



Granite Journal

*The University of Aberdeen Postgraduate Interdisciplinary
Journal*

Breaking the Boundaries: Interdisciplinary research approaches and methods

The Divine Science

Jeff Morris (Department of Divinity, University of Aberdeen)

<https://doi.org/10.57064/2164/22343>

Abstract: This paper focuses on and promotes the benefits of interdisciplinary work in systematic theology. First, I argue that theology deals with the broadest features of reality. Next, I contend that because theology is broad, it should incorporate insights from other disciplines, including for example physics and mathematics. Third, I demonstrate this idea by utilizing insights from the study of space to refine our understanding of God's presence. Specifically, I argue that given our Scriptural commitment to God's aseity and physicists insights into the nature of space, without creation, God was present, even though he was nowhere. That God can be present without having to be 'somewhere' can shed light on how God is omnipresent.

Keywords: Systematic Theology, Interdisciplinary Theology, Integrative Theology, Philosophical Theology, Analytic Theology



1 Introduction

One way to explain the task of Christian systematic theology is to say it aims to develop a comprehensive vision of the Christian faith which is consistent with the ancient texts of the Old and New Testament. While not all theologians agree that this is the task of Christian systematic theology, for this paper I will accept this definition. For an overview of three traditional and five modern approaches to theology, see Fiorenza *et al.* (2011).

In this paper, I posit that it is fruitful for systematic theologians who accept the above formulation to utilize insights from other disciplines to develop theology. First, I argue that theology deals with the broadest features of reality. Next, I contend that while theology is broad, it is not always specific, so our theology should incorporate insights from other disciplines, including for example physics and mathematics. Third, I put this contention into practice by utilizing insights from the study of space to refine our understanding of God's presence. Specifically, I argue that given our Scriptural commitment to God's aseity, and physicists insights into the nature of space, without creation, God was present, even though he was nowhere. That God can be present without having to be 'somewhere' can shed light on how God is omnipresent. Specifically, God can be omnipresent without being constrained by space, because location in space is not a necessary condition for God to be present.

2 God-Talk

The English term 'theology' comes from the combination of two Greek terms including θεος which means 'God', and λογία which means 'discourse' (Fiorenza *et al.*, 2011). Thus, in its most general form, theology has to do with words of, by, or about God. Academics from all times and places have concerned themselves with 'God-talk,' from the ancient Greek philosophers to the Scholastics of Medieval Europe. But what exactly is God-talk? Physicists study motion and zoologists study animals, but what do God-talkers study?

For Aristotle, God-talk is the study of being. Aristotle says that the highest realm of knowledge is to understand the principles and causes of things *qua* being (that is to say,



being in so far as being is being). He contends that the special sciences will break off a portion of being and investigate its attributes, but he seeks the highest causes and first principles of being in its own nature (Arist. Met. IV, 1003a). As he conducts his investigation, he classifies what he calls the theoretical sciences including physics, mathematics, and theology. The aim of physics is the study of being that admits movement and is separable, while mathematics treats of being that is immovable but inseparable from matter (Arist. Met. VI, 1025b-1026a). Finally, Aristotle explains that the first science, theology, deals with things that are immovable and separable (Arist. Met. VI, 1026a). He summarizes his thoughts as follows:

We answer that if there is no substance other than those which are formed by nature, natural science will be the first science; but if there is an immovable substance, the science of this must be prior and must be first philosophy, and universal in this way, because it is first. And it will belong to this to consider being *qua* being – both what it is and the attributes which belong to it *qua* being (Arist. Met. VI, 1026a).

Aristotle contends that while the special sciences investigate pieces of being, the most comprehensive science is the science that seeks to understand the principles and causes of being *qua* being. And this science, according to Aristotle, is theology. Of course, if theology is the study of being *qua* being, one can see that theology has broad concerns, covering the most general principles of reality.

While Aristotle was not a Christian theologian (he lived before Christ), Christian theologians agree that theology is concerned with the broadest features of reality. Thomas Aquinas, for example, was a 13th century God-talker who argued that theology is both speculative and practical and transcends all other speculative and practical sciences (Aquinas, *ST*. 1.1.5). Aquinas contends that the speculative sciences are concerned with what human reason can deduce, while theology has to do with what transcends human reason (Aquinas, *ST*. 1.1.5). Still, because our intellects are more easily led through natural reason, the speculative sciences that are built up by natural reason can be used as handmaidens of theology (Aquinas, *ST*. 1.1.5). In other words, theology transcends reason while at the same time utilizing what can be known by reason. Aquinas also contends that the purpose of the practical sciences is to advance



some good. Thus, political science has to do with advancing the good of the state, while military science advances the good of the army. Since the army is ultimately meant to advance the good of the state, political science is “nobler” than military science (Aquinas, *ST.* 1.1.5). In other words, political science has broader interests than military science, because military science supports political science. Still, theology is “nobler” than both, according to Aquinas, because theology has to do with eternal bliss, which is in fact the underlying purpose of all practical sciences (Aquinas, *ST.* 1.1.5). Since theology has to do with what transcends human reason, it encompasses what can be deduced by the speculative sciences, and because its ultimate end is eternal bliss, it encompasses the practical sciences.

Thus theology, according to Aristotle and Aquinas, is a science which explores the broadest possible questions of reality and existence. For the purposes of this paper, I will accept such a characterization. The broad scope of theology is, as I will argue, the reason why it is fruitful for theologians to incorporate insights from other disciplines. As a discipline tasked with the broadest possible questions of reality and existence, theologians have a wide range of concerns, from general principles of being and causation, to questions of meaning and ethics. This is somewhat unique to the theological enterprise. Physics has nothing to say about the ethics of accelerating a monkey to the speed of light for experimental purposes. Nor does the psychologist care whether Cepheid stars pulsate with equal luminosity. On the other hand, the theologian is concerned with both the ethics of fast-moving monkeys, and the predictable accuracy of Cepheids. Theologians are interested in broad principles, wanting to know what it means that God created the universe by his will, as well as what it is to hope in the resurrection. In other words, the theologian has a broad task that encompasses matters of physics, mathematics, psychology, ethics, epistemology and more.

3 Sources of Theology

So the theologian has broad interests; but how does the theologian gain knowledge in order to develop a comprehensive vision of Christianity? Physicists come to know about the mechanics of the universe through mathematical models and experimentation, while zoologists gain new understanding by observing animals. So how



does the theologian glean new insights concerning God? For Aristotle, sources of theology include the universe and reason. By observing a phenomenon such as motion, Aristotle uses reason to infer theological statements, such as that God is the final cause of all being (Aristotle, Book XII, sec. 7). Aquinas, likewise, depends on the universe and reason, but also admits Christian Scripture as a source of theology, which leads him to develop theological statements such as that God is personal (Aquinas, 1.1.1; Aquinas, 1.29.3).

Of course, among theologians who accept Christian Scriptures as an authoritative source of theology, there are ongoing debates over the validity and weight of other possible sources. Other possible sources include (but are not limited to), natural theology, experience, tradition, and insights from other disciplines. Karl Barth famously rejected natural theology (Johnson, 2019), while Protestant and Roman Catholic theologians have trouble agreeing on the prominence of tradition. However, this paper does not aim to settle the debate over sources of theology; instead it highlights how insights from other disciplines can be fruitful sources of theology.

4 Scripture

To understand why insights from other disciplines can be fruitful sources of theology, it is important to understand the nature and limitations of Scripture. We said that the task of theology is to develop a comprehensive vision of Christianity that is consistent with the Old and New Testament. Implicit in this formulation is that Scripture is not only a source, but an authoritative source of theology. That Scripture is an authoritative source of theology might sound as though Scripture ought to be the *only* fruitful source of theology, but this is not so. There are many reasons for this.

For one, Scripture was written over several centuries by dozens of authors, all of whom lived millennia ago. This means that the writers of Scripture did not face the challenges that modern theologians face. For example, the writers of Scripture did not have to explain the connection between the mind and the body in light of neuroscience, or the complexity of biological life in the context of Neo-Darwinism. For modern theologians, by contrast, such questions are pressing and important.



Second, Scripture is not a systematic theological textbook. Instead, it is a collection of texts written in a myriad of literary genres including historical narrative, poetry, prophecy, biography, ancient letter, and many more. This means that formulating concise theological statements involves interpreting and comparing many passages by various writers who had differing aims. One Biblical writer tells the history of their nation which includes how God delivered them from a specific circumstance. Another author writes letters with explicit theological statements about God's care for his people. While both Biblical writers infer that God acts in the world, it is up to the theologian to develop a doctrine of providence that synthesizes these diverse passages.

Third, the writers of Scripture will sometimes predicate something on God without explaining the details. For example, in Jeremiah 23:24 we learn that God fills the heavens and the earth, and in 1 Kings 8:27, King Solomon declares that neither heaven nor earth can contain God. Based on these, and similar passages (Psalm 139:7-10), theologians develop models of God's omnipresence. The problem is that *how* God is omnipresent, or what it means for God to be present without creation, is never articulated. This means the theologian is tasked with articulating how God is omnipresent, or present without creation, with little information from Scripture.

For at least the above three reasons, utilizing other sources can help develop theology. However, Scripture remains authoritative. Therefore, although Scripture is not one's only source for theology, it is given extra weight so that whatever insights are gleaned from other sources, the theologian develops theology which is consistent with what is taught in Scripture. It is now understood that on one formulation, the task of theology is to develop a comprehensive vision of Christianity that is consistent with the Old and New Testaments, while insights from other disciplines can inform one's theology where Scripture is silent. This contention will now be put into practice to develop theology concerning God's presence without creation.

5 God's Presence without Creation

Theologians are often occupied with articulating God's attributes. God's attributes include his power, knowledge, love, self-existence, necessity and more. One attribute is God's omnipresence. In order to understand how God could be present everywhere, we



first need to understand what it means for God to be present. Specifically, we want to know, what is presence? Is presence a relation such that one is only present to some other thing? Or is presence intrinsic? If presence is intrinsic there is a possible world where only God exists, and God is present. It is not a trivial matter whether God's attributes are intrinsic or relational. For example, one might argue that God's providence is relational because God cannot guide the universe to his desired outcome unless there is a universe to guide. On the other hand, one could argue that God's omniscience is intrinsic so that God knows all true propositions from eternity past. Now, if one could show that God's omniscience is in fact not intrinsic but relational, this would mean that God depends on relationships to existent things in order to know at least some of what God knows. Such a model of omniscience would affect our conception of God, including how we conceive God's other attributes such as his foreknowledge, providence, wisdom and grace. Since the Bible does not offer any insight into whether presence is intrinsic or relational, theologians are left to hypothesize by other means.

Two prominent models that imply how God is present were developed between the late medieval and post Reformation periods. The first model is that God exists in eternal existing space. Unfortunately, the first model is not consistent with God's supremacy. As Otto von Guericke writes, "the world must ultimately have a limit, since it is also against God and nature that something (with the exception of God) be infinitely extended" (as cited in Grant, 1974:563). Other theologians refined their models of God's presence to account for the notion that eternal existing space is not consistent with God's supremacy by arguing that space is part of God's essence. While it is not clear whether space as part of God's essence is consistent with Scripture, developments in the study of space challenge such models. Since Scripture rules out the notion that without creation God existed in eternal space, and science seriously challenges the notion that space is part of God's essence, it can be concluded that God was nowhere without creation. Still, even though God was nowhere, God still utilized his power to create. Of course, God must be present in order for him to utilize his power, which entails that presence is an intrinsic property (Pannenberg, 1991). This means that God was present without creation, even though all that existed was God. With this overview in mind, we will now see why Scripture and the study of space helps us deduce that presence is an intrinsic property.



6 Nowhere Nothing

The first thing to point out is that many scientists and theologians from the 16th into the 18th century held to the principle “that which is nowhere, is nothing” (NN) (Charnock, 1853:366). In modern parlance, these scientists and theologians assume that all objects are located at regions (Parsons, 2007). To understand the principle, take yourself as an object and your office, or squash court, or sauna, or grocery store as a region. There is an intuitive notion that whatever it means that you exist, minimally, you exist somewhere (your office, sauna, squash court etc.). Objects never exist in isolation but are always located at some region. On this view, there are two fundamental aspects to reality including objects and regions.

Pierre Gassendi was a 16th century scientist who supported this notion, writing, “There is no substance and no accident for which it is not appropriate to say that it exists somewhere, or in some place” (Gassendi, 1972:384). Or take 17th century theologian, Stephen Charnock, who contends that “if God be, he must be somewhere; that which is nowhere, is nothing” (Charnock, Discourse VII). Similarly Henry More, when refuting Descartes theory that souls are not extended, asserts that “they affirm spirits to be *no where*, but would be found to do it only by way of an oblique and close derision of Existence, saying indeed they *exist*, but then again hiddenly and cunningly denying it, by affirming they are *no where*” (More, 1925:185). These authors do not offer arguments to establish NN but take it as primitive. To paraphrase and summarise, they assert that ‘if there is an object, it must be located somewhere for if it is not somewhere it is nowhere, and an object that is nowhere is nothing’. NN has consequences for how one understands God. On NN, presence is a relation, because objects only exist in relation to regions. This means there is no possible world where there exists an object, such as God, and nothing else.

7 Eternal, Independent Space and Aseity

Scientists and theologians have developed models of God’s presence in the context of NN. For example, Pierre Gassendi argues that space is infinite and eternal, meaning it is uncreated and independent of God. He makes the case that space is



infinite and eternal by arguing that if one were to measure the diameter of the moon, one has measured an incorporeal dimension. Now one could imagine other planets or substances occupying the same incorporeal dimension the moon currently occupies. This, for Gassendi, shows that incorporeal dimensions are real spatial dimensions (Gassendi, 1972:387). Next Gassendi asks us to imagine what would remain if God annihilated everything in the universe. Gassendi concludes that only the real spatial dimensions would remain. He states:

Now if the universe had been larger and larger in its previous existence to the point of infinity, and then God had reduced it to nothingness in the same way, we conceive that the spatial dimensions that would have remained would have been larger and larger to the point of infinity and we imagine that this space would have existed with its dimensions extended in every direction to the point of infinity.

Of course, Gassendi's thought experiment begs the question because if God annihilates everything, why not conclude that nothing, not even space, would remain. In any case, for Gassendi, space is an eternal, uncreated, independent, immobile, incorporeal, being that is capable of receiving bodies. And because space is eternal and uncreated, God has always existed in space. Gassendi (1976:94) writes:

One cannot deny that he was in Himself; but it must be conceded at the same time that he was everywhere, that is, in every place; that is, not only in that place in which the future world would be, but also in an infinity of other places.

So, presence is a relational property and God, without creation, was located at every point of eternal uncreated space. Gassendi was not the only author to contend that without creation, God existed in space (see Grant, 1981). There is, however, a problem with these models of God's presence without creation – namely, they infringe on God's aseity.

8 Aseity

William Craig (2017:3) offers the following definition of aseity:

Minimally speaking, God exists *a se* if and only if He exists independently of everything else. Were everything other than God to disappear, God would still exist.



Such a minimalist or “thin” conception of divine aseity entails that God exists independently of anything else in every possible world in which He exists.

On Craig’s definition, Gassendi’s model infringes on God’s aseity because it is not possible for everything other than God to disappear. For Gassendi, it is only possible for everything other than God *and space* to disappear. Craig contends that (unlike other aspects of God) Scripture clearly affirms God’s aseity. This means that if one wishes to develop a model of God that is consistent with the teachings of Scripture, infringement on God’s aseity is not an option. To make his case, Craig analyses passages such as John 1:1-5 where we learn that ὁ λογος (“the word”) was with God in the beginning (1:1) and παντα δι’αυτου ἐγενετο (“all things came into being through him”). Craig points out that John uses the neuter plural of πας (“all/every/whole”) to capture the notion of all things severally. Likewise Biblical theologian Herman Ridderbos notes John places παντα in the emphatic first position, highlighting the notion that παντα includes all things (Ridderbos, 1997).

John not only states that all things come into being through ὁ λογος (“the word”) but he also includes the negation of the contradictory, writing και χωρις αυτου ἐγενετο ουδε εν (“and without him not one thing came into being”). Craig contends that by including the negation of the contradictory of John 1:3a, John excludes the possibility that anything that exists, came into existence without coming into existence by ὁ λογος (“the word”). Craig introduces other passages to support God’s aseity including 1 Corinthians 8:6, 1 Corinthians 11:12, Romans 11:36, and Colossians 1:15-16. Assuming at least one of these passages does in fact support aseity, and we have to conclude that Gassendi’s notion that without creation God existed in eternal, uncreated, independent space, is ruled out by Scripture.

9 Space as God’s Essence

Theologians sensitive to maintaining God’s aseity have attempted to reconcile it with NN by arguing that space is part of God’s essence. One such scientist/theologian was Otto von Guericke. Von Guericke relied on an ancient thought-experiment, first introduced by Greek Philosopher Archytas (d. 350 BC), to argue that space is infinite and immense. Von Guericke asks us to imagine someone who tries to put their hand through



the edge of the universe. If someone were to do such a thing, according to von Guericke, only one of two outcomes are possible. Either the hand will go through the edge of the universe, or the hand will be obstructed from going through. If the hand goes through, this implies that there is space beyond the edge of the universe, because a hand cannot go where there is no space (Grant, 1974). Of course, if one's hand is obstructed from going beyond the edge of the universe, we get the same result. This is because there must be an impediment beyond the edge of space that prohibits the hand from going any further, but an impediment can only exist in space (Grant, 1974). For von Guericke, the thought experiment shows that beyond the edge of the universe space is infinite, for either a hand can continue reaching beyond the region where it is currently located, or it will be impeded by an impediment that is located at a region beyond where the hand is currently located *ad infinitum*.

While von Guericke is sensitive to the notion that God is infinite and immense (which is in the vicinity of aseity), he argues there cannot be two substances that are infinite and immense. To be infinite and immense is to extend infinitely without being contained by anything, so that if God is infinite and immense, he cannot be contained by space (Grant, 1974). But von Guericke already showed that space is infinite and immense so it cannot be contained by God. Therefore, von Guericke (as cited in Grant, 1974:567) concludes, space is the divine essence:

But this statement is not well put: "Therefore, there is some place in which there also is the divine essence." and so on. But he ought to say: "Therefore there is a place or space, not *in which* the divine essence is, but which is itself the divine essence." For God can be contained by no place (*ubi*) or vacuum or space, because he is the place (*ubi*) for Himself, or the thing that is empty (*vacuum*) of every creature, or the space, or the universal container of all things.

Von Guericke is not the only author to contend that space is an aspect of the divine essence. Henry More (1995) argues the same, as do some modern authors (Oakes, 2006). Further, it is not precisely clear that Scripture rules out the notion that space, as von Guericke conceives it, is part of the divine essence. In fact, some might argue there are passages that support the notion, such as Acts 17:27-28, where Paul explains that God is not far from any one for, "in him we live and move and have our being." Still, due



to advancements in our understanding of space, we can conclude that not only does von Guericke's thought experiment not go through, but also that it would have to overcome several difficult challenges to show that space is an aspect of the divine essence. I will now focus on why insights into space show that von Guericke's thought experiment fails to establish that space is eternal and infinite, before further highlighting several challenges that would have to be overcome for any argument to establish that space is an aspect of the divine essence.

10 Topology of Space

Von Guericke's thought experiment does not go through because he develops it on hidden assumptions about the topology of space. Tim Maudlin explains that space has three levels of geometrical structure, including the metrical, affine, and topological structure (Maudlin, 2010). The metric structure relates to the distance between two points, while affine structure is about identifying what qualifies as a straight line (Maudlin, 2012). The topological structure is the deepest level of structure in that the topology determines whether a given affine, or metric structure, is physically possible. Topology has to do with the continuity of space (Maudlin, 2012). To help us understand topology, Maudlin asks us to imagine drawing a triangle on a rubber sheet. We can pull and bend the rubber sheet such that the distance between points is stretched, and what were considered straight lines are now curved. In fact, we could bend the space such that a triangle becomes a circle and vice versa. Still, once the topology of a space is determined, while we can bend and stretch that space we cannot 'tear', or 'paste' it (Maudlin, 2012). As Barry Dainton helpfully explains, topologically there is no difference between a donut and a teacup, nor a sphere and a cube. But there is a topological difference between a donut and a sphere (Dainton, 2010).

Unfortunately, von Guericke makes no distinction between metric, affine, and topological structure. The fact is, the structure of space could be any number of topologies, some infinite, and some finite. For example, space could be flat and simply connected, or flat and multiply connected, negatively curved and simply connected, negatively curved and multiply connected, or positively curved. If space is flat, then space is Euclidean, and theoretically infinite in extension. That space is Euclidean



means that if one were to draw an enormous triangle onto the fabric of space, the angles of the triangle would add up to 180 degrees. Still, while flat space is theoretically infinite, this is not necessarily the case. For instance, if flat space is multiply connected, it is finite. What does it mean for space to be multiply connected? Dainton (2010) explains that multi-connected space is like the space we find in the video game “Asteroids”. When the spaceship in the game ‘Asteroids’ reaches the right side of the screen it reappears on the left side of the screen. That’s because the space in ‘Asteroids’ is multiply connected. This means that the points on the edge of the right side of the screen are numerically identical to points on the edge on the left side of the screen so that when the ship reaches a point on the far-right side, it appears on the left side (Dainton, 2010). In essence, the space is like a cylinder that has been cut in half and laid flat except that the connection between the points where the cut was made remains intact. Thus, multiply connected spaces can be both flat and finite.

If space is positively curved, then space is finite. We can imagine positively curved space as something like a sphere. If one walked along the surface of a sphere, like the earth, one would never reach the edge because there is no edge. Positively curved space curves back on itself (Dainton, 2010). Positively curved space is non-Euclidean, and the angles of a triangle add up to more than 180 degrees. Einstein’s General Theory of Relativity (GTR) suggests that on a local scale, space is curved positively, and we call the effects of locally curved space gravity (Dainton, 2010). That space curves on a local scale does not mean that the global topology of space is positively curved, so GTR does not rule out that the universe is comprised of infinite flat space. Still, that space is curved positively locally reminds us that the universe *could* be positively curved on a global scale, in which case there is no edge to the universe. If there is no edge to the universe, then von Guericke’s thought experiment cannot get off the ground.

If space is negatively curved, then it takes the shape of a saddle. In negatively curved space the angles of a triangle add up to less than 180 degrees. Like flat space, negatively curved space can be either infinite, or finite, depending on its topology (Maudlin, 2012).



Thus, depending on the topology of space, von Guericke's thought experiment will produce different results, so the conclusion that one's hand will *always* reach beyond the edge of the universe is not accurate. It will only reach beyond the edge of the universe if space is infinite, but space could be finite. Some might argue that because non-Euclidean space had not yet been discovered, von Guericke should not be criticized for developing a thought experiment that does not take into account the varieties of topology. Unfortunately, this criticism is not to the point. The point is that while von Guericke believed the thought experiment of a hand reaching beyond the edge of space could establish that space is infinite, insights into the nature of space show that it cannot.

Of course, while von Guericke's argument cannot establish that space is infinite, this does not mean that space is not, in fact, infinite. It may be possible to discover whether the universe has an edge some other way (for example, studying fluctuations in the Cosmic Microwave Background (Luminet, 2016), but one cannot determine whether the universe has an edge by sticking one's arm past it. Since von Guericke's thought experiment cannot provide insight into the nature of space, it fails to establish that space is infinite and immense, leaving open the possibility that space is finite. And if space is finite, it cannot be an aspect of the divine essence.

11 General Criticism

There are other hidden assumptions in von Guericke's thought experiment that remain problematic. For one, the thought experiment assumes there is only one realm, and that there are only three dimensions in this one realm. However, if there is more than one realm, then if space is infinite and immense in this realm, it is not clear how infinite space relates to other realms. Does von Guericke have to specify infinite space contains all realms? Assuming realms are disconnected from each other, how could von Guericke show this? Further, if there are more than three dimensions, it does not follow that infinitely extended space contains all things. An infinitely extended two-dimensional sheet of paper would be contained by infinitely extended three-dimensional space. Likewise, if space is three dimensions and God is n -dimensional, there is no conceptual barrier to infinitely extended three-dimensional space being contained by God.



There are further more general arguments that challenge any model that contends space is an aspect of the divine essence. First, there is the problem of an actually extended substance, which some argue is metaphysically impossible (Craig, 2008). Second, to some, the Big Bang model of the universe suggests that space began to exist (Craig, 2008). If space began, we would have to admit that a part of God's essence began. However, on one definition, a property P is essential to an object O, if O has P and has it in every world in which O exists (Plantinga, 1974). Or, even better, a property P is essential to an object O if O has P *intrinsically* and has it in every world in which O exists (Denby, 2014). On this definition, if God has the property of having space as an aspect of the divine essence, space must exist in every world that God exists. But if space began (and God is eternal), then there is a possible world where God exists without space, so there is a possible world where God exists without a feature that God must have in every possible world for it to be part of his essence. Thus, if space is essential to God, space cannot begin to exist.

Finally, if space were an aspect of the divine essence we would have to admit, based on GTR, that objects with mass curve the divine essence as they hurdle through space. This is a problem for some theologians who contend that because God is immutable, God cannot endure intrinsic change (Leftow, 2017). It is problem because if space is an aspect of the divine essence, space is intrinsic to God. And if space is intrinsic to God, and space curves as large objects hurdle through God's essence, then God's essence changes so that God is not immutable. Of course, one could deny that essences are intrinsic, or that God is immutable, but the point is that physical theories such as GTR have consequences for the behaviour of space, and ought to be taken into account when arguing that space is an aspect of the divine essence.

Although Scripture may not rule out that certain concepts of space are aspects of the divine essence, insights into the nature of space challenge this view. Since Scripture rules out God existing in eternal, uncreated, independent space, and studies of space challenge the notion that space is an aspect of the divine essence, unless we have good reason to think otherwise, we can conclude that without creation, God was present nowhere. Thus, presence is an intrinsic property.



12 Summary

In this paper we have seen that theologians spend much of their energy on God-talk. As God-talkers, theologians are interested in the broadest features of reality, including who God is, what is causation and how God offers meaning to life. For some, the theological task is to present a comprehensive vision of Christianity that is consistent with the Old and New Testament. On this formulation, Scripture is an authoritative source of theology, but it is hard to see how it could be the only source. This is because Scripture was written millennia ago by dozens of authors in various genres, so it does not always speak directly to modern challenges. Further, Scripture is not a systematic theological textbook, and neither does it expound every doctrine in detail. Thus it is up to theologians to systematize its themes. Nevertheless, by utilizing insights from other disciplines, such as physics and mathematics, theologians can refine doctrines, including God's presence without creation. These insights allow us to avoid models of God that entail absurd consequences, such as that God's essence began to exist, and to further our knowledge of God, such as that God's presence is intrinsic.

13 References

1. Aquinas, T. *et al.* (1920). *'Summa Theologica' of St. Thomas Aquinas*. London: Burns Oats & Washbourne.
2. Charnock, S. and Jones, M. (2022). *The Existence and Attributes of God: Updated and Unabridged*. Wheaton: Crossway.
3. Craig, W.L. (2008). *Reasonable Faith: Christian Truth and Apologetics*. 3rd ed. Wheaton: Crossway Books.
4. Craig, W.L. (2017). *God and Abstract Objects: The Coherence of Theism: Aseity*. Cham: Springer.
5. Charnock, S. (1853). *Discourses Upon the Existence and Attributes of God*. New York: Robert Carter.
6. Dainton, B. (2010). *Time and Space*. 2nd ed. Durham: Acumen.
7. Denby, D. (2014). 'Essence and Intrinsicity', in R.M. Francescotti (ed.) *Companion to Intrinsic Properties*. Boston: De Gruyter, pp. 87–109.
8. Fiorenza, F.S. and Galvin, J.P. (2011). *Systematic Theology: Roman Catholic Perspectives*. 2nd ed. Minneapolis: 1517 Media.



9. Gassendi, P. (1972). *The Selected Works of Pierre Gassendi*. New York: Johnson Reprint Corporation.
10. Gassendi, P. (1976). 'The Reality of Infinite Void According to Aristotle', in M. Čapek (ed.) *The Concepts of Space and Time: Their Structure and Their Development*. Dordrecht: Reidel.
11. Grant, E. (1974). *A source book in medieval science*. Cambridge: Harvard University Press.
12. Grant, E. (1981). 'Extracosmic, Infinite Void Space in Sixteenth-and-Seventeenth-Century Scholastic Thought', in *Much Ado about Nothing: Theories of Space and Vacuum from the Middle Ages to the Scientific Revolution*. Cambridge: Cambridge University Press, pp. 148–81.
13. Hunsinger, G. (2019). 'Barth on Natural Theology', in K.L. Johnson and G. Hunsinger (eds.) *Wiley Blackwell Companion to Karl Barth*. West Sussex, UK: Wiley Blackwell.
14. Ierodiakonou, K. and Roux, S. (2011). *Thought Experiments in Methodological and Historical Contexts*. Leiden: Brill.
15. Leftow, B. (2004). 'Eternity and Immutability', *The Blackwell Guide to the Philosophy of Religion*, pp. 48–77. <https://doi.org/10.1002/9780470756638.ch3>
16. Luminet, J.-P. (2016). 'The Status of Cosmic Topology after Planck Data', *Universe*, 2(1), pp. 1–10. <https://doi.org/10.3390/universe2010001>
17. Maudlin, T. (2010). 'Time, Topology and Physical Geometry', *Aristotelian Society Supplementary Volume*, 84(1), pp. 63–78. <https://doi.org/10.1111/j.1467-8349.2010.00186.x>
18. Maudlin, T. (2012). *Philosophy of Physics: Space and Time*. Princeton: Princeton University Press.
19. More, H. and Jacob, A. (1995). *Henry More's Manual of Metaphysics: A translation of the Enchiridium Metaphysicum (1679) with an Introduction and Notes*. Hildesheim: G. Olms Verlag.
20. More, H. and Mackinnon, F.I. (1925). *Philosophical Writings of Henry More*. New York: Oxford Press.
21. Oakes, R. (2006). 'Divine Omnipresence and Maximal Immanence: Supernaturalism versus Pantheism', *American Philosophical Quarterly* 43(2), pp. 171–79.
22. Pannenberg, W. (1991). *Systematic Theology: Volume 1*. Grand Rapids: W. B. Eerdmans.
23. Parsons, J. (2007). 'Theories of Location', *Oxford Studies In Metaphysics*, 3(201), pp. 201–232. <https://doi.org/10.1093/oso/9780199218394.003.0007>
24. Plantinga, A. 1974. *The Nature of Necessity*. Oxford: Clarendon Press.