

Complementarity and Its Significance for Biblical Theology

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I. Complementarity in Physics

The great Danish scientist Niels Bohr (1885–1962), who received the Nobel Prize in 1922, introduced the concept of complementarity broadly into physics. Until his time, the only instance of complementarian thought in physics pertained to complementary colours. But Bohr showed that other phenomena can be described in this way. For example, electrons can be separately shown to be either particles or waves, depending on the experiment; in effect, they are both at the same time. The same also applies to light.

Complementarian thinking demonstrates that it is possible to investigate and describe multiple sides of many phenomena only serially—i.e. one at a time—even though one knows that the individual results and statements are simultaneously true and that an exact result is obtained only if one sets both or all participating facets of the phenomenon into the correct relationship.

As Carl Friedrich von Weizsäcker put it, 'Complementarity consists in not being able to simultaneously use both [research aspects of a phenomenon] but nevertheless having to use both.'¹

The first mention of complementarity in physics beyond Bohr's work was by Werner Heisenberg, who demonstrated that in the course of experimentation the precise measurement of both position and momentum could not be made simultaneously; one could measure only one or the other.² Other physicists, such as Max Planck and Pascual Jordan, later picked up Bohr's thinking about complementarity but advanced a number of models and variants.³

In quantum theory and its mathematical codification, complementarian thinking means primarily rejecting claims of the absolute truth of binary logic.⁴

bild der Physik (Stuttgart: S. Hirzel, 1958), 284.

² L. von Strauss & Torney, 'Das Komplementaritätsprinzip der Physik in philosophischer Analyse', *Zeitschrift für philosophische Forschung* 10 (1956): 110.

³ Max Planck, *Scheinprobleme der Wissenschaft* (Leipzig, Barth, 1947), originally a lecture delivered in Göttingen on 17 June 1946; Pascual Jordan, *Verdrängung und Komplementarität* (Hamburg: Stormverlag, 1947), 79–83.

⁴ Hans Primas, 'Ein Ganzes, das nicht aus Teilen besteht: Komplementarität in den exakten Naturwissenschaften', in *Mannheimer Forum: Ein Panorama der Naturwissenschaften* (1993): 84.

¹ Carl Friedrich von Weizsäcker, *Zum Welt-*

II. Complementarity in Other Disciplines

Meanwhile, the concept of complementarity moved far beyond the bounds of physics to other sciences and spheres of life. Klaus Michael Meyer-Abich's definition of complementarity in a German-language historical dictionary of philosophy is illustrative of this expanded application:

Complementarity indicates a cohesiveness of various possibilities of experiencing the same object in different ways. Complementary insights belong together insofar as they are insights into the same object; however, they exclude each other as they both cannot occur at the same time.⁵

Interestingly, Bohr played a role in this transfer of complementarian thinking to other fields. As Guy Marcel Clicqué explained:

The first deliberations with respect to taking the concept of complementarity beyond the borders of how it was understood in physics and making it fruitful in other sciences come from Bohr himself. For example, he suggested that the concept of complementarity could be applied to clarify various philosophical and psychological problems, such as the body-soul problem, the question of the relationship between justice and love, the relationship between various human cultures, and to the difficulties of gathering observations

by using the concept of complementarity constructively for these problems.⁶

In a 1954 lecture entitled 'Unity of Knowledge', Bohr even recommended using the term in theology and expressed the view that the relationship between justice and love of neighbour in religious thinking was a classical example of complementarity.⁷ He also suggested that science and faith had a complementarian relationship with each other.⁸ Indeed, there is no theological question where the term 'complementarity' has more established itself than in efforts to determine the proper relationship between theology and science.

III. Related Words and Concepts

Ideas similar to complementarity have been captured by other words throughout history. One such word is *paradox*. From the time of the Greek

⁶ Guy Marcel Clicqué, *Differenz und Parallelität. Untersuchungen zum christlichen Glauben in einer säkularen Welt 1* (Frankfurt: Peter Lang, 2001), 214.

⁷ Niels Bohr, *Atomphysik und menschliche Erkenntnis. Die Wissenschaft 112* (Braunschweig: Friedr. Vieweg & Sohn, 1958), 68–83; Günter Howe, 'Zu den Äusserungen von Niels Bohr über religiöse Fragen', *Kerygma und Dogma 4* (1958): 20–46; Günter Howe, 'Niels Bohr über die Religion (1958)', in Howe, *Die Christenheit im Atomzeitalter: Vorträge und Studien* (Stuttgart: Ernst Klett Verlag, 1970), 92–109; Niels Bohr, 'Physical Science and the Study of Religions', in *Studia Orientalia Ioanni Pedersen* (Hauniae: Einar Munksgaard, 1953), 385–90; Clicqué, *Differenz und Parallelität*, 225–27.

⁸ Bohr, *Atomphysik und menschliche Erkenntnis*, 82.

⁵ Klaus Michael Meyer-Abich, 'Komplementarität', in *Historisches Wörterbuch der Philosophie*, vol. 4 (Basel: Schwabe & Co., 1976), columns 933–34.

philosophers all the way to Luther, this word primarily meant 'strangeness'. Only later did it gain the meaning of apparent contradiction. In the twentieth century, the question of how to avoid paradoxes was primarily a matter for logic and mathematics.⁹

Polarity has primarily made its appearance since the mid-seventeenth century in connection with magnetism and has signified the tension between two facts or statements, sometimes coming very close in meaning to complementarity.¹⁰

The word *antinomy* has been frequently understood in the sense of complementarity. However, it mostly meant a clash between two antithetical statements, though which a synthesis emerged from thesis and antithesis. For Kant, antinomy was often the inexplicable conflict between two statements.¹¹

The term that Hermann L. Goldschmidt introduced into philosophy in 1944, *dialogic*,¹² has practically the same meaning as complementarity.

For instance, Heinz Stefan Herzka defines the term as follows:

Dialogic postulates that two thoughts, which no one is able to think simultaneously, or two tendencies, which no one can simultaneously turn into reality, or two terms, which mutually exclude each other and where each carves out an area for itself at the same time (i.e. not serially) and equally (i.e. without claims to superiority and subordination), comprise a whole.¹³

IV. Complementarity in Theology

According to John Baillie, Bohr said the following in his Clifford Lectures in 1949: 'I think you theologians should make much more use than you are doing of the principle of complementarity.'¹⁴ I fully agree with Bohr on this point. The relevant, decisive lesson to be drawn from complementarian thinking is that two or more statements, despite apparent contradictions between them, can both be logically substantiated, and that in such situations neither one is to be abandoned or changed in favour of the other, nor should we simply adopt a middle position somewhere between the two truths.

The proper application of complementarity in Christian dogmatics begins with teaching on the Trinity and

9 P. Probst, 'Paradox I', in *Historisches Wörterbuch der Philosophie*, vol. 7, ed. Joachim Ritter and Karlfried Gründer (Basel: Schwabe & Co, 1989), columns 81–90.

10 P. Probst, 'Polarität', in *Historisches Wörterbuch der Philosophie*, vol. 7, columns 1026–29.

11 Petr Kotátko, 'Antinomie', in *Europäische Enzyklopädie zu Philosophie und Wissenschaften*, vol. 1, ed. Jansjörg Sandkühler (Hamburg: Felix Meiner Verlag, 1990), 847–49; N. Hinske, 'Antinomie I', in *Historisches Wörterbuch der Philosophie*, vol. 1, ed. Joachim Ritter and Karlfried Gründer (Basel: Schwabe & Co, 1971), 393–96.

12 Hermann L. Goldschmidt, *Philosophie als Dialogik* (Frankfurt: EVA, 1948); Hermann L. Goldschmidt, *Dialogik: Philosophie auf dem Boden der Neuzeit* (Frankfurt: EVA, 1964).

13 Heinz Stefan Herzka, 'Was ist Dialogik', in *Widersprüchliche Wirklichkeit: Neues Denken in Wissenschaft und Alltag*, ed. Ernst Peter Fischer, Heinz Stefan Herzka and K. Helmut Reich (Munich: Piper, 1992), 38.

14 John Baillie. *The Sense of the Presence of God: Cliffford Lectures, 1961–2* (London: Oxford University Press, 1962), 217.

on the two natures of Jesus Christ.

Christopher Kaiser has invoked complementarity to explain the Trinity. He describes Jesus as a single being who appears in at least two ontological modes (both Son of God and man). Kaiser mentions eleven characteristics which have to be fulfilled to meet these criteria: (1) both modes of being must belong to the same reference object (such as the body and soul of the individual), (2) they must have certain common attributes (that they are alive, for instance), (3) they describe or expound with sufficient precision what is to be explained, (4) they together provide a complete description, (5) they are equally necessary, (6) they are mutually interlaced, (7) they have interchangeable attributes, (8) they exist unmingled and unchanged (i.e. they mutually exclude each other), (9) they have respective unique attributes, (10) they are marked by asymmetry and emergence, and (11) 'there are pointers within the subordinated mode to the existence of the higher-level mode'.¹⁵

Taking the Trinity as a starting point, Bernhard Philberth sees our entire universe as permeated by complementarity and asks why:

What is reality? Complementarity itself is reality and vice versa: Reality is complementarity. Why is this the case? Because God, the Triune

One, is complementarity himself and has created the world according to his nature. Complementarity is the essence of being almighty.¹⁶

For Philberth, there is hardly a greater turning point in the history of ideas¹⁷ than the discovery of complementarity. Physics suddenly becomes the inadvertent trailblazer for philosophy and theology, and in these latter cases one suddenly has to concern himself or herself with physics.

After Kaiser himself, the first person to discuss the possibility that Christology could be explained in a complementarian manner was William H. Austin in 1967. However, he rejected this idea. Ian G. Barbour followed in 1974 and was somewhat more positive in his assessment.¹⁸

Other authors have held that the relationships between psychological experiences and the activity of the Holy Spirit or of miracles occurring in time and space,¹⁹ the relationship between body and spirit,²⁰ that between the brain and the activity of thought,²¹

¹⁵ Christopher B. Kaiser, 'Christology and Complementarity', *Religious Studies* 12 (1976): 37–48; Christopher B. Kaiser, 'Quantum Complementarity and Christological Dialectic', in *Religion and Science*, ed. W. Mark Richardson and Wesley J. Wildmann (New York and London: Routledge, 1996), 291–98; Christopher B. Kaiser, *The Logic of Complementarity in Science and Theology* (PhD thesis, University of Edinburgh, 1974), 318–39.

¹⁶ Bernhard Philberth, *Der Dreieine: Anfang und Sein: Die Struktur der Schöpfung* (Stein am Rhein: Christiana-Verlag, 1987), 531.

¹⁷ Philberth, *Der Dreieine*, 438.

¹⁸ William H. Austin, *Waves, Particles, and Paradoxes* (Houston, TX: Rice University Press, 1967), 85–92; Ian G. Barbour, *Myths, Models, and Paradigms* (SCM, 1974), 151–55; Kaiser, 'Quantum Complementarity', 291; Kaiser, 'Christology and Complementarity', 38.

¹⁹ D. M. MacKay, 'Complementarity in Scientific and Theological Thinking', *Zygon: Journal of Religion and Science* 9 (1974): 237–39.

²⁰ Kaiser, 'Christology and Complementarity', 37.

²¹ Fraser Watts, 'Science and Theology as

or areas such as Christian ecclesiology and the doctrines of the sacraments²² are understandable only by using complementarity.²³

Admittedly, in all these cases the authors' concerns are more philosophically theoretical in nature than biblical or exegetical. But this means that applying complementarity to biblical revelation remains a wide-open area for evangelical researchers and theologians.

V. On the Complementarity of Biblical Thought

Recognition of the limitations of human understanding has caused many to claim complementary propositions in biblical revelation and theology. The early church knowingly formulated the most central doctrines of Christian faith in complementarian form. One sees this in the church's defense of God's triune nature and of the idea that Jesus is truly man and truly God at the same time.

In my view, such complementarity can play a vital role in resolving unnecessary disputes among Christians. We tend to play one side of complementarity off against the other or

to overemphasize one part of the complementarity. Thus, in the early church the humanity of Jesus was played off against his divinity, or the fact that Jesus was obedient to his Father was set against the fact that he is one in essence and rank.

Knowledge itself, arguably, is complementarian, for which reason Guy Marcel Clicqué discusses 'circular complementarity'.²⁴ In the study of the Bible, for instance, there is knowledge which God's revelation teaches and which brings about a change in the thinking of the individual who studies the revelation. And yet, without a prior understanding, the individual cannot study the Scriptures. This hermeneutical circle is not an admission of something unscientific. Rather, it demonstrates the multi-sided nature of truth and knowledge.

Complementarity is not the result of theological compromises between various theological systems. Rather, it arises from the revelation of Scripture itself. Complementarity is the consequence of the attempt to produce systematic theology, which is to allow all of Scripture to speak; indeed, the Reformation spoke of '*tota scriptura*'. When Jesus is revealed to us as man as well as God, it is not our task to play both sides off against each other. Rather, it is to see them together and to confess them simultaneously.

It is frequently the case in the Bible that two sides of a coin (or even more sides) are named in one breath, that is, two biblical doctrines are presented that apparently contradict each other and call for a complementarian understanding. Let us consider some

Complementary Perspectives', in *Rethinking Theology and Science: Six Models for the Current Dialogue*, ed. Niels Henrik Gregersen and J. Wentzel van Huyssteen (Grand Rapids: Eerdmans, 1998), 165.

²² Kaiser, *The Logic of Complementarity*, 340–54.

²³ See James E. Loder and W. Jim Neidhardt, 'Barth, Bohr, and Dialectic', in *Religion and Science*, ed. Mark Richardson and Wesley J. Wildmann (New York and London: Routledge, 1996), 271–89; most comprehensively, Kaiser, *The Logic of Complementarity*, 230–377.

²⁴ Clicqué, *Differenz und Parallelität*, 222–28.

examples.

In Genesis 2:15, the instruction given to man regarding the earth was to 'work it' and 'take care of it,' or both to change and to maintain it. Theoretically these exclude each other, and yet in everyday life they belong inseparably together.

In Psalm 51:18–21 one reads, 'You do not delight in sacrifice, or I would bring it; you do not take pleasure in burnt offerings. The sacrifices of God are a broken spirit; a broken and contrite heart, O God, you will not despise. ... Then there will be righteous sacrifices, whole burnt offerings to delight you; then bulls will be offered on your altar.' Here one finds that sacrifices are initially not desired, and then they are indeed accepted.

From 1 John 1:5 to 3:10, John alternates between four basic statements: 'No one who is born of God will continue to sin' (3:9); 'If we claim to be without sin, we deceive ourselves' (1:8); 'If we confess our sins ...' (1:9); and 'My dear children, I write this to you so that you will not sin' (2:1). These four statements—that a Christian does not sin, that every Christian sins, that every Christian should confess his or her sins, and that every Christian should desist from sin—do not contradict each other. Rather, they belong together.

In 1 Corinthians 8–10, Paul initially opposes those who participate in idol worship but then also takes a position against those who believe that meat dedicated to idols may not be eaten.

These relatively modest examples should prepare us to see similar complementarity with regard to some central doctrines of the Christian faith. For example, Christoph Haufe has written as follows regarding the presence of both salvation by faith

and the necessity of good works in Paul's writings:

For a start, this specifically means that for each person who invokes Paul, both lines of understanding have to be binding, and on the other hand, that both lines of understanding contradicting each other have to be able to find a place in a single human subject. ... Something can only be evaluated as orthodox when it contains both, and every piece of theological work and sermon which does not reflect *both* has to be seen as non-Pauline. This is done instead of taking only one line of understanding as a criterion of Pauline Christianity and thereby branding the other as heretical, and thus having to brand it as heretical in Paul ... Paul versus Paul?²⁵

The relationship between predestination and human responsibility cannot be resolved except by reference to complementarity. Alister E. McGrath has poignantly described the view of Augustine on this matter:

According to Augustine, if one wants to do justice to the richness and the complexity of biblical statements on this topic, one has to simultaneously hold to the absolute sovereignty of God and to true human freedom and responsibility. The problematic nature of simplifying the contestation to the sovereignty of God or human freedom runs into a serious challenge to the Christian understanding of the manner in which God justifies

²⁵ Christoph Haufe, *Die sittliche Rechtfertigung des Paulus* (Halle: Max Niemeyer, 1957), 37–38.

humanity.²⁶

The Bible makes people as completely responsible as individuals. And yet this responsibility extends only to the area of responsibility which God has given humankind. God stands above this in his omnipotence and directs the creation. It is from this omnipotence that human responsibility and the command given to people are justified in the first place.

Indeed, both ideas appear beside each other in Philippians 2:12–13: ‘Continue to work out your salvation with fear and trembling, for it is God who works in you to will and to act according to his good purpose.’ At this point, the knowledge that God is the ultimate cause of all things does not lead to passivity but rather to an expectation that we will ‘work out our salvation’.

In a similar fashion, good works by Christians in Ephesians 2:8–10 are bound up with God’s sovereign action: ‘For it is by grace you have been saved, through faith—and this not from yourselves, it is the gift of God—not by works, so that no one can boast. For we are God’s workmanship, created in Christ Jesus to do good works, which God prepared in advance for us to do.’

I would propose that each of the following pairs of concepts affirmed in Scripture illustrates complementarity:

- Faith and works in salvation
- God’s sovereignty and human responsibility
- Assurance of salvation and the risk of losing salvation

- Law and grace
- God’s mercy and God’s wrath
- The priesthood of all believers and the need for teaching and leadership offices in the church
- Self-fulfilment and self-denial
- Mature faith and childlike faith
- God as transcendent and as immanent
- The witness of the Spirit and witnessing by people
- Christian liberty and obedience to law

If we fail to affirm both sides of these pairs of biblical doctrines, we risk falling into error. As C. S. Lewis wrote:

That is the devil getting at us. He always sends errors into the world in pairs—pairs of opposites. And he always encourages us to spend a lot of time thinking which is the worse. You see why, of course? He relies on your extra dislike of the one error to draw you gradually into the opposite one. But do not let us be fooled. We have to keep our eyes on the goal and go straight through between both errors.²⁷

The biblical formulation of this truth is ‘Do not turn aside ... to the right or to the left’ (Deut 17:11).

The Bible often presents two sides of the same coin. Taken together, both sides provide biblical truth and biblical ethics. If we emphasize one side too heavily at the expense of the other, or if we handle certain biblical truths in either too lax or too rigid manner, we can expect figuratively to fall off either the left or right side of the horse.

²⁶ Alister E. McGrath, *Der Weg der christlichen Theologie* (Munich: C. H. Beck, 1997), 436.

²⁷ C. S. Lewis, *Christentum schlechthin* (Cologne: J. Hoegner, 1956), 228–29.

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