death of the soul. Lactantius, *The Divine Institutes*, 7.10.

65 Augustine, *Concerning the City of God Against the Pagans*, 6.12; 13.11-12; 19.28. John Bowlin explains, 'And this endless dying will be nothing but an eternal conflict between will and passion, just as its yield will be nothing but war without end among hell's inhabitants.' John Bowlin, 'Hell and the dilemmas of intractable alienation,' in James Wetzel ed., Augustine's *City of God: A Critical Guide* (New York: Cambridge University Press, 2012), p. 191. This, too, bears affinities with Augustine's predecessor, Lactantius, who likewise considered the insoluble nature of the resurrected bodies of the damned in their relation to the soul. Lactantius, 7.20-21.

EXISTENTIAL THREAT: AN ASSESSMENT

The most direct and apparent threat that arises between transhumanist anthropology and the holistic view of the *imago Dei* adopted here is that of the importance of enfleshment for human development and the human person, along with its logical corollary, the importance of finitude as a platform for human flourishing. Where the *imago Dei* indicates the peculiar position of humanity within the scheme of God's providence, even ascribing a peculiarity to human flesh itself, transhumanism attempts to say the opposite: the human body is bad and represents a deficiency which needs to be overcome by humanity becoming 'non-biological.'[66] Where all the woes and plights of humanity are ascribed to human biological finitude and enfleshment, Christian theology has developed the category of self-imposed sin and the resulting guilt incurred before God as a way of distinguishing inherent natural goodness from the unnatural effects of evil thereon. Essentially, then, there is a fundamental failure within the patternist worldview to distinguish between finitude and evil, apparent in the association of certain physical effects of evil—including death—with the human form and thus the need to attain to 'morphological freedom.'[67]

This has led directly to the transhumanist's desire to separate mind from body, uploading the latter into strong AI via whole brain emulation for the sake of indefinite perpetuity of the person.[68] Herein the claim of the

66 Kurzweil, *The Singularity is Near: When Humans Transcend Biology*, p. 9.

67 More, in *The Transhumanist Reader*, p. 15. This failure of distinction is noted by Ronald Cole-Turner, *Transhumanism and Transcendence*, p. 194f.

68 Kurzweil, *The Singularity is Near: When Humans Transcend Biology*, pp. 316-317.

transhumanist assumes the human soul to be a non-entity, analogous to and conflated with the algorithmic capabilities of the human mind within a patternist metaphysic.[69] Thus one objection to transhumanism's ideal personal state is that, assuming it is possible to upload the electrical and cognitive content of the brain into a computer, it does not follow that the soul itself can be uploaded; indeed, the existence of the soul as immaterial and intangible as deduced prior does not fall within scientific measurability and thus would seem to be disparate from the goal of the transhumanist.[70] At best, it would seem that the entity resultant of such a digitization of cognition would be a crude and impersonal algorithmic reproduction of human data, not identical with the person and thus invoking Masahiro Mori's 'uncanny valley' in terms of epistemic perception, i.e. it is but an eerie resemblance that is too close to the real thing to be deemed a mere endearing caricature, yet not close enough to be accepted by the human mind as a legitimate reproduction.[71]

At best, what can be assumed about the state of digitized, super-somatic humanity purported by the transhumanist is the severance of the soul's ability to communicate with the body through the medium of the brain. Here the implementation of the biblical and Augustinian categories of death and hell are alarming in evaluating such a state; if the 'Singularity event' commences as Kurzweil, Vinge, and others desire, the result would be the opposite of what they intend: as opposed to the immortality of the human race, a mass suicide and self-genocide, carried out incognito by the fact that people will appear to be conscious within emulative artificial intelligence, yet essentially dead in reality. This is observable by Kurzweil's circumvention of the discussion of epistemology and self-consciousness: although stating that 'losing a person is the ultimate loss,' Kurzweil also concedes that it is impossible to know for certain whether or not self-consciousness constitutes a person or if a mind or personality actually exists apart from himself, let alone whether—to use his own language—'Ray 1' is the same as 'Ray 2' in the replacing of the biological brain 'with its neuromorphic equivalent.'[72] Given the theological conclusion above, however, even if one could upload the brain itself to the computer, this would emulate hell rather than heaven: where the soul flourishes when in perfect harmony with the body, the soul divorced from sense-experience and the ability to act is a sort of perfect torment, as Augustine has envisioned.[73] In the words of Isaiah, this is a state where 'their worm will not die and their fire will not be quenched.'[74] This concern is even echoed by Vernor Vinge, who cautions that humanity's transhumanist aspirations could actually result in a state of indefinite inactivity akin to perpetual torture.[75]

69 This is noted in Harari's analysis and is a distinct emphasis in Kurzweil's writings. See Harari, pp. 83-89; Kurzweil, p. 388.

70 Harari, pp. 102, 108-111.

71 Masahiro Mori, 'The Uncanny Valley: The Original Essay by Masahiro Mori,' Karl F. MacDorman and Norri Kageki trans., *IEEE Spectrum*, web, https://spectrum.ieee.org/automaton/robotics/humanoids/the-uncanny-valley (accessed 23 November 2018). The question concerning the ability of AI to impeccably reproduce human intelligence is beyond the range of this essay; it is debated by John R. Searle and discussants in 'Minds, brains, and computers.' More contemporarily, the so-called 'shared manifold hypothesis' of Vittorio Gallese has attempted to posit a model for reproduction of empathy via mirror neurons; see Vittorio Gallese, 'The 'Shared Manifold' Hypothesis: From Mirror Neurons To Empathy,' *Journal of Consciousness Studies*, 8 No. 5–7 (2001), pp. 33-50; the response by Eastman, citing the work of Gallagher and Reddy, in *Paul and the Person*, pp. 65-79.

72 Kurzweil, *The Singularity is Near*, pp. 384-386.

73 Augustine, *Concerning the City of God Against the Pagans*, 19.28.

74 Isa 66:24.

75 Vinge, 'The Coming Technological Singularity: How to Survive in the Post-Human Era.'

The existential threat, then, is not that the human itself could somehow be destroyed, in the annihilationist sense; it is taken for granted that the dead will still be raised in the eschaton. Rather, the threat is that a state of death itself would be perpetrated through a technological means on an astronomical scale.

CONCLUSION

In relation to the biblical and Augustinian criteria for death as separation, transhumanism indicates an existential threat to humanity in relation to both a separation of body and soul in the Augustine's second category, as well as the emulation of the third category of a perpetual impasse of soul-to-body conference. This is related inherently to transhumanism's desire to overstep constituted human biology, thus bifurcating the psycho-somatic unity of the *imago Dei* in humanity. According to the biblical and Augustinian model presented above, far from improving or enhancing humanity, the accomplishing of a transhumanist anthropological destiny presents a high degree of existential threat to the human race *en toto* via what would amount to a mass self-inflicted technological genocide.

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Online ISSN: 2053–6763