



Is this unit created in the image of God?

Artificial intelligence and Lutheran anthropology

Department of theology
Master of theology and the science
of religion
Master's thesis 30 points
Philosophical orientation
Autumn semester, 2023
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I. Abstract

In this study, the potential for artificially intelligent sapient life to be integrated into a Lutheran theological anthropology is investigated. The investigation is done via the means of a reconstruction and reactualisation of Lutheran anthropology, applied to the hypothetical scenario of artificial general intelligences having been created. The study takes its roots in questions of how intelligent life made by human artifice would interact with the Lutheran narrative-relational *imago Dei* paradigm, and what room there is within the Lutheran framework to integrate such intelligent life. In the study, the analysis will be threefold; with the first chapter dedicated to presenting the basis within Lutheran theology within which the rest of the study is conducted, the second chapter to identifying core points of conflict that may arise were artificial life to be introduced, and the third to finding preliminary solutions to these. Although the study is and must be hypothetical-speculative in nature, the conclusion is reached that there seems to be some manner of room for artificial intelligences to be integrated into a Lutheran way of understanding the *imago Dei* paradigm, albeit with some lingering issues that can quite hardly be solved entirely until the real dawn of artificial intelligence. Although some reservations remain, it therefore points towards the possibility of future artificial intelligences being Humanity's theological equals, and leaves it to future studies to reach a more elaborate understanding of what that means and implies in practice, both ethical and dogmatic.

II. Contents

I. ABSTRACT.....	1
II. CONTENTS.....	2
CHAPTER 1: INTRODUCTION.....	4
1.1 BACKGROUND.....	4
1.2 PURPOSE OF THE STUDY.....	4
1.3 SCOPE OF THE STUDY.....	4
1.4 RESEARCH QUESTIONS.....	5
1.5 PREVIOUS RESEARCH.....	5
1.5.5 <i>The context of this study</i>	7
CHAPTER 2: THEORY, METHODOLOGY AND MATERIAL.....	9
2.1 THEORY AND TERMS.....	9
2.1.1 <i>Three understandings of imago Dei</i>	9
2.1.2 <i>Terms</i>	10
2.2 METHODOLOGY.....	12
2.2.1 <i>Theory formation</i>	12
2.2.2 <i>Theory expansion</i>	13
2.3 MATERIAL.....	13
2.3.1 <i>Primary literature</i>	13
2.3.2 <i>Secondary literature</i>	14
2.4 DISPOSITION.....	15
CHAPTER 3: MARTIN LUTHER'S ANTHROPOLOGY.....	16
CHAPTER 4: CHALLENGES IN RELATION TO ARTIFICIAL INTELLIGENCES.....	21
4.1 THE CHALLENGE OF ORIGIN.....	21
4.2 THE CHALLENGE OF SIN.....	22
4.3 THE CHALLENGE OF SALVATION.....	23
4.4 THE CHALLENGE OF RELATION.....	23
CHAPTER 5: ANSWERING THE CHALLENGES OF AI.....	24
5.1 THE CHALLENGE OF ORIGIN.....	24
5.2 THE CHALLENGE OF SIN.....	26
5.2.1 <i>Narrative approach</i>	27
5.2.2 <i>The ripples-on-the-water approach</i>	28
5.2.3 <i>A synthesis of the approaches</i>	28

5.3 THE CHALLENGE OF SALVATION.....	29
5.3.1 <i>Christ and his followers as children of God</i>	30
5.4 THE CHALLENGE OF RELATION.....	32
CHAPTER 6: CONCLUSIONS.....	34
6.1 RESULTS	34
BIBLIOGRAPHY.....	38

Chapter 1: Introduction

1.1 Background

Ever since the days of Mary Shelley's *Frankenstein* and other early works of science-fiction, western literature has been fascinated with the idea of Humanity relating to a created being of their own handiwork. Although the idea of more or less human-crafted automata has been around since at least the conception of the traditional Jewish idea of the Golem, it has mostly been outside of the scope of academic Christian thought. With the recent developments in computational sciences, however, artificial intelligence has become a matter of discussion in more or less every social circle, with subjects ranging from its practical applications and risks for the originality of student works in academia or art production in culture, to more philosophical questions regarding whether a thinking machine could ever be afforded the rights and duties of a human, or the dangers of having another form of life as equal to us. In the Church of Sweden, one of the most highly debated entries in the discussion was the statement of Susanne Rappmann – bishop of the diocese of Gothenburg – that neither would a future artificial intelligence be able to marry in the Church of Sweden, nor would it be able to become a member.¹ While a news interview is not the most authoritative source of theological dogma, it and the reactions it led to nonetheless point towards a state of uncertainty that shows the necessity of wider theological discussion and clarification regarding AI in the Church.

1.2 Purpose of the study

Based on the current need for investigation into the relations between potential future artificial intelligences and the Christian community, the purpose of this study is to provide material for discussions about a stance on the topic of artificial general intelligence within an Evangelical-Lutheran Christian context, and more specifically so within the Church of Sweden.

1.3 Scope of the study

This study will focus on exploring the possibilities of compatibility between a Lutheran worldview and artificially created, intelligent life. Due to the constraints of the scope and

¹ Magnus Dennert, “Beskedet: AI-robotar får inte gifta sig i Svenska kyrkan,” *SVT Nyheter*, May 30, 2023, accessed November 3, 2023, <https://www.svt.se/nyheter/lokalt/vast/beskedet-ingen-ai-kommer-fa-gifta-sig-i-svenska-kyrkan>.

format of the study, I will be making no attempts to answer what shape such life could take, what criteria it should meet to be able to qualify as artificial life in general, or intelligent such in particular. Although quite relevant for the full picture of the subject this study has a part in studying, matters such as the nature of consciousness or souls in artificial life are not within the scope to discuss, either, but are left in the hands of future studies. Finally, though the indications of the results of this study are bound to have ramifications in the field of ethics, those will also have to fall outside of this study's scope, as the matter needs more treatment than this study can give it.

1.4 Research questions

To fulfil the stated purpose, two main questions have been decided for this study, namely:

1. Based on the theological anthropology presented by Martin Luther, would intelligences created through human artifice create problems for the *imago Dei* paradigm of understanding Humanity's relationship with God?
2. How can such problems be handled within a Lutheran theological framework?

1.5 Previous research

Although the subject of *imago Dei* has generally been discussed since the first days of the Christian tradition, with about as many interpretations as there are now branches of the Church, the particular application to the concept of artificial life is relatively new, and thus not very widely treated thus far. There are, however, a few exceptions to this rule.

In his article "Artificiell intelligens, AI",² Carl-Reinhold Bråkenhielm discusses the concept of AI from the perspective of the Church of Sweden, with the question "Can an AI be our *neighbour* (Swedish: "nästa")?", based on the understanding of the term in the biblical pericope of Luke 10:25-37. In his discussion, Bråkenhielm discusses different ways of understanding both the relation between Man and God and that between Man and AI, as well as giving an overview of the current state of research into the area of artificial intelligence. In the article, Bråkenhielm also discusses the potential risks that artificial intelligences may bring, ranging from classical science fiction world dominion scenarios to issues such as an increasing emotional dependence on AI, or confusion between simulated and real relationships. Bråkenhielm's conclusion is that it is at the moment not reasonable to speak of

² Carl-Reinhold Bråkenhielm, "Artificiell intelligens, AI," last modified June 7, 2023, accessed October 12, 2023, <https://www.svenskakyrkan.se/kristentro/ai>.

artificial intelligences as our *neighbours*, and that we should be careful not to read anything close to similarity with the human mind in what is in fact an artificial mind, which could lead to consequences such as granting human rights to what amounts to soulless automata that merely simulate a mind.³

One of the most important contributors to the field of AI theology might be Noreen Herzfeld, who has devoted more than twenty years to the subject. Two works of note important for the study at hand are her article “Creating in Our Own Image”⁴ and her book *The Artifice of Intelligence*⁵, where she discusses perceptions of artificial intelligence from two perspectives separated by two decades. In “Creating in Our Own Image”, published in 2002, Herzfeld discusses the evolution of perceptions and understandings of the concept of *imago Dei*. Based on this discussion, she goes on to apply models of understanding how Humanity reflects God to how Humanity understands their relationship to future artificial intelligences and how to work towards bringing such into existence, with practical application examples such as the relational Turing test, which measures a computer’s ability to imitate human patterns of relating to one-another. Herzfeld assumes, throughout the article, a primarily Barthian perspective in understanding relationality.⁶ At the end of the article, Herzfeld establishes that the risks and potentials of AI are strongly related to the goals and aims of its developers, pondering that holding a much too functional approach to what it means to be intelligent might lead to artificially intelligent beings that pose a threat to Humanity, whereas an understanding of being as a human centred on the encounter with the other would lead to more benefits than risks.⁷ When Herzfeld treats the same issues in *The Artifice of Intelligence*, published in 2023, the understanding of how artificial intelligence has taken shape has understandably been updated in line with recent developments, citing examples such as how it has influenced human life, both in everyday life and applications such as warfare.⁸ Herzfeld furthers this reasoning by discussing what would constitute personhood for an artificially intelligent individual, and goes deeper into the discussion about the Turing test, and how

³ Bråkenhielm, “Artificiell intelligens, AI.”

⁴ Noreen Herzfeld, “Creating in Our Own Image: Artificial Intelligence and the Image of God,” *Zygon*® 37, no. 2 (2002): 303–316.

⁵ Noreen Herzfeld, *The Artifice of Intelligence: Divine and Human Relationship in a Robotic Age*. (Minneapolis, Minnesota: 1517 Media, 2023).

⁶ Herzfeld, “Creating in Our Own Image,” 304–311.

⁷ Herzfeld, “Creating in Our Own Image,” 311–313.

⁸ Herzfeld, *The Artifice of Intelligence*, 1–3.

flawedness can be a highly relevant aspect of becoming more like a person for a computer.⁹ When it comes to authentic relationships, she concludes, it will likely never be possible for a human to have a relationship of as much authentic, personal impact with an AI as with a human. She explains that this is because the emotions and intentions will have been manmade and to some extent always under the control of Humanity, which makes it impossible for it to be fully genuine.¹⁰

In their article “The Relational Turn in Understanding Personhood”, Watts and Dorobantu set out to discuss a paradigm shift in the view of the person in most fields of study in recent times. According to the authors, a relational focus in understanding the aspects of the person has increasingly come to replace the strong individualism and individualistic understandings of things such as intelligence and personality that have been dominant since the mid-1800s. In the field of artificial intelligence, however, the individualist paradigm has been dominant enough to have a lasting impact on the field. This amounts to the shift going slower and the understanding of what AI should be lagging behind in a way that is unlikely to lead to worthwhile developments until the new understandings of relational intelligence and motivation can be incorporated into the development of artificially intelligent beings. Although they present suggestions for how to further develop the project of artificial intelligence in the direction of relationalism, the authors also request further work on the subject of what will actually be necessary for the understanding of artificial beings as persons.¹¹

1.5.5 The context of this study

Although several forays have been made into the subject of the relation between artificial intelligences and God, these have mostly had quite different starting points. From Herzfeld’s focus on Barthian relational perspectives to the more general queries of authors such as Watts and Dorobantu, only Bråkenhielm has had a somewhat Lutheran starting point, albeit without much focus on the matter of the *imago Dei*. My addition to the discussion will therefore be one suited both as another perspective on the discussion for the Church of Sweden and as an entry in the developing wider field of AI-theological discussion and study. This, I find, is necessary to provide as wide a perspective on the matter as possible, as the question about

⁹ Herzfeld, *The Artifice of Intelligence*, 12–16.

¹⁰ Herzfeld, *The Artifice of Intelligence*, 117–126.

¹¹ Fraser Watts and Marius Dorobantu, “The Relational Turn in Understanding Personhood: Psychological, Theological and Computational Perspectives,” *Zygon* (2023).

how to relate to artificial intelligences will be strongly relevant for most religious groups if and when such intelligences become reality. Even more relevant this becomes for a Christian denomination like Lutheranism, seeing as it generally does not subscribe to a substantive or functional understanding of the *imago Dei* – which would have made the matter more easily treated – but a relational one with the roots in the narrative dynamic of creation, fall and redemption. Although Bråkenhielm's article makes an important first foray into the exploration of Lutheran perspectives of artificial intelligences, his scope is more general, and only touches the subject of the *imago Dei* briefly. This leaves not only an opening for further investigation, but a need for it to clear the picture. The significant sparseness of material on the subject, due to its recent entry into relevance in the field of theology, strongly contributes not only to the necessity of this study, but to the briefness of this overview. The matter is also further complicated by the fact that, until the genesis of truly sapient artificial intelligence, the nature of studies such as this will by necessity always be speculative and hypothetical, which means that the results will have limited applicability both for other studies and for the practical applications of the future.

Chapter 2: Theory, methodology and material

2.1 Theory and terms

2.1.1 Three understandings of *imago Dei*

Background regarding the imago Dei

The traditional Christian idea of Humanity being made in God's image (*imago Dei*) is built upon the biblical passage of Genesis 1:26, a part of the creation accounts, in which God creates Humanity, stating that they are made in his image and granting them dominion over everything upon the earth:

And God said: "Let us make Humanity¹² in our image, alike to us. Let us grant them dominion over the fish in the sea, the winged creatures in the sky, the beasts on land and over all the critters walking the earth"^{13,14}

Interpretations of the significance and meaning of this passage vary, with some interpretations being more literal than others and seeing the likeness as something substantive and a distinct trait or collection of such, whereas others read the similarity as strongly entwined with the dominion over every other being on earth. Others yet understood it as something more abstract, and concluded that it was a matter of relations between Humanity and God. Noreen Herzfeld identifies three main lines of thought regarding the nature of the *imago Dei* in her work with AI theology and Christian anthropology; which she calls substantive, functional and relational.

Substantive

The first model to be discussed is the one called the substantive model of the *imago Dei*. What characterises a substantive model of what makes out God's image in the human is a focus on a particular trait that is considered to be the prime similarity between human and God, which puts humans aside from the rest of creation. In traditional Christian

¹² In this study I will write Humanity with a capital H to signify the collective noun commonly written as "Mankind" or "Man", and humanity with a lowercase h when discussing humanity as a trait. The choice of capitalising Humanity comes from the tradition of capitalising "Man" in translations of Genesis 1:26

¹³ Genesis 1:26, my own translation

¹⁴ The reason for my choice to make my own translation is the fact that I considered it important to use a translation that held the same terminology style as the rest of the study, to avoid terminological confusions as a consequence of using translations I am less familiar with.

understandings, especially in the first 1400-1500 years, this trait was often thought to be something along the lines of rationality or reason, although in later years the concept of intuition has also been thought of as a strong candidate.¹⁵

Functional

A functional understanding of the *imago Dei* is built around the notion that the thing that sets Humanity apart from the rest of the creatures of creation before God is the function the human fills for God. This leads to the consequence of the view of the image being something performative. This function is often expressed with God's commandment in the creation accounts of the book of Genesis, to have dominion over the world, or to act as custodians depending on one's understanding and translation of the passages in question.¹⁶

Relational

The understanding of *imago Dei* as a relationship is a model centred around the notion that what makes the human so unique is not only the fact that she is aware of God, but also that God and human have a dynamic interplay and relate to one another. What this relation consists of is, due to the nature of relationality, more difficult to establish precisely than the content of the other two models. It is, however, to be more elaborated on later.¹⁷

2.1.2 Terms

Theological anthropology

In this study, I will use the term “anthropology” understood as “theological anthropology” for convenience of reading. Theological anthropology is the study of how the human being is understood or to be understood in relation to God in a religious doctrine. This includes, among others, questions regarding what it means to be human, the issues of being human, what the difference between human and animal is, and what Humanity is in God's eyes.¹⁸

Artificial intelligence, AI

Because of the scope of the study being set on hypothetical sapient artificial beings in particular, rather than more general problem-solving algorithms such as chess bots and image generation tools, the term “artificial intelligence” and its abbreviation “AI” will be used

¹⁵ Herzfeld, “Creating in Our Own Image,” 304–305.

¹⁶ Herzfeld, “Creating in Our Own Image,” 306–307.

¹⁷ Herzfeld, “Creating in Our Own Image,” 307–308.

¹⁸ Ian Mcfarland, “Theological Anthropology,” *Cambridge Dictionary of Christian Theology*, 2011, 501–504.

interchangeably with the concept of “artificial general intelligence” (abbreviated “AGI”), as defined by Pennachin and Goertzel.¹⁹ By the definition they set out, an artificial general intelligence is an artificially intelligent construct set apart from what they call “narrow intelligences” – intelligent programs specialised on a narrow field of tasks but without much use outside of these – by being flexible and independent minds with cognitive autonomy:²⁰

[...] a software program that can solve a variety of complex problems in a variety of different domains, and that controls itself autonomously, with its own thoughts, worries, feelings, strengths, weaknesses and predispositions.²¹

Although the form of artificial intelligence Pennachin and Goertzel dub “narrow” also comes with philosophical and theological conundrums, especially on ethical fronts, those are outside the scope of this study. It is also worth noting, for readers used to less recent terminology, that the concepts now dubbed “narrow intelligence” and “artificial general intelligence” were previously mainly known as “weak AI” and “strong AI”, respectively.²²

Life

Due to the difficulty of adequately defining life, and the lack of room for such work in the scope of this study, I will be understanding life as a state of being which entails complex internal organisation and the capacity for some form of self-maintenance (or as I would prefer to word it, autonomous existence) and self-replication/reproduction. For this work, traits such as the ability to learn, adapt and evolve will also be relevant to the understanding of life. Because of the general preconception of life as biological, an addendum to the definition will be that I assume these traits to be in some way replicable by artificial means that are not necessarily identical to the means of biological organisms.²³

¹⁹ Cassio Pennachin and Ben Goertzel, “Contemporary Approaches to Artificial General Intelligence,” in *Artificial General Intelligence*, ed. Ben Goertzel and Cassio Pennachin, Cognitive Technologies (Berlin, Heidelberg: Springer, 2007), 1–30, accessed October 25, 2023, https://doi.org/10.1007/978-3-540-68677-4_1.

²⁰ Pennachin and Goertzel, “Contemporary Approaches to Artificial General Intelligence,” 1–2.

²¹ Pennachin and Goertzel, “Contemporary Approaches to Artificial General Intelligence,” 1.

²² Herzfeld, *The Artifice of Intelligence*, 4–5.

²³ Michael Ruse, “Life,” in *The Oxford Companion to Philosophy* (Oxford University Press, 2005), accessed November 15, 2023, <https://www.oxfordreference.com/display/10.1093/acref/9780199264797.001.0001/acref-9780199264797-e-1420>; Simon Blackburn, “Artificial Life,” in *A Dictionary of Philosophy* (Oxford University Press, 2016), accessed November 15, 2023, <https://www.oxfordreference.com/display/10.1093/acref/9780198735304.001.0001/acref-9780198735304-e-261>.

2.2 Methodology

For the purpose of this study – discovering a way for a modern Lutheran anthropology to incorporate the possibility of artificially created life – it becomes necessary to extract meanings from a theological framework regarding a question that quite simply did not exist neither at the time the framework was laid out, nor for most of the framework’s history. For this purpose, I shall utilise a methodology similar to what is laid out by Thomas Ekstrand in the article “Att tänka med det förflutna” (eng: “To think with the past”). In the article, Ekstrand details things to think about when “going into dialogue” with historical material in order to be able to get perspectives on modern questions from the base our current worldviews are built upon.²⁴ Out of the methods he lines up for how to do this, two will be particularly useful for this study, namely those I translate as “theory formation” (Swedish: “teorigestaltning”) and “theory expansion” (Swedish: “teoriutbyggnad”). In applying these methods, I will be parting the analysis chapter in two, with a descriptive focus in the first part and a constructive focus in the second.

2.2.1 Theory formation

The first part of the analysis chapter will be focused on identifying enough of Luther’s theological anthropology in such a manner that it can be understood cohesively and used to form a structure to build new theological interpretations upon. For this I will, in a manner reminiscent of the one described by Ekstrand, work with material produced by Martin Luther and people who work with his theology, to try to work out what can be said to be the essence of Luther’s theological anthropology, and by extension the base for the anthropology of the contemporary Lutheran churches.²⁵ Core points of this essence will then be analysed to identify potential issues that may arise in contact with intelligent artificial life, with such issues being categorised thematically in the second part of the analysis chapter for treatment in the third part, as described later on. By laying out as good an understanding of Luther’s approach to the issues as possible, the goal is to discover any points of conflict for treatment and solution. As Luther himself had no way of knowing about the prospect of the dawn of artificial intelligence around half a millennium after his death, this is necessary in order to infer what the logical consequences of his own perspectives are, in regard to a subject that would indubitably be alien to him. Due to the purely hypothetical-speculative nature of this

²⁴ Thomas Ekstrand, “Att tänka med det förflutna,” in *Filosofiska metoder i praktiken*, ed. Mikael Stenmark et al. (Acta Universitatis Upsaliensis, 2018), 85–101, accessed November 8, 2023, <https://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-356761>.

²⁵ Ekstrand, “Att tänka med det förflutna,” 95–96.

study, any points of conflict I find might – and to some extent probably will – take a different shape in similar studies made in the future, to the point that the conclusions will most likely invariably differ from those of this study to some extent.

2.2.2 Theory expansion

In order to use Luther's thoughts to attempt to answer my quite current questions, I shall be working with Ekstrand's method of theory expansion in mind. For this I shall focus the second part of the analysis on applying the underlying reasoning of Luther's thoughts – as summarised in the first section – to the new context. To do this, I will both try to identify openings to solutions in the text for the problems I have presented, as well as looking to modern thinkers and commenters for assistance in finding solutions.²⁶ More specifically I will utilise alternative, albeit similar, approaches to the *imago Dei*, as well as applying the reasoning of feminist theology to questions regarding salvation despite dissimilarity.²⁷ As previously mentioned, the hypothetical-speculative nature of this study inevitably results in the findings and conclusions having limited applicability in the future, both for similar studies and for practical use if and when such becomes relevant. The results can, however, come to be used as useful frameworks for working with the issue when it does become relevant, as different models of thought will have to have been tried in order to be worked with.

2.3 Material

2.3.1 Primary literature

For this study, the main body of material will be concerned with the anthropology of Martin Luther, the reformer behind the evangelical Lutheran reformation movement of Christianity. More specifically, Luther's understanding of what is meant by God's statement that he made Man "in [his] image, alike to [him]"²⁸ in the creation account of Genesis 1:26. For this, three sources will be particularly relevant; the section of Luther's *Genesis lectures* pertaining to chapter 1:26 and his disputations *Disputatio de Homine* and the *Heidelberg disputation*, all of which are dedicated to explaining human nature and the relationship between Humanity and God.

²⁶ Ekstrand, "Att tänka med det förflutna," 96.

²⁷ Deanna A. Thompson, *Crossing the Divide: Luther, Feminism, and the Cross* (Philadelphia, Pa: Fortress, 2004), 116–120; Elizabeth A. Johnson, *She Who Is: The Mystery of God in Feminist Theological Discourse*, Twenty-fifth anniversary edition. (United States: The Crossroad Publishing Company, 2017), 166–167.

²⁸ Genesis 1:26, my own translation

Disputatio de Homine, or “Disputation concerning Man” is a short treatise in 40 theses, detailing Martin Luther’s understanding of Humanity, its current state, its relation to God and the prospect of salvation. Most importantly, Luther describes Humanity’s existence under the yoke of original sin, and what this means for Humanity’s prospects of attaining salvation. In this, it also lines out what the Lutheran framework for understanding salvation is; namely salvation through grace alone.²⁹

In the section of the *Genesis lectures* concerning Genesis 1:26, which is what is relevant for this study, Martin Luther discusses the meaning of original sin and the *imago Diaboli*; what it changed in Humanity and what humans were like before the fall, what its consequences are, and how Humanity was and continually is restored by the sacrifice of Christ. In detailing Humanity’s current state and the consequences of the fall, Luther also gives one of his most extensive accounts of what the relational *imago Dei* Humanity lost in the fall entails, as well as what the new *imago Dei*, as brought about by Christ, and shared with those who have faith, entails and what consequences it has. In this section, Luther deeply explains both why and how Humanity drifts ever-further into the inability to attain restoration without God’s intervention.³⁰

In the *Heidelberg disputation*, Luther lays out a detailed account of 28 theses discussing his understanding of the dynamics of human sinfulness, original sin’s grasp, and Humanity’s salvation through God’s grace. In this disputation, Luther largely focuses on what the Law of God does and does not do in regard to human salvation. Luther also discusses his understanding of sin as a state of being turned away from God, rather than individual actions in breach of God’s Law³¹.

2.3.2 Secondary literature

Secondary source material used to more deeply understand Luther’s perspectives has mostly been drawn from two sources; the anthology *Theological Anthropology, 500 Years after Martin Luther* and the *Book of Concord*. The former consists of articles prepared for a cross-

²⁹ Martin Luther, *Luther’s Works. 34, Career of the Reformer, 4*, ed. Lewis W. Spits and Helmut T. Lehmann (Philadelphia: Fortress, 1960), 137–144.

³⁰ Martin Luther, *Luther’s Works 1 Lectures on Genesis: Chapters 1-5*, ed. Jaroslav Pelikan, trans. George V. Schick (Saint Louis: Concordia, 1958), 55–68.

³¹ Martin Luther, *Luther’s Works. 31, Career of the Reformer, 1* (Philadelphia: Fortress, 1957), 39–70.

denominational conference about Martin Luther's anthropology and its legacy, as understood by Lutheran and Orthodox scholars. The article mainly used for this study, "Imago Dei: God's Grace and Distance", lays out an overview of Luther's understanding of the *imago Dei* and Humanity's place in the narrative of fall and salvation.³² The latter, the *Book of Concord*, is a Lutheran summary of faith written in the early days of Lutheran-evangelicalism. The part most relevant for this study is the *Formula of Concord*, which is a statement of faith and elaboration on key aspects of Lutheran dogma, split into two parts; the "Epitome" and the "Solid Declaration".

2.4 Disposition

This study will be built around a three-stage analysis – as described in the methodology section – where the first section primarily focuses on laying out the background work to answer the question of whether Luther's anthropology faces any issues in relation to the prospect of artificially intelligent beings, the second focuses on identifying and motivating these issues and the final focuses on possible solutions. Each section will be concluded with a short summary in order to make it easier to get an overview of what has been said. The study will conclude with a brief discussion regarding its results and what it leaves to future studies to explore further.

³² Christophe Chalamet et al., eds., *Theological Anthropology, 500 Years after Martin Luther: Orthodox and Protestant Perspectives*, Studies in Systematic Theology (Boston: BRILL, 2021), 19–47.

Chapter 3: Martin Luther's anthropology

As noted in the methodology chapter, the first step in understanding how a Lutheran anthropology can relate to the prospect of artificial general intelligences taking a place in the world has to be figuring out what this anthropology can be said to be. To this purpose, this section will be dedicated to systematizing and analysing some of Martin Luther's writings on the subjects of *imago Dei*, sin and redemption, in order to be able to answer the question of whether the creation of artificially intelligent life would present a challenge to it in the next section.

Martin Luther's understanding of the human being takes root in his conception of original sin, which shaped Humanity from its original state of communion with both God and each other into one defined by sin and Humanity's insurmountable distance from God and what is good. In this view, Humanity is so estranged from God by her own accord, that she cannot do anything to repair the relationship that has been lost. This perception he largely builds upon the basis of the biblical pericope of Genesis 1:26³³

Included in this loss of relationship is also a loss of the similarity with God that Humanity had been endowed with, the *imago Dei*. In Luther's understanding, the *imago Dei* is a wholly relational matter, to be found in the clear-sighted perception of God and creation. This original state of *imago Dei* meant that Man lived wholeheartedly in the sight of God, with the safety and calm that this entailed.³⁴ In line with the fall, however, not only has Humanity's distance to God increased beyond her reach and the relationship that is the *imago Dei* been utterly lost; but so too has she lost the ability to imagine or comprehend what it is that she has lost.³⁵

Since the fall, the *imago Dei* has, according to Luther, in large part been lost to Humanity, and replaced by the *imago Diaboli*, the "image of the Devil". This *imago* is distinct due to its

³³ Beate Bengard, "Imago Dei: God's Grace and Distance : Perspectives for a Lutheran-Orthodox Dialogue," in *Theological Anthropology, 500 Years after Martin Luther: Orthodox and Protestant Perspectives*, ed. Christophe Chalamet et al. (Boston, United States: Brill, 2021), 19–21, accessed October 19, 2023, <http://ebookcentral.proquest.com/lib/uu/detail.action?docID=6681489>.

³⁴ Bengard, "Imago Dei: God's Grace and Distance : Perspectives for a Lutheran-Orthodox Dialogue," 25–27.

³⁵ Bengard, "Imago Dei: God's Grace and Distance : Perspectives for a Lutheran-Orthodox Dialogue," 27.

being anathema to the trust and faith in God that was the *imago Dei* it replaced. It gives the human terror of death and its causes, a distrust for God that leads to both a dissatisfaction with what she has and a fear of losing it. Due to the subjection to the *imago Diaboli*, the human will is largely corrupted by – and put in servitude to – the Devil’s, which in turn means that she is subjected to the destructive powers of sin and death.³⁶

Sin, in Luther’s understanding, is more than the breakage of a number of laws Humanity has been bound to follow, with various levels of importance and grades of severity in punishment as a consequence, nor should it be understood mainly as a list of actions or inactions whatsoever. Rather, Luther thought, sin should be understood – in light of Psalm 51 – as an absolute turn away from God, or rather the consequences of said turn; the fruits of Humanity’s attribute of being sinners.³⁷ This turn away from God, previously mentioned as the *imago Diaboli*, should be understood as an aversion to God within creation, and every individual human, which leads not only to a suspicion towards God and distance from him, but an active movement away from and enmity towards God. The enmity, in turn, is not just one of action, but something akin to a disease of the soul, which corrupts every aspect of the human’s being, both physically and mentally, until she strives to hide away from the truth of God and replace it with her own. In light of this enmity towards and attempt to escape from God, sin can then be understood without the grades of severity Luther opposed, and instead as movements within the same campaign of rebellion towards God and our understanding of God, the campaign which led to the loss of the *imago Dei* and Humanity’s capacity to regain it.³⁸

The loss of the *imago Dei* in Humanity is, as previously stated, entirely irrevocable from Humanity’s point of view. Since the fall, Humanity’s subservience to the *imago Diaboli* has locked Humanity into the path of corruption and enmity towards God. It bears restating that according to Luther, the corruption of the *imago Diaboli* brings every person, and every aspect of the person and her will, into a palpable opposition towards God, with all the culpability this entails. As both the will and the ability to choose what is good has been

³⁶ Luther, *Luther’s Works 1 Lectures on Genesis*, 62–64.

³⁷ Christophe Chalamet, “Sin and the Bondage of the Will,” in *Theological Anthropology, 500 Years after Martin Luther: Orthodox and Protestant Perspectives*, ed. Konstantinos Delikostantis, Job Getcha, and Elisabeth Parmentier (Boston, United States: Brill, 2021), 72–73, accessed October 19, 2023, <http://ebookcentral.proquest.com/lib/uu/detail.action?docID=6681489>.

³⁸ Chalamet, “Sin and the Bondage of the Will,” 73–75.

corrupted in Humanity, the *imago Diaboli* makes her drift ever further away from what is good, and become ever more unable to do anything about her own state of being.³⁹

In Luther's thought, the will of the human person is bound entirely by the *imago Diaboli*, which means that it cannot be used for good in any capacity of itself, meaning that Man cannot actively and intentionally choose what is good. Instead, Luther thinks, the will is put in serfdom to what is evil, and can because of this only freely choose to do evil. Not only, however, is the will bound by sin according to Luther; but so too is the perception of what is good and what is evil. Because of this, Humanity can in no way even understand how to do right from her own being, and must instead accept that she can do nothing, and turn in humility to the power of God's grace.⁴⁰

Because of how locked into the destructive line of being of the *imago Diaboli* Humanity is, and the fact that it becomes impossible for her to turn away from it by her own choice and will, grace becomes the key to understanding the whole matter for Luther. Sin, according to Luther, must because of how weighty it is, be understood as a sort of counterweight to grace, the other side of the dynamic, but also as the loupe through which grace is seen. Even though Humanity, endowed with the *imago Diaboli* since the fall, is actively pulling away from the relationship with God far beyond her own capacity to turn back and bridge the gap, God instead works to repair the relationship by way of forgiveness. This dynamic of sin and forgiveness, as Luther understands it, is asymmetrical in such a way that God's grace must always be understood as greater than Humanity's sin, to such an extent that all talk of the gravity of Humanity's sin must, according to Luther, be understood as a sort of backdrop to understanding the yet higher gravity of God's forgiveness of said sin.⁴¹ God's forgiveness of Humanity's sins in Luther's theology should in no way be understood as anything but absolute, as God's forgiveness of sin leads to the forgiven being clean from both the sin and the culpability for it. Despite this, it should be noted that the nature of sin and the struggle between the *imago Diaboli* and the *imago Dei* that characterises the life of Humanity saved by Christ's sacrifice means that the potential for the corruption to retake its hold – and the sin to once again engulf the forgiven and turn her away from the relationship with God – is ever-present. Due to the struggle between forgiveness and sin, the person saved by grace must

³⁹ Luther, *Luther's Works*. 34, *Career of the Reformer*, 4, 138–140.

⁴⁰ Luther, *Luther's Works*. 31, *Career of the Reformer*, 1, 48–51.

⁴¹ Chalamet, "Sin and the Bondage of the Will," 75–77.

struggle towards betterment and a stronger resilience against the temptation, but also stay faithful in the knowledge that despite the insurmountability of her sin, God's grace keeps saving her.⁴²

To be restored into the *imago Dei*, then, Humanity has to take part in the new *imago Dei* that is Christ, who is the perfect image of the Father and lets Humanity take part in it through him. This restoration of the *imago Dei* happens by way of a renewal through Christ that the human person has no ability to affect, as the human will is still bound to that of the *imago Diaboli* for the remainder of her time on earth and therefore rather fights against it. Because of Humanity's struggle against redemption and her inability to do otherwise, Luther sees it as necessary for her to be restored not by herself, but by the intervention of Christ, who is both God and Man, and as such both free from the *imago Diaboli* and as Man able to redeem Humanity by taking her sin upon himself in a redemption that Humanity can take part in only because of Christ's own humanity.⁴³

In this move from the original *imago Dei* in Adam and Eve, to its loss in the fall, to its restoration through Christ can be found a narrative view of the relationship between Humanity and God.⁴⁴ In this narrative the *imago* that was lost is rebuilt through Christ for the redemption of Humanity, who are in no way able to contribute to this redemption by themselves. After Christ's crucifixion, Humanity now has part in the redemption he enacted with his sacrifice. This participation comes to Humanity in the form of an additional nature of hope and faith, coexisting with the fallen nature of the *imago Diaboli* that previously wholly defined human nature. These two natures coexist in some manner of tension, with the hope for eternal life through Christ that is the new *imago Dei* acting as a sort of counterweight to the despair and sinfulness that is the *imago Diaboli*. The tension will remain, however, throughout life as it is a progressive salvation process that is completed only on the last day, as creation is fully completed. Until then, Luther explains, the struggle will be a part of daily life, and repentance and salvation through grace will have to happen on a daily basis.⁴⁵ With

⁴² Chalamet, "Sin and the Bondage of the Will," 76–77.

⁴³ Bengard, "Imago Dei: God's Grace and Distance : Perspectives for a Lutheran-Orthodox Dialogue," 27–29.

⁴⁴ Bengard, "Imago Dei: God's Grace and Distance : Perspectives for a Lutheran-Orthodox Dialogue," 25–27.

⁴⁵ Luther, *Luther's Works 1 Lectures on Genesis*, 64–66; Luther, *Luther's Works. 34, Career of the Reformer*, 4, 139–140.

this also comes the necessity for Humanity to accept that she cannot, in large part due to the imbalance between her two coexisting natures, attain salvation through her own powers and must entirely put her faith and hope in God's grace.⁴⁶

In short, then, Martin Luther's anthropology is built around the idea that the *imago Dei* is a birthright Humanity had, lost through the actions that caused the fall, had replaced with the *imago Diaboli* and in part regained through the salvation act of Christ on the cross, which will ultimately lead to Mankind's full redemption and restoration into her destined part in the *imago Dei*. At the moment, however, this restoration is not fully realised, which causes a suspense within human nature, where the *imago Diaboli* pulls towards sin and suspicion in relation to God, and the *imago Dei* with the hope it brings of salvation. Due to the relational nature of the *imago Dei*, having a part in the salvation narrative and accepting God as one's necessary saviour is what constitutes the part of the *imago Dei* any person can have until the last day, when the redemption is fully realised.

⁴⁶ Luther, *Luther's Works. 31, Career of the Reformer, 1*, 51–52.

Chapter 4: Challenges in relation to artificial intelligences

This second part of the analysis will serve as a middle step between the descriptive first section and the normative third section of the analysis. This section concludes the theory-formative work by answering this study's first line of inquiry with an affirmation that yes, the prospect of artificially created intelligent lifeforms does present issues for Lutheran anthropology. The main body of this section will be dedicated to identifying four main challenges to be treated in the final third of the analysis chapter.

When concerned with nonhuman intelligences, Luther's own stance is not quite clear. While his predecessors, such as Thomas Aquinas were open to other intelligences, such as the angels, being *imago Dei* just as humans, this was a natural consequence of their substantive understandings of what the *imago Dei* entails.⁴⁷ As such, the same solution cannot be applied to a Lutheran context. In fact, Luther rejected the consequences of the substantive understanding sharply due to the fact that it by extension indicated that the Devil was quite fully of the *imago Dei*, even to a fuller extent than humans themselves.⁴⁸ Due to the inapplicability of the substantive view, which seems at the moment fully inconsolable with a Lutheran view, I shall endeavour to list a number of problems the Lutheran relational view meets in relation to artificial nonhuman intelligences, under the rubrics of the challenges of origin, sin, salvation and relation, respectively.

4.1 The challenge of origin

One of the most important questions to ask when it comes to the potential relationship between God and machine is whether something created by the hand and designs of Humanity, rather than directly by God, could stand in relation to God in the way Humanity does or if the relational niche of creator entirely befalls Humanity. The main reason as to why this is a problem, I find, is the fact that a natural origin through biological evolution has long been seen as both the only possible way for life to come into being, and because the Darwinian understanding of evolution leaves no room for agency as we see it, instead operating as a tool through which God works invisibly. With a human "middleman creator", the direct agency of God in the creation of the being in question can be seen as either reduced or changed, giving Humanity the title of creator for the new fork of life. This problem is often

⁴⁷ Mickey L. Mattox, "Imago Diaboli? Luther's Anthropological Holism," *Pro ecclesia (Northfield, Minn.)* 29, no. 4 (2020): 464–465.

⁴⁸ Luther, *Luther's Works 1 Lectures on Genesis*, 61–62.

presented in fiction by artificial intelligences viewing their builders as the direct theological equivalent of a divine creator, dropping the need for an ultimate cause, as in the example of a piece of dialogue from the “Mass Effect” video game series:

We are created life. We are a philosophical issue. The Geth know our answers to those questions: we were created to labour for the Quarians. Our memories will be archived after death. We are immortal. Our 'gods' disowned us. We must create our own reasons to exist.⁴⁹

Whether the solution of dropping the search for an ultimate cause due to an awareness of direct origin is a viable response to the problem, however, stands to be discussed. Also up for discussion is the extent of how much “middleman” creation would detract from the relationship with God, both for the second-hand created and – potentially – the prime creator and ultimate cause. The first matter that has to be treated is thus whether life created by human hands can be seen as more of an issue than life that has its natural origin in the system of evolution in relation to God.

4.2 The challenge of sin

The next issue that comes up for a wholly new form of life – which might not necessarily share a large portion of the defining features of human life – is the challenge of sin. As one of the most important parts of Luther’s theological anthropology, and possibly the prime precondition for the salvation narrative that is crucial to understanding Luther’s view of the human relation to God, the matter of whether an artificially intelligent being could have a part in the world’s fall and sin becomes an imperative question to handle. Considering, then, the importance of sin in Luther’s whole understanding of how creation’s relationship with God works, beings without sin would present a sizeable challenge to major parts of Lutheran dogmatics. Also worth noting is that even if AI could be found to have a part in the concept of sin at large, it is not necessarily a given that the sin would take the same shape as that of a human being. Not only does the lack of biblical material concerning how a non-human sin might take shape stand in stark contrast to the material regarding human sin; the priorities and needs of a artificial lifeform might take such a different shape from those of a human that it is

⁴⁹ *Mass Effect 2 - Legion on Philosophy and the Geth Plan*, 2012, sec. 0:38-0:56, accessed November 27, 2023, https://www.youtube.com/watch?app=desktop&v=BehG3BmtDCc&fbclid=IwAR3VRNPvt_a8h4Sh9OAUwYfIJVPb0TFAp3LH7mitfkh7gRr8Hn2c0RTBJGo.

uncertain how a life turned inwards away from God, and one turned towards God respectively, would take shape for such a lifeform. The second matter that has to be treated is thus whether an artificially intelligent being could be said to have part in the matter of sin that is so definite to the existential conditions of Humanity.

4.3 The challenge of salvation

If sin is the precondition for the narrative relationship of redemption that defines Luther's understanding of the current dynamic between God and Humanity, salvation is the end goal. In a discussion about whether an artificial intelligence could have a part in the Christian narrative redemption process through Christ, whether an artificial intelligence could find salvation becomes just as important as whether it could sin and therefore need it. Since the whole narrative as it was understood in Luther's time revolved around Humanity's fall and salvation through Christ's sacrifice, how far the redeeming effects can be applied outside of Humanity becomes uncertain at best. Can, so to speak, an artificially intelligent android find salvation through an organic saviour who died for the sins of Humanity? Because even if the need for salvation were to be found, the nature of such salvation is not necessarily obvious. Just like in the matter of sin, the human side of the issue has extensive amounts of scriptural explanations and treatments, upon which follow even more extensive amounts of theological discussion. When it comes to AI, however, the references are understandably lacking. Due to this, questions arise on matters such as whether it is necessary for an additional salvation act would be necessary for AI to have part in the narrative, whether an artificial Messiah could be necessary and what a salvation act targeting artificial intelligences would be like. The third matter that has to be treated is thus whether and how the salvation act that stands at the centre of Luther's anthropology can be said to apply to an artificial intelligence.

4.4 The challenge of relation

The final problem surfacing in the meeting between a Lutheran anthropology and the prospect of artificially intelligent life is how one could understand a relational theology with God as the subject when the object of this relation is a being created by the hands of God's creations, with whom he has a relationship, rather than by his own. While the dynamic is obvious – and the very matter of Luther's works on the subject – when the object of the relationship is Humanity, it becomes less clear when the object is a newly begotten category of beings with no prior place in the theological tradition. The fourth matter that has to be treated is thus whether and in what way an artificially intelligent being could be said to be able to stand in relationship with God in the way necessary to have part in the *imago Dei*.

Chapter 5: Answering the challenges of AI

Seeing as several challenges to compatibility between Martin Luther's anthropology could be found, this third section will be focused on finding a preliminary solution to these challenges. Whereas the two previous sections were mostly descriptive, according to a theory-formative mode of thought, this final section will take a more normative approach, working towards a way forward where compatibility can be found, using the method that was described in the methodology chapter as theory-expansive. To this purpose, each challenge will be given a short summary, and then attempts at solutions both from within the tradition Luther started and from without it.

5.1 The challenge of origin

The first issue identified in the second section of the analysis chapter was that of whether God and AI would ever be relevant to one-another seeing as Humanity, not God, would stand as the direct causal agents in the creation of the artificial intelligence, which could potentially warp the relationship between God and AI from some perspectives. Based on this, the first point of relevance when resolving this issue would be identifying a way of understanding divine, natural and human agency in the matter of causation.

In an article discussing theological views of the theory of evolution and the origin of species, Mikael Leidenhag presents a method of explaining God's agency in a way that is not incompatible with our understanding of natural sciences; a theory he calls "partial causation".⁵⁰ This is something he finds to be important considering the explanatory value of the theory of evolution and its apparent incompatibility with traditional ways of understanding God's creative act as the reason for life looking as it does.⁵¹ The theory, as Leidenhag explains it, is built around the understanding that one event or concept can be brought by more than one cause without either ruling the other out, but rather complementing each other. As an example, Leidenhag explains that a car accident can be caused by a number of factors, with both the driver's inexperience and the dangerous road conditions as equally valid, complementary factors in the causation of the event.⁵² In the same way, Leidenhag explains, humans might have come to be by means of Darwinian evolution through natural selection

⁵⁰ Mikael Leidenhag, "The Blurred Line Between Theistic Evolution and Intelligent Design," *Zygon* 54, no. 4 (2019): 918.

⁵¹ Leidenhag, "The Blurred Line Between Theistic Evolution and Intelligent Design," 909–929.

⁵² Leidenhag, "The Blurred Line Between Theistic Evolution and Intelligent Design," 919.

without this necessarily ruling out God's actions as necessary for the causal chain to ultimately lead to the coming-about of Humanity.⁵³

Although Leidenhag's explanation is mostly aimed at a theologically informed understanding of God's agency in Darwinian evolution, the idea of partial causation can in some way be applied to the origin of a hypothetical sapient artificial intelligence. Whereas the origin of Humanity can be explained by adding God as a necessary link in the causal chain of natural evolution, so too could God be understood as a necessary step in the causal chain of the creation of a synthetic being. One example of how this could work can be found in J.R.R. Tolkien's book *The Silmarillion*, in the creation account detailing how the *Vala*⁵⁴ Aulë made the Dwarves. This story details how Aulë, too impatient to wait for the coming of Men and Elves, created his own people to cherish as his children and teach in the ways of craftsmanship. Although the Dwarves he made became animate, and had the traits Aulë found suitable, they were only extensions of his own agency, and could neither act nor think without his constant intervention. As Eru⁵⁵ found out about this, he chastised Aulë for his impatience but – observing Aulë's sincere repentance – gave the Dwarves true life as independent and sapient agents.⁵⁶ Similarly, then, could be thought of a possible manner of understanding God's part in the creation of sapient artificial intelligences, where the form of the being, the groundwork, is wrought and laid out by human design, whereas the final step to attaining sapience and autonomy is given by God. This way of envisioning the dynamic of origin would not remove the human agent as creator in favour of God, but would rather allow for a form of compatibility where both Humanity and God are imperative to the creation of fully sapient artificial life, and the first challenge to finding a road to a relational *imago Dei* has found a possible solution.

As has been discussed, an understanding has been laid out of life's origin as a cooperative project with God as the key actor for a life of full sapience, but other actors – be they Humanity or natural forces such as evolution – as important co-contributors. In this model, Humanity cannot be seen as the sole creator of any artificially intelligent being, and her intentions for the beings cannot be seen as the sole intended purpose of their existence, with

⁵³ Leidenhag, "The Blurred Line Between Theistic Evolution and Intelligent Design," 919–920.

⁵⁴ Tolkien's term for the higher order of angels, comparable to archangels

⁵⁵ Tolkien's equivalent to the monotheistic God of Christianity

⁵⁶ John R. R. Tolkien, *The Silmarillion*, ed. Christopher Tolkien, 1999 paperback edition. (Great Britain: George Allen & Unwin, 1977), 37–39.

God's purposes becoming just as important for artificial life as for natural life. At the same time, the model of co-creatorhood no longer relegates Humanity to being understood as a middleman creator, playing God, or artificial intelligences to being understood as beings of lesser status than Humanity, as both were created by God to an equal extent.⁵⁷ This understanding presents one possible solution to the challenge of origin, but still leaves the remaining questions unanswered as, for example, the leap between saying "God is the creator of this being..." and "...therefore it is inherently sinful by nature" is more than tremendous. Because of this, the need to solve the remaining questions is unchanged.

5.2 The challenge of sin

Whereas the previous section suggested an answer to the question of whether an artificial intelligence's origin would even allow it to qualify for discussion regarding a discussion about a relationship to God, that answer actualised the remaining questions further. For Humanity, the matter of the nature of sin has been discussed to such lengths that most, if not every, conceivable perspective has been raised at least once. For artificial intelligences, however it would be an understatement to say that the coverage has been limited. What shape an understanding of the *actual* sin – which Luther understands as the sin that is concrete breaches of God's will in the form of individual acts⁵⁸ – would take for artificial intelligences is, simply put, hard to say before said artificial intelligences actually come to be. What this discussion will treat, however, is rather the matter of original sin, the sin every human is part of from birth, which was what, according to Luther, necessitated the redemption that came from the sacrifice of Jesus upon the cross.⁵⁹ As has been previously discussed, original sin for Luther is the corruption of the soul and nature of Humanity that stems from the fall of Adam and Eve. This corruption, the *imago Diaboli*, is but corruption of our nature, rather than something new due to the fact that the Devil can, according to Luther, not create anything, but only corrupt that which God has made.⁶⁰ This corruption takes the shape of a deep distrust for God, an aversion to what is God's will and an inability to do what God wants, which in turn is what leads to *actual* sins, the form of sin that shows in our actions rather than our disposition

⁵⁷ It should be noted that "equal" in this instance is in relation to God, and is not intended to ignore the notable power imbalance between created being and creator, which is one of the matters that will have to be addressed by future studies on the ethics of artificial intelligence.

⁵⁸ Concordia Publishing House, *The Formula of Concord: The Epitome and Solid Declaration* (Concordia Publishing, 2021), 76.

⁵⁹ *The Formula of Concord*, 79.

⁶⁰ *The Formula of Concord*, 41.

and soul.⁶¹ When it comes to why this corruption is universal to Humanity today, the Lutheran doctrine that came to be the orthodoxy goes along the lines of the catholic view, establishing that the original sin is transferred throughout the generations through the natural reproduction via sexual insemination that is inherent to human reproduction.⁶² Due to this, from a perspective of pure Lutheran dogma, it seems as though it is at the moment not possible to fully reconcile the ideas of original sin and artificial intelligences in a satisfactory way. For the purpose of the study, however, two possible approaches will be presented and synthesised into a preliminary model, whereupon the remainder of the challenges will be treated with the assumption that a more satisfactory solution will arise in the future.

5.2.1 Narrative approach

One approach to understanding original sin that goes beyond the biological is the approach of Jesuit theologian Piet Schoonenberg. In Schoonenberg's view, original sin is not as much a corruption of a more perfect state that existed at one point as a narrative pattern in which Humanity finds itself. For Schoonenberg, then, original sin should be approached as participation in the history of sinfulness, rejection of God and failure to love that is Humanity's, and should be applied collectively as a consequence. Sin, as Schoonenberg understands it, can most explicitly be understood when one looks upon the redemption that was made necessary by it.⁶³ This approach is built upon an understanding of sin as a primarily *actual* matter, where the narrative that is original sin is composed of the multitude of *actual* sins of Humanity, rather than the matter starting in original sin, which in turn leads to *actual* sin. Although this understanding is incompatible with a Lutheran framework, an adaptation could be made, where the presence of *actual* sin is used to point towards that of the original sin that is a precondition for it, thus turning the order upside-down. This approach would leave the question of how original sin is "acquired" unanswered, but answer the question of whether an artificial can be enveloped by original sin in the affirmative, as it has part in the sinful narratives and structures that make out the fallen creation, which can only be a consequence of the presence of original sin.

⁶¹ *The Formula of Concord*, 40.

⁶² *The Formula of Concord*, 78–79.

⁶³ James P. O'Sullivan, "Catholics Re-examining Original Sin in Light of Evolutionary Science: The State of the Question," *New Blackfriars* 99, no. 1083 (2018): 660–661.

5.2.2 The ripples-on-the-water approach

This second approach builds upon the implications of Luther's talk about the entirety of creation being corrupted as a consequence of Humanity's fall and the onset of original sin. In the Genesis lectures, as he describes the loss of the original *imago Dei*, Luther explains that he is certain that along with the full fearlessness and authority that Humanity had from living in harmony with God and creation, so too were the creatures of the earth meeker and more easily dealt with, so that no real danger existed, so that there was nothing to worry about. He details, for example, how lions were as tame as the dogs of today, in the same manner as Humanity's senses, like sight and hearing, were better.⁶⁴ Luther also explains, however, that not only were the animals affected by Humanity's loss of authority; the fall sent ripples throughout all of creation, cursing it to be more hostile and difficult to work with. This change not only resulted in animals turning into the dangerous creatures of today, but also affected the disposition of inanimate beings, such as plants and the soil itself, becoming less manageable. Through the fall, vermin and thistles sprung forth, hostile weathers came to define parts of life, tracts of land turned barren or difficult to work, and the lot of Humanity turned more laborious.⁶⁵ From this I will infer that to some extent, the corruption of original sin affects the entirety of creation, which in turn means that as a rule, it is a fact of life for everything within it. Although exceptions are made, most notably when it comes to Jesus – who was free of original sin, but took upon himself its consequences to redeem Humanity – everything within creation seems to in some way participate in the distance from and suspicion towards God and God's intentions that is integral to original sin, which should therefore affect new creatures created within the confines of creation, including ones of artificial origin. Therefore, it seems it would only be necessary for Humanity to have caused the fall for it to affect everything within creation, even without taking into account the question of the transmission of the corruption of original sin.

5.2.3 A synthesis of the approaches

Although neither the narrative approach nor the ripples approach can fully explain sin within artificially intelligent beings, they each provide a key to how one could understand it. Whereas the narrative approach provides a way of understanding how one could determine whether original sin is present in a population – although this is only a framework for future

⁶⁴ Luther, *Luther's Works 1 Lectures on Genesis*, 62–64.

⁶⁵ Luther, *Luther's Works 1 Lectures on Genesis*, 204–206.

work, as important matters such as what shape *actual* sin would take for artificial intelligences are thus far left unanswered – the ripples approach moves towards an understanding of how this can come to be even if the artificial intelligence has not had its own moment of breakage from God. The synthesis approach, thus, can be summarised as the following, at a hypothetical future point testable, hypothesis: “Since the fall of Humanity at the dawn of original sin affected the entirety of creation, sending ripples across it that corrupted both the animate and the inanimate parts of it, most if not all intelligent life should be subjected to original sin and the *imago Diaboli*. If this is the case, the presence of original sin and the *imago Diaboli* should be possible to observe in a population if it shows symptoms of it, namely committing *actual* sin and generally showing the fear and distrust in relation to God and creation that comes from the *imago Diaboli*”. For the purpose of this study, the synthesis approach, albeit not exhaustive, will be held as a sufficient enough response to the challenge of sin until a more conclusive treatment has been made, having shown that it is at least likely for an artificially intelligent lifeform to have a part in original sin. This paves the way for a continuation into the third challenge, namely the redemption that is intrinsically dependent on the presence of a condition to be redeemed from.

5.3 The challenge of salvation

As has been shown, it is likely that just like Humanity, an artificially intelligent being would have a part in the corrupted form of life that is the immersion into original sin. Just like Humanity, then, it appears that artificial life would be in need for salvation through the intervention of God, as being unable to enact or even contribute to one’s own salvation is an important aspect of the condition that is original sin. Regardless of whether it is necessary or not, however, the question remains as to whether it is possible within the boundaries of the salvation through Christ that was enacted on Humanity’s behalf, as there are bound to be fundamental differences between Man and Machine. If the gap were too large to bridge, the consequence would be that the artificial intelligences would be left in want of their own saviour, on pain of damnation, as salvation through Christ would be human-exclusive.

Like the other challenges, that of salvation has not quite been treated much in regards to artificial intelligence yet. However, the matter of whether one can be saved by someone who is, in some way, of another nature than oneself is a subject of heavy discussion within the traditions of feminist theological discourse. As Deanna Thompson explains, the matter of

Jesus' maleness presents a significant issue for a lot of women to identify and be identified with the salvific actions of Jesus, and by extension God due to a "leakage of Jesus' maleness" into the rest of the understanding of God's nature. This, Thompson explains, means a lot of women have a hard time connecting with God, and seeing God's significance to them, as God is – as they understand it – fundamentally male as a consequence of an androcentric focus in the majority of Christian history.⁶⁶ Similarly, the issue with regards to artificial intelligence can be said that God appears unavailable to artificial intelligences due to a heavily anthropocentric focus throughout Christian history. Although such a focus has been quite justified thus far, at least in the matters this study is concerned with, it grows increasingly inconvenient. In regard to the corresponding issue for feminists, Thompson illustrates several ways of understanding Christ that allow for an equal relation to him for women as for men, one of which appears potentially feasible for application to the matter of salvation for artificial intelligences. This approach to understanding is the multipolar one presented by Elizabeth Johnson, and is built around the understanding that although the historical Jesus was male, being male was only one part of his being, which opened doors towards being able to preach and be heard, but did not in itself need to have any salvific significance. As Johnson understands it, Jesus' actions on the cross were the matter of significance, whereas his maleness only enabled these in a patriarchal society that they in fact undermined the very structures of by subverting the expectations put upon the person of Jesus.⁶⁷ From this perspective, then, what matters when it comes to Jesus is not his gender, but the very matter of the meaning of his sacrifice. The sacrifice of Christ, then, becomes truly significant for all humans, rather than only to men.⁶⁸ Whether the sacrifice is significant to all sapient life, however, is harder to say.

5.3.1 Christ and his followers as children of God

One possible approach for how the multipolar understanding could be applied would be one that takes a step further back regarding what the unifying basis could be. While Johnson chose to understand Jesus' maleness as a secondary trait, with his humanity as the primarily relevant unifying factor, a hypothetical approach made with artificial intelligences in mind would additionally entail a step towards something other than humanity being the unifier. Based on

⁶⁶ Thompson, *Crossing the Divide*, 116–118.

⁶⁷ Johnson, *She Who Is*, 166–167.

⁶⁸ Thompson, *Crossing the Divide*, 118–119.

the previous discussions, I therefore propose an approach that would embrace a wider perspective of what makes God's children, entailing all sapient life created by God and able in some way to relate to God, rather than making a difference based on species or – in the case of artificial life – nature of origin. This approach follows in the steps of Luther's view that just as one person brought original sin into the world by disobedience, so is it sufficient for one person's ultimate obedience and self-sacrifice to repair the damages caused by original sin. Although the corruption of original sin has, according to Luther, spread thoroughly, it is by necessity sufficient for a single person's obedience to start the process of mending. Just as this makes it absurd to picture the need for the different genders to need different cures, when the disease – the longstanding corruption narrative of original sin that affects all from the same starting point – is the same, so too should it be difficult to see the practical necessity of an additional saviour for other creatures made by God and afflicted by the same disease. Since original sin should be the same for everyone, as it all originates in the fall of Adam and Eve, this should mean that all God's children, naturally created or artificially so, are also impacted by the salvation act upon the cross.

Although this multipolar original sin-focused approach would be applicable to any sapient creature believed to be afflicted by original sin, it has been established in section 5.2 that stating beyond uncertainty that artificial intelligences would be so is not entirely possible at this moment. Because of this, a conclusive answer is difficult to reach, and instead the conclusion has to be dependent on the response to the challenge of sin, and whether the hypothesis described at the end of section 5.2 can be found to be true. If that is the case, it would be difficult to dismiss the possibility of the sacrifice of Christ affecting all children of God equally, even though Christ in history as Jesus was both man and human. For the sake of simplicity, the testable hypothesis presented in 5.2 can be given the following addendum: "if the presence of original sin and the *imago Diaboli* can be shown, so too will redemption through Christ be possible."

If, then, this is found to be the case, and an artificial intelligence can both have part in the original sin that plagues Humanity and in the redemption from this plague, all that remains is concluding whether the potential for participation stretches the entire way, to include a relationship with God, as Luther think Humanity has.

5.4 The challenge of relation

Finally, the main question remains: can an artificial intelligence go into the relationship with God and the place in the salvation narrative that is necessary to be said to possess the *imago Dei* and stand as theological equals to Humanity? As has been mentioned in previous sections, the plights and positions of Humanity in this matter have been thoroughly discussed throughout history. It has been found that Humanity has a strong relationship with God forged throughout its whole history, and that Humanity's relationship with God is defined by the longstanding narrative of union with God, followed by fall, and returned by way of redemption through Christ, in preparation for the ultimate return at the end of days. For an artificial intelligence, however, the majority of the narrative has already taken place; the fall – if applicable – was enacted by people of another kind, long before the future dawn of artificial intelligence, and the door to salvation was opened before the idea of computer software, much less life created from it, was born. Must then, another saviour come not for the salvation of the artificial intelligences, but to build a relationship with them by preaching this salvation, as in the Ray Bradbury story “The Man”,⁶⁹ for artificial intelligences to be able to find themselves truly in relation to God?

According to Luther, the knowledge that one is a fallen and thoroughly corrupted sinner beyond salvation by one's own means is the way to being opened to the grace of God through Christ. For him, the need for humility as that born in the realisation of one's own inability to reach salvation through own works becomes the sole road to accepting the hand reached out by God, just as the realisation of one's illness motivates a person to seek medical attention. Because of this, Luther thinks, all that is necessary to enter into a relationship with God, finding one's place in the narrative of salvation through Christ, is the acceptance of one's sinfulness as something in need of reparation, and humbly looking towards Christ on the cross for help.⁷⁰ If, then, it is possible for an artificial intelligence to humble itself in the knowledge that it, like a human, is imperfect and corrupted by the *imago Diaboli*, and in need of salvation through the grace of God, is the human Jesus a sufficient saviour to turn towards for one not human? Although section 5.3 points towards this from the perspective of salvation, the question remains from the perspective of being able to turn towards God and enter the relationship that this salvation comes as.

⁶⁹ Ray Bradbury, *The Illustrated Man*, British paperback edition 2008. (London: Harper Voyager, 2008), 77–96.

⁷⁰ Luther, *Luther's Works. 31, Career of the Reformer, 1*, 50–58.

Thompson, once again, discusses the significance of the difference between Christ as the male Jesus and the numerous dissimilar people saved by him by bringing up an example. Although she finds it vital for women to stay close to salvation on the cross, despite Jesus' maleness, she presents the discussions regarding female depictions of Jesus, such as the sculpture "Crucified Woman". Despite the quite upset reactions of many onlookers, she explains, others found in the view of a woman upon the cross, rather than a man, the opening towards being able to relate that they needed to see themselves in the flock for which Christ died.⁷¹ Similarly, she explains, depictions of Jesus, both in life and in death, vary strongly between the different cultures and contexts the iconography is made in, so as to reflect the needs and appearance of those the iconography was made for. The depictions can mirror the ethnicity and appearance of the congregation, the art style of the culture that made it, the emotions most strongly associated with Jesus' actions on the cross, and so forth.⁷² Similarly, the needs and likeness of an artificial person of faith could, hypothetically, be reflected in iconography more directly intended to suit such a person. Whether this would be necessary, however, and what would be necessary for such imagery to be suitable to inspire artificial intelligences to accept the grace of God, cannot be said until the situation actually comes around in a hypothetical future.

In conclusion can be said that although the specifics of how this would happen is at the moment left for the future to see, it appears that as long as an artificial intelligence meets the previously discussed preconditions, it should also be able to enter into a relationship with God in the same way as a human could be said to be able to do so. Although the salvation narrative has been underway during the entirety of Humanity's history, all without the presence of artificial life, this does not prevent such life from taking part in the salvation that was attained before it came to be.

⁷¹ Thompson, *Crossing the Divide*, 119–120.

⁷² Thompson, *Crossing the Divide*, 116–117.

Chapter 6: Conclusions

6.1 Results

This study has had the purpose of investigating the compatibility between a Lutheran theological anthropology and the prospect of artificially intelligent life being developed at some point in the future. During the study, it has been found that the focal point of Martin Luther's anthropology is the narrative development of Humanity's redemption that started with the fall from perfection in the visage of God and the relational *imago Dei*, into the corrupted existence that is life enveloped by original sin and the presence of the *imago Diaboli*, only to ultimately be saved by Christ's sacrifice on the cross bringing about Humanity's restoration into a new form of the *imago Dei*, through faith in him. Within this anthropological of Luther's framework has been found that four main issues arise when artificial intelligence meets Luther, namely the challenges of origin, sin, redemption and relation. The challenge of origin came from the possible issue of Humanity standing as creators of potential artificial intelligences instead of God, and was resolved by viewing creation through the lens of Leidenhag's model of partial causation, which follows several causes to the ultimate event that they cause collectively, thus allowing both God and other causes to "receive credit" without cancelling each other out. The challenge of sin stemmed from the observation that without being rooted in original sin, it is impossible to exist within Luther's sin-centred framework. As Luther subscribed to the idea that the corruption of original sin was inherited between generations through sexual reproduction, artificially created life could hardly be said to fit within his approach to the concept. Although no complete solution to this issue could be found, a predictive model for understanding and identifying the presence of original sin outside of Luther's framework's predictions, which was deemed sufficient for the rest of the study to be undertaken. The third issue, the challenge of redemption, was found to come primarily (as the issue sin and therefore the need for redemption had been preliminarily solved) from the dissimilarity between the human Jesus, through whom Humanity was saved, and any potential artificial intelligence, which would share very few characteristics with said human. Through the usage of a modified version of Johnson's multipolar approach, an understanding was made that if artificial intelligences can be found to share in Humanity's fallen nature and participation in the *imago Diaboli*, so too can it be found to be saved through the sacrifice of Christ, as the relevant similarities can still be found. The final challenge, that of relation, comes from the discovery that Luther's whole understanding of *imago Dei* is built upon the belief that it is a matter of Humanity having an

active relationship of mutual understanding and love with God, which was broken in the fall and tentatively restored with the sacrifice of Christ starting a process of restoration of those who look to him and accept their place within the salvation narrative. As the same narrative framework does not entirely exist for artificial intelligences – seeing as they are yet to come into being whereas a large part of the narrative has already played out – the matter of how that would work had to be given a new understanding. It was found that no universally applicable solution could be worked out, due to the speculative nature of the whole project, but several partial models of approaching viable solutions were worked out, including a solution that involved the use of adapted iconography for the ease of relating, just as that already in existence for various human cultures, many of whom have adapted the appearance of biblical characters to fit those of their own ethnicities and ideals.

The question of whether an artificial intelligence could be fitted into the *imago Dei* paradigm of Luther can, under certain conditions, be answered in the affirmative. While the challenge of origin was shown to be non-problematic, at least for the time being, the remaining challenges remain partially unsolved, hitched on the problem of sin. As the transference of sin between humans cannot, in the shape Luther envisioned it, be applied to artificial life, there cannot be any certainty of whether an artificial intelligence would have a part in the corruption of original sin and the *imago Diaboli*. Because of this, it is uncertain whether artificially intelligent beings can be saved through the sacrifice of Christ, or even whether they need it. It is, similarly, also impossible to say if such life could, then, enter a relationship with God of the kind that is necessary to find oneself within the *imago Dei*.

In the midst of uncertainty, however, I suggest a simple hypothesis that could be applied in a potential future where the question becomes relevant as more than speculation:

Since the fall of Humanity at the dawn of original sin affected the entirety of creation, sending ripples across it that corrupted both the animate and the inanimate parts of it, most – if not all – intelligent life should be subjected to original sin and the *imago Diaboli*. If this is the case, the presence of original sin and the *imago Diaboli* should be possible to observe in a population if it shows symptoms of it, namely committing *actual* sin and generally showing the fear and distrust in relation to God and creation that comes from the *imago Diaboli*. If this is the case, salvation through the grace of God should be available to

those fallen into original sin and the *imago Diaboli*, be they Man or Machine. If this is the case, it should also lead to any such fallen being to, by humble acceptance of their impotence in the matter of their own salvation, turn to the grace of God and find themselves in the relationship with God in the narrative of salvation that gives them participation in the *imago Dei*.

In the making of this study, several important matters for the context had to be left out for room constraints. Because of this, matters of what would make an artificial intelligence qualify for consideration as a sapient being with the potential to have a part in the salvation narrative of God's grace and Humanity's fall falls outside the scope of the study despite the significant implications of the results of any such study for the context of this one. Similarly, this study has not treated the nature of any kind of soul, neither what it is nor what creatures it could be said to be present in, if such a thing were to exist. Entirely outside of the scope of this study, but imperative in making it useful, is the investigation of the ethical ramifications of artificial intelligences being likely to be theologically equal to Humanity. Although this study has not entirely concluded such equality, it strongly implies its likelihood, which gives sufficient motivation to study how it might affect the ethics of church and society.

While the scope of the study left out several important matters by design, it should also be noted that the results of the study led to a number of unanswered questions. Most importantly, the final results of the study remain inconclusive, hanging upon the matter of how original sin can be understood to be transferred and therefore present within artificially intelligent life, as the commonly held understanding of both traditional catholic scholars and the theologians shaping Lutheran thought is that the *imago Diaboli* and original sin is transferred in a hereditary manner from parents to child through sexual reproduction, which in turn is also why Jesus had to be conceived by divine interference in the womb of a virgin to be born free of the original sin. As artificially intelligent beings, as understood at the moment, are not necessarily conceived in the sexual way that naturally occurring life is, this understanding of the transmission of original sin becomes hard to apply, to say the least.

Therefore, the research questions that become most relevant to the context after the conclusion of this study are:

- Is the question of whether artificial intelligences could have a part in the *imago Dei* genuinely relevant to a theologically sustainable coexistence, or could such coexistence be attained in other ways as well?
- Can an artificial intelligence be said to have a part in original sin, and if so in what way?
 - What would a modern Lutheran understanding of the hereditary transmission of original sin look like if artificial intelligences were to be included?
- Does the Lutheran understanding of souls have an opening for a non-human being, and even then an artificially intelligent such, to have a soul?
- What are the ethical ramifications of an artificially intelligent lifeform being theologically equal to Humanity?

Although the results of the study were more inconclusive than anticipated, the direction they point towards appears to be some sort of theological equality between Humanity and other sapient life, such as artificially intelligent beings made by human hand. The reason for which I draw this conclusion is that although three out of four challenges could not be ultimately resolved, each presented some manner of predictive framework that strongly suggested the possibility of a solution being findable once the concept of sapient artificial intelligences comes into existence.

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