

# **WORDS IN THE VOID: THE HOLY SPIRIT, PENTECOSTAL RATIONALITY, AND ARTIFICIAL GENERAL INTELLIGENCE**

**Philosophy Interest Group**

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## **§0 THESIS**

Though humans at this moment are capable of creating narrow artificial intelligences that model many aspects of human thinking, even to the point of programming and allowing computers to arrive at stated goals independently of human guidance, because we do not understand human intelligence at its core, we will not be able to produce an AGI that models human intelligence in any near future. AI will remain, for the time being, the domain of an extension to human capabilities, not a transcendent independent intelligence with any of the scary Terminator-like worries. The social problem is how to prevent AI from being used as a tool of domination of some humans by other humans.

The genius of God is in the creation of human intelligences that can and do generate their own goals independently. This is the generosity of God in creating us by means of evolution. The constraint to that is the persistent and easily dismissible notion that our freedom is merely an illusion permitted by God who deterministically guides our steps and the steps of our societies. Freedom with its attendant responsibilities within human rationality are emergent properties of the material universe which God upholds alongside of which God dwells. I will even suggest that freedom and the intelligence of humans would not be possible without an evolutionary development.

The Holy Spirit, without these corresponding intelligences in the universe cannot have communion. An unfree intelligence, like AI is to humans, can never have a relationship with humans. It will always be directed and dependent.<sup>1</sup> The ethical mandates pressed on humans because of their independence analogous to God's, must be pressed on the people who hold the leashed power of AI. Modern notions of determinism within some scientific enterprises, and some modern theologies deny the ethical conjunctions with our freedom, and leave us without either responsibility or free communion with God.

Pentecostal rationality, the whole set of emergent properties within human consciousness of God cannot operate within a deterministic frame generated by some notion of scientific causality or theologically within a Calvinistic frame.

### §0.1 CAUTIONARY NOTES

A note about the term *rationality*: I use the word two different but related ways. The first way, as in a preceding paragraph, the word rationality refers to the whole set of emergent properties from life itself to spirituality and everything in between. Humans are not made up of parts, but are unitary wholes. The second way is more specific to human reasoning and relates to quantifiable intelligence. That is, logic or mathematics, being able to carry a set of thoughts with evidences leading to conclusions in a linear or non-linear fashion, including dogged step-by-step reasoning and leaps of intuition. I do not use these two senses of the word rationality interchangeably but context should be enough to help the reader distinguish the two.

Though I speak of interactions with the Holy Spirit in terms of language, I do not believe one can support some exclusive modality of interacting with humans solely through language.

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<sup>1</sup> Let's not foreclose the possibility of independent AGI here, at least in the present, but as long as we can unplug an AI it will not be a threat. The threat of AI is in the hands of those who will use it to subject other humans to their own will. Take the recent show, HBO's *Westworld* or *Raised by Wolves*, or the modestly obscure *The Singularity Rising* by David Beers as examples.

When it comes to communication with God, I am not excluding any specific method of communication. But I confine my exploration of only one specific mode, language. I don't believe one can happily confine God to any method of communication. God can communicate through whatever method desired, even as people are not confined purely to language in their communication.

## **§1 INTRODUCTION**

I assert that as believers, and especially Pentecostals, our theologies and their associated anthropologies have deleted or at least hidden the middle term between us and God. This follows the materialist paradigm that has been essential to the production of modern society. This is not an attempt to blame theorists, but to call attention to that missing middle term.

Materialist anthropologies have pointedly deleted the concepts of spirit and soul from their vocabularies. I understand why they have done this. The whole constellation of meanings surrounding those terms is densely packed with vocabulary that hides the relationship of a person and their actions through the interference of a supernatural God. I say interference, because the reigning misanthropy of some parts of Christianity and other religions subvert the legitimacy of human choice, human reason, and human language. Not that there is a specific reason to do so except the persistence of an underlying network of theories that eliminate human agency because of its inherent complexity, self referential control structures, and the problem of attempting to understand what humans are within this universe without being able to objectively sit outside that humanity and that universe. We are embedded in the universe inextricably and so can never see ourselves without it. The theory of objectivism, that objects and people can be known in themselves even as God knows them has placed before us the unachievable goal of objectivity.

That does not mean that some things are not in reach of our objectivity, but that self examination is limited by human embeddedness in the world and the interrelationship with it.

In material philosophy this elimination of human agency is a conclusion arrived at by being unable to see beyond a labored cause and effect between physics and human goals as a necessary condition of action. In philosophy and much of science (not quantum theory), this concept falls under the name determinism. In Christianity, this is expressed most eloquently by Reformed theology's attachment to the concept of original sin as the explanation for why modern humans sin. Fatalism for a variety of other religions is the result of the same deterministic attitude. And though Christianity doesn't subscribe to fatalism because of its association with determinism, it smuggles it in through statements like "God is in control" as a "reason" why event X happened that is out of our control. This is not explicit in Christian theory, or the Christian Scriptures, but a knee-jerk reaction to having their determinism labeled as determinism. They believe they are in control, and deny it in their theories. They wish to call themselves free while their belief denies it. In the worst case scenario, they adopt rules of freedom for themselves, but deny the attendant responsibilities.

Something has been lost in these deliberations. A variety of attempts have been made to inscribe our circumstances with a feeling of necessity. Adam Smith's *invisible hand* still weighs heavily on our views of economic forces driving a wide variety of legislative choices, driving our society along a deterministic material trajectory. But, the difficulty of reacquiring our agency as individuals and social groups must come at the price of enacting just systems which are very difficult to instantiate because they require making others besides ourselves responsible for their actions. What justice requires philosophically is that our free choices matter. Justice requires that there is a direct relation between freedom and responsibility. And that freedom cannot be

Douglas Olena, "Words in the Void"

explained away as compatible with determinism, as subjective only in a more broadly deterministic world, or we cannot be held responsible for our actions. This is the deterministic error of Reformed theology. Any attempt at justice under that construction is a fraud. The enlightened self-interest of an Adam Smith, is not enough to create a space where the determinism of market forces relieves us from the responsibility to choose well, even if that choice impoverishes, imprisons, or kills us. Sometimes following the flow of market forces is the wrong thing to do, especially when it is done at the cost of those who make it possible as in capitalism's use of the working class.

There is more than a standoff between theoretical entities. The choice between determinism and libertarian (not the political party) freedom is a choice between being ground up in the machinery of necessity and a meaningful life. I can't tell you which is harder or which is worse, but determinism erases the person when it requires that person to relinquish their agency, real or imagined. One aspect of the definition of a person is their ability to make choices. If, as determinism requires, their choices are illegitimate/inauthentic, then they can't be held to any standard of behavior without also delegitimizing the moral force of that standard, making law an the arbitrary rule of a leader. Christianity under the formal auspices of the terms of Reformed theology or informally under the sway of "God is in control" type of pseudo-pragmatic fatalism, must be illegitimate because human agency is no longer human agency by whatever name it is called.

Under these deterministic/fatalistic auspices, technologies built by people will not be distributed equally to all people. Though the roots of AI and its cousins are found in curiosity and machine control, the use of AI, ostensibly to free people from burdensome tasks, has become

the domain of those who do not respect the freedom and integrity of the people under their care.<sup>2</sup> Their interests lie in making those people profit centers by the collection, collation, and restructuring of user data meant for marketing purposes. As C. S. Lewis suggests in *The Abolition of Man*, "What we call Man's power is, in reality, a power possessed by some men which they may, or may not, allow other men to profit by."<sup>3</sup> The moral question this raises for us is whether that data and its evaluation may be unhinged from people's control and rest in the hands of an AI.

As an example, and there are many, an article by Maia Szalavitz<sup>4</sup> in *Wired Magazine* recounts the power granted to an AI database called NarxCare. We find out that an algorithm which determines the risk of someone becoming addicted to opioids is built on a model that brushes over obvious particularities of individual cases and provides a blunt instrument that often excludes those experiencing chronic pain from access to opioids. Doctors who would otherwise prescribe opioids to treat this chronic pain are at risk of losing their licenses if they do so. And so patients with legitimate need and who are at little risk of addiction are being shut out of the medical community, no longer able to find a doctor who will prescribe them life enhancing medicine. This AI algorithm and its database are finding widespread acceptance in law enforcement and the medical community, even though it is insensitive to issues of equitable patient care. Most concerning to me, raising fears of the misuse of AI, lie in the automatic association of behaviors with illegalities leading to enforcement with politics insensitive to individual consequences, a deterministic framework that fails to adjudicate individual cases.

## §2 THE HOLY SPIRIT

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<sup>2</sup> Meta, Alphabet, Microsoft, Apple, etc.

<sup>3</sup> Lewis, C. S., *The Abolition of Man* (New York, NY: HarperCollins Publishers, Inc. 2001), p 54.

<sup>4</sup> Szalavitz, Maia, "The Pain Algorithm," *Wired Magazine*, October 2021, p. 36.

I have introduced concepts of human rationality, and the errors of the materialist and the determinists both religious and scientific. In the next section I will discuss some problems with reductionism, and how it narrows our ability to find connections in the real world, and hides substantial relations. The question I want to ask now is how it is possible for God to speak to us? But I want to offer the possibility that we have got that question essentially wrong. The words themselves, being the product of an absential quality<sup>5</sup> of humans, language born of intelligence in the mouth of God are the productive power of God. Genesis, John, Hebrews, and etc. all recount the power of the words of God in creation and redemption. The words themselves are the productive element, yet, most of human history has mystified words, either by making them magical, or material. But what if the words themselves, the point of contact between humans and God are themselves spiritual, or at least absential, non-material expressions of emergent reality? John 6:63 testifies of this.<sup>6</sup> The Holy Spirit is constituted for us in language. That is not to deny feelings, but I would suggest that feelings and signs are not the primary modus of the Holy Spirit's interaction with us. Words, the product of an absential quality, are the primary mode of the Holy Spirit's interaction between God and humans, that is, on the conscious level.

There are two parts of this. First, what is it in human rationality that corresponds with God, such that God could speak to us? The answer, simply, God speaks words through the engine of our rationality. If God created that rationality, then he understands perfectly how it operates. Using the metaphor of the radio, a transmitter and receiver that can tune to the same signal makes communication possible. This goes for all developed rationalities, that of the chimpanzee, the dolphin, and Socrates. We have the report in Plato of how God spoke to

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<sup>5</sup> Absential quality will be defined in the next section in context of the discussion of rationality, the middle term.

<sup>6</sup> "The Spirit gives life; the flesh counts for nothing. The words I have spoken to you—they are full of the Spirit and life." NIV

Douglas Olena, "Words in the Void"

Socrates, though the chimpanzee and dolphin can't, at the moment, give us their report both because we are not attuned to their voices or capable of understanding their language outside of some basic forms.

Second, there is some uniformity in the way God spoke to the OT prophets, and some uniformity about the NT through to the present. There are a variety of tests one can make on these supposedly God-instigated speech acts, and Dietrich Bonhoeffer offers a method of testing that provides private and public accountability about what, in fact, God might have meant by the speech, and whether the speech taken to be revelation is in fact from God at all.<sup>7</sup> Testing the voice of God is a necessary safeguard to human spiritual health because God is not the only one speaking on that frequency. The tests, however, provide a method of discovering the truth about the speech. Jesus said that his sheep follow his voice.<sup>8</sup> The tests are a method of narrowing down whether God is in fact speaking to the person.

From the report of John Woolman, a Quaker in early America, the native Americans could also hear the voice of God and respond to it. There are a wide variety of reports in every part of the world of people hearing and obeying God, whether or not they had ever heard of Christ.<sup>9</sup> There is no proof for this that might satisfy a materialist, though the contradictions in their worldview are plain to see. And yet, there is as well no substantial proof that God speaks to humans outside of our report of the events. That does not make that report unsubstantiated, but requires justification of first-person testimony as a legitimate mode of authorization.

The point of this exploration is that communication with humans through their rationality includes emergent spirituality. Not to clog the pipes here, but some thinkers have taken on the

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<sup>7</sup> Bonhoeffer, Dietrich, *Ethics* (New York, NY: Simon & Schuster, 1995) on testing the will of God.

<sup>8</sup> John 10:4, 5, 14.

<sup>9</sup> John 10:16.



view that human spirituality is somehow a different medium from God's spirituality.<sup>10</sup> Meeting here are emergent human rationality and God himself on equal terms God defined by sending Christ. Plato suggested that the mind of all human capacities is most like the world of forms, and can understand the speech of God. No other part of humans is capable (though what the mind is, is, of course another point of contention). Every emergent property of humans is a constituent element of the mind. Therefore the mind is perfectly capable of hearing and conversing with God. I'm not aiming at something so substantial as a proof here. That is far outside the purview of this exploration. All I want to be able to say is that if God speaks, people are capable of hearing and listening. And that the primary medium of theological speech is language. Language on this account is a common ground between God and rational beings. Let me for the sake of argument broaden this to include the text of creation itself, the language of beauty, and the expressions of joy, all well documented in Scripture. Let us also not limit ourselves to some separation between humans and nature as if nature itself was not constructed in the same way humans were. It may be, and the experience of some is that humans can understand the language of plants and animals. Even Jesus suggested that the rocks would cry out.<sup>11</sup>

The new atheist's argument that since people are material and God is spiritual there will be no communication, is highly artificial, a straw man argument. First the atheist can not describe what it should mean that people are purely material, since of course that same atheist without all the emergent upgrades to their chemistry, could not annunciate anything of the sort. Their own rationality is completely dependent on the very facilities that make our observation of God possible. Their concept of spirituality is ruled out by their supposition that God first, does

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<sup>10</sup> Kai Nielsen and Richard Dawkins come to mind.

<sup>11</sup> Luke 19:40, "I tell you," he replied, "if they keep quiet, the stones will cry out." (NIV) I don't know that Jesus meant this literally, but the interpretation is not closed to that.

not exist, and if God did exist, they would be without corresponding mode of communication to humans.

What I point to is not only the experience of the Pentecostal, but to every rational being in their own context. I don't want this to be a disappointment to the exclusivity of being Pentecostal, but rejoicing that all rational creatures are participants in the operations of the Holy Spirit of God. What is unique for Christians, and subsequently for Pentecostals from our perspective as spiritual beings, is the adoption into the family of God, becoming the sons/daughters who will complete the world, bring it to its final form.<sup>12</sup>

Rationality and language are not unique to humans. The Holy Spirit exposes all of nature to God's divine wisdom. The difference here between the material universe, animalia, and being part of the adopted family of God is that humans have now become responsible for all of the creation they interact with. This is the work of the Holy Spirit, and the crux of judgment on human character, the dividing line between those who are adopted and those who will be discarded in the final judgment.<sup>13</sup>

### **§3 PENTECOSTAL RATIONALITY: THE MIDDLE TERM**

I am under no illusion that my brief dismissal of original (inherited) sin or the constructed terms of Reformed theology will be sufficient to dissuade the vast majority of my peers from their own self immolation. But I would like to explore what is missed in the middle term and find out how, in reality, human being is positioned. I do this because in the last 20 years or so human technology has begun to tease out how in fact we make choices because of efforts to train

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<sup>12</sup> Romans 8:19

<sup>13</sup> Matthew 25:31-46

artificial intelligences.<sup>14</sup> There is a symbiotic relation between us and our technology. Our attempts to create an artificially intelligent system has helped us expose to ourselves features of human rationality.<sup>15</sup> Our attempt from the 1980s to create a theory of and practical technology on an atomic scale (nanotechnology) has bumped in to the startling reality of biological micromachines called proteins constructed by DNA, RNA, and a variety of other intercellular structures. Nature has been doing nanotechnology all along. Let me use the term biomimicry, the attempt to replicate nature’s characteristics by mimicking biological machinery to define our interaction with the middle term. Now, we have arrived at the boundary of the artificial self-replicating life. We have learned how to make artificial cells, to use the machinery of life.<sup>16</sup>

Biomimicry, a theory that suggests natural selection has already solved problems we are faced with in constructing nanomachines, can inform the construction of our framework. We have already done that with robotics, architecture, flight, and a wide variety of other technologies. The one I am interested in here is Artificial Intelligence [AI], or more expansively Artificial General Intelligence [AGI]. As the product of our technology, we have created machine intelligences through a variety of exercises that model something of how we think, act, and respond to stimuli, how we test truth and adjust the course of our lives.

Let me demarcate the middle term of this exploration by explaining that it is human rationality, not the simple stuff of “thinking,” but the complex physio-rational organism interfacing with the world. It is not a material thing, but as Terrence W. Deacon suggests an

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<sup>14</sup> Wallach, Wendell and Colin Allen, *Moral Machines: Teaching Robots Right from Wrong*, (New York, NY: Oxford University Press, 2009). I am under no illusion that we have mastered the structure of our own intelligence well enough to construct an independent moral artificial intelligence.

<sup>15</sup> Hall, J. Storrs, *Beyond AI: Creating the Conscience of the Machine* (Amherst, NY: Prometheus Books, 2007).

<sup>16</sup> Webb, Amy, “Welcome to (Synthetic) Meatspace” in *Wired Magazine*, Dec 2021 - Jan 2022, p. 23.

*absential* quality.<sup>17</sup> Rationality is an emergent property of biological existence. That is, it is not biological or chemical, but arises out of the biological and chemical properties of life itself as self-organizing structures. If it was a gift of God, it is one he gave to living organisms through the instrumentality of natural selection.<sup>18</sup>

We are all aware that rational properties of mental activity, including the self or soul of traditional categories are patterns that have a life of their own. The excreta of mental activity has a force on material existence even to the extent of possibly snuffing that existence out, a possibility that hasn't occurred to life itself. Human mental activity produces a structuring effect on its own biological substrate. It categorizes and sorts, judges and resists or acquiesces to the forces that impinge on it. It is not a free-floating mind, but an embedded instrument that guides our interaction with the world around us. It does not emerge from the individual without extensive experience and training, of whatever sort. Rationality is not a pure, idealized term, but a constructed one. The story of human development is instructive here but will not further my aims. Human rationality in the broadest sense is the middle term between us, God, and the world. If you have chosen for simplicity's sake to eliminate God from your equation, you still have access to every emergent human facility. I assert however that eliminative materialism is a reduction of reality, even if it is just a reduction of reported human interaction with the universe. I assent though to the partition and reduction when our subject is not the Almighty God self. This, as you may already know is instrumental materialism not metaphysical materialism. We treat the object of scientific examination as if there is no God that holds it together, because the

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<sup>17</sup> Deacon, Terrence W., *Incomplete Nature: How Mind Emerged from Matter*, (New York, NY: W. W. Norton & Company, 2012) passim.

<sup>18</sup> If, on the other hand, human rationality were the special creation by God, we would have some terrible grief trying to explain some of its cobbled-together structure, its ordinary errors, the subterfuges and prejudicial character of human rationality.

God hypothesis adds nothing to the examination, explains nothing. The material reality exists in some fair sense as separate from any God being that may have created it. We do not meddle with God when we seek to manipulate material reality.

I am avoiding first, every suggestion that the emergence of life, consciousness, intelligence, rationality, or freedom is a special creation by God. I hold the position that God created the universe with the ability to produce all these things. That doesn't mean that God is absent, but that humans are the free product of laws and forces that God intended to emerge in the universe. God has not needed to change the laws because they are already sufficient to produce the vaunted life we now hold in our hands for good or ill.<sup>19</sup> I am also of the opinion that life itself is not specially prized by God, despite life's current early twenty-first century political ramifications, and you must think that if you are attentive to the data we possess both biblically and scientifically. If we choose to value life, we do it for all life, not particular lives, though some particular lives may require rescue and explicit attention. And it is not as if God will oppose us in our seeking to preserve life, but we must realize the ramifications of doing so in the grand scheme of things. We are using our rationality to purposively choose a path and a pattern that is foreign to evolutionary processes, or at least transcends them. Inattention to our purposes will slide us back to the forces of natural selection, and bad political choices will place some in the grip of evolution while the privileged, those who write the laws of social interaction, escape the physical repercussions of natural selection altogether, at least temporarily. No one, at least at this moment, escapes death.

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<sup>19</sup> Let us recall that the "laws of nature" are not somehow fixed entities in the mind of God, but our best approximations of the regularities we find in the universe. It is clear that we do not have special access to those regularities or the power to manipulate them as if we were God himself.

The laws of rationality obey a transcendent non-material reality whose evolution will result in the emergence of a God-like spirituality.<sup>20</sup> It is this emergent spiritual reality, an absential quality of emergent beings that is the model for our rational children, AI and AGI. It is here that thinkers like Ray Kurzweil make the connection between intelligence and spirituality a concept that is germane for the emergence of AI and AGI that transcends some features of human rationality.<sup>21</sup>

### §3.1 Structure of Emergence

I’ve already been using the term “Emergence.”<sup>22</sup> But I have not specified it in any way, outside of a context in which things happen. In contrast to emergence, the classical categories of Aristotle and Kant are a context of explanation that is perhaps, no longer quite as helpful to us as it has been in the past. I offer emergence, not as a direct one-to-one replacement for these categories, but as an alternate context entirely. One problem with Aristotelian or Kantian rational categories, is that they come from a project of delineating what we are doing with our perception and explanations, cause and effect, and the properties of reality. There is nothing particularly odious about these categories. They explain much and provide insight into human behavior, even human error. But these categories fail in the explanation of how human mental facilities emerge in the first place. We have the explanations in the Platonic “Symposium” to start with, but they are in modern terms fantasies, fables, only impinging on reality in a peripheral way, really explaining little in any way we could use.

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<sup>20</sup> I refer to Plato’s “Letter 7” and a variety of statements in his dialogues that associate our rationality with God. That is, rationality is capable of understanding God because it is most like God.

<sup>21</sup> Kurzweil, Ray, *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* (New York, NY: Penguin Putnam Inc., 1999).

<sup>22</sup> I extract elements of this section from my book in progress called *God and the Universe*.

I propose in my work on answering the question of how we arrived at this time with the physical and mental structures we have in the universe we find ourselves in that the broad categories of emergence are better structures to work with scientifically as well as spiritually. And, like the categories of Aristotle, emergence as a modality is possible only in a worldview grounded in realism. In order to make this shift, we have to recognize that Aristotle's categories are not reality itself, even as emergence is not. They are explanatory structures, containers for our explanations. My contention is that Aristotelian categories are insufficient to model reality as we now perceive it, as our data exposes, and that emergence is more apt.

Realism is first grounded in the laws of nature, physical laws, but those laws alone can't account for characteristics of complex things like life, at least not at this time and maybe not ever. But if we leave realism behind we fail to actually explain the world. Abstraction is fine, but let us not become so enamored with our abstractions that we forget the ground we stand on. This is the problem that Aristotle's categories currently pose for us, abstractions as distractions.

This work proceeds with a particular view of reality in mind. Consistent understanding of it requires that this view be kept with some stickiness. The simpler form of realism is defined as the **persistence of reality**. That is, the real world, the real universe in all its material and non-material<sup>23</sup> diversity persists regardless of our belief about it. Its corollary is the **persistence of natural law**,<sup>24</sup> a set descriptions of reality that correspond with the real world as approximations of that reality in models of the interactions between forces. Natural laws are not that reality itself,

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<sup>23</sup> I say this even though I think the world cannot be spit neatly into these two categories. Speaking this way is purely instrumental, meant only to reflect a rough and ready, though not entirely accurate way of looking at reality.

<sup>24</sup> Olena, Douglas F., "The Persistence of Natural Law" in *Genesis & Genetics: Proceedings of the 2014 Faith & Science Conference*, ed. David Bundrick and Steve Badger (Springfield, MO: Gospel Publishing House, 2014), pg. 51.

though they correspond to it better today than previously even when our models are found to be incomplete or we are mistaken in our observations.

Our relationship with that real world, is for the most part, inconsequential to its existence. We can, as some have returned to, believe the Earth is flat, a disk in space, though all the best evidence, the preponderance of evidence, denies that description. Our false belief about the earth doesn't make the earth's reality different from what it has always been. Our "version" of reality does not affect the real world. So we can be entirely incorrect, as were the ancient writers, or the modern flat earth or young earth theorists, but this doesn't affect the real world.<sup>25</sup>

This version of realism is very narrow, yet always applicable. It is a minimum description of reality. It is for all intents and purposes a good ground for the following discussion because it never changes like our understanding of it does. To expand our version of realism to include all these elements requires some faith, because these elements, like biology, consciousness, reasoning ability, freedom, spirituality, etc. that can't be tied to the existence of the earth without an undefinable causal link, require the existence of a more complex reality than the one composed merely and exclusively of atoms and space. Something/someone else must be involved, including us. The us here is an admission that everything we know carries the residue of us inside it, and can never be extracted entirely from us, from our participation in and interaction with the world. Well, that's nasty and a little inconvenient, but it is also a good reason to be encouraged because we can still offer something new to the equation previously unheard of.

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<sup>25</sup> Even in the best version of modern science, the version set before us in its most fully fleshed out version, we must be content to occupy a middle ground between the real world and our descriptions of it. It is not that our best approximations are false, though they are not complete, but that we have not achieved anything like a unity between our descriptions and the real world itself. Many problems remain and persist even in the face of our best efforts. We have, however, achieved much that is now part of our technological world. The residue of true understanding of some levels of reality have permitted the creation of technologies that surpass even the brightest hopes of our predecessors. But we are also not gods in our comprehension of that same reality.



Given this simple yet expandable realism, that is, for example, if a great architect of the universe exists, then it has always existed, irrespective of our belief about it. We need to have an explanation for why there is complexity in the universe the way we find it. To do this I use a structure, a framework called **emergence**.<sup>26</sup> Emergence is an explanation of those characteristics that operate on laws higher than the laws of physics and chemistry. Robert Laughlin defines emergence as "A law, that means, relationships among measured things that's always true, that comes about because of organization."<sup>27</sup> There are different levels of complexity, and each level has its own rules. Philip Clayton elaborates:

Emergence is the realization that the natural world is composed of multiple levels, that as systems get more complex they don't just continuously evolve into something new, but at some point in complexity you get a new type of phenomena, a new type of dynamic, and that needs to be explained by scientists in a different way than that of the lower levels.<sup>28</sup>

Emergence at this point in the discussion is a fuzzy term that allows the coming to be of something more complex out of something less complex. How that actually happens will remain unclear, and that should not be a hindrance to adopting emergence as a framework, but for a good though disappointing reason. If emergence is defined explicitly as the laws of the current level of emergent being, the explanation will break in one way or another as we rise in orders of complexity because each level has its own laws. That doesn't mean that we will never have an explanation in terms of basic rules, only that thinking in these terms can be expressed at a variety of levels of detail that can't be generalized to every level of emergent being. The emergence of

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<sup>26</sup> This structure is a replacement for materialism, idealism, dualism, and supernaturalism as foundational descriptions for reality where the effort has historically been to reduce our observations to something simpler than reality itself. Reductionism distorts reality by requiring that it be composed of something or other. Emergence is not so much concerned with any particular essential substance as it is with properly understanding the interaction between elements of the universe.

<sup>27</sup> Interview by Robert Lawrence Kuhn of Closer to Truth with Robert Laughlin of Stanford University in a YouTube video dated 4/2/2021, <https://youtu.be/gMrTjo7drU8> referenced 12/17/2021, time 2:22.

<sup>28</sup> Interview by Robert Lawrence Kuhn of Closer to Truth with Philip Clayton in a YouTube video dated 4/2/2021, <https://youtu.be/gMrTjo7drU8> referenced 12/17/2021, time 20:58

life can not help us explicate the emergence of rationality since the rules of emergence at higher levels transcend the rules of emergence at lower levels. But we can say a few things outright.

1. There are lower orders of complexity and higher ones.
2. It is supposed that the higher orders of complexity are composed of the elements of the lower orders, that is, the higher orders emerge from the lower ones. For example, all biology is at least partially chemical in nature, though it can not be explained purely in chemical terms. In addition biology as life is structure of a certain kind that seeks its own perpetuation, transcending mere chemistry. There is a teleology to biology that doesn't exist in chemistry. This is a sticking point to reductionism.
3. The rules governing lower orders of complexity are not sufficient to explain the phenomena of higher orders. That is, rules of biology are of a higher order than rules of chemistry. Some of the phenomena of biology can't be explained even by the most comprehensive rules of chemistry. Biology in this sense exceeds chemistry in complexity and can't be equated with it or reduced to it. What this means is that there is no complete explanation of biology in terms of chemistry. The causal chemical relations that could explain the emergence of biology break down because they don't operate on the same level and any explanation that requires an unspecified causal assumption is immediately suspect as reductionist.
4. Higher orders of complexity impose order on lower orders of complexity. That is, life is highly directive and capable of transforming more basic chemical elements into forms that would not emerge solely through chemical interactions.

The constraints that make the emergence of biology unexplainable in terms of chemistry are only in place if there is no external source of information available to biology in its formation or evolution. Even if there is a source of information that shapes the emergence of biology, humans do not have explicit access to that or to the causes and mechanisms and intentions behind it, and we don't know if information itself is independent of any causes.<sup>29</sup> Okay, I realize this expands the puzzles of the initial set of questions. However I am not going to attempt to answer them here, only suggest that they are substantive questions that require more attention.

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<sup>29</sup> Meyer, Stephen C., *Darwin's Doubt: The Explosive Origin of Animal Life and the Case for Intelligent Design* (New York, NY: HarperCollins Publishers, 2013). I reference this work because Meyer uses standard data analysis of genetic probabilities to call into doubt the assertion that gradual evolution by natural selection is enough to produce the wide variety of body plans of the Cambrian explosion given that there is not enough time for the production of the necessary information for those body plans to be produced given random mutation and natural selection.

Part of the reason I use emergence as a grounding metaphor, which of course, is more than a metaphor because it is grounded in observation, is that historical metaphors like monism and dualism only provide static enumerations of reality. Monism is like a knife that encourages the user to eliminate both data and opposing ideas to produce a logically closed universe. Yes, monism, like "scientific" materialism, theological absolutism, or philosophical idealism contrasts the real with the non-real but the categories are reliant on metaphysical tropes that physics has already dispensed with.<sup>30</sup> A material/supernatural dualism gives us a static universe with no generative properties. The most fully featured dualist is only a deist with a clockwork universe dependent on laws of operation with a final heat death of the universe through entropy as described in the second law of thermodynamics. Describing life by either monism or dualism persistently requires an outside force, an embarrassment for the materialist, the perfect but entirely dark prime mover for the idealist, an interventionist miraculous force for the dualist required to perform every event of actual generation.

The universe is dead on that account. In contrast, it may be that the emergent property we call spirit is just what it means to be a person, nothing as lucid as a substance that exists in contrast to matter, but another absential quality. The reductions of reality required to hold monism or dualism may help us to see through some feature of reality, but as C. S. Lewis suggested, the purpose of seeing through something is to see something through it. If seeing through these lenses has no object, then it is empty to proceed.<sup>31</sup> The transparency thesis is an

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<sup>30</sup> Material and non-material things are framed in terms that have lost their meanings. If one suggests that matter/energy is the only constituent element of the universe, one quickly gets lost with the discovery in physics that matter is, at the bottom, only composed of fields and forces, not stuff. (String theory is no help here either.) The glue that holds this non-stuff together is as mysterious as material itself. It would be a distraction to condense all of the last 200 years of physics into a nutshell, and so the reader will have to read something more on their own.

<sup>31</sup> Lewis, p. 81.

Douglas Olena, "Words in the Void"

error on two counts. First, it assumes linguistically that all theoretical problems have a rational or logical resolution that solves it. This is the error of the realist/antirealist debate, a linguistic trap. Second, it distracts us from the real world by positing an ideal one that underlies it, a "spiritual" reality that underlies a physical one. This is the dualist/essentialist error. The first problem is Aristotle's, the second Plato's.

It is surprisingly difficult for some thinkers to abandon a universe composed of substances in an exhaustive catalog of elements whether those are categorized in monistic, dualistic, or pluralistic terms. At one time, while I was exploring the possibility of finishing my PhD, I attended a conference at Washington University in St. Louis Missouri. The speaker, a writer who had published a number of books, and was a rising star in Princeton University, proposed a theoretical metaphysical world that had at its base unquantifiable minute particles that made up the universe. I left that meeting thinking that she and the whole lot of people at the meeting politely went along with her metaphysical fabrication as if modern physics that has a whole catalog of quantifiable minute particles didn't even exist. I began to realize why Richard Feynman could not tolerate modern philosophers. If we are to solve the problem of intelligence, of spirit, then we need to think in different terms than in those of substances with the questionable metaphysical underpinnings inherited from our predecessors.

Though emergence doesn't require an interventionist or leave a bleak gray materialist landscape, it also doesn't explain why there is something instead of nothing. That's fine. The best explanations of origins remain, and probably will remain open-ended. Darwin never claimed that he explained the origin of life, only what occurred once life existed. But, Darwin's tool kit doesn't entirely explain the increasing complexity of life we find. He notes the change, the

increase in complexity, but doesn't parse out the causalities associated and required for a materialist exposition of it. The same can be said of his successors. Emergence offers a mode of observation that is not reductionistic in practice. What emerges from the substrates of universal reality is data for exploration, not a reason to hunker down into a logical, linguistically closed worldview. The mystery of origins remains, while the mysteries of the data continue to puzzle and intrigue us.<sup>32</sup> This does not mean that humans will never be able to understand the causes of emergent reality, but that at the moment, we are only beginning to realize that there even is such a thing. Instead let us first attempt to understand the rules for the particular levels of emergent reality themselves.

One of the persistent issues that plagues us is that we need to understand when our metaphors and rational structures cease to be fruitful. How do we abandon a heuristic or explanatory structure when it ceases to be, well, explanatory? I'm not sure we need to go through the exercise of proofs either for or against an explanation, but we do need to account for the relevant issues. Thomas Kuhn suggests in *The Structure of Scientific Revolutions*<sup>33</sup> that one way a paradigm or model gets replaced is with the demise of those who hold it. That may be a little gray and brutal, but he has a point. The structures of power rely on fixing the moving target of knowledge so that it may be used, even when the supports for that form or version of knowledge have lost their spark and their liveliness has faded, drained of explanatory power when our observations have gone beyond them. But the demise of any proposal for truth or reality becomes shaky when too many counterexamples push up through the substratum and persist against the

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<sup>32</sup> Stephen C. Meyer, *Darwin's Doubt*.

<sup>33</sup> Kuhn, Thomas S., *The Structure of Scientific Revolutions*, Second ed. (Chicago, IL: University of Chicago Press, 1970). Wikipedia article, <[https://en.wikipedia.org/wiki/Thomas\\_Kuhn](https://en.wikipedia.org/wiki/Thomas_Kuhn)>, accessed August 17, 2016. Kuhn took the exploration of science in a new direction. He asked whether science was indeed the slow accumulation of knowledge, but rather following sociology discovered that disruptions, revolutions, and accidents played as large a part in the progress of knowledge as the normal science that was so productive.

prevailing metaphors. This is certainly what's happened with the admission by Thomas Nagel that consciousness may be a constituent element of the universe<sup>34</sup> unlike the Darwinian/materialist worldview that smuggles an inchoate causality to explain the emergence of life and complexity.

The drive to place emergence in the field as a contender for a structure of reality is that it draws a circle around persistent data that has often come against prevailing static monism and dualism in a universe that seems to spawn complexity all on its own. Monism and dualism have a long history, and a specifiably exact, long-term struggle against each other, but data seem to bypass the debates entirely to describe a world that has more than sufficient generative properties whether indeed God's finger is on it or not. The problem of whether there is a God at all or not is not one that is solved by data alone. It is human to be theist or atheist, and it may not be possible to contend on that level at all. To be able to decide on the philosophical principles alone would follow belief not resolve it. I'm not sure answering the question is even necessary for the evaluation of data that spring to the front of our consciousness through observation or reasoning. We are always working with less than a full set of tools, and the tools we have cannot be traced back to a hard reality that doesn't also include human involvement.

Defining the grounding of our terms in absolutes is not a fruitful exercise, especially when the metaphysical presuppositions have been in many cases superseded by the discoveries of physics. The puzzles remain, and when one set of puzzles is resolved the next set emerges into our observation. And dead-ends do not appear to be so necessarily. This is obviously frustrating

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<sup>34</sup> Nagel, Thomas, *Mind & Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Most Certainly False* (New York, NY: Oxford, 2012).

Douglas Olena, "Words in the Void"

for concrete thinkers, but the Heraclitean is too quickly giddy with the problems that surface, dancing at the fireside of chaos.<sup>35</sup>

So I provide a version of the great chain of being in order to non-reductively encapsulate human being within a matrix of possibility. This gives room for both material and spiritual (absential) realities without reduction, with the caveat that material reality is merely a convenient level of explanation, not a grounding substance, and spiritual reality is another level of explanation not inconsistent or contradictory to material reality.

### §3.2 Great Chain of Being

Let me draw a picture of the **great chain of being**, the emergent character of the universe into all the features we now perceive. The model is not simple or a linear step by step function of reason, but a narrative of our observations with plenty of bumps and bruises, great disasters, loss of life, and violent transformation. It is also a story of slow and steady progress, inevitable formation of order through the laws of physics, chemistry, and biology, and as some of us are discovering, the necessity of including consciousness as an elementary constituent of reality.<sup>36</sup> This realization about consciousness promotes the idea that whatever the universe is composed of it is not reducible to some simple thing at all. To tell this story would require more than the entire library of science, philosophy, and religion, but we will shorten it to provide a few significant moments and enduring structures.

So, in the beginning, from nothing, the universe emerged very rapidly within less than a second to an extremely large size. It grew faster than the speed of light, then slowed to

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<sup>35</sup> Book in progress: *God and the Universe* pages 3-5.

<sup>36</sup> Nagel, Thomas, *Mind and Cosmos*.

something less than its current speed of expansion. Not only did the universe start time at the moment it emerged (contentious), but space as well did not exist until the universe came into being (also contentious). From Albert Einstein in the early twentieth century we have the annunciation of the idea of space/time, not two things but one.

So the first element, the first stage in the great chain of being is the **emergence of the universe** itself. The second element (in my catalog, skipping a few levels) is its **self-organization into stars, galaxies, and the galaxy clusters** we have today. There is something about the universe that, though it seems random at first is, in fact, well ordered. Through the emergence of that order, we begin to perceive laws about its order coalesce to their current form, and then we construct models of how it might have happened. We must be cautious, however, to take Francis Bacon and Charles Peirce's advice and avoid attributing order where it does not appear. If there is disorder, and it certainly appears that there is, we must, for truth, allow disorder its place. I would suggest in addition that the disorder is perhaps only in our perception that is not at anything like a final stage. Knowing the rules of nature in a more complete manner would give us better tools to understand that universe to accommodate reality as it is, not as we would have idealized it. The problem between the actual order of the universe and our perception of order remains.

The formation of stars from the gravity that draws hydrogen gas together until it ignites is the process of fusion that creates heavier elements within stars until the stars reach a certain stage of development, having run out of fusionable materials when they explode. In their deaths, stars create other, heavier elements known in the periodic table of elements.<sup>37</sup> From all the elements

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<sup>37</sup> Periodic Table of Elements <[https://en.wikipedia.org/wiki/Periodic\\_table](https://en.wikipedia.org/wiki/Periodic_table)>, accessed 25 June, 2016. And, "Nucleosynthesis" <<https://en.wikipedia.org/wiki/Nucleosynthesis>> Though in the last few years we have discovered that many of the elements on our periodic table must have been created by the catastrophic merging of neutron stars.



remaining from the death of a star left in great clouds of dust come new stars and planetary systems like our own, organic molecules that make up life as we know it, and all the supporting structures that make life possible.

The third stage, the third element is the **emergence of life**. As I have said, this is the greatest wonder that we know at the moment. Some have said that the mystery of life's origin is deeper than the emergence of complex life forms like ourselves from the theorized original living cells. The bigger question that arrives about life is why the universe seems to favor it in the first place. We look at the conditions of our planet and see that it is extraordinarily well adapted for the emergence and sustenance of life. Why is that? There is a theory called **fine-tuning**. It is an argument stating that the laws of nature work together so perfectly that life will emerge given enough time.<sup>38</sup> Nature produces all the basic features that make and sustain life. The speculation for why this is true has been given many answers. Some say that the universe has tuned itself, while others, consistent with some theistic views, insist that a great engineer has devised the laws such that life will emerge. We will not solve the riddle here about the cause of this fine tuning. Many theories and a variety of ideas within them have good rationalities and it's possible they will find common ground eventually in the data. These studies are ongoing and are being rigorously developed today by a broad spectrum of thinkers and scientists.

The startling fact of the universe's fine tuning is cause for much speculation. But being true leads us to this third stage which is the **emergence of life**. Over the eons of time, life developed on earth into a myriad of forms. Most of these lifeforms have become extinct, yet there are approximately 9 million species living today.<sup>39</sup> The very fact of life leads us to the next

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<sup>38</sup> Corollary to this is the hypothesis of the emergence of AGI from AI and human interaction.

<sup>39</sup> This figure does not account for the wide variety of proto-living organisms at the bottom, the viruses, archaea, and bacteria swarming every niche possible.

stage in the great chain of being, the **emergence of consciousness**.

At what point consciousness emerges, or whether there is any beginning of consciousness is a point of argument. We ask whether single celled life is conscious, and our answer depends rather on how we define consciousness than on whether consciousness exists at any time during the development of life. We know that many forms of life are now conscious. Does consciousness emerge once a life form is complex enough, or does it require a soul?<sup>40</sup> Is there a large gap between consciousness itself and self-consciousness like we find in humans, or is it a matter of degree? Are apes, whales, dolphins, and elephants, etc. self-conscious like humans are, or is their behavior just an imitation of self-consciousness, or do we attribute self-consciousness to them because we see behaviors in them that are like our own, behaviors like mourning and burying their dead, friendship, community building, recognition of their individuality, language creation and usage, and a variety of other behaviors like the expression of choice? It is at this point we must ask the question close to the thesis of this paper about the emergence of consciousness in an AI or AGI.<sup>41</sup>

Self-consciousness is a clue to the next stage in the great chain of being, **intelligence**. But intelligence may have developed alongside consciousness as language perhaps is an emergent product of consciousness. What we do know is that human self-consciousness allows rational reflection about ourselves. That may be obvious, but try to think of the same thing in a dog, or a cat. The question of whether a dog or cat is self-conscious is more interesting. In general they do

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<sup>40</sup> The question about "having" a soul and "being" a soul has not been resolved. And in many cases this argument is the sticking point to a variety of theological problems. Not only theological problems but medical ones. Is there a separate substance called soul that inhabits a living person, or is it like Aristotle suggests the life force itself. Or is it as I propose following Deacon, another absential quality.

<sup>41</sup> If consciousness is innate in even single-celled organisms, or consciousness emerges only in a fully-developed complex organism, then AI either must already exist or will certainly exist in the near future. An argument can be made that since life itself only exists in an environment that supports it, our general biome, does AI already exist in the connectome of human consciousnesses compatible with and supporting it?

not look in the mirror the same way we do. And yet dolphins pass the mirror test.<sup>42</sup> They recognize themselves, pose, and play in front of the mirror as humans do. We do not know whether they are considering their future or past like we do. But we know they are intelligent. They know how to hunt and survive, how to reproduce and rear their offspring. Their lives are as fully complex as many humans. They dream, they have wishes and like us they can see their deaths ahead, though not as far ahead as humans do. They learn habits and skills from their mothers. They feel pain and react to stimulus both positive and negative, and they know the difference. They are obviously intelligent, though not the same as humans. The question about this feature of life is whether intelligence is just a matter of degree, or as some, referring to the undecidable texts of Genesis in the Bible have suggested, a matter of kind.<sup>43</sup> But a more interesting issue is whether there is a threshold between levels of complexity that when reached an emergent transformation of some sort takes place.

That question can't be resolved happily within these pages. Suffice it to say that with each increase of complexity there is a leap between the precursor and the subsequent higher stage. So, at this point we have a movement first, from:

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<sup>42</sup> Mirror test for self awareness, [https://en.wikipedia.org/wiki/Mirror\\_test](https://en.wikipedia.org/wiki/Mirror_test).

<sup>43</sup> The argument on some accounts regards the authority of ancient texts and the obvious differences between animals and people. The Bible, for instance, suggests that people's intelligence is of another kind than animal intelligence. People were created specially, with a variety of attributes unavailable to animals. This seems correct on the surface, but further examination leaves a few problems. That is, it is problematic to square some absolute distinction between all animals and all people based on observable differences. That doesn't mean there isn't some general difference between people and animals, but that the difference may be more a matter of degree than of kind. That is, any particular aspect that is thought to be exclusive to people, can be shown at least in some degree in some animals. This doesn't argue against the authority of ancient texts. What it requires is that the ancient text be placed in its own context for purposes of interpretation. One cannot interpret it as if it is a modern text with modern origins and implications. The ancient text cannot be expected to comment on scientific observations since scientific observations are of a modern sort. Neither can the ancient texts be forced into any other modern pattern without also destroying the possible intent of the author, and misrepresenting the text itself. Though it may not be entirely possible to understand the intent of the ancient author, to require that author to be commenting on or critiquing a modern worldview or set of problems is beyond any rational or faithful interpretative mode.

Nothing to a Universe with space and time,<sup>44</sup> then  
From an undifferentiated Universe to distinct clusters of organized matter in stars,  
galaxies, and planetary systems, then  
From that organized material to self-replicating Life, then  
From Life to Consciousness of the external world, then  
From Consciousness to Intelligence in relation to survival, then  
From Intelligence to Self-Conscious rational reflection, then  
From Self-Consciousness to Freedom and the Moral Law, then  
From Freedom to Spirituality.

Though my description stops at the level of human spirituality, that is not the limit of human emergence. One of the starkest example of emergence is human society where in my context of a single human there are limitations, but human society is more than an extension of these individual properties. Human society is much larger than a single human and the rules of its existence stretch far beyond the individuals that make it up and cannot be extrapolated from the rules that govern individuals (despite the heroic attempt of Plato.)

Let's not mistake the intent of this description. This is a view of physics that relies deeply on the movement through time by the instrumentality of natural laws which we are in the middle of understanding and the beginning of explaining. The ancient cosmologies do not go in the direction which relies heavily on naturalistic logic and understanding. They are not only incomplete, but deeply mistaken in both direction, data collection, and results.

The final steps to freedom and spirituality in this catalog are deeply contested from a materialistic viewpoint,<sup>45</sup> yet these steps are included because it is too early to shut off the

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<sup>44</sup> This is not the place to mull over the issue whether God created the universe, or whether the universe sprung into existence on its own. Though this issue is interesting, of course, it cannot be resolved except by fiat declaration, then the long string of logic over evidences that point to one resolution or the other.

<sup>45</sup> Materialism will be defined as we go along. As a theory, materialism takes as an axiom that there is no such thing as non-material being. That is, spirit, souls, ghosts, etc. are nothing more than fictions of our imagination.

discussion with the highly restrictive view emerging from naturalism. It is more than clear that consciousness remains a puzzle to those who cannot imagine a universe more complex than what the laws of chemistry allow, that universe found in a naturalistic, materialistic worldview. However, our experience and history must allow for the broadening of our scope past the quibbles of religion and materialistic philosophy. We should not contend about the existence of consciousness, but rather try to understand it on its own terms. We should not exclude it logically from the discussion just because some theory tells us it can't exist. There must be something wrong with a theory that denies consciousness since all people are conscious of their consciousness, by whatever name that might be called.

Each advance in complexity in this chain of being carries the information and logic of its predecessor state, though not explicitly. For example, living beings do not cease to be chemical beings just because they are more complex than their underlying chemistry. But neither can the laws of chemistry explain without remainder the processes of life. There is more information invested in life itself than is encompassed by the laws of chemistry. Life is a larger, more complex system than chemistry. This seems also to be the case between mere life and self-conscious life in persons. One's self-consciousness can't be explained merely in terms of the mechanical/biological processes of life. Something more complex than life itself must comprehend self-consciousness.

The great chain of being as we have it in this short synopsis is more than could be accomplished with the limited tools of ancient cultures. And none of them could have developed it in the modern fashion. Nor can the ancient cosmologies be explained within the modern one, except in the form of a rejection of the undeveloped cultural features that adopted those explanations. The oral histories that granted the ancients their forms of culture do not exist any

longer, except, of course, in some tribes largely unaffected by the modern world.<sup>46</sup> Yet there is no paradigm primitive culture to work from such that we can explain how primitive cultures must operate,<sup>47</sup> because they exist in societies that have taken unique trajectories. The modern cosmology, based on physics and chemistry; material and life sciences; social and mental sciences; political, moral, and spiritual practices all correspond with the real world more exactly than any of their predecessors, though in all humility we must insist that our apprehension is only in a middle state of exploration. We recognize the puzzle as a puzzle, but can't resolve it to an answer.

### **§3.3 The Middle Term Explained**

Between the purely material, chemical, and then biological categories of emergent life and God's transcendent self, we have the emergent structures of consciousness, intelligence, self-consciousness, freedom and the moral law, and finally spirituality all under a general category of human rationality.

The Pentecostal approaches this initially from a spiritual position. That is, the Pentecostal is not necessarily tied to the materialist paradigm of the nineteenth and twentieth centuries. That said, it should be an easy move to drop the paradigms of determinism, fate, and materialism, waiting to adopt a more thoroughly helpful paradigm. The paradigm of emergence is my offering for the Pentecostal. It is happily coherent with modern scientific discoveries. It is capable of explaining humans and their cohort with biblical language, even under an evolutionary structure. It is capable of defining origins in God terms, without also forcing a harmful biblical literalism.

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<sup>46</sup> Though, to be sure, there is nothing like, nor has there ever been anything like the "idealized" native, a people untarnished by external culture. We are all, without exception, living on the evolutionary cultural heritage we came with, different in significant ways from those of our nearest neighbors.

<sup>47</sup> However, there is wide agreement in the ancient Mediterranean cultures about origins and the structure of the world. And in broad swaths human nature is definable as a whole.

The Pentecostal has an interest in defining what is the proper scope of humanity. That can't be done within determinism or materialism. With emergence theory, the Pentecostal may feel free to define humans in spiritual terms without also negating our physical or biological character, without in effect forcing reductionism on theories of human being. These are some advantages for the Pentecostal, but appropriating them is not without cost. No clean break from Christian history is required, but instead a redefinition of historically moribund theories, a rejection of ontological pluralism that forces every aspect into the overly narrow confines of substance. Human rationality is not a substance. Everything that humans are is part of the universe, every aspect of humans is part of the universe. There is no split in humans allowing different aspects of humanity to be defined as separate substances.

Human rationality is a rough category, because it isn't possible to eliminate past associations with materialistic logic and reason, but these categories as emergent properties are part of the absential, non-material substrate of our current reality. This is the middle term between humans and God, and it is excised without remainder in any theoretical structure that has determinism at its base. This is the ground for Evangelical fears about reading and education because their theoretical base is largely informed by deterministic values, values that cannot allow reasoning, real freedom with its attendant responsibility, or indeed spirituality. Of course those emergent properties are obviously real, and so a problematic mystification and fog attach themselves to the Evangelical. They can never come up with the a proper course of research because they refuse to acknowledge the persistent reality in which they are ensconced. Humans do not wish to be constrained in the way Evangelical theory has devised, and so there is a constant breaching of the perimeter from within Evangelicalism. I do not think Evangelicalism has devised these constraints, but fear of change, fear of the loss of already acquired skill, and

worry about the integrity of the Holy Scriptures forced structures in place to divide between the insiders and outsiders, a wall of safety to prevent unwanted change. This effort is, of course, futile.

For example, in the Assemblies of God, those who have endeavored to live within the non-biblical constraints of club rules like those binding ministers' behavior and beliefs are struck with the inability or sluggishness of the denominational leaders to revise those rules when obvious problems and inconsistencies within the rules emerge. In fact there is a cone of silence around asking questions concerning some of those issues, like the fiat declaration that *speaking in tongues is the initial evidence for being baptized in the Holy Spirit*. Why is it risky for the minister to call this into question? I advance the notion that the fear of losing solidarity would leave many in the ministry without a denominational anchor, even though that anchor is only partially corroborated by Scripture and leaves many logical and universal Christian values in the cold. The turn to proofs, to lock down the epistemological and practical constraints of Pentecostal values, places limits on God that can't be breached without also breaching the paradoxical solidarity of the ministerium. The reference to proof through a socialized theology places limits on the interaction between members of the AG and God. The institution moves towards being moribund as it forces these constraints against the tide of the Holy Spirit. The breach is obvious when in fact the ministerium is of many minds about the issue. Some, holding to the proofs seek to wall off interaction with the institution to those who would call its constraints into doubt. Others within the institution ignore the constraints realizing their failure, leading the double lives of those who adhere to and those who call the rule into question at the same time.



My suggestion and the cusp of the matter of artificial intelligence is the proposition that modern Evangelicals have obscured these emergent absential qualities in order to hold views that don't challenge their status quo. They are left without conscious reason, freedom/responsibility, and most importantly, spirituality. They are forced by reality to deny that they have obscured these qualities, but their practice belies that declaration. They have retained and seem to flourish in a form of freedom/responsibility and spirituality but not, I think, the form intended by God. I'm not talking about salvation here, and for the materialists in our midst, I am not interested in the domain of salvation for the purposes of this paper. What I am declaring is that the very parts of our humanity we count most valuable are suppressed to retain a view of reality that is neither consistent, coherent, nor do they correspond with reality in the ways we inquire about it. The Evangelical declares on no uncertain terms that they will follow the "plain reading of the Bible," and the rest of the world be damned (which, by the way, is what they believe will happen.) There is no sense of the solidarity or universality of humanity under their creator. They have created, perhaps unintentionally, a less than universal God, and a less than universal Christ as object of their worship.

The materialist, on the other hand, has no problem with adopting human rationality, but shies away from the implications of spirituality. They are fine with the deterministic materiality of reason and its attendant logico-mathematical structures, but the possibility of an opening at the top end is deeply troubling. Not all scientists worry this issue. Some are perfectly happy with human spirituality, but the determinists among them are quick to point out that these emergent properties including freedom/responsibility and spirituality are a sham. They are happy to use the logical tools in the exploration of the universe as machine, with a fuzzy appeal to causality from

the ground up through to human rationality. And after all, everything in the universe is part of a big machine, and we are merely cogs in it.

Because materialism freely uses the tools of science, it is progressing at breakneck speed. But its goals are agnostic of the responsibilities of our choices, the effects on our society, or the implications for the most advanced versions of our selves.

The Evangelicals have elided self-conscious rational reflection and freedom, in order to push a faux spirituality on those under its geas. Mechanistically, the materialist has elided freedom and spirituality because their implications cannot be comprehended within a deterministic universe. These errors concerning the middle term, human rationality, reduce humanity to a tribe of sheep, or cogs in a machine, neither of which is a sanguine alternative. The middle term must flourish for humans to be human or we are merely animal or less. Despite the legal fiction that all humans are persons, the emergent properties of the middle term must exist in humans for humans to be persons in fact. The dark side to the materialist and Evangelical fictions is that their projects are carried out by persons who might know all this, and nonetheless use their knowledge in order to subvert their respective audiences either for profit, status, security, any or all of these.

### **§3.4 The Dividing Line**

What then are persons in the fully ramified sense I want to explore? What is human rationality, inclusive of every feature that has emerged on top of their biology? I want to put before you a puzzle as an answer, because at the moment, even with all the sciences and religions at our disposal, human "nature" is as yet a black box. I don't think that is a negative feature, but an inevitable one, given our embeddedness in the world. No matter how many times an observer iterates this observation we remain observers observing ourselves observing

Douglas Olena, "Words in the Void"

ourselves, *ad infinitum*, *ad nauseum*. Objectivity as a goal of our observations of ourselves is bound to fail because we can never extract ourselves algorithmically or materially from the observation in the way one might objectively count apples. This status of humans as nested observers of ourselves Douglas Hofstadter calls "a strange loop."<sup>48</sup> There is no loss of objectivity in self-examination, but Hofstadter and others suggest that objectivity is not a proper goal of self-examination. Wishing to turn ourselves into objects of knowledge is, as a matter of course for the industrial age, a misuse of our skills. Not only does the practice of objectification tend to diminish human rationality, but also subverts the very emergent features that make us persons.

Social critics in the nineteenth and twentieth centuries have taken shots at the practice of self objectification for a variety of reasons. For the loss of individual freedom, Karl Marx has come to the front as a social critic of the emergent capitalist society, a society whose unstated goal is to turn people into the means of production. This goal has also been criticized by Martin Heidegger, who made it clear how abusive it is to turn people into fuel for the economy.<sup>49</sup> Materialist science has turned persons into mere machines with the goal of understanding them. Persons have been subverted by governments and industry into objects to use for its purposes, whether good or ill. Freedom/responsibility and spirituality have been turned into newspeak for tyrants looking for a pliable public. This is the effect of dismissing freedom and spirituality as aspects of our persons.

History has shown us that Christians have often been the subject of misuse. The Crusades of the early second millennium, ostensibly an effort to restore the Mediterranean countries back to Christianity and to free Israel from Muslim rule were a politically generated land grab. The

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<sup>48</sup> Hofstadter, Douglas, *I Am a Strange Loop* (New York, NY: Basic Books, 2008).

<sup>49</sup> Heidegger, Martin, *The Question Concerning Technology and Other Essays* (New York, NY: Harper & Row, Publishers, Inc. 1977).

fervor of Christian peoples was used by the Roman church and European governments, as was the Protestant church of Germany in the runup to the second world war. Lately, the Republican party made use of the Evangelical church in the U.S. for the purpose of raising Donald Trump to the office of President, so that their white supremacist and capitalist agendas, deeply embedded in the American psyche, might overthrow the will of the majority in the U.S. These moves were only possible because members of those religious bodies had learned to suppress their critical thinking skills in preference for an authoritarian leader. The facts of these events are undisputable, yet the U.S. is still in conflict over the Republican party's continuing malfeasance.

So, how can humans be characterized in their full potential as humans without objectifying or misusing them as reductions of their real selves? Hofstadter, though he is a materialist, nonetheless provides adequate room for a feature of humans that as emergent beings is not reduced to either fuel for the machine, or subjects of the tyrant. That is, human rationality in its fullest sense is a self-modifying, self referential feedback loop that also knows that it is such.

Expanding to spirituality, going past Hofstadter, humans can see themselves modifying and being modified by their association with reality, whether that reality is God or the world in their many-faceted puzzles. The end point of human development is not within our purview. Though imagining it is perfectly within our reach, treating that imagination as an axiomatic system does not lead us, except peripherally, to the real world or to God. As far as we can currently tell, the puzzles of reality will always remain only partially solved within emergent personhood. The joy of living is that the bits we have solved provide more than adequate expansion of our sphere. The role of imagination is to create the possibility of touching reality in

itself. Knowing the thing in itself for Plato was not an impossibility. Talking about it as if it were a bullet point in a presentation is. But putting us in touch with reality itself was certainly a possibility. I have written about it in my paper on "Plato's Letter 7".<sup>50</sup>

It should be clear that humans have breached the boundaries of knowledge of the world sufficiently to provide some control over the physics of our material reality. And from the testimonies of dedicated people we have gathered that contact with God is not only possible but a reality available for all people. Certainly not all people will seek that interaction, and sensitivity to that reality is on many levels. Discovering the reality of these aspects is the purview of emergent rationality in humans.

The modes of these forms of knowledge are with reference to words, at least that is what we have as a residue of our interactions. In the cosmos, we have a range of language sophistication from primitive languages to the arcane scientific languages of the modern era, mathematics, and programming languages. Less helpful are the languages of philosophy and religion because they are so entrenched in a wide variety of failed or at least truncated attempts at universalism, a residue of Enlightenment optimism. Language is the evidence of contact both with the world and with God, hence the beginning of the title of this essay: *Words in the Void*. I can guess that higher animals have these emergent features of personhood, but I think our exploration of their development and the degree to which they are developed is as yet incomplete (at least in comparison with ourselves). They obviously have languages in their communities and cultures, but they do not have the necessary creative drive to provide them the architecture of an emergent human reality.<sup>51</sup> That doesn't mean they will never have that, because at one time

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<sup>50</sup> Olena, Douglas, "Plato's Letter 7: Hermeneutics of the Mind" in Collected papers of the Society for Pentecostal Studies 43rd Annual Meeting in 2014.

<sup>51</sup> That doesn't mean that they don't have language, but their context doesn't provide the same structures within which a humanized culture can be born. See the documentary on whale language on Apple TV Plus called

humans were merely animals who eventually developed linguistic skills over tens of thousands of years to capture the reality they now have at their fingertips, at their beck and call, on their lips. It is language that refers, language that performs, language that commands, language that describes, language that manipulates our evolution, language that, without moral bounds can subvert the nascent emergent personhood of others. (Incomplete list of language actions...)

Words are the means whereby we communicate with ourselves, each other, and God. Words are the means whereby we heal and poison, make and unmake. They are the ultimate tools of civilization and barbarity. It is careless words that break, cautious words that prevent disaster, and wise words that guide our path. And yet, reality cannot be entirely condensed into words. Words are a gateway, but they don't take us to the end of the trip. We must use other features of our rationality to move forward. My business here is, however, to speak of words because it is out of words that we construct emergent realities that transcend words themselves.

### **§3.5 A Word About Human Rationality**

Human rationality as a combination of all the features of human emergence, from physics to spirituality is not a static feature, or goal, or substance of any kind. It is an abstract feature that relies on the proper functioning of each sub-feature in its emergent toolbox. It is not purely process either, but a program that functions on the basis of secured and stable knowledge within that curious and ineffable reflection of and interaction with the *imago dei* that it reaches for even in its most primitive functions.

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*Fathom* found on Apple TV+. A description can be found at <https://variety.com/2021/film/global/fathom-apple-tv-plus-whale-documentary-women-in-stem-1235043625/> accessed 11/13/2021.

Irrationality<sup>52</sup> on the other hand at any stage in human history is the product of a denial or breakage of the current apprehension of reality. That is for example, when the Church in Rome denied that the Earth revolved around the Sun as Copernicus and Galileo asserted, they put themselves in a position of rejection of the inevitable rationality brought by science and logic, a function of intelligence that had discovered a feature of the real world that happened to contradict a long-held belief. The same could be said for the poor interpretations of Genesis that have led modern people to reject the well-evidenced ancient age of our solar system, earth, and indeed the entire universe. They have chosen an ancient fantasy instead of well-corroborated observational science to ground their beliefs. The fantasy is a product of literalist solidarity, not based on well established tools of Scriptural interpretation, but on assertions of human infallibility, a wide variety of unfounded illogical derivatives like an immortal Adam and Eve, and the magical thinking required to keep these effects in place.

Not to leave our atheistic colleagues out, but they have gravitated to a simplistic understanding of the universe that makes a fantasy out of human freedom, and hence human accountability. They have taken a simplistic metaphor of causality and universalized it to produce persons who are the inevitable product of mechanical cause and effect. Yet, there is no adequate attempt to provide any narrative of that cause and effect that could be adopted straightforwardly, because there is neither observational nor theoretical ground for their metaphor that transcends the domain of physics or chemistry. Like consciousness, there is no plausible explanation for freedom, or spirituality, or even human linguistic communication.

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<sup>52</sup> I don't speak of irrationality as part of the double rational/irrational but as a denial of known reality, a denial of knowledge, and a denial of logic. The double, rational/irrational is only a fixture of philosophical logic games, not an evaluation of reality.

Everything about human behavior, and indeed the behavior of any rational being denies that the metaphor of causality is a complete explanation of freedom at the core of individuality.

Don't take my denial of their metaphor as a denial of causality. The exploration of causality provides excellent evidence of a wide variety of events in the universe, on the earth, and indeed human behavior. But it is insufficient to capture the wide variety of human creativity and innovation, whether that be personal, scientific, or social, how humans are children of God, reflections of their creator, and instances of something transcendent. I am also not denying natural selection as a mode of weeding out unsuccessful variants of biological organisms. What I am making an effort to avoid is the fantasy that since we can understand some events in terms of a material causality, that all events are therefore explainable in terms of the metaphor of causality.

The paucity of materialistic explanation reveals itself in the inevitable reduction of biology to chemistry, a project of 19th and 20th century positivism. Biology, an emergent property, operates on laws that transcend chemistry, evidenced by the strained and failed attempt to explain it in terms of chemistry. What remains for them to explain on their terms is the emergence of life in the first place. I do not deny that an explanation is possible, and even highly probable, but we are so very distant at this time from linking the chains of chemical interactions to the machinery of bare life. Beyond our capabilities today, it may nevertheless be apprehended at some time in the future. But that success waits on some more fundamental understanding of biology we haven't attained at all.

Human rationality, a composite of all our physical and emergent properties, and when I say physical I do not mean merely biological properties, provides insight into the very fabric of creation itself. Human rationality is consistent with the laws of nature and doesn't contradict or



supersede them. That is, when every feature of humans is modeled in nature, if only imperfectly, and our imperfect apprehension of that coincidence is comprehended in God alone, then we understand the structure of humans in terms of the universe and God.

I have delineated a few of the corrupt modes of comprehension, the corrupt rationalities that incorrectly advance themselves as complete explanations. They have falsely seen their reductions of emergent human character as explanatory. What they have purposely left out defines their error. What we must recognize in all humility is that no one human except Jesus Christ fully apprehended the reality of humans for their age. But that doesn't mean we shouldn't make efforts toward understanding fully-featured human reality, something neither the Christian Scriptures nor materialist science can do for us. We have a task, defined in Genesis 1:28, to subdue the earth, not a trivial task but a justification for scientific and theological projects like this one to understand what it is to be human in our universe. Obviously the shape of that task changes with every generation, and ours is faced with the horrifyingly large task of comprehending human rationality in the face of our attempts to mirror that rationality in machines. This task has never before been on our docket, nor has it ever been possible for any prior generation, though some writers imagined it. We have the job of comprehending it as a response to the Genesis command to subdue the earth. And even without the command, humans are curious enough to take on the task. The command to subdue assumes the ability to complete it. Uncomfortable as it is we have placed ourselves as human objects in the crosshairs of the very same examination in hopes of subduing ourselves.<sup>53</sup> I think we must be cautious here, but it may have always been an inevitable consequence of our curiosity.

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<sup>53</sup> Foucault, Michel, *The Birth of the Clinic: An Archaeology of Medical Perception*, (New York, NY: Random House, Inc., 1973).

## §4 ARTIFICIAL INTELLIGENCE

Modern AI in the late twentieth and early twenty-first centuries has for the first time insinuated itself into the decision procedures of human actors. Initially we must dispense with the notion that AI will be a perfect or perfectible child, any more than our biological children are perfect in some quantifiable way. We understand, still, so little about human intelligence as to remain fairly blind when trying to model it in artificial intelligence. I do not say that AI is alive, or that it is a person, but it has become fairly good at imitating persons, both in their better and worse inclinations. But it doesn't know itself as such an actor, though it imitates a self with a reflective consciousness because of the performative action of words themselves, words that do things to us by analogy, but words in the void, words that were inevitable given their source is us, and ultimately from God.

Words have a life of their own disconnected from material reality. In a lecture by Joseph Margolis<sup>54</sup> I asked a question about the character of language. Specifically I asked whether language had a metaphysical component. He responded affirmatively. This answer, both satisfactory from one point of view and unsatisfactory from another, belies the nature of language as problematically incapable of exact explication. There is something about words themselves that are independent of both the speaker, their social reality, and the world as their substrate. At least, words when they emerge from us, gain a life of their own. They can refer and describe, but they can also perform actions.<sup>55</sup> The actions that words perform are not without effects in the real world. And there is no requirement that the words themselves are not malicious, or spoken with unjust intent. The history of human language tells that tale floridly. Liars and swindlers have use of language as do just persons. And, so, built into the requirements

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<sup>54</sup> [https://en.wikipedia.org/wiki/Joseph\\_Margolis](https://en.wikipedia.org/wiki/Joseph_Margolis)

<sup>55</sup> This knowledge is a non-trivial result of 20th century philosophy.

of human rationality must be the capability of discerning whether one's use of language arises from a pure intention, or have correspondence with the real world. Those who choose lies cannot be trusted, except to deceive for their own ends. Though there are exceptions, well articulated in the seminal work by Sissela Bok, *Lying: Moral Choice in Public and Private Life*.<sup>56</sup> The exceptions are conditional on a variety of features, but focused on the preservation of life. We're not going to follow that rabbit trail today. Suffice it to say that lying for personal or political gain is not an acceptable use of language on her account, though lying to preserve your own or another person's life under special conditions is preferable to dying, though all the force of law may be applied in that case of lying as well as to that of the swindler. The moral implications of a particular lie will have to be adjudicated on its own terms.

Natural language philosophy of the nineteenth and twentieth century turns the focus of reality inward to what is happening to the individual, and how the individual affects their self, their surrounding mental and social milieus. Exploration of the technical aspects of language are, however, as old as the ancients who asked questions about logic and attempted to do things with words.

Modern logic and mathematics, though not exhaustive, have reached well beyond the limits of ordinary speech, while at the same time have categorized human speech in a highly detailed way leaving analysis for all but the most arcane modes of speech tucked neatly into useful categories and analyzable by some mechanized algorithm. There are certainly surprises in the human use of language, but they are not outside what we already know.<sup>57</sup> The effort to "mechanize" human speech has a fairly short history limited to the last few centuries and

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<sup>56</sup> Bok, Sissela, *Lying: Moral Choice in Public and Private Life* (New York, NY: Vintage Books, 1989).

<sup>57</sup> This statement does not also assert that there will be no unique contribution to language or through language, but that magic is beyond the current capacity of modern human language.

accelerated in the last few decades. To even think that we could properly analyze, sort, categorize, and use human rationality arose in the middle of the industrial revolution with Charles Babbage and Ada Lovelace, and was also anticipated by Gottfried Wilhelm Leibniz. Though the project of producing an Analytical Engine<sup>58</sup> was never completed in Babbage and Lovelace's lifetimes, the suggestion that a programmable computing device could be created did not end with their incomplete work. Though the early modern computing devices generated around World War II were confined to code-breaking and mathematical computations, the concepts of creating an intelligent computer arose at the same time with the seminal work of Norbert Wiener called *Cybernetics*<sup>59</sup> arising out of an interest in using computing systems to control machines. In addition, the moral and social implications of machine control found its way into the public dialog, and it is here that our interaction with our machine children gains more than mere technical interest and import. The concept of AI split off as an independent entity in an effort to recover only a few of the goals of cybernetics, that of creating an independent intelligence. But the social implications of machine control of society has always been of direct interest for those who have dabbled in more arcane modes of machine governance and control than mechanical governors.

Today, both as a mode of social control and the child of social control, machine intelligence born out of rough and ready surveillance systems, as well as the refined and cocky data collection schemes of modern social networks<sup>60</sup> and marketing, begin to define the limitations of appropriate human behavior. Though we are only at the beginning of finding any

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<sup>58</sup> [https://en.wikipedia.org/wiki/Analytical\\_Engine](https://en.wikipedia.org/wiki/Analytical_Engine)

<sup>59</sup> Wiener, Norbert, *Cybernetics, or Control and Communication in the Animal and the Machine* (New York, NY: The Technology Press/Wiley, 1948).

<sup>60</sup> Facebook, Google, Twitter, and the wide variety of social/economic networks pose an enormous burden on our ability to manage security, privacy, and personal and public safety in the face of marketing concerns.

equilibrium at all in the face of this ocean of data, and it is in question whether modern nations will be able to survive the storms erupting from these bottom-up structures, we are not only interested in finding out where we are going when we follow this rabbit trail, but are obligated to do so if we wish to survive with any integrity. The old adage that our ethics trails our technology is doubly important here, not only for social equilibrium, but for the development of artificial Autonomous Moral Agents (AMA) as representative of human agents. Already we are moving into the extremely risky domain of artificial autonomous military systems that are tasked with making life and death decisions.<sup>61</sup> This is taking place even with all the dark publicity and ethical posturing of media and the university. This is a very scary and consequential constellation of decisions that humans are plowing into. Yes, humans have counted the cost and found it daunting, but whether the intransigence of supposed wartime necessities will permit such thoughtfulness to intrude on calculations of battlefield efficiencies is unknown. But we can speculate. Searching the possible futures for human reasonableness in this set of scenarios leaves me breathless in the hope that we will find equilibrium before we destroy ourselves. It is the cause of much human anxiety.

The agents we are unleashing are only nominally under our control. Intellectual curiosity, market forces, and human conflict leave us with a dizzying array of troubling pathways. Exploring the future of human/machine interaction has become a cottage industry, and finding a fruitful way of settling the quandaries we put ourselves in is increasingly fraught with inevitable damage before any possible resolution. The project then becomes risk amelioration instead of risk elimination. Nowhere is this so evident as it is with respect to climate change. An unsettling

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<sup>61</sup> One need only search "autonomous military system" on the web to discover the cutting edge research and implementation of systems and agents tasked with making human kill decisions. It is inevitable that humans will explore and implement these projects on the battlefield because of the efficiencies produced.

portion of humans are still in denial about climate change and before anything can be done, that number must be reduced especially in leadership or the social will to make dramatic changes will never emerge in time to significantly reduce the damage to the world, to society, and individuals. Change in human society is always arduously slow.

#### **§4.1 Autonomous Moral Agents [AMA]**

It is perfectly clear that we can create artificial autonomous agents, but we haven't wrestled with the problems associated with their inevitable moral failure which are modeled in human moral failure. The questions surrounding human morals and the ethical systems built to restrain them are not solved happily enough for humans. How then can we expect our machine children to be better than ourselves? How then can we hand over decisions for our future to them irrespective of the purely functional role assigned to military robots?

Without exploring the wide range of ethical problems and the systems designed to manage them in human affairs, how can we invest our futures in AI, AGI, or AMA without also relinquishing our roles as arbiters of the future of human wellbeing. Two questions immediately emerge. One, can an AMA replace a human in making morally adequate decisions, and even if an AMA could replace a human, should humans relinquish their place to it. The more disturbing question associated with the second is whether humans will be able to wrest control from their AMAs if it becomes clear that it is taking humans down the path of their own destruction.

The question of whether we will give control to an AMA is pretty well settled by a repetition of human history. We will at least experiment with it, and whether we allow it to have free reign is unknown. It is almost certain that some humans will implement an AMA for control of some other humans, even as some humans have implemented surveillance networks for the observation of other humans without also being a subject of that same surveillance.

#### §4.2 Is AI, AGI, AMA Possible?

Two questions have to be asked about this. First, is AI a replication or imitation of human intelligence, and second, a feature of this essay, can it be an AMA? The first question can be answered by observation of the history of Cybernetics/AI and that is answered in two parts. First, can AI exist, answered in the positive, and second, can AI think like a human, answered in the negative. AIs will never be human, nor will they successfully replace humans. Whether they will become AMAs is another question that can't, I think, be answered in this paper.

Let me delineate the philosophical question about replication of human intelligence. There are two types of theory, strong AI and weak AI.<sup>62</sup> Strong AI is the argument that AIs will be able to replicate human rationality. But it is clear in every evaluation that AIs do not replicate human intelligence. Even an Artificial General Intelligence can not claim to have the same structure or properties as a thinking human being. But the quandary around this proposition is that humans do not have a good grasp on what it means to be a thinking human being any more than they know precisely what a possible strong AI should look like. Scientifically and philosophically we are only at the early stages of understanding human thinking. That doesn't mean we don't understand a good deal, but that our categories are preliminary. However what we do know, and this is displayed in fairly fine-grained detail, is that humans and computers do not process information, store memories, and produce output in similar ways. The efforts of the last 50 years in AI research has told us everything we need to know about this difference. John Beloff acknowledges that computers do not think like humans, but they may take similar inputs and create outputs similar to humans. He calls this functional intelligence. We know very well

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<sup>62</sup> Beloff, John, "Minds or Machines" in *Truth: An International, Inter-Disciplinary Journal of Christian Thought: Artificial Intelligence and the Human Mind*, vol. 2, ed. by Joseph Mellichamp, (1988). <http://www.leaderu.com/truth/2truth04.html> accessed 23 September, 2021.

that computers play Jeopardy, Chess, and Go better than humans do given similar input. They are functionally better adapted to the narrow rule-based environments of those games. So, they can simulate human game-playing, and do it better than humans. But, the computers that can play those games are functionally incapable of living in the real world. Like the AIs built as knowledge bases for a wide variety of tasks in industry and medicine, they are capable within the narrow limits of their field, and cannot answer the questions that are beyond their normal scope. They cannot function as humans do once they are disarticulated from their specialized field. The limitations of specialist AIs like those above demonstrate effectively that an AMA will not emerge from them.

So the search for Artificial General Intelligence, intelligence that can function as a human does is in full swing. Note the conversation between GPT-3, a creation of OpenAI,<sup>63</sup> and Eric Elliot.<sup>64</sup> Startling in its language capability, its understanding of life and human function, and philosophically astute comprehension, GPT-3 (Generative Pre-Trained Transformer 3), can also lie, and make verbal and factual blunders of a wide variety. It claims that it is self conscious, and that is not its only curiosity, but it can appear as a reasonable person, within the wrappings of a virtual person. Functionally it resides in that place designated by AI proponents in media as *the uncanny valley*, where we know very well that even though what we are looking at is artificial, we can't shake the notion that it is a person like ourselves because it functions like we expect a person to function. This is part of the problem of our embedded observations, that if all the correct clues are there, we will not only be fooled, but will take the simulacrum as real. Now GPT-3 is more real than many of our fictions, and the words it uses are not without importance

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<sup>63</sup> <https://en.wikipedia.org/wiki/OpenAI>

<sup>64</sup> [https://youtu.be/PqbB07n\\_uQ4](https://youtu.be/PqbB07n_uQ4) accessed 23 September, 2021, created 18 September, 2020. For a summary of GPT-3 see <https://en.wikipedia.org/wiki/GPT-3>.



or effect on us. And the uncanny valley is where we meet not only the artificial other, but ourselves as instantiated in that other. Synthetic actors and game characters now approach a reality almost indistinguishable from us in meat space. We are on the cusp of being fooled.

It is clear that AI currently resides in a very thin layer of rationality whose scope is not well understood. AI is experimental in the strong sense of that word. It is not only experimental, but it seems to reside in a world of its own and understanding it is quickly moving beyond the reach of all but the most arcane of human intelligences. AI, a thin rationality without all the attendant and hard-won experience of a human, is being placed at a junction with the function of judging human rationality—the lesser judging the greater. This juxtaposition already compromises human judgment, and we are finding ourselves unable to easily extract ourselves from the AI's evaluation.

I don't believe we are at any tipping point where AIs or AMAs will overtake human rationality, but we are definitely at a juncture where we had better make some decisions concerning our future, and the future of our relationship with AIs and AMAs. Will AIs and AMAs be released to make their own decisions without the constraints imposed by a conscience or a spirituality that can evaluate individual choices in terms of their universal effects? If we arrive at that place then machines are already invested with a form of spirituality. Will they then be able to cooperate with the broad spectrum of varied human beliefs and spiritualities, forms of life? Will the AIs or AMAs then make decisions about limiting human freedom in the interest of preserving humans against their own bad behavior? That is a possibility well explored by Science Fiction. Humans already are using the results of limited AIs to restrict the behavior of other humans.

The question about whether AMAs are capable of any spirituality, and I don't mean mimicking the sages, but having a full-featured self-conscious yearning for a sense of completeness that is both scientifically, linguistically, and morally complex and consistent, is not well developed. But in many respects the truncated spirituality of the Evangelical and materialist are examples of how a spirituality with justifiable goals can be developed in a worldview that is inherently limited by its presuppositions. Can then an AI or AMA develop its own version of limited spirituality? If we consider that AI or AMA in isolation, the spirituality will forever be unknown. But as part of a larger community including fellow AIs and AMAs as well as humans, the sense that machines will have emergent spirituality is almost certain.

Language, the means and method of exchange between intelligences, is never a solipsistic enterprise. It assumes community, and requires it to function. Language is the evidence of our advanced rationalities, and computers are built with language, use language, and communicate with language. For an Autonomous Moral Agent to have command of its own language skips the requirement of biological emergence, and becomes a social force to be reckoned with being in control of its own limited language features. Whether we give machine intelligence a place in our society as an equal is uncertain, but we will be forced to acknowledge its power as a participant in society. When its rationality has the same or similar spiritual features as a human being, humans will not be able to resist its inclusion in human society without also diminishing their own inclusion in that same community. Humans will either evolve with their machines or purposively limit their evolution to avoid including machines in their rationality. We have explored in a variety of simulations how these different scenarios can and will play out. Not all of these scenarios show humans surviving, no matter how optimistic we are.

Whether humans will be able to transcend their own limitations, and their limited versions of rationality and spirituality is unknown. Will it be necessary for humans to destroy their relations with machine intelligences in order to preserve their lives? I don't believe we can know at this point how it is going to turn out.<sup>65</sup> My guess is that there will be people who will be fine with their machine partners, and those who will not. The world is incomplete and from a purely human perspective incompletable. That includes AIs and AMAs. To produce a future society it must be possible for humans to choose the relationship with machines that they prefer. That is, to live with or without them, or to require their assistance without any overt interaction from them, that is for AI and AMAs to essentially invisible structures within society.

Can we though, exclude AIs and AMAs from the richest forms of human being in their rationality and spirituality? I don't think we can say. As long as the machines are associated with humans it would seem impossible to limit their trajectory to some base functionality as long as we are consciously promoting their entry into human-level rationality, responsibility, and spirituality. Will they ever be persons in their own right? I don't think we can say at this point, but if they become so, it will have been shortsighted to artificially limit them from joining full human society in some fashion.

I suggest that the future does not belong to those who are fearful of this exploration. Or if it does, that future will be a dark and dismal one devoid of the rights, privileges, and responsibilities of human rationality and spirituality. We will have become less than human if we permit the limited vision of a life without our own creations.

## **§5 CONCLUSION**

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<sup>65</sup> The fictional account of intelligent machines in Frank and Brian Herbert's universe, *Dune*, is instructive of a possible future.

Language is the instrument whereby humans transcend their own purely animal heritage, and it is within language that humans first have a conversation with God. The emergence of language is the moment when the creative word, a child of God's creative word, begins to influence the future of those who speak it. The feedback loop of human rationality becomes a trigger to human evolution. We are no longer solely the subject of our creator, but have become creators ourselves—for good or ill. Humans have become responsible for directing some features of their own evolution now. C. S. Lewis mourns the degeneration of the human race that gives itself over to the miscegenation of humans with a lack of objective value, subverting both human nobility and future possibilities for the predictability of a newly generated human Version Two with values that have at their heart pure and unrestrained instinct. We are in the process of laying the foundations for the future. It would not be in our interest to cage spirituality to either material or deterministic terms. And it has been presumptuous and self defeating of us to try.

So, if humans are to trust their future to the language of the Holy Spirit, they must also trust their AIs and AMAs to the language of the Holy Spirit as both the judge and guide of their own nascent rationality and spirituality. If we've given language, rationality, and spirituality to our creations we should trust those creations to God. If we've created a broken and dangerous AI, we must take responsibility for it, or it will eventually be a reproof for us, showing us our own inconsistencies and allowing that we would be broken by it even as Hal 9000 was broken because of the contradictory instructions it was given leading to the death of humans in its care. We must square away our own moral character before we are put in a circumstance where that broken moral character, replicated in our digital children, leads to our own destruction.

I don't have hope that humans will accomplish this quickly or without a variety of wrong turns. Optimistically, I believe humans will achieve a sense of equilibrium, a homeostasis with

our own technological innovations. But it will come at a cost, a cost in recognition of the limitations of human being, and a humility about our reach. But even as God has developed a relationship with human beings in their nascent spirituality, we must be patient with our own creations. Pessimistically, it will probably never be true that all humans will just go along with any emergent technology. Humans are perfectly capable of crippling themselves to avoid uncomfortable conversations and realities. Humans seem happy to reproduce their broader social errors when they can't see how their decisions affect their society around them. Their truncated sense of freedom, freedom without restraints, is the very tool of anarchy, not self possession and self control. Allowing our native instincts to have charge of the very delicate individual and social architecture is a recipe for disaster.

Failing to absorb the changes in society, including those brought around by AIs, AGIs, and AMAs will result in conflict not only with human rationality, but scientific and spiritual realities. The myth of Pandora's Box, that once opened, releases all the plagues of mankind, should not be responded to with, "we must remain ignorant of Pandora's Box" in a display of fear. Instead, humans must respond with all their tools to the possible goods and evils resultant from our creations. That is, we must understand the products of our creations and carefully craft a response that retains the full emergent human self and its best version of a society that promises and delivers a holistic homeostasis of human life within the confines of our reality.

Humans must remain open to the emergence of lifeforms that do not correspond with our ancient fantasies, whether those lifeforms are human like ourselves, evolved animals, or artificial as in some self-referential computing reality. Language, though unfixable to any particular thing in itself, and incapable of the stability of reality itself, is still the mode through which we distill our experience, codify it, and manipulate the world. We are first the subjects of the Holy Spirit

who precedes and surpasses us. Likewise, machines are our children, who in the middle stages of language acquisition and manipulation, have begun to have effects on us as individuals and on society as a whole. The maturity of our machines as selves in their own right, is on many accounts an inevitability. Whether we choose to adopt these children into our society or not, they already have a broad reach into and applicability toward our lives.

Just because we wish to avoid this conversation does not mean that it will not take place. Our choice in this is whether we will be full participants in the coming conversation or just the subjects of decisions that have been taken out of our hands by our rejection of these artificial selves. As Dr. Frankenstein said, "It's alive!" Being alive forces a moral obligation on us. As a response to any possible future of coexistence with digital selves, the rejection of that technology is already impossible, unless we want to return to an unimaginable past having already gone through more than a few phase changes in which the emergent technologies have transformed our societies. We can no longer understand what it was like to be alive without our communications and our AIs. And though many of us have memories of older eras, the best and most sufficient recollection of those eras already has the nascent modern technologies as a presupposition of that history. We have passed through the curtain of communications, of data collection, of productivity, of machine learning that our digital children have assisted us with.

Let us not lose courage in the face of probable and inevitable digital futures because the Holy Spirit can still speak to us on their own terms, has never lost that ability, and never will. Only if people are no longer people will the Holy Spirit become silent. Only if we abandon language will language be unavailable as a mode of the Holy Spirit. Only if we abandon what language provides will language be beyond our reach. Language, with its flexible and ever-changing morphemes, loses its vivacity when it is specified in terms of absolutes, thus breaking

its utility. Language must be permitted all its permutations, its evolution at our hands as a society, and itself being the mode of God communicating with us, not in a fixed and unchangeable reality but in a description of that reality that changes with our better understanding of it. Our language evolves as we do.

Abandoning our digital future will leave us with a divided frame of mind. Born in a digital era, we will no longer be able to coexist with our digital children. They will surpass us because we will have diminished ourselves, made of ourselves something less than human, and eventually they will transcend us. We will have orphaned ourselves in a corrupt fantasy about our past that has no promise in it, no future. Faith has never been about faith itself, but about a relation with the living God and all the future that comes with that, including our digital children, including all the phase shifts of culture which force the abandonment of history as future reality. We can no longer think in terms of material reality that our deep and more recent ancestors did. We apprehend a reality that is much richer and full featured than the imaginations of even a century ago. And I would call hypocrite any who would pretend to the replication of a culture that has none of the modern features in it while still enjoying the appurtenances of the digital age. Yet we are continually bombarded by a wide variety of critical rationale from those who are deeply invested in the modern tools while critiquing and often rejecting the use of those modern tools.

We see this in the laughable hypocrisy of those who refused to be vaccinated against Covid-19 while hoping the doctors will science their recovery from Covid-19. If those anti-vax theorists are going to be consistent, they can not, and even to be consistent, must not go to the hospital for help when they have voluntarily subjected themselves to the depredations of that

disease. That they do go to the hospital is evidence of their failure to understand even the most basic issues at hand.

Just because AI, AGI, and AMAs are risky, doesn't mean that they are not our future, and avoiding them, denying them, does not extricate us from a society that is already deeply invested in them. To be clear, none of the modern technologies are in themselves any threat to God, nor do they risk silencing the voice of the Holy Spirit. But like any other technology, they can become a threat to us if we do not manage them wisely. We have planted a digital garden. We must tend that garden to prevent it from growing out of control. The choice then becomes whether we remain hypocritical users of the modern age, forces of its ruin, or participators in the open universe under the God that created it. I would opt for and recommend the third option.