

Spirit as field of force

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Abstract

It is a familiar refrain in various theological conversations that pneumatology has been woefully underdeveloped in Western theology since the time of Augustine. However, some theologians are working to correct this situation and to develop new ways of understanding the person of the Holy Spirit in ways which are faithful to traditional theological sources. Wolfhart Pannenberg is one such theologian. One way in which he seeks to revitalise contemporary pneumatology is by appealing to field theory as it has been developed in modern physics. Pannenberg justifies such a move by investigating the etymological and philosophical roots of both field theory and pneumatology in the Stoic understanding of the doctrine of the *πνεῦμα* as the field of all material existence. While the Stoic notion of field was rejected by the apologists as a way of understanding, because of its inherent materialism, this possibility has been reopened by modern physicists who have developed field theories as a way of understanding the animating and binding qualities of nature which are devoid of materialism. Pannenberg takes up this language in a distinctive way to describe the unity of the Godhead in order to avoid modalism and to undo emphasis on rationality which has been the central feature of much of modern Western pneumatology. He also draws upon field theory to understand the activity of the Spirit in creation as its animating and unitive property, while preserving the freedom and individuality of creaturely existence. The author argues that this distinctive feature of Pannenberg's use of field theory in pneumatology has laid the ground work for a renewed understanding of the role of the Spirit in creation and a new avenue of conversation between theology and the natural sciences. In particular, field theory should be seen as an important way of understanding the loving relations between persons which is grounded in a mutual self-giving which respects the individual, in contrast to those who ground love primarily in compassionate suffering.

Keywords: field theory, God–world relationship, love, pneumatology, Trinity, Wolfhart Pannenberg.

Wolfhart Pannenberg is well known for his interdisciplinary theological method and for his belief that diverse academic disciplines must mutually condition one another. In this belief, he is far from alone; however, few

scholars have been more successful at actually implementing this difficult task in the realm of theology. In an era frequently marked by a preference for deconstruction over integration and by a suspicion of grand systems, Pannenberg offers his readers a theological project which seeks to incorporate the best of what contemporary research has to offer, while still remaining humble about the provisional nature of any individual project.

One significant example of Pannenberg's bold, interdisciplinary efforts can be found in the development of his doctrine of God, where he draws upon the language of modern physics to renew and deepen his understanding of the spirituality of God and the activity of the Holy Spirit. This article seeks (1) to analyse and discuss Pannenberg's field analogy for the Spirit, (2) to describe its implications for Pannenberg's doctrine of God and Creation, and (3) to suggest implications for further pneumatological work. While Pannenberg works out his understanding of the divine Spirit in a number of places,¹ this article's focus on the presentation of this material in his three-volume *Systematic Theology*² is justified by the maturity of this most important of his works and by its systematic structure which helps to draw out the significance of this concept.

Pannenberg's idea of the Spirit as a field of force

As with any element of Pannenberg's theology, it is important to recognise that he is deeply engaged with the history and development of theology as a discipline. As a result, although Pannenberg's appeal to the language of fields of force may seem strange and jarring at first for many, both in theology and in the natural sciences, it is important to recognise that he does not see this appeal as a pure innovation. This section will proceed first by helping to explain the development of the notion of a field and its ancient connections with Christian pneumatology. Then it will describe Pannenberg's appeal to field theory as a response to this historical background.

¹ Key preliminary essays in which Pannenberg develops the field analogy include: Wolfhart Pannenberg, 'Doctrine of the Spirit and the Task of a Theology of Nature', *Theology* 75/619 (1972), pp. 8–21; 'Theological Questions to Scientists', in *Sciences and Theology in the Twentieth Century* (Notre Dame, IN: University of Notre Dame Press, 1981), pp. 3–16; 'The God of Creation and Natural Science', *CTNS Bulletin* 7/2 (1987), pp. 1–10; Wolfhart Pannenberg and Donald K. Musser, 'Spirit and Energy in the Phenomenology of Pierre Teilhard de Chardin', in *Beginning with the End* (Chicago: Open Court, 1997), pp. 80–9; Wolfhart Pannenberg, *The Apostles' Creed in the Light of Today's Questions* (Philadelphia: Westminster Press, 1972), pp. 128–43; 'God as Spirit – and Natural Science', *Zygon* 36/4 (2001), pp. 783–94; 'Response to John Polkinghorne', *Zygon* 36/4 (2001), pp. 799–800.

² Wolfhart Pannenberg, *Systematic Theology* (*Systematische Theologie*), trans. Geoffrey W. Bromiley, 3 vols (Grand Rapids, MI: Eerdmans, 1991). (Hereafter abbreviated as ST.)

Background

The metaphysical idea of a field is to be found first in Anaximenes, the pre-Socratic philosopher for whom air was the origin and ground of all being. For Anaximenes, air was associated with the breath of life (*πνευμα*) which holds all things together, just as the soul holds the human person together.³ Suggesting that air is the fundamental material of all life raised questions about how concrete and visible objects developed. This difficulty was addressed through the processes of condensation and rarefaction. He hypothesised that air, when concentrated, becomes progressively wind, cloud, water, earth and finally stone. When diluted, air heats up and becomes fire. Thus air is a mid-way point in the spectrum of natural substances, but is also closely related to the soul which is the animating principle of motion and which binds spiritual and material substances together.

Later, the concept of a field which binds all things together was taken up by the Stoics who were read extensively by early Greek fathers of the church such as Justin Martyr. The Stoics conceived of the Spirit as a subtle form of matter which infuses all things and holds all of creation together through a powerful tension between its different parts. The Stoics were materialists who did not believe in empty space. Thus, they taught that there exists a fundamental material substance which forms the substratum of all things. This substratum, which they called *πνεῦμα*, was constantly in a state of what Sambursky calls ‘tensional motion’ (*τομικε κινεσις*), a dynamic tension which was formed by a back and forth motion which made all movement possible.⁴ The movement of the *πνεῦμα* was also responsible for all sense perception, according to the Stoics, because the *πνεῦμα* of an object actually moved through the air in a manner similar to wave motion to excite the soul of the observer.⁵ Thus, tensional motion accounts for both the cohesion of the universe and the different movements and qualities of substances.⁶

During the second century, Origen was influenced by the Greek notion of the *πνεῦμα* as the principle of unity in creation. Origen saw a connection between the use of the term *πνεῦμα*, in Greek accounts of natural phenomena, and the work of the divine Spirit and Wisdom, in the creation of the world as described in Genesis and the prologue of John’s Gospel. However,

³ Frederick Copleston, *A History of Philosophy*, vol. 1, *Greece and Rome: From the Pre-Socratics to Plotinus* (New York: Image Doubleday, 1946), p. 26.

⁴ Samuel Sambursky, *Physics of the Stoics* (London: Routledge & Paul, 1959), p. 29.

⁵ *Ibid.*, pp. 21–8.

⁶ See Wolfhart Pannenberg, ‘The Doctrine of Creation in Modern Science’, in *Toward a Theology of Nature* (Louisville, KY: Westminster John Knox, 1993), p. 39. He is drawing upon the work of Max Jammer’s *Concept of Force* (Cambridge, MA: Harvard University Press, 1957) and William Berkson’s *Fields of Force* (New York: Wiley, 1974).

Origen completely rejected the Stoics' materialism since it necessitated a limitation of the divine principle in space and time. As a result, the Spirit was increasingly associated with the mind ($\nu\omicron\upsilon\zeta$) in the history of Christian thought which, unlike material substances, is not spatially limited and cannot be divided.⁷ This connection between $\pi\nu\epsilon\upsilon\mu\alpha$ and $\nu\omicron\upsilon\zeta$ reached a high water mark in the religious philosophy of Hegel, for whom *Der Geist* was the divine principle of the mind and Spirit which led to the entirety of creation to increasing levels of insight and self-consciousness. Pannenberg views this close connection between $\nu\omicron\upsilon\zeta$ and $\pi\nu\epsilon\upsilon\mu\alpha$ as a dangerous reduction in the Christian understanding of the Spirit whose full impact had only been felt in the twentieth century.⁸

Field theory was taken up again in the nineteenth century in natural sciences, in a way which removed the stumbling block of Stoic materialism. Michael Faraday's (1791–1867) experiments with electromagnetism reintroduced the concept of an immaterial field of force to the scientific study of nature. Faraday is best known for his experiments which helped to detect and describe the behaviour of electromagnetic fields and the way which they act on objects from a distance. For example, he recognised that a magnet is able to attract iron filings from a distance through the energy of an immaterial field of energy. His work helped scientists to understand better how these fields behaved, how they were created and how they were limited. Later in the same century James Clerk Maxwell recognised that gravity was also best understood as a field generated by massive objects working on other objects. He sought to integrate Newton's insights into the nature and effects of gravitational fields with Faraday's work with electromagnetism into a unified field theory which could explain, describe and predict the fundamental properties and behaviour of all fields.

In the middle of the twentieth century, field theory underwent a major shift initiated by developments in gravitational theory and quantum mechanics. These developments were driven by Albert Einstein's research into the nature of gravitational fields, as well as the discovery of strong and weak nuclear forces which establish the nature of sub-atomic structures. Today, field theories are a major area of research in physics which impact the theoretical knowledge of natural phenomena in astrology and quantum

⁷ Association between the divine mind and the Spirit remained very influential in the history of Christian thought and reached a high point in the Hegelian understanding of *Geist*. Pannenberg is well aware of this historical influence and seeks to avoid reducing the concept of God to the notion of rationality.

⁸ More will be said about Pannenberg's critique of the conflation of $\pi\nu\epsilon\upsilon\mu\alpha$ with $\nu\omicron\upsilon\zeta$ later.

theory. Field theory has grown more diverse and intricate since Faraday's experiments with electromagnetism. What has not changed, however, is the appeal to fields as natural phenomena which influence all movement in the cosmos while also holding the universe together with a common ground. Fields then can be defined as immaterial physical properties of space that interact with matter in ways which can be quantified by measurement. Field theory today provides a 'reliable, well tested, and nearly comprehensive account of how reality is put together at its most fundamental levels'.⁹

Pannenberg argues that, since both pneumatology and field theory share a common intellectual heritage, theology and modern physics make suitable conversation partners for a more profound understanding of nature and the underlying Spirit (*πνεῦμα*) which unifies and animates all things. In this way, the idea of a field can be used by theologians as an analogy for the way that the Spirit works in the world and relates to all of nature. Nonetheless, this concept must be understood and utilised in a manner which is consistent with the way that the activity of the Holy Spirit has been described in scripture and as experienced in the life of the Christian community. In this sense, the term allows for a conversation to take place between theologians and scientists on the role of fields, the sources of life and particularity, and the nature of freedom and contingency.

The divine Spirit as field

In volume 1 of his *Systematic Theology*, Wolfhart Pannenberg develops his idea of the divine Spirit as a field in response to modern thinkers who emphasise the connection between the divine Spirit and the mind.¹⁰ In this context, he takes up questions raised by modern critics of religion such as Hume, Fichte and Feuerbach who question the concept of God as spiritual or personal, which they see as anthropomorphic. Pannenberg wants to hold onto the notion of the divine spirituality as it is found in scripture. However, he

⁹ William R. Stoeger, 'Field Theories', in J. Wentzel Vrede van Huyssteen (ed.), *Encyclopedia of Science and Religion* (New York: Macmillan Reference USA, 2003), p. 333.

¹⁰ While this critique could be applied to many significant figures in the eighteenth and nineteenth centuries, it is particularly apropos of G. W. F. Hegel, whose notion of *Geist* was briefly discussed in the previous section. This in some ways helps to respond to Pannenberg's critics who have accused him of being too rationalistic and dependent on Hegelian pantheism. Examples of those who criticise Pannenberg for his rationalism and dependence upon Hegel include William J. Hill, *The Three-Personed God: The Trinity as a Mystery of Salvation* (Washington, DC: Catholic University of America Press, 1982), pp. 155–66, and Timothy Bradshaw, *Trinity and Ontology: A Comparative Study of the Theologies of Karl Barth and Wolfhart Pannenberg* (Lewiston, NY: Published for Rutherford House/Edinburgh by Edwin Mellen Press, 1992).

wishes to do so in a way which does not reduce the role of the Spirit to that of the mind. Instead, he argues that New Testament language about the Spirit of God and its work should be understood in light of the Wisdom literature.¹¹ The Hebrew term for Spirit (*ruah*) is not reducible to reason or consciousness as it was the middle Platonic understanding of *πνεῦμα*. Instead, it emphasises a mysterious force which moves like the wind or the breath of life. This force is the origin of all life which was breathed into creation from the beginning (Gen 2:7) and which will return to God when our last breath leaves our body (Eccl 12:7). While this notion is connected with the insight and wisdom which comes from God and which inspired the prophets, its rational content still differs significantly from the Platonic notion of *πνεῦμα* and radically from the idea of a rational self-conscious Geist which was a central term for Fichte, Feuerbach, Marx and Nietzsche. As a result, by appealing to field theory, Pannenberg avoids the rationalism he associates with many continental treatments of divine spirituality.

Pannenberg argues that scripture approaches divine knowledge and will in a manner that is significantly different from Hegel, despite the fact that these characteristics are clearly important attributes of divinity. He emphasises that statements about God's knowledge in the Hebrew scriptures are different from what is meant by human knowledge. 'When we speak of God's knowledge we mean that nothing in all his creation escapes him. All things are present to him and are kept by him in his presence.'¹² However, human knowledge is far more dependent on memory than on the actual presence of a thing to the knower. Thus, the human experience of knowledge is only a shadowy hint of what is meant by divine knowledge. The same can be said of human will when compared with the divine will. The human will has frequently been characterised by striving towards a goal, the consciousness of a task or the instinct of self-preservation (will to power). However, the scriptures associate God's will with either divine ordinances or his good pleasure.¹³ Isaiah 42:1, for example, associates the imparting of God's Spirit with those with whom God is well pleased. The scriptures, then, tend to associate both the divine will and knowledge with God's presence to the creature through his Spirit (Psalm 139:1–7). Pannenberg sees this association as very different from the idea of the Spirit which developed out of the Greek concept of the divine *νοῦς* and has been the most dominant trend in pneumatology from Origen to Hegel.

¹¹ Pannenberg, *ST*, vol. 1, p. 373.

¹² *Ibid.*, pp. 379–80.

¹³ *Ibid.*, p. 381.

Pannenberg believes that field theory, as developed by modern physics, can now help to reappropriate the biblical notion of the Spirit. Modern physicists define fields as immaterial physical properties of space which interact with matter in ways which can be quantified by measurement. These fields act by generating movement (as is the case when an electromagnetic field comes into contact with iron filings) and by binding things together (as is the case when gravity holds planets in orbit or when strong forces hold protons and neutrons together in the nucleus of an atom). Further, modern physics no longer describes field phenomena by material action as the Stoics did. Instead, it conceives of them as defined by their relation to space-time.¹⁴ Pannenberg argues that the divine Spirit too is revealed through its relation to space and time through the concepts of divine eternity and omnipresence. Moreover, appeals to field theory can deepen the current appreciation for the third person of the Trinity and its relation to the divine attribute of spirituality which characterises all of the Trinity. Here the Holy Spirit as a field of force in creation can be seen in its work of animating creation as the breath of life and in its efforts to unite all things and draw them towards the future consummation of the kingdom of God.

Pannenberg sees many uses for the idea of the Spirit as an immaterial field of force which animates and unites. However, the stability and appropriateness of this language for theology can only be established by a broader analysis of how this concept is put to use in relation to the doctrine of the triune God and the doctrine of creation, since it has been drawn from a field of study with radically different goals and methods than theology.

Implications of field theory for doctrines of God and creation

Having established in broad terms what Pannenberg means when he refers to the divine Spirit as a field, it is the task of this section to analyse some of the ways in which he uses this concept in this *Systematic Theology*. It will look to Pannenberg's discussion of the divine attributes and the unity of the trinitarian persons as well as his doctrine of creation. This analysis will also have to address a certain equivocation in Pannenberg's use of the term Spirit. On the one hand, Pannenberg speaks of the divine Spirit in relation to the spirituality of the divine essence. At these points, he is seeking to respond to Hegelian philosophy and is developing a theology in accordance with the scriptural insight that God is Spirit (John 4:24; 2 Cor 3:17). On the other hand, Pannenberg begins his doctrine of God with a discussion of the trinitarian persons and he therefore is also developing his understanding of the third person of the Trinity.

¹⁴ Ibid., p. 382.

The divine field and the unity of the Trinity

Pannenberg first uses the notion of the Spirit as a field to help establish the unity of the divine persons (which is in fact the major goal of this chapter of his *Systematic Theology*). This analogy is particularly important to him because his *Systematic Theology* treats the doctrine of the Trinity before taking up the oneness of God. This methodological orientation raises the question of how the three divine persons are one, rather than presuming the oneness of God and then seeking to establish the distinctions within the divine essence. Pannenberg appeals to the notion of the divine Spirit as a field to help address this issue. When the Godhead is conceived of as a field, rather than as $\nu\theta\delta\varsigma$, it allows each of the divine persons to be understood as an equal manifestation of the divine essence without appeal to a divine mind or consciousness which stands behind the Father, Son and Holy Spirit (modalism) or identifying the Father with the Godhead in a way which produces an unintended subordinationism. Further, the field analogy opens up the possibility of human participation in the divine life, as is described in the concept of theosis.

Pannenberg also suggests that the field can be described in terms which echo Augustine's understanding of the third person of the Trinity. Augustine famously conceived of the Holy Spirit as the bond of love which exists between the Father and the Son and unites the two. Pannenberg believes that idea of the Holy Spirit as a field can add to this idea. The field analogy emphasises the Holy Spirit's field of loving fellowship which binds together the Father and the Son. On the other hand, Pannenberg's trinitarian theology develops from a reflection on each of the divine persons and then seeks to demonstrate the unity among the persons – a method which has frequently been associated with the theology of the Trinity prevalent in Eastern Christianity since the time of the Cappadocians in the fourth century. This fact helps to demonstrate that the Holy Spirit is not only to be seen as the divine life which is common to both the Father and the Son, but that the Spirit is also its own centre of action.

Pannenberg makes it clear that the Holy Spirit is not the field *per se*.¹⁵ However, he does connect the notion of the field particularly closely to the person of the Spirit. This connection can be seen not only in the etymological connection between field and $\pi\nu\epsilon\delta\mu\alpha$, but also in the activity of the Spirit in both the immanent and economic Trinity. In relationship to the Father and the Son, the Spirit is, at least in part, conceived of as the principle of

¹⁵ 'The person of the Holy Spirit is not himself to be understood as the field, but as a unique manifestation (singularity) of the field of the divine essentiality'. *Ibid.*, vol. 2, p. 83.

unity and fellowship among the trinitarian persons. This principle of unity and fellowship is how Pannenberg understands the Augustinian insight that the Spirit is the love which binds together the Father and the Son.

However, Pannenberg wants to avoid the consistent critique of Orthodox theologians and others who claim that Augustine's pneumatology eliminates the full personhood of the Holy Spirit. Instead, Pannenberg defines personhood through the process of loving self-distinction from another and the economic activity of the unified God which is particularly associated with each of the divine persons. As a result, he argues that the full personhood of the Spirit is seen most clearly in the way that the Spirit glorifies the Son and the Father. The Holy Spirit accomplishes the glorification of the Father and the Son through active participation in lives of individual Christians and the Christian community. The glorification of the Father and the Son, the consummation of the divine kingdom and sanctification of the individual believer are all dependent upon the role of the Spirit of uniting the Father and Son in trinitarian fellowship. Consequently, the role of the Spirit as the love which binds together the Father and the Son extends the Spirit's work of animating all of creation and uniting the Christian community to the life of the Trinity.

Pannenberg's use of the field concept as the unity of the Trinity is connected to his understanding of divine love. For Pannenberg, the most important concept in understanding the unity of the divine persons is love. In his discussion of the unity of the Trinity in chapter 6 of *Systematic Theology*, he addresses this concept and connects it to field theory showing how the two concepts are interrelated. Central to Pannenberg's understanding of the Trinity is the idea that the divine persons are defined by their mutual relations to one another. However, his treatment of the relations of the immanent Trinity is not based solely on the relations of origin from the Father, as the Cappadocians emphasised. Instead, he believes that the divine persons are each defined by a complex nexus of relations which includes, but is not limited to, the relations of origin. Thus, the Father, Son and Spirit are defined in terms which echo the personalism of Martin Buber. The Son is defined by the loving gift of himself to the Father (most notably in the crucifixion) and the Spirit (through passive spiration). However, the Son also receives the gift of his personhood back through the self-gift of the Father (through begetting) and through the Spirit (in the incarnation and resurrection). The same can be said for each person of the Trinity: they receive their hypostatic identity and divinity through the action and mutual self-donation of the other divine persons.

In this approach to the life of the immanent Trinity, it is particularly clear that God is love, and this love is the ground and principle of both the

unity and diversity of the Trinity. Love here is not understood primarily as an emotional state which only seeks to be empathically united to the other (although empathy is far from excluded). Rather, love is the ontological principle which is the essence of God and acts as both the source and unity of the divine persons. This love does not exist outside of the divine persons; neither can it be separated from them. Moreover, this love is not particularly associated with one of the divine persons (e.g. the Father) which might lead to an implicit subordinationism (a tendency Pannenberg detects in many traditional Eastern treatments of the doctrine of the Trinity). Nor does it privilege the unity of God over the divine persons in a way which leads to an implicit modalism (a danger Pannenberg believes is nascent in many Western treatments of the Trinity).

Pannenberg also closely ties his exegesis of 1 John 4:8, 16 (God is Love) to his understanding of John 4:24 (God is Spirit). He states: 'The two statements "God is Spirit" and "God is love" denote the same unity of essence by which the Father, Son, and Spirit are united in the fellowship of the one God. The statement that "God is Spirit" tells us what kind of Spirit it is whose sound (John 3:8) fills all creation and whose power gives life to all creatures. The Spirit is the power of love that lets the other be.'¹⁶ From this statement, it is clear that Pannenberg understands the love of God in the same way that he understands the spirituality of God. Pannenberg also intends this statement as a further confirmation of the field analogy which was developed earlier to understand the spirituality of God.

The essence of God then is not to be understood first and foremost in noetic terms. Rather, the divine essence is love, life and truth (in that it holds all things in itself). The Spirit of God is defined by the loving mutual self-gift of each of the divine persons to one another. This love is best understood then as an animating field which enlivens each of the persons and which, after the act of creation, is open to the creaturely realm.

The animative and unitive field of the Spirit in creation

Pannenberg further develops his appreciation for the use of field theory in his discussion of the doctrine of creation in the second volume of *Systematic Theology*. Drawing upon the idea of the Son as the principle of the *logos spermatikos*, Pannenberg argues that the Son is the principle of diversity in the world as well as the mediator of salvation. The Spirit, on the other hand, is the principle of unity and movement, because she is the divine person who inspires and enlivens all of creation and moves all things back towards union with their creator. One advantage of this formulation is that it

¹⁶ Ibid., vol. 1, p. 427.

helps to elucidate the full personhood of the Holy Spirit as we have already discussed. It also clarifies Pannenberg's idea that the Holy Spirit is more than simply the field of divine essentiality as is emphasised in its role as the fellowship between the Father and the Son. So, viewed through the lens of the relationship between the Father and the Son, the Spirit is the clearest example of the divine field. On the other hand, when the Spirit is viewed in relationship to creation, its personal qualities are emphasised. This distinction should not be overemphasised, however, since Pannenberg is clear in his position that the life of the immanent Trinity is fully revealed in God's economic relations with the world.¹⁷

One of the central and overriding concerns of Pannenberg's understanding of the trinitarian God is to defend the idea that essence is a relational concept. Thus, Pannenberg's appeal to field theory as an analogy for the divine essence seeks to actualise its potential ability to describe complex relations between a group and the individuals within that group, as previously discussed. This theme continues as Pannenberg turns his attention to God's relationship between space and time. At this point he is trying to strike a balance between opposing concerns. On the one hand, it is inappropriate to localise God in space because to do so would restrict God to one place as distinct from others and suggest finitude, thereby compromising divine transcendence. On the other hand, Pannenberg's emphasis on relationality underscores an intimate relationship between God and the created order in keeping with divine immanence.

Pannenberg continues his discussion of the role of the Spirit in the doctrine of creation through an analysis of space-time. The form of the conversation continues two themes which have already been developed in this article. First, Pannenberg is interested in discussing his theology of creation in a manner which is able to engage directly with the categories of modern science. This interdisciplinarity underscores the point that he sees both disciplines as seeking to address the same fundamental truths and that the valid conclusions of each discipline must be in conversation with one another. Second, Pannenberg endeavours to address the nature of God's relation to the history of the world, by weaving God's presence into the very fabric of creation without conflating God and history. 'In creating, God gives

¹⁷ Pannenberg asserts that Rahner's thesis regarding the identity of the immanent Trinity with the economic Trinity ought to be understood to mean that the eternal essence of God must be constantly linked to God's historical revelation. Moreover, he states, 'Extending the thought of Rahner, one might thus say that creation is brought into the relations of the Trinitarian persons and participates in them' (*ST*, vol. 1, pp. 327–8). This statement should be interpreted in the light of the Eastern theology of theosis, rather than as a concession to a Hegelian form of pantheism.

creatures space alongside himself and over against himself. But his presence still comprehends them. As the early fathers said, God comprehends all things and is comprehended by nothing and no one.¹⁸ He goes on to explain this principle in terms of his understanding of the Spirit as a field and space-time. Pannenberg follows Spinoza in defining space as ‘the epitome of the relations of bodies or spaces’ rather than as empty space.¹⁹ Thus, space is the field in which the relations between things are defined. Time is an extension of this definition of the space because it expresses the change in relations within the field. This conflation of space and time which is common in quantum theory is a central presupposition for Pannenberg’s understanding of God’s presence to the created realm. He sees the eternity of God as the simultaneity of all history; it is the ‘undivided present of life in its totality’.²⁰ As such, God holds all of history and all of the life that it contains before him. God then leaves space and time for the created realm and allows it independence in relation to him, but is always the ground or the field in which the drama of creation unfolds. This unfolding of history into the future is a key concept of Pannenberg’s eschatological ontology, in that he sees God as drawing all things in history towards the future and the consummation of the kingdom. He argues that ‘in the creaturely power of the future as the field of the possible, the dynamic of the divine Spirit in creation expresses itself’.²¹ He defends this thesis through an appeal to Paul’s insistence that the Spirit dwells upon the individual believer and the Christian community in a way which draws them into the future consummation.²² This interplay can be seen most concretely and decisively in the resurrection of Jesus. However, Pannenberg wants to leave room right from the outset of his understanding of the created order for the activity of the Spirit as an expression of the power of the future. In this task, he constantly draws upon his understanding of the Spirit as a dynamic and relational field.

What is at stake in these reflections is an ontological understanding of events and the contingency of nature which is intimately related to the dynamic of the divine Spirit working creatively in all events as the power of the future. The future is thus the working of the divine Spirit to bring about the entry of eternity into time. This understanding of the future allows not only for the contingency of individual events, but also for the underlying

¹⁸ ST, vol. 2, p. 86.

¹⁹ Ibid., p. 89.

²⁰ Ibid., p. 92, cf. *ibid.*, vol. 1, pp. 403ff.

²¹ Ibid., vol. 2, p. 98.

²² Ibid.: here he cites Rom 8:23, 2 Cor 1:22; 5:5, cf. Eph 1:13ff.

regularity and reliability of the forms and processes of the natural world.²³ 'We are thus to think of the dynamic of the divine Spirit as a working field linked to time and space – to time by the power of the future which gives creatures their own present and duration, and to space by the simultaneity of creatures in their duration. From the standpoint of the creature, origin from the future of the Spirit has the appearance of the past. But the working of the Spirit constantly encounters the creature as its future, which embraces its origin and its possible fulfilment.'²⁴

Here, he is interested in developing an understanding of creation which is not so radically separated from the divine that any divine activity in the world seems to be an external imposition upon the relative autonomy of the natural order. This strong distinction between the natural and supernatural order leads to the dangers inherent in deism and a Humean critique of miracles. In contrast to this approach, Pannenberg draws on the notion of God as a field to articulate a theology of the God/world relation which attempts to emphasise the immanence of God without destroying the divine transcendence. Here, of course, the language of physics is much more at home than in the realm of trinitarian theology because the natural order is the distinct and proper object of physics. However, Pannenberg argues that physics and theology differ significantly in the way that each study nature. He argues that God is the concrete ground of reality, and as a result, theology is interested in the concrete realities and complexities of nature.²⁵ Scientific method, on the other hand, seeks to draw abstract theories from the concrete order in a way which emphasises consistency and repeatability. Consequently, science has difficulty accounting for the imprecision and individuality with which life is filled, since it deals with the concrete order through the method of abstraction.²⁶

²³ ST, vol. 2, p. 102.

²⁴ Ibid.

²⁵ Ibid., p. 83.

²⁶ Ibid., p. 63. This certainly does not mean that science is without value, nor does it mean that theology cannot benefit from insights garnered through scientific method. Quite the contrary, the entire purpose of this article is to demonstrate one important way that Pannenberg feels theology can learn from the insights of modern physics. Nevertheless, Pannenberg argues that the importing of scientific concepts into the realm of theology cannot take place uncritically, given the difference in methods, sources and governing principles. He states, 'Theology has to have its own material reasons for applying a basic scientific concept like field theory to its own philosophical rather than scientific presentation. Only then is it justified in developing such concepts in a way appropriate to its own themes and independently of scientific usage' (ST, vol. 2, p. 83). Neither is this statement intended simply as a rule for cooperation with the sciences. It should be seen instead as a principle which governs all interdisciplinary

Despite the methodological differences between physics and theology, Pannenberg argues that theologians can draw fruitfully from field theory to understand the role of the Holy Spirit in particular.

Critical reception

Although Pannenberg has been drawing upon the field analogy to describe the work of the Spirit for over twenty years, there has not been substantial engagement with this seminal idea. Nonetheless, some scholars have engaged and criticised Pannenberg's work from a variety of angles. For example, John Polkinghorne, a former Professor of Mathematical Physics at Cambridge University who is also an Anglican priest, has criticised Pannenberg's use of field theory for failing to recognise that fields are carriers of energy and momentum and therefore are more physical and material than Pannenberg's spiritualising presentation of them would suggest.²⁷ Polkinghorne also connects this critique to his preference for 'bottom-up' or inductive thinking over 'top-down' or deductive thinking.²⁸ Pannenberg subsequently responded to Polkinghorne's analysis by arguing that inductive and deductive reasoning must mutually condition one another and that insights into the nature of field theory by theologians might prove helpful in exploring 'further conceptual developments'. In other words, he accepts that he has provided a distinctive understanding of fields from a scientific perspective, but that 'there could be no genuine dialogue between scientists and theologians if only the theologians were expected to listen to the scientists, while these would have no reason to be concerned for what theology might have to say on the requirements of an interpretation of nature as God's creation'.²⁹ In this sense, it is clear that, while Pannenberg recognises that there are areas of tension between his own theological understanding of field theory and that of contemporary physics, these tensions may indicate areas of ongoing research and experimentation, rather than a simple and naïve importation of scientific language into theology or vice versa.

research for the benefit of theology. On Pannenberg's interdisciplinary method and its connection to relationality cf. F. LeRon Schultz, 'Theology, Science and Relationality: Interdisciplinary Reciprocity in the Work of Wolfhart Pannenberg', *Zygon* 34/4 (2001), pp. 809--25.

²⁷ John Polkinghorne, 'Fields and Theology: A Response to Wolfhart Pannenberg', *Zygon* 36 (2001), p. 796.

²⁸ *Ibid.*, pp. 795--6.

²⁹ Wolfhart Pannenberg, 'Response to John Polkinghorne', *Zygon* 36 (2001), pp. 799--800.

It is precisely this element of terminological imprecision which is of concern to Philip Hefner and Veli-Matti Kärkkäinen.³⁰ Hefner, in contrasting Pannenberg's work with that of John Haught and Nancy Murphy, lauds Pannenberg for addressing challenging questions which are raised by importing language from science into theology. Nonetheless, he argues that Pannenberg's significant achievement seems to raise as many questions as it answers. In particular, Hefner is interested in the way that Pannenberg uses 'field' in a manner which is both similar to and different from the scientific use of this concept, and ways in which this use of language might be generalised.³¹ Kärkkäinen too celebrates much of what Pannenberg's use of field language accomplishes. However, he would like to see a more thorough development of the implications for this concept for a fully developed pneumatology. Kärkkäinen also questions the use of a concept drawn from the sciences as such a major theological concept.³²

Others, however, such as Stanley Grenz and Iain Taylor, have chosen to view Pannenberg's field concept as the answer to a specifically theological concern which is not identical with the concerns raised by the physical sciences.³³ Taylor, in particular, praises Pannenberg for opening the door to new insights into the area of pneumatology which has long been underdeveloped in the West.

Suggestions for future pneumatologies

From the preceding presentation of Pannenberg's broad use of field theory in his understanding of the divine Spirit it should be clear that this concept has tremendous potential for theological development. Pannenberg uses this concept to redefine the spirituality of God in response to modern critics of religion, to argue for the unity of the divine persons, to ground the principle of movement and unity in creation, and to conceptualise a unique vision of the relationship between God and the world. Further, theologians such as Veli-Mati Kärkkäinen have argued that Pannenberg's use of the field concept in pneumatology has done nothing less than laid the groundwork for a renewed and unique understanding of the work of the Holy Spirit for

³⁰ Philip Hefner, 'Pannenberg's Fundamental Challenges to Theology and Science', *Zygon* 36 (2001), pp. 804–5, and Veli-Matti Kärkkäinen, 'The Working of the Spirit of God in Creation and the People of God: The Pneumatology of Wolfhart Pannenberg', *Pneuma* 26 (2004), pp. 31–2.

³¹ Hefner, 'Pannenberg's Fundamental Challenges', pp. 807–8.

³² Kärkkäinen, 'Working of the Spirit', p. 32.

³³ Stanley Grenz, *A Reason for Hope: The Systematic Theology of Wolfhart Pannenberg* (Grand Rapids, MI: Eerdmans, 1990), pp. 114–6, and Iain Taylor, *Pannenberg on the Triune God* (New York: T&T Clark, 2007), pp. 79–80.

Western Christianity. Despite some lack of clarity between the use of the concept in relation to the spirituality of the divine essence and the person of the Holy Spirit, this concept has tremendous potential for a renewal of the importance of pneumatology and is a key idea in one of the most original and important systematic thinkers of the past century. The final section of this article, however, will be devoted to drawing out the significance of the field concept for a relational ontology and its connection with love.

Field theory and love

As has already been indicated, one of the overriding concerns of Pannenberg's trinitarian theology and doctrine of God is the divine/world relationship. He is deeply concerned with demonstrating how God can be active and engaged with the world, while avoiding the extreme of pantheism. Pannenberg is far from unique among contemporary theologians in his desire to re-envision the way in which God relates to the world in the wake of the criticisms levelled again traditional theism. Various movements, from process theology to those interested in the theme of divine suffering and radical orthodoxy, share an interest in articulating a theology which emphasises God's intimate connection to creation. The introduction of field theory into Pannenberg's description of the divine/world relationship is closely tied to this concern. For example, he describes space and time in a way that leaves room for the independence of creation and the freedom of creatures, while still respecting God's eternity. Here, Pannenberg says that God is simultaneously the ground of all creation which holds all things in being and the one who allows creation, freedom and independence. The field theory then is used as a way to describe the unity and diversity which is characteristic of the relationship between God and the world. This insight is true because the world cannot be properly understood apart from a relationship to God, yet creation is truly independent from God.³⁴

Even more significant is the way that Pannenberg connects his understanding of field theory with the unity of the Trinity and his understanding of divine love. Pannenberg's definition of love is decidedly different from Moltmann's emphasis on divine compassion or divine suffering, which places all of its focus on God's sharing in the suffering of humanity.³⁵ Instead, Pannenberg's understanding of love is developed

³⁴ The inverse of this statement is also true. God cannot be understood apart from his act of self-disclosure in relation to the world, yet God truly transcends humanity's capacity to completely understand him.

³⁵ Pannenberg does not reject completely the notion of divine suffering. Rather, he argues that the suffering of Christ on the cross affected his entire person, in both its humanity

along personalist lines which associate the personhood of individuals with their ecstatic self-donation or self-distinction through which the person forges his or her own identity. Persons, then, develop their own identity through their relationships with others and their free giving of themselves. In this process, what they receive in return is their own personhood. The divine persons are those who completely and eternally give of themselves and receive their own identity back through the perfect perichoretic union of love and mutual self-donation. In this sense, Pannenberg is able to explain clearly the universal testimony of scripture and the Christian tradition that God is love.

However, Pannenberg's discussion of the unity of the divine persons in love is intimately connected to his understanding of the essence of God as Spirit (field). Just as the divine unity is guaranteed by the loving exchange of the divine persons, the spirituality of God is constituted by the field of being which allows the other to be in its own uniqueness and independence while simultaneously securing the unity of the individuals through their interrelationship. Pannenberg explains himself in the following words:

The two statements 'God is Spirit' and 'God is love' denote the same unity of essence by which Father, Son, and Spirit, are united in the fellowship of the one God. The statement that 'God is Spirit' tells us what kind of Spirit it is whose sound (John 3:8) fills all creation and whose power gives life to all creatures. The Spirit is the power of love that lets the other be. This power can thus give existence to creaturely life because it is already at work in the reciprocity of the Trinitarian life of God as in eternity each of the three persons lets the others be what they are. In §4 of this chapter we described 'spirit' as a dynamic field, and this now applies also to the activity of the divine Spirit as the power and fire of love glowing through the divine persons, uniting them, and radiating from them as the light of the glory of God.³⁶

Clearly then, Pannenberg intends his readers to interpret his use of the field concept in light of his more fully articulated understanding of love and personhood. This intention further demonstrates the way in which he uses field theory to overcome the difficulties raised by the relationship between the part and the whole and of the challenge of unity and diversity.

and divinity. Nonetheless, he feels that it is strictly speaking incorrect to speak of the death of God on the cross. He views such language as a sort of reverse monophysitism. However, he also argues that it is improper to say that the Father and the divine Son are unaffected by the suffering of the cross. Pannenberg, *ST*, vol. 1, p. 314.

³⁶ Pannenberg, *ST*, vol. 1, p. 428.

The implications of Pannenberg's use of the field concept in relation to the doctrines of God and creation address many important doctrinal questions. These implications include the unity of the divine persons, the nature of the interaction between God and creation and the relationship between the immanent and economic Trinity. Further, he does so in a way which at the same time is able to speak to the most pressing moral and spiritual issues of the day. Namely, how do we better understand the interaction between individuals and society? How are we as Christians united by the God that we believe in and worship in a way which still allows us the liberty to own our own individuality and particularity? How can we speak the truth of the ancient Christian tradition in a way which can be heard and understood by those living in the twenty-first century? Pannenberg's response to these significant contemporary challenges is that the unity of persons in their own diversity and particularity is brought about a process of mutual self-donation. The challenge of this call to love our neighbours lies in the guarantee that not all will respect our offer of Christian love. However, we can be assured of the fact that every act of human self-donation will be reciprocated by the trinitarian God whose very essence is defined by the unity which is brought about by charity and who has loved all of creation from the very beginning.