


Our spatial reality and God



Author:


Jan Muis^{1,2} 

Affiliation:

¹Department of Dogmatics,
Protestant Theological
University, Amsterdam,
The Netherlands

²Department of Systematic
and Historical Theology,
Faculty of Theology and
Religion, University of
Pretoria, Pretoria,
South Africa

Research Project Registration:

Project Leader: J. Buitendag 

Project Number: 2402343

Description:

This research is part of The
research project
'Understanding Reality
(Theology and Nature)',
directed by Prof. Dr Johan
Buitendag, Department of
Systematic and Historical
Theology, Faculty of
Theology and Religion,
University of Pretoria.

Corresponding author:

Jan Muis,
jmuis52@outlook.com

Dates:

Received: 01 June 2021
Accepted: 31 July 2021
Published: 20 Oct. 2021

How to cite this article:

Muis, J., 2021, 'Our spatial
reality and God', *HTS
Theologiese Studies/
Theological Studies*
77(3), a6890. [https://doi.
org/10.4102/hts.v77i3.6890](https://doi.org/10.4102/hts.v77i3.6890)

Copyright:

© 2021. The Authors.
Licensee: AOSIS. This work
is licensed under the
Creative Commons
Attribution License.

Read online:



Scan this QR
code with your
smart phone or
mobile device
to read online.

Modern scientific models of cosmological space and the theological concept of God's immensity seem to exclude the possibility that God himself is personally present with us humans at particular places in space. Are God and our spatial reality incompatible? Or, is it possible to conceive the connection between God and space as 'positive', that is, in such a way that God himself can be fully and personally present with us at particular places in space? This essay explores how this question may be addressed in a theology which accepts the results of the natural sciences and acknowledges that God is the free creator of physical space. It describes how space can be conceptualised, and presents an overview of five different views on a positive relation between God and space in recent protestant theology. It concludes by some considerations on the question whether a positive relation between God and space requires that God himself is spatial.

Contribution: This article contributes to the conversation between natural science and theology by making three points. (1) The scientific understanding of cosmological space and the biblical witness of God's personal and local presence with humans require an alternative for the traditional theological view on God and space in terms of God's immensity and omnipresence. (2) It is argued that new theological models for the interrelation between God and space have serious weaknesses. (3) A 'positive' relation between God and space may be articulated in terms of the correspondence among God's uncreated movement, multiplicity and relationality, and the movement, multiplicity and relationality in the physical space of creation.

Keywords: creation; Einstein; Heim; omnipresence; religion and science; space.

Natural science, Christian faith and theology

Natural science and Christian belief would inevitably be enemies if they had the same object and if their different ways of acquiring knowledge would exclude each other. Although the church has believed this in the past, and naturalistic physicists may still believe it today (see e.g. Falcke 2020:52, 128), both the object and the nature of knowledge of natural science and Christian belief are different and do not necessarily contradict each other. Natural science tries to understand physical reality by developing explanatory theories and testing these theories by experimental measurements of physical phenomena. Christian belief involves relational knowledge of God that originates in God's self-revelation in Jesus Christ through the Spirit to which Scripture bears witness, a knowledge that grows in a personal relationship (Muis [2016] 2020:55–58). The way in which people discover God as their Father in their encounter with Jesus Christ is fundamentally different from the way natural sciences discover and explain physical regularities (Ubbink 1967:228, 235–237). This does not mean that natural science and Christian belief can nowhere meet or overlap each other. In the Christian tradition, the Father of Jesus Christ is confessed as the creator of the universe. This implies that God has created a universe with regularities that can be grasped by the human intellect. Scientific investigation starts from the belief that there is some sort of 'rationality' or 'intelligibility' (Kaiser 2001:244–246; Torrance [1969] 1997:53–55, 59, 61, 65, [1976] 2019:15–16), some sort of 'causality' (Loen 1963:62–70, 1965:51, 57–58, 1967:147–148) in physical reality that can be understood by the human mind. Christians believe that this intelligibility is given by the creator (Loen 1967:161–162; Torrance [1969] 1997:59–60). In this sense, there is a 'deep concord' between scientific investigation of nature and Christian belief in the creator (Plantinga 2011:266–283; cf. Falcke 2020:49). True belief in God cannot contradict true natural science (Loen 1967:174).

Because the physical reality as it is described and explained by the natural sciences is God's creation, belief in God cannot negate the well-established results of scientific investigation. This obtains even more for the relation between natural science and theological reflection. Natural

Note: Special Collection: Theology and Nature, sub-edited by Johan Buitendag (University of Pretoria).

science can correct theological ideas (Evers 2000:395). The understanding of the creation of space is a case in point. The scientific description and explanation of the origin and development of the universe make it very improbable that space has been created *ex nihilo* at the beginning of time as an absolute and empty container. If we accept the scientific description of the origin and development of the universe, we should rather say that space, together with time, has emerged as a structure of relations between objects in the course of the development of matter (mass and energy) (Beuttler 2010:416–417; Evers 2000:153, 258).

This particular example raises the more general question whether the development of physics compels us to theologially rethink space as an ingredient of created reality. Roughly speaking, the theological, particularly the reformed tradition understands created space as a finite container and God as the infinite creator of this container, who exists essentially outside the created space. Is this traditional view still tenable, now, according to modern physical cosmology, the universe itself may be infinite, and now physics no longer conceives space as a container but as a set of spatial relations?

There is still another reason why the traditional view on created space is questionable. According to the biblical witness about God's presence, God himself can be fully and personally present with human beings at particular places in created space. It is hard to see how God himself can be fully and personally present with human beings, when the traditional view that God's essence lies completely outside the finite container of created space is correct. So, we have to ask whether the traditional view on the relation between God and space can do justice to the understanding of space in modern physics and to the biblical witness about God's presence. And if it cannot, is there another way to explain the relation between God and space?

Research question and method

In this essay, I want to explore the question whether and how the relation between God and space can be conceived in a manner that is (1) consonant with natural science, (2) does justice to the biblical witness of God's personal and particular presence with human beings and (3) maintains the biblical distinction between the creator and creation. I will call a relationship between God and space that meets these three criteria a positive relation.

In the first part of my exploration, I will sketch the view on physical space in modern physics and briefly describe the biblical view on God's presence with humans and on the act of creation and its ontological implications. I will probe whether the classical conception of the relation between God and space, or a modern modification of that conception, can account for these views.

In the second part, I will look into alternative accounts of the relation between God and space. Firstly, I explore the different kinds and models of space. Next, I describe the key

concepts developed by Karl Heim in his influential phenomenology of space: dimension, dimensional and material boundary, intersection and polarity. In addition, I discuss Heim's view on divine transcendence. After these considerations, I briefly describe and analyse the views of five prominent modern protestant theologians: Karl Barth, Thomas Torrance, Jürgen Moltmann, Eberhard Jüngel, Wolfhart Pannenberg and Luco van den Brom, on the relation between God and space. I will ask whether their views can meet the three criteria mentioned above.

This study is exploratory in character and its goal is to unravel the strengths and weaknesses of the different proposals. This goal is rather modest. It is not my aim to construct a new model for a positive relation between God and space, nor to develop arguments for that model and to defend it against objections. I will merely explore available proposals of a positive relation between God and space, and limit the discussion to key points.

I approach the problem of space and God from the perspective of the reformed theological tradition in which God's personal presence with humans and the creator-creation distinction are crucially important. As a result, the scope of the data I use is limited to contributions of protestant (Lutheran, Anglican and Reformed) theologians.

I have used different kinds of materials. In my view on the relation between natural science, Christian faith and theology, I follow insights from Christian philosophers of science (Ubbink, Loen, Torrance, Plantinga, Evers). My sketch of physical cosmology in the first part is based on general surveys of scientific concepts of physical space from philosophers of science (Jammer; Evers) and on an introduction to contemporary scientific cosmology by a leading astrophysicist (Falcke). The description of the biblical witness of God's presence with human beings and of God's creation are invoked from biblical – theological studies (Miskotte, Mildenerger, Muis). The traditional theological view on the relation between God and space in terms of immensity and omnipresence is demonstrated by primary sources from the reformed tradition (Turretin; Maccovius) and by reworkings of this view by contemporary theologians (Webster; Sonderegger).

In the second part, my discussion of the difference among physical, mathematical, experiential and interpersonal space and the difference between the container model and the relational model of space draws on theological literature on science and religion (Torrance, Ward, Evers, Mühling) and on the theological theory of space (Wüthrich). The explanation of the key concepts of Heim's philosophy of space is based on two volumes of Heim as primary sources and on secondary literature on Heim (Van den Brom, Buitendag, Mühling). My analysis and assessment of the views on God and space of Barth, Torrance, Moltmann, Jüngel, Pannenberg and Van den Brom are based on key texts of these authors, on secondary literature of their followers (Beuttler, Evers, Jüngel, Lehmkuhler, Park, Rae, Schwarz, Weber, Wüthrich), and on

criticisms of their views (Gunton, Sarot). In my discussion of the question whether we can literally ascribe spatiality to God, I use recent theological reflections on the doctrine of God (Gunton, Muis).

Space in the natural sciences

In modern physics and cosmology, space-time is viewed as something in which we can localise objects and describe their movements. Over the centuries, the cosmological concept of space has changed dramatically. For pre-modern people, the cosmos with its fixed stars and its planets was static, limited and centred around the earth. Copernicus (1473–1543) discovered that the sun is the centre of our solar system. Space was still understood as the vessel or container of a static and limited cosmos. In his theory of gravity, Newton (1643–1727) understood space as an absolute, infinite and static frame in which all material objects in the cosmos can be located and in which all movements of these objects can be measured. In the general theory of relativity of Einstein (1879–1955), infinite space itself became relative and dynamic: there are many moving frames of reference in which moving objects can be located, and the measurement and explanation of these movements do not require a Newtonian absolute and static space as a privileged frame of reference. Here, space is no longer conceived as an absolute, empty container, but as a structure of measurable spatial relations between material objects in an expanding and limitless universe without centre. After Einstein, the hypotheses of the ‘big bang’ and ‘black holes’ have become physical realities (Falcke 2020:105–113, 301, 303), and this has further modified the cosmological conception of space: the universe has no limits in the sense that there is no space ‘beyond’ these limits (Evers 2000:114, 154).

These developments in physics and cosmology have raised new questions about the nature of space. Astrophysicist Heino Falcke thinks that there is no space without mass; space and time emerge from mass and light (Falcke 2020:63, 66–67). Theologian Thomas F. Torrance suggests that Einstein’s general theory of relativity has refuted ‘substantivalism’, the view of space as an absolute, independently existing container of material things, and thus has proven ‘relationism’, the view that there is no space without matter (Jammer 1999:205–206, Torrance [1969] 1997:45, 58, [1976] 2019:186). It is true that, on the basis of Einstein’s theory, an argument can be made that space is not an entity onto itself but given as the structure of relations between material things (e.g. Norton 2019; Van den Brom 1993:121–124). But W. de Sitter has shown that Einstein’s field equations do not exclude the possibility of a non-trivial metrical space-time structure without matter (Evers 2000:67–68; Jammer 1970:192–199). Therefore, the controversy between relationism and substantivalism cannot even be decided on the grounds of Einstein’s theory alone. Jammer (1970) wrote:

Although matter may provide the epistemological basis for the metrical field, it does not necessarily have ontological priority

over the field. ... The results obtained so far thus seem to indicate that theoretical physics ... has not yet succeeded in exhaustively subordinating space to matter, and Newton’s ghost of absolute space has not yet been completely exorcised. (p. 198)

In addition, even if the general theory of relativity strongly suggests relationism, the concept of an empty space may still be useful in other areas of physics. For instance, quantum field theory, used to capture the physics of elementary particles, posits the existence of a physical ‘vacuum’ state that has zero energy, yet can still be argued to present a material presence. Therefore, one cannot make the general claim that modern physics has ‘proven’ the ontological view that space is relational. What we can say, though, is that in modern physics, the relational view on space is the most probable.

Physical space as a theological problem

In theology, the topic of space emerges in a very different way. Christian faith is quickened by God’s address in Jesus Christ that is mediated by the biblical witness. Therefore, Scripture is the most important starting point for Christian theological reflection. According to the Bible, God reveals himself to people in personal encounters; an encounter presupposes distance and nearness, that is, space (Weber [1955] 1972:496–498). God is also experienced by believers as near or as far away, which suggests that God is spatially related to their place. Moreover, God is portrayed as present in particular places such as the temple. Full personal presence of God amongst human beings takes place (!) in the life of Jesus Christ. The earthly life of Jesus Christ is located in space and time. Thus, in Jesus Christ and in the other particular places where he is personally present to people, God is locally present ‘within’ our human spatial reality in a differentiated way (Barth 1942:530–551; Kessler 1997:80; Mildenerger 1992:222–235; Miskotte [1956] 1967:129, 147, 219, 261). At the same time, there is a biblical awareness that God transcends places like the temple, that he even transcends the place of heaven above the earth. As Solomon prayed: ‘Even heaven and the highest heaven cannot contain you, much less this house that I have built’ (1 Ki 8: 27). So, God is both ‘within’ and ‘beyond’ our spatial reality.

Theology has tried to understand these two aspects of God’s relation to our spatial reality by interpreting the ‘beyond’ as immensity, and the ‘within’ as omnipresence: God’s essence is immense, that is, not limited by created space, and God is present everywhere in the world he has created. Precisely because his essence is not limited to a particular place, he can be present everywhere in space. A further explanation of this is that God’s presence fills created space completely (‘repletive’), but that God himself is not contained (‘circumscriptive’) by it. The 17th century reformed theologian Francis Turretin interprets God’s infinity as non-spatiality; he wrote that God’s immensity is not to be understood,

[...] positively, as if certain spaces are to be conceived of beyond the world (*extra mundum*) which God fills with his presence, but negatively, inasmuch as the universal spaces of the world do not exhaust the immensity of God so as to be contained in and circumscribed by them. (Turretin [1679] 1992:200)

In this view, space is conceived as a container. In a similar way, Johannes Maccovius argued that God cannot be located in a place because then he would be included by that place (Maccovius [1652] 2009:116).

The term 'immense' is ambiguous: it can mean (1) without limits, unlimited, infinite or (2) without measure, not belonging to the measurable, spatial reality. Modern physics has made the understanding of God's immensity as unlimited space problematic because in cosmological models, the universe itself has no limits. If the space of God and of the universe are both infinite, it becomes difficult to distinguish God's space from the space of the universe. If God and the universe share the same infinite space, pantheism seems inevitable. On the other hand, the understanding of God's immensity as non-spatiality has two fundamental theological shortcomings. Firstly: it creates a dualism between God himself, God *in se*, 'outside' our space, and God's presence with his creatures, God *extra se* and *pro nobis*, 'within' our space. Secondly: it understands God's presence as general, uniform, non-personal and non-local at every single point, and in doing so, it ignores God's personal nearness to and encounters with humans in particular places (Mildenberger 1992:221–222).

Contemporary reworkings of the classical view try to avoid these shortcomings. John Webster has proposed a more biblical and relational interpretation of immensity and omnipresence in terms of God's trinitarian inner life and his trinitarian agency in the world, and speaks of the 'mutually conditioning relation' between God *in se* and God *ad extra* (Webster 2004:544). But by opposing immensity and omnipresence, he maintains a duality between God *in se* and God *pro nobis*. Katherine Sonderegger argued that God shows in particular local revelations his omnipresence (Sonderegger 2015:49–147). But it seems that she understands the local particularity of God's presence as merely epistemological; ontologically, God is omnipresent in an undifferentiated manner. These revisions of the classical scheme of immensity and omnipresence offer no new conceptualisation of space, and they cannot fully articulate the relation of God himself to particular places in our spatial reality that is central to the Bible and in the personal experience of believers.

A theologically adequate account of physical space does justice to the biblical witness that the God of Israel meets people in particular places, that he has revealed himself as our Father in Jesus Christ, and that he is the creator of the universe. I elaborate a little bit more on the last point because this is especially relevant for the relation between God and space. According to the Bible, God is the creator in that, 'in the beginning', he has created the universe. To create is more than to build or to form something that already exists. To

create in its original, biblical sense means: to make existent, to give existence (Muis [2016] 2020:153–155). By the act of creation, God has established the creator-creation relationship. This is a correlative relation: there can be no creator without a creation, and there can be no creation without a creator, just as there can be no parent without a child, and there can be no child without a parent. The relation creator-creature is also irreversible: a creature cannot be the creator of its creator, just as a child cannot be the parent of her/his parent. But there is still another implication of God's act of creation that is easily ignored. Scripture understands God's act of creation as a free gift. This implies that creating is not necessary for God and that the existence of the created universe is contingent (Muis [2016] 2020:156). The fact that God has freely created the universe means that he precedes it ontologically: the existence of God is a necessary condition for the existence of the universe, but the existence of God is not a necessary condition for the existence of God. Although the relation between *creator* and creation is correlative, the ontological relation between *God* and creation is not because God is not necessarily the creator. As creator, God lives in relation to his creation, but his divine life does not depend on his being creator. In my view, a theologically adequate account of physical space has to be compatible not only with the correlative and irreversible creator-creation relation, but also with the non-correlative ontological relation between God and creation.

Kinds of space

If we attempt to understand God's relation to our created space, we first need to clarify the notion of space. We become aware of space when we observe material things that have a certain size. When I abstract from the matter of a thing and retain its size, I have the space that the thing occupies. This space is limited. I observe material objects in relation to other material objects that occupy different limited spaces, that is, they have different places within a space that is bigger than the space of the objects it contains. Different objects are differently located in that space. Space functions as a framework by which different objects can be located in relation to three axes perpendicular to each other that indicate latitude, length and height, the directions or dimensions of that space.

Space in which material objects are located is physical space. In geometry, figures and proportions of space are described and analysed in abstraction from material objects. We can call the idealised and abstract space of geometry, the geometrical or mathematical space. Physical space and mathematical space should not be confused; an abstract, mathematical description of physical reality is not physical reality itself (Ward 1996:26–29, 2008:124–126; cf. Falcke 2020:280). Physical space is also to be distinguished from the experiential space of a subject. A subject experiences objects not only in objective proportions of 'long' and 'short', but also in relation to herself/himself as 'far' or 'near'. An object that is far for one observing subject can be near for another observing subject and vice versa. Subjects that observe the

same object from different places see different sides or aspects of that object. The subjective spatial perception of objects is always perspectival. A special case of experiential space is the space I share with another subject who has his/her own perspectival experience of space which is different from my experience. Because we are differently located, we have a different perspective on the same object. The space I share with another subject can be called an inter-subjective or interpersonal space. In reflection on space, it is important to distinguish between physical, mathematical, experiential, and interpersonal space.

We can describe how we experience space and we can use geometry to describe physical phenomena, but it is very difficult to answer the ontological question: what space is. We can roughly distinguish two types of answer to this question. According to the first type, space is a thing, something that exists independently from the things that are located in it, something that 'contains' those things. Such space is 'absolute'; it exists on its own; it can be 'empty'. According to the second type of answer, space is a 'relation', more precisely, a structure of relations between things that occupy different places in a coordinate system. Without things, there is no space because a relation cannot exist without relata (cf. Mühling 2020:106); there is no 'empty space'. The first type of view is usually labelled the container model of space, and the second type of view is usually labelled the relational model of space (Torrance [1969] 1997:56–59; Wüthrich 2015:45–46, 62–64, 134–136, 246). In this essay, I choose the relational model because to define space in terms of the objective relations of besides, before and behind, above and below, and the subjective relations of near and far is the simplest way to conceptualise space, and because in modern physics, the relational model is the most probable one.

Without physical space and place, our life with other, different beings would be impossible. Space enables us to distinguish different material objects because they are located at different places. It also enables us to see how these objects are related to each other in a three-dimensional coordinate-system. In addition, space enables us to perceive and experience other persons because persons always are also a body. Thus, space is the physical precondition for our experience of relationality, otherness, distance and nearness. It is also a precondition for the experience of movement, the change in distance between the things we perceive and between those things and ourselves, because in a mathematical point without any extension, movement from one place to another place would be impossible (cf. Evers 2000:111).

Heim's phenomenology of space

Many contemporary theologians, who reflect on the relation between God and space (Beuttler 2010:23–24; Buitendag 2002, 2003; Evers 2000:150–152; Mühling 2020:190–194; Van den Brom 1993:233–252; Wüthrich 2015:149–150), have been stimulated by insights developed by Karl Heim in his seminal

study, *Glauben und Denken* from 1931, which became the first of a series of six volumes titled: *Der evangelische Glaube und das Denken der Gegenwart* (1934–1952). Heim developed his phenomenological theory of space in order to clarify the notion of transcendence, defined by him as transgression of a boundary. Although Heim's philosophy of space is not convincing as an apology and as a Christian world-view (Mildenberger 1981:165), its real significance lies in its detailed and creative analyses of space. I mention four points that are particularly relevant for the question of this essay. Firstly, Heim considered physical space as just one particular instance of different kinds of space, such as time (the space between two points in time), the space of subjective consciousness and the space of I – Thou relations (Heim [1931] 1956:59–60, 77–80). Secondly, Heim started his analyses with geometrical space and considered a line, a plane and a vessel as three different kinds of space: a one-dimensional, a two-dimensional and a three-dimensional space, respectively. This enabled him to distinguish two kinds of boundaries. There is the boundary between objects and between places within one and the same infinite space, which he called a 'material boundary' because he took the boundary between material objects as his paradigm. A very different boundary is that between two different kinds of space, which he called a 'dimensional boundary' because he started from one-, two- and three-dimensional geometrical spaces (Heim [1931] 1956:45, 50–59). Thirdly, Heim analysed the different functions of these different boundaries and developed the notion of intersection of spaces. Material boundaries separate different objects and different places within a space; they divide space in different parts. But dimensional boundaries between different kinds of spaces do not separate and divide these spaces. Two infinite planes, for instance, can intersect at a certain angle. They both have the intersecting line in common, but are not divided by this line; each of them remains one, infinite and undivided space (Heim [1931] 1956:65–70). Fourthly, Heim described properties of geometrical space and he argued that these properties can be found in an analogous way in other kinds of space as well. In particular, Heim tried to show that every kind of space is characterised by a specific polarity. For Heim, polarity is a relation between opposite elements that can only exist and function together. There is only electricity, for instance, if there are positively charged particles and negatively charged particles. Heim described several different kinds of polarity in our spatial reality, for example, the polarity between the knowing subject and the known object (Heim 1953:132; [1931] 1956:48, 70, 188). According to Heim, spatial relations are polar because a particular local point in space can only exist in relation to different local points in space (Heim 1953:157, [1931] 1956:183–186).

After his detailed phenomenology of space, Heim makes two theological claims. Firstly, the distinction between the creator and creation is not dimensional; God's transcendence is totally different from the kinds of transgression of both material and dimensional boundaries we can see in our spatial reality (Heim [1931] 1956:76, 209, 216) Therefore, God

is not transcendent in the sense that he lives in a higher dimensional space than his creation (Buitendag 2002:298).

Secondly, the relation between God and creation is not polar. A polar relation between two opposite elements is a special case of a correlative relation in which each element is a necessary condition for the existence of the other. The existence of the created universe is not a necessary condition for the existence of God (Heim [1931] 1956:209). Although he does not explicitly argue these claims, it is clear that they are ultimately grounded in the belief in God as the creator (Heim [1931] 1956:38, 42, 216; cf. Buitendag 2003:22). Heim construed God's omnipresence in the universe as a space beyond any polarity that encompasses created, polar space (Heim 1953:162–174). God himself is to be distinguished from this super-polar space (Heim 1953:174), and he is in complete rest, without any movement (Heim [1931] 1956:212–213).

By his concept of God's omnipresent super-polar space, Heim succeeds in conceiving a positive relation between God and space. But the transcendent God who is the centre of this super-polar space himself exists in absolute rest, without movement and relation. Moreover, his presence in created space is merely an encompassing, general and undifferentiated omnipresence. In Heim's conception, it remains difficult to understand how the transcendent God himself could be fully and personally present with his creatures in encounters at particular places in their physical space. In this respect, Heim does not really overcome the shortcomings of the traditional view on God's immensity and omnipresence.

Five views on God and space

Heim's reflections on space have stimulated others to develop new concepts of space and new models for a positive relation between God and space that overcome the shortcomings of the scheme of immensity and omnipresence. Especially his concepts of dimension, dimensional boundary, intersection and polarity have proved fruitful in theological reflection on space. I will present a very short and global overview of five typical construals of a positive relation between God and space that have been developed after Heim by Torrance, Moltmann and Jüngel, Van den Brom, Pannenberg and Barth. I order these views according to the degree in which they consider God himself as spatial. I will start the list with what we might call 'weak divine spatiality', and I will end with 'strong divine spatiality'. In the first view, God is not in space, but positively related to space in his own divine way. In the second and third views, God shares space with creation. In the fourth view, God's infinite and absolute space is posited as the ontological precondition of created space. In the fifth view, God has his own uncreated space, distinct from, but positively related to created space.

1. The uncreated reality of God's life is categorically different from the created reality of the universe. As creator of space, God does not stand in a spatial relation to created reality, but this does not mean that God and creatures can only meet tangentially, in a mathematical

point. In the incarnation of the Son, God has intersected with the space-time he himself has created, and set up a kind of coordinate system between two horizontal dimensions, space and time, and one vertical dimension, relation to God. We can only figuratively speak about the 'place' of God in terms of his uncreated, triune life and love. This view of Torrance ([1969] 1997:11, 17–18, 23, 34–35, 60, 67, 71–76, [1976] 2019:131) is followed by Schwarz (1986:365–367). Park (2005:93–94, 136–137, 159, 162–163) also follows Torrance, but goes one step further than Torrance and understands 'place of God' literally.

2. God lives in space and has given in his act of creation a part of this space to his creation. Creation is an act of God, in which he limits his own space and limits himself. Versions of this view can be found with Moltmann (1985:98–101, 166, 1995:326–327), followed by Buitendag (2014:9), and Jüngel ([1986] 1990:151–154), followed by Evers (2000:145–147) and Beuttler (2010:413).
3. God lives in a higher dimensional space that transcends and encompasses the three-dimensional space of creation. In his act of creation, God has given a lower-dimensional space to his creatures (Van den Brom 1993:281–298, 1999:96–98).
4. God's immensity is literally his own infinite, indivisible, absolute space. Created space is the totality of relations between separated material objects and divided parts of space. God's infinite space is the necessary precondition of created, physical space. God is generally and locally present in creation by his Spirit, which can be described as a working field. God is both transcendent and immanent in created reality as Father, Son and Spirit. This view of Pannenberg (1988:429–430, 444–449, 1991:105–112, 2005:97–101) is followed by Wüthrich (2015:403–406, 408–413).
5. God has literally his own space, that is, divine proximity and remoteness, and divine togetherness at a distance, in which he is present to himself alone. This is the space of his life and love as Father, Son and Spirit. The loving God is personally present in created space both in a general way and in a particular, differentiated, local way. In the presence of God, creatures live 'in' God; their created space is enclosed by God's uncreated space. This view of Barth (1942:518–530) is followed by Weber ([1955] 1972:493–502), Lehmkuhler (2004:318–320, 2018:477–478) and Rae (2011:70–83).

In the context of this article, it is impossible to analyse and evaluate these views in detail. All of them offer creative proposals and valuable insights, but all of them also have some serious weaknesses. For present purposes, I shall limit myself to listing briefly their main problems.

Ad 1. This view does not explain how a creator, who has a non-spatial relation to creation, can intersect and interact with spatial reality. It does not show what the non-spatial reality of God and spatial reality of creation have in common that enables God to be personally and locally present with his creatures.

Ad 2. This view understands space independently from God's act of creation: space precedes the act of creation. Creating understood as giving a part of one's own space to creatures presupposes a Newtonian notion of absolute space as a container (Gunton 1998:140; Rae 2011:82). Furthermore, this kind of creation establishes a polar relationship between the creator and creation, as is explicitly stated by Evers (2000:152, 155). Moreover, if created space is within God's space, it becomes part of God's space, which implies an ontological continuity between God and creation (Gunton 1998:142), and reduces the categorical distinction between uncreated space and created space to a dimensional or even material boundary.

Ad 3. In this view, three-dimensional physical space is a part of the higher-dimensional space of God. This concept of space is a geometrical abstraction and confuses physical space and mathematical space (Sarot 1992:226–234). Furthermore, this part – whole interpretation of the relation between the space of creation and the space of the creator makes it very difficult, if not impossible, to understand the presence of God to his creatures as a personal encounter at a particular place and his relationship with creatures as an interpersonal relation. Lastly, in this view, the existence of created space becomes a necessary condition for the existence of God's uncreated space, because in a multidimensional system, higher dimensions cannot exist without the lower ones.

Ad 4. In this view, God's own space is primarily philosophically conceived as spatial infinity, that is, in opposition to his particular local presence with his creatures. Moreover, the metaphysical understanding of divine space as the absolute and indivisible precondition of relational, physical space makes it difficult to categorically distinguish God's uncreated space from created space.

Ad 5. In this view, God's own uncreated trinitarian space is literally described in terms of distance (geometrical space) and of proximity and remoteness (experiential space) which are spatial relations between material objects and between objects and subjects in created space (Wüthrich 2015:323–324). This not only results in the incomprehensible claim that remoteness and proximity are one in God, it also blurs the categorical distinction between uncreated and created space (Wüthrich 2015:303–304, 325; cf. Lehmkuhler 2018:479). In addition, God's uncreated space is characterised as both exclusively his own space and as enclosing created space. The first characteristic suggests a categorical difference between uncreated and created space, the second suggests a container model of space and a homogeneous part – whole relation.

If we compare these views, we see that the second and the third views stress God's presence in created space, but do not articulate the ontological distinction between the uncreated reality of God and the reality of his creation. The first view stresses the ontological distinction between the creator and creation, but does not succeed in explaining the positive

relation between God and created space. The fourth view combines God's uncreated space with his spiritual presence as a 'field' by philosophical speculation about infinity. The fifth view does not offer a coherent concept of God's own space. None of these views are theologically wholly adequate.

This leads us the question: Is it possible to construe a positive relation between God and physical space without ascribing spatiality to God himself?

Is God spatial?

Scripture narrates that God can be face-to-face with people and that he can be present and absent with humans in particular places and times. That God can become both present and absent, implies that he can 'move' to places in space and that he can be near us and far from us. The centre of the biblical stories is the story of the coming of Jesus Christ in particular places and times in created space-time. If we only acknowledge God's general, homogeneous and undifferentiated omnipresence in the world on the ground of his immensity, we have to interpret those biblical stories as metaphorical speech expressing merely subjective experience of believers and telling nothing real about God himself. If we accept those stories as witnesses of God's real coming to and presence with human beings in particular places and times, we have to acknowledge that God himself can become personally present with humans in particular places. This is only possible if God himself has the capacity to move towards other beings that are located in created space and to become near and personally present to them.

Is it possible to understand God's capacity to be fully, personally, and locally present with human beings located in spatial reality without confining the existence of the creator to the space of his creation, that is, without denying the ontological distinction between God's uncreated reality and created reality? For human beings who live, experience and understand in created space and cannot transcend the physical dimensions of this space, it is impossible to fully explain how the creator of space can be personally present with them. However, what we can say is that God can only be fully and personally present with humans in space, if his capacity to do so is rooted in his own uncreated eternal life. In other words: if there is a correspondence between the uncreated life of God himself and the movement, relationality, otherness and nearness that enables human beings to experience personal presence in physical space. This requires that God's uncreated life is characterised by divine movement, relationality, otherness and nearness, and would even be dynamic and relational if he had not created the universe. For Christian theology, this assumption is not implausible. On the contrary, on the ground of the Christian understanding of God, it is likely for two reasons. Firstly, God has revealed himself and is known as a living Spirit who himself is life and who gives life to others (Muis [2016] 2020:193–194, 347–348). Life is impossible without some kind of movement. Therefore, to believe in the living God is to believe in a dynamic, a moving and moved God. Secondly,

the relations between the Father and the Son and between the Father and the Spirit are eternal and identifying relations, that is, relations without which God would not be who he is. God himself lives his own life eternally in these relations. These relations are relations of love in which God's eternal love is occurring (Muis [2016] 2020:80–83, 189, 201, 231). Even if God had not created the universe, he would live his eternal life in these relations. Because God is eternally relational in his own life; he does not need the universe in order to become relational (Gunton [1995] 1999:142). There is otherness and relationality in God himself. God's uncreated life is not a simple unity, but differentiated and triune. Because God is dynamic, differentiated and relational in himself, he himself can become near to his creatures in space, in a personal and differentiated manner. For created human beings, physical space is the precondition for the experience of movement, relationality, otherness and nearness. For the creator of space, this physical condition is not required in order to be dynamic and relational.

Can we describe the connection among movement, multiplicity and relationality in God himself as God's own space? If we would try to do so, we would construct a concept of uncreated space whose meaning would be very different from the meanings of 'space' in ordinary and scientific language. We would have to remove central semantic features in the standard meanings of 'space', such as 'extension' of a material thing, 'distance' in length, height and width, and the 'proximity' and 'remoteness' of different subjects. As a result, the terms '(uncreated) space' and '(created) space' would have no central semantic features in common. If a common noun is used without central features of its standard meanings, it is not used literally (in a univocal or an analogical meaning), but metaphorically (Muis 2011:588–591). Therefore, when we talk about God's triune life in terms of 'space', we use 'space' metaphorically. This does not mean that it makes no sense to talk about God's own space. Literal language is not the only possible way to speak truthfully about God; metaphorical language can do so as well (Muis 2010:157–158, 161–162). To say that God has his own space is a powerful and true metaphor for the uniquely dynamic, differentiated and relational life of the triune creator of our spatial reality (Gunton [2000] 2003:101).

Conclusion

On the basis of this exploration of different notions of space and this overview of traditional and modern accounts of the relation between God and space, the following conclusions can be drawn.

The classical theological view on the relation between God and space in terms of immensity and omnipresence is no longer tenable in light of conceptions of space that are being developed in the natural sciences. Moreover, the classical view cannot do justice to the biblical witness of God's particular and personal presence with human beings in created space.

Modern reworkings of the scheme of God's immensity and omnipresence and Heim's conception of divine transcendence cannot overcome its theological shortcomings.

A theological account of God's relation to space should take into account both physical and experiential space because human beings live, experience and understand in a physical reality. When God becomes present with human beings, he comes near them and his nearness is experienced by them. A mathematical concept of space is insufficient to describe God's presence with human beings.

In a theological account of God's relation to space, space should not be understood as a container of entities, but as a set of spatial relations between entities, because this is consonant with the dominant understanding of physical space in the natural sciences and because it is the simplest and most elegant way to understand experiential space.

For modern views that ascribe spatiality to God, it proves difficult to maintain the ontological distinction between the creator and creation. With Moltmann, Jüngel and Van den Brom, created space becomes a part of God's space. Thus, the creator-creation distinction is reduced to a material (Moltmann and Jüngel) or dimensional (Van den Brom) boundary. Additionally, in these views, space appears to exist before the act of creation as an independent container. With Barth and Pannenberg, God's space is another kind of space as against created space. But Pannenberg blurs the creator-creation distinction by postulating an infinite divine container space as the necessary precondition for the possibility of created space. Barth blurs the creator-creation distinction by describing God's triune life in otherness, relationality and movement in terms of physical space ('distance') and the experiential space of human beings ('nearness').

Torrance does not ascribe spatiality to God. He suggests that a relational concept of created physical space is sufficient to warrant a positive relationship between God and space. In order to develop such a concept, he starts with a relational concept of physical space that he borrows from modern physics, especially from Einstein's theory of relativity. This is a fruitful approach to make our understanding of the relation between God and space consonant with the natural sciences.

If we follow Torrance's suggestion that spatiality of God is not required for a positive relation between God and space and we try to understand the biblical witness of God's presence with human beings, we should use an experiential concept of space. For human beings, created space is the physical precondition for the possibility to experience the presence of other beings, because such an experience requires both distance in space (otherness) and nearness in space (presence). The creator of space himself can become present and absent with human beings, and establish reciprocal relationships with them, because, as the triune Spirit, Father, Son and Holy Ghost, he eternally lives his own life in dynamic

otherness and relationality. When we call this uncreated eternal life of God his space, we use the term 'space' metaphorically.

Acknowledgements

Acknowledgement is hereby given to Prof. J. Buitendag for inviting me to participate in the project of 'Theology and Nature'. I would also like to thank Margriet Muis, Martine Oldhoff and three anonymous reviewers for their helpful comments on an earlier draft of this article. I am indebted to Prof. Jeroen van Dongen who drew my attention to the article of J.D. Norton on the hole argument.

Competing interests

The author declares that he has no financial or personal relationships that may have inappropriately influenced him in writing this article.

Author's contributions

J.M. is the sole author of this article.

Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

Funding information

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Disclaimer

The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of any affiliated agency of the author.

References

- Barth, K., 1942, *Die Kirchliche Dogmatik II/1. Die Lehre von Gott*, EVZ-Verlag, Zürich.
- Beutler, U., 2010, *Gott und Raum. Theologie der Weltgegenwart Gottes*, Vandenhoeck & Ruprecht, Göttingen.
- Buitendag, J., 2002, 'Karl Heim se verstaan van ruimte in die debat tussen die teologie en natuurwetenskap', *Verbum et Ecclesia* 23(2), 291–304. <https://doi.org/10.4102/ve.v23i2.1196>
- Buitendag, J., 2003, 'Karl Heim se verstaan van tyd in die debat tussen teologie en natuurwetenskap', *Verbum et Ecclesia* 24(1), 15–28. <https://doi.org/10.4102/ve.v24i1.308>
- Buitendag, J., 2014, 'Panenteïsme as 'n funksionele, induktiewe konstruk in die gesprek tussen die teologie en die (natuur)wetenskap', *Verbum et Ecclesia* 35(2), a879, 11 pages. <https://doi.org/10.4102/ve.v35i2.879>
- Evers, D., 2000, *Raum – Materie – Zeit. Schöpfungstheologie im Dialog mit naturwissenschaftlicher Kosmologie*, Mohr Siebeck, Tübingen.
- Falcke, H., 2020, *Licht im Dunkeln. Schwarze Löcher, das Universum und wir*, Klett-Cotta, Stuttgart.
- Gunton, C., 1998, *The Triune creator: A historical and systematic study*, Eerdmans, Grand Rapids, MI.
- Gunton, C., [1995] 1999, 'Relation and relativity: The trinity and the created world', in *The promise of Trinitarian theology*, pp. 137–157, 2nd edn., T&T Clark, Edinburgh.
- Gunton, C., [2000] 2003, 'Creation and mediation in the theology of Robert W. Jenson: An encounter and a convergence', in *Father, Son & Holy Spirit: Essays toward a full Trinitarian theology*, pp. 93–106, T&T Clark, London.
- Heim, K., 1953, *Christian faith and natural science*, Harper, New York, NY.
- Heim, K., [1931] 1956, *Glaube und Denken. Philosophische Grundlegung einer christlichen Lebensanschauung*, Furche, Hamburg.
- Jammer, M., 1970, *Concepts of space: The history of theories of space in physics*, 2nd edn., Harvard University Press, Cambridge, MA.
- Jammer, M., 1999, *Einstein and religion: Physics and theology*, Princeton University Press, Princeton, NJ.
- Jüngel, E., [1986] 1990, 'Gottes ursprüngliches Anfangen als schöpferische Selbstbegrenzung. Ein Beitrag zum Gespräch mit Hans Jonas über den "Gottesbegriff nach Auschwitz"', in *Wertlose Wahrheit. Zur Identität und Relevanz des christlichen Glaubens. Theologische Erörterungen III*, pp. 151–162, Kaiser, München.
- Kaiser, C.B., 2001, 'Humanity in an intelligible cosmos: Non-duality in Albert Einstein and Thomas Torrance', in E.M. Colyer (ed.), *The promise of Trinitarian theology: Theologians in dialogue with T.F. Torrance*, pp. 239–267, Rowman and Littlefield, Lanham, MD.
- Kessler, M., 1997, *Kornelis Miskotte: A biblical theology*, Susquehanna University Press, Selinsgrove, PA.
- Lehmkuhler, K., 2004, *Inhabitatio. Die Einwohnung Gottes im Menschen*, Vandenhoeck & Ruprecht, Göttingen.
- Lehmkuhler, K., 2018, "'But will God indeed dwell on the earth?'" God and space', *Modern Theology* 34(3), 469–479. <https://doi.org/10.1111/moth.12430>
- Loen, A.E., 1963, *Het vóóronderstelde. Kentheoretische ontgrenzingen*, Boekencentrum, 's-Gravenhage.
- Loen, A.E., 1965, *Säkularisation. Von der wahren Voraussetzung und angeblichen Gottlosigkeit der Wissenschaft*, Chr. Kaiser, München.
- Loen, A.E., 1967, 'De waarheid en de zekerheid der natuurwetenschap', in *Geloof en Natuurwetenschap II. Wijsgerige en ethische aspecten der natuurwetenschap*, pp. 118–174, Boekencentrum, 's-Gravenhage.
- Maccovius, J., [1652] 2009, *Scholastic discourse: Johannes Maccovius (1588–1644) on theological and philosophical distinctions and rules*, transl. and ed. W.J. van Asselt, M.D. Bell, G. van den Brink, R. Ferwerda, Instituut voor Reformatieonderzoek, Apeldoorn.
- Mildenberger, F., 1981, *Geschichte der deutschen evangelischen Theologie im 19. und 20. Jahrhundert*, Kohlhammer, Stuttgart.
- Mildenberger, F., 1992, *Biblische Dogmatik. Eine biblische Theologie in dogmatischer Perspektive 2. Ökonomie als Theologie*, Kohlhammer, Stuttgart.
- Miskotte, K.H., [1956] 1967, *When the Gods are silent*, transl. J.W. Doberstein, Collins, London.
- Moltmann, J., 1985, *Gott in der Schöpfung. Ökologische Schöpfungslehre*, Kaiser/Gütersloher Verlagshaus, Gütersloh.
- Moltmann, J., 1995, *Das Kommen Gottes. Christliche Eschatologie*, Kaiser, München.
- Mühling, M., 2020, *Post-systematic theology: Ways of thinking – A theological philosophy*, Brill/Fink, Paderborn.
- Muis, J., 2010, 'The truth of metaphorical God-talk', *Scottish Journal of Theology* 63(2), 146–162. <https://doi.org/10.1017/S0036930610000025>
- Muis, J., 2011, 'Can Christian talk about God be literal?', *Modern Theology* 27(4), 582–607. <https://doi.org/10.1111/j.1468-0025.2011.01704.x>
- Muis, J., [2016] 2020, *Our father: A biblical and theological investigation*, transl. A. Janssen, Lexington Books/Fortress Academics, Lanham, MD.
- Norton, J.D., 2019, 'The hole argument', in E.N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, Summer 2019 edn., viewed from <https://plato.stanford.edu/archives/sum2019/entries/spacetime-holearg/>.
- Pannenberg, W., 1988, *Systematische theologie I*, Vandenhoeck & Ruprecht, Göttingen.
- Pannenberg, W., 1991, *Systematische theologie II*, Vandenhoeck & Ruprecht, Göttingen.
- Pannenberg, W., 2005, 'Eternity, time, and space', *Zygon* 40(1), 97–106. <https://doi.org/10.1111/j.1467-9744.2005.00647.x>
- Park, C.H., 2005, *Transcendence and spatiality of the Triune Creator*, Peter Lang, Bern.
- Plantinga, A., 2011, *Where the conflict really lies: Science, religion, & naturalism*, Oxford University Press, New York, NY.
- Rae, M., 2011, 'The spatiality of God', in M. Habets, P. Tolliday (eds.), *Trinitarian theology after Barth*, pp. 70–86, Pickwick, Eugene, OR.
- Sarot, M., 1992, *God, passibility and corporeality*, Kok-Pharos, Kampen.
- Schwarz, H., 1986, 'God's place in a space age', *Zygon* 21(3), 353–368. <https://doi.org/10.1111/j.1467-9744.1986.tb00753.x>
- Sonderegger, K., 2015, *Systematic theology I: The doctrine of God*, Fortress, Minneapolis, MN.
- Torrance, T.F., [1969] 1997, *Space, time and incarnation*, T&T Clark, Edinburgh.
- Torrance, T.F., [1976] 2019, *Space, time and resurrection*, T&T Clark, Edinburgh.
- Turretin, F., [1679] 1992, *Institutes of elenctic theology*, transl. G.M. Giger, ed. J.T. Dennison Jr., P&R Publishing, Phillipsburg, NJ.

- Ubbink, J.B., 1967, 'Geloof en wetenschap, waarheid en werkelijkheid', in *Geloof en Natuurwetenschap II. Wijsgerige en ethische aspecten der natuurwetenschap*, pp. 175–245, Boekencentrum, 's-Gravenhage.
- Van den Brom, L.J., 1993, *Divine presence in the world: A critical analysis of the notion of divine omnipotence*, Kok Pharos, Kampen.
- Van den Brom, L.J., 1999, 'As thy new horizons beckon: God's presence in the world', in G. van den Brink & M. Sarot (eds.), *Understanding the attributes of God*, pp. 75–98, Peter Lang, Frankfurt am Main.
- Ward, K., 1996, *God, change & necessity*, Oneworld, Oxford.
- Ward, K., 2008, *The big questions in science and religion*, Templeton Foundation Press, West Conshohocken, PA.
- Weber, O., [1955] 1972, *Grundlagen der Dogmatik I*, Neukirchener Verlag, Neukirchen.
- Webster, J., 2004, 'The immensity and ubiquity of God', in I.U. Dalferth, J. Fischer & H.-P. Grosshans (eds.), *Denkwürdiges Geheimnis. Beiträge zur Gotteslehre. Festschrift für Eberhard Jüngel zum 70. Geburtstag*, pp. 539–556, Mohr Siebeck, Tübingen.
- Wüthrich, M.D., 2015, *Raum Gottes. Ein systematisch-theologischer Versuch, Raum zu denken*, Vandenhoeck & Ruprecht, Göttingen.