# The Nature of the Created Universe A Survey of the Dialogue between Science and Theology by Roman Catholic, Anglican, Lutheran and Reformed Theologians

■ollowing the age of the Enlightenment, and especially because of ✓ "Mécanique céleste", a work by Laplace in several volumes, the dialogue between natural sciences and Christian theology almost completely stopped. Even Napoleon read Laplace's work and remarked that he had not been able to find God's name in it. Laplace replied, saying, "Your Majesty, I did not need this hypothesis."1 Since that time the connection between Christian theology and natural sciences has rarely been discussed in Europe. Many scientists took a neutral attitude toward Christianity. There were, however, dedicated Christian scientists such as Michael Faraday and James Clerk Maxwell. The generally neutral attitudes on the scientists' behalf lasted until as late as the mid-20th century. It was surprising, however, that Einstein was not neutral in this respect. He had always liked asking the question "why" about the structure of the universe and he often confessed that he had found the innermost secrets of nature 'amazing'. He always felt the presence of the Creator in the order of nature.<sup>2</sup> Max Planck also referred to the idea that the laws of nature might have obtained power from an external source.3 Once I read that Werner Heisenberg, for example, had a presbyter's position in his Lutheran congregation. And there were others, who also confessed their faith, thus contributing to raising again the question of the relationship between Christian views of nature and scientific thinking. In the 1960s and 1970s the origins of this relationship began to be studied. Many credited the aforementioned Maxwell (1831-1879), a Scottish Presbyterian man of strong faith. He outspokenly confessed his faith in every situation; for him Christian life meant practice based on the teachings of the Bible and not

<sup>&</sup>lt;sup>1</sup> Cf. Károly Simonyi: *The History of Physics* (in Hungarian). Gondolat, Budapest 1986, 314.

<sup>&</sup>lt;sup>2</sup> Cf. Brian, Denis: *Einstein: A life*. New York 1996, 161.

<sup>&</sup>lt;sup>3</sup> Cf. Planck, Max: 'Meaning and limits of exact science' (in Hungarian). In: *Selected Studies*. Gondolat, Budapest 1965, 301–302.

just following some kind of philosophical trend.<sup>4</sup> I am convinced that Maxwell was the greatest scientist of the 1860s and 1870s, in whose thinking and activities Christian conviction and knowledge about the created universe were combined. Some of his fellow scientists warned him not to interfere with mysticism. Actually, he did nothing but follow the teaching of the Bible in both his views of nature and individual life. I found 40 biblical passages which were explained or referred to in his work by Maxwell himself.<sup>5</sup>

### A Survey of Institutes and Societies

Interestingly enough, increasingly large numbers of scientists and theologians urged the revision of the relationship between theology and natural sciences in the 1960s and 1970s. Countless articiles were published by recognized scientists. Teilhard de Chardin, North Whitehead and Michael Polanyi's work on the theory of science served as a background for them, suggesting – deliberately or not – that this topic should be put on the agenda again. What was the result? How was this desire realized? In two ways: In North America, research institutes were established to examine the relationship between science and theology, with financial support of research, of course. Let me mention four such institutes established in the 1980s: (1) Center of Theological Inquiry, in Princeton, New Jersey, based on the spiritual grounds of Princeton University and the Princeton Theological Seminary; (2) Zygon Center for Religion and Science, housed by the Lutheran School of Theology in Chicago; (3) Center for Theology and Natural Sciences at Berkeley University in California, and (4) Pascal Centre Ancaster, Ontario, Canada, based at Redeemer College. In my experience, it was mostly theologians who took part in the research. The above mentioned institutes were all founded in the spirit of Protestantism, but have always been ecumenical in their attitudes. They are related to renowned theological institutions in one way or another. Parallel to them, a society of scientists of somewhat looser ecumenical organization was also founded, called the American Scientific Affiliation. It publishes a widely recognized journal entitled "Perspectives on Science and Theology" whose cover says, "The fear of the Lord is the beginning of wisdom" (Proverbs 9,10a). This society has annual regional scientific meetings with the participation of its scientists and philosophers.

The situation in Europe has been completely different. The continent has not had generous sponsors. To tell you the truth, there have been no altruistic "investors", such as John M. Templeton, also of Reformed background, who has regarded the attempts by science and theology to support

<sup>&</sup>lt;sup>4</sup> Cf. Gaál Botond: *The Faith of a Scientist – James Clerk Maxwell*. Published by The István Hatvani Theological Research Centre, Debrecen University of Reformed Theology, Debrecen 2003, 12–18.

<sup>&</sup>lt;sup>5</sup> Cf. Gaál Botond: 'The Faith of a Scientist'. In: op. cit. 70-87.

each other as one of the priorities of his achievement. He has invested a lot in this field. As Europe had lacked such rich and benevolent patrons, some societies came into being like Karl Heim Gesellschaft in order to "further a biblical-Christian orientation in a scientific-technological world".6 Most of these societies belong to an institution or have a special aim. Thus an independent scientific group, the European Society for the Study of Science and Theology (ESSSAT) was founded by European Christian scientists and theologians in 1988. (The first meeting was held in 1986 and two years later the organization became a registered society.) The Templeton Foundation has also been its major financial sponsor, but its organization was supported by the Vatican and the World Council of Churches as well. The Society was registered in Geneva, with the support of the World Council of Churches. The Society has biannual meetings where the most important issues on the agenda include the latest developments in the relationship between science and theology. The society has members from all the continents, including Arab scientists, who attend the meetings regularly. It is a functioning scientific society of high standards and worldwide recognition. (It has had its meetings in Loccum, Enschede, Geneva, Rome, Freising, Cracow, Durham, Lyon and Nijmegen, and Barcelona.) These scientific efforts and aims have been supported in Hungary, too. Unfortunately, became obvious that the Hungarian experts could not (and would not be able to) take part in the society meetings for financial reasons. For this reason some of my friends and I decided to realize the aims of ESSSAT in Hungary to establish a small scientific institute and, to organize biannual national meetings for scientists and theologians. That is how The István Hatvani Theological Research Centre was founded at Debrecen University in 1993. To launch the research institute I donated approximately 400 books on the relationship between science and theology. Six scientific meetings have been organized so far, and the scientific-theological conferences, closely associated with Debrecen, have been popular and recognized events in Hungary. A community of about 200 people, most of whom are friends, have been attracted to the research institute, and all of them work at a high scientific standard. The last scientific meeting was attended by an audience of approximately 130 people. There have been 16 members of the Hungarian Academy of Sciences among the lecturers. The 'society' works in the spirit of full ecumenicity. Now, professors who once were followers of different ideologies are keen supporters of the dialogue. In our experience, there is serious interest in science and theology, so we find it a pleasure to organize the biannual meetings as well as provide help via the library of the research institute; – that is how we can contribute to the efforts of ESSSAT regionally.

The relationship between natural sciences and theology, which is investigated in ecumenical groups worldwide. In addition to the afore-

<sup>&</sup>lt;sup>6</sup> Cf. Who's Who in Theology and Science. Winthrop P. C., Farmingham, MA, USA 1992, 332.

mentioned, several other societies and institutes have been launched, a clear proof of deep interest in the topic. Generally speaking, the participating scientists belong to four major denominations: the Roman Catholic, Anglican, Lutheran, and Reformed Churches. The Orthodox people (including a few theologians) also take part, and thus Eastern Christianity is represented by scientists of strong faith. Although I have thus far been unable to thoroughly get to study their view, their efforts deserve recognition. Without discussing all the details, I will introduce the approach of the aforementioned four denominations, and highlight the positive contributions which aid and drive the dialogue.

#### Roman Catholic Contribution

In 1999, Pope John Paul II summarized the views of the Roman Catholic Church on the matter in his encyclical entitled Fides et Ratio, which greatly helps one to understand the Roman Catholic approach. First, it underlines the exceptional role of the mind or *ratio* in human cognition and thinking. The mind is a tool required for all the knowledge man obtains via faith. It is also via the mind that a believer understands the truth of the gospel. For the mind, the highest level of thinking manifests itself in philosophy. Let us take anthropology, logic, sciences, history and linguistics, for example. They all serve culture as they have all yielded excellent results in their different fields. Although the complicated ideas generated by them relate to man as a subject, man is capable of much more than that; man has the capacity of 'getting close to the truth beyond himself' (Paragraph 5). He can do this through philosophy, which serves to guide people to come to truth. Based on the Apostle Paul's Letter to the Romans ( $\hat{Ch}$  1, v. 20), the encyclical has concluded that man is really 'fitted' with metaphysical skills, which manifest themselves by the mind 'exceeding its natural limits' and can point at the origins or the causes of everything existing (Paragraph 22). For this reason the church solely supports philosophy which assists to interpret Christian dogmas. Of course, there is truth, derived from scientific research, but philosophical truth is found at a different level, as is religious truth. The question still remains: What is the relationship between philosophical-religious truths and the truth revealed in Jesus Christ (Paragraph 30)? The truth manifest in Christ is not against the truth of philosophy. What is more, it is these two levels of recognition that take us to the full truth. Thomas Aquinas, the Angelic Doctor's philosophy has served the same purpose; it is a highly suitable philosophy to link the truth of the faith with the truth of philosophy (Paragraph 48). It is the philosophy disturbing this harmony that the Magisterium Ecclesiasticum of the Roman Catholic Church protects against all other philosophies. Since philosophy has been given a great emphasis, it is quite natural for the encyclical to confirm that, in addition to the Holy Scripture, it also regards the Holy Tradition as the Word of God (Paragraph 55). Searching for the meaning of life has been the ultimate aim of philosophy. Scientific activities are also expected to serve this goal (Paragraph 106). Finally, the encyclical comes to the conclusion, 'it is only through philosophical science that we find understanding and a chance for dialogue with those who do not share our faith' (Paragraph 104). Addressing scientists, the Pope has concluded that 'the search for truth never ends, not even if it relates to a well defined part of the world or man, because the search for truth always leads to a direction beyond the object of research, i.e. toward questions which open up the way to Mystery (paragraph 106). In the end, the Pope compared philosophy to the role of the Virgin Mary since philosophy, too, accepts 'being addressed by the truth of the gospels' (Paragraph 108)<sup>7</sup>.

#### Anglican Contribution

Theologians in the protestant denominations have a different view of the relationship between science and theology. They do not have a uniform view rather they live up to the Reformer's spirit of free search in this field, too. Let us review the views of some of their distinguished scientists. - Anglican theologians and thinkers such as Arthur Peacocke, John Polkinghorne and John C. Puddefoot examined the aims of scientific and theological activities, in the first place. Both make an attempt to describe reality and both face difficulties in doing so. If we think of nature's reality, for instance, we do not always have straightforward words to describe many relationships, as in the example of atomic particles. Theology is in a similar position when it wishes to express its dogmas via its own vocabulary. Both have to use metaphors, which poses a dilemma for the lay public. Linguistic tools are inadequate to describe the observed reality in either field. Consequently, scientific research is treated as a different field from that of theology. Thus, instead of theology and science conducting joint research into reality, many in these fields restrict their efforts to revealing the relationship of these two fields. To resolve this problem, Peacocke has offered a critical-realistic view. This model presents the view that both science and theology explore reality, and therefore their tools of expression can be harmonized and brought closer to each other. According to Peacocke, reality determines the truth explored by both fields, and this truth must be approached from reality. His program aims to make science and theology help each other. If both fields accept this criticalrealistic program, they also agree to the idea that their models, tools of expression, and language must be variable, in the interest of describing reality<sup>8</sup>. Polkinghorne's case serves as an excellent example to illustrate this model.

<sup>&</sup>lt;sup>7</sup> Cf. Pope John Paul II's encyclical beginning 'Fides et ratio' written to the bishops of the Catholic Church entitled *On the Nature of the Relationship of Faith and the Mind.* Publishing House of the Apostolic Holy See, Budapest 1999, (in Hungarian).

<sup>&</sup>lt;sup>8</sup> Cf. Peacocke, Arthur: 'Science and God the Creator'. In: John Marks Templeton (ed.): *Evidence of Purpose*. Continuum, New York 1994, 92–94.

Having been a physicist, he later concentrated all of his efforts on bringing God's secrets, revealed in the Holy Scripture, closer to mankind via his knowledge obtained about nature. An expert in this field, he approached and explained theological questions from the perspective of physics, thus contributing to the identification of many ideas and questions<sup>9</sup>. Puddefoot, being both an ordained minister and a mathematician, emphasizes the role of mathematics and claims that all the necessary information is built into the world by the revealed Word of God. After all, in this system, human efforts, science and its results or language and its approach all serve as tools for theology to express and explore the Christian knowledge in faith.

## Lutheran Contribution

Representatives of Lutheran theology also think that science and theology have been split despite the fact that both want to comprehend and explain God's creation. Wolfhart Pannenberg, for example, has made enormous efforts in his attempt to view the two fields as one. If I am not mistaken about his aim, he does not want to find a model or program to unite the two fields. Instead, he wants to hit upon a universal relationship, which allows for simultaneously observing theology and science, due to the inherent properties of such a relationship. He has universal ideas such as the 'theology of nature', based on historicity, or the universal idea of *contingency*, or the application of the *field-theory* in theology. This field-theory was elaborated by physicists. Similarly, the idea of *uniting love for God and nature* also belongs to this issue, for the world's existence and its maintenance, preservation and function refers to the love of God. Moreover, it is identical with it. These are things difficult to understand, but Pannenberg has made brave steps forward in this field. He does not use parables or metaphors, i.e. he does not say that the Spirit is like a field of force but he claims the Spirit is the field of force.<sup>10</sup> Ted Peters and Ian Barbour have a different approach to the relationship between science and theology. They emphasize the principle of *consonance*, i.e. harmony between scientific and theological truth.<sup>11</sup> They regard these two fields as partner sciences. This has been demonstrated by straightforward facts. Another interesting approach toward God's creation has been seen in the Danish theologian, Niels Henrik Gregersen's work. He thinks that the 'creating Logos' has been built into the universe by mathematical order. Therefore, a new theology describing God's continuous creative activity is also needed.

<sup>&</sup>lt;sup>9</sup> Cf. Polkinghorne, John: 'A Potent Universe'. In: John Marks Templeton (ed.): *Evidence of Purpose*. Continuum, New York 1994, 105–115.

<sup>&</sup>lt;sup>10</sup> Cf. Pannenberg, Wolfhart: *Toward a Theology of Nature*. Westminster/John Knox Press, Luisville, Kentucky 1993.

<sup>&</sup>lt;sup>11</sup> Cf. Russel, Robert John: 'Cosmology: Evidence for God or Partner for Theology?' In: John Marks Templeton (ed.): *Evidence of Purpose*. Continuum, New York 1994, 80–81.

This 'inbuilt' nature serves as an explanation for nature's self-organization.<sup>12</sup> – We could mention even more brilliant names from the representatives of the Lutheran theology, such as Philip Hefner, Antje Jackelén, Hans Schwarz, Eric Weislogel who enriched and gave a tremendous contribution to the science and theology dialogue. Their works are recorded in the bibliography regarded to this topic. We may emphasize here that Hans Schwarz represented a strong theological view and expressed an open minded spirit towards the cultivation of sciences: "If there is no longer a free interplay between the different theological disciplines and dialogue with other areas of knowledge, theology will become increasingly isolated and sterile."<sup>13</sup>

#### Reformed Contribution

As early as the 1970s and 1980s, I noticed that theologians of Reformed background took part in the revision of the relationship between science and theology in great numbers and with much effort. The Center of Theological Inquiry in Princeton was organized due to the efforts and tireless work of James I. McCord, with the spiritual and scientific background being provided by Thomas F. Torrance. Several students joined Torrance in America, Asia and Europe. They were not mere "copies", they actively contributed to the dialogue. (E.g. Christopher Kaiser, Carver Yu, Iain Paul, James Loder, Jim Neidhardt, and others including myself) – According to Torrance's 'starting' point, the human mind can only process knowledge based on objective reality. Both the physically visible, experiential world and the revelation of God are ontologically objective reality. In other words, both the created universe and the revelation of God, present for us in the Holy Scripture, carry information relating to reality: the former referring to nature, the latter referring to the existence and work of God in this world. Therefore, according to Torrance who is considered to be a representative of *realism* in modern theology – theology is definitely a *positive* field of science. In this respect Torrance can be compared with a significant group of natural scientists, including Maxwell, Einstein, and Schrödinger, the so-called group of 'realists'. Their view was different from that of the Copenhagen School represented by Werner Heisenberg and Niels Bohr. According to Einstein's group, any kind of knowledge we obtain about nature refers to nature's objective reality, i.e. reality independent of subjective being. Representatives of the Copenhagen School, however, thought that, owing to the principle of uncertainty, cognition was dependent on subjective elements. - Let me take a moment to express my respect for Edward Teller, the Hungarian-born scientist, who died on 9th

<sup>&</sup>lt;sup>12</sup> Cf. Gregersen, Niels Henrik: 'Beyond the Balance: Theology in a Self-Organizing World'. In: *Design and Disorder: Perspectives from Science and Theology*. T&T Clark, London 2002, 53–91.

<sup>&</sup>lt;sup>13</sup> Ratke, David C.: 'Foreword'. In: *Glaube und Denken*. Sonderband 1999, Peter Lang, Frankfurt am Main 1999, 6.

September, 2003, and who I had been able to meet in person. Answering my question in 1996, he said that he agreed with the opinion of the Copenhagen School – an illustration to show that this question was undecided among the greatest scientists themselves. Peter Hodgson, an English scientist with strong faith in the Roman Catholic religion, shares the views of the realists, while others claim that the Copenhagen view can also be accepted as true. Anyway, Torrance, a realist, stated: "It is foolish to contrast faith and reason, for such faith is integral to all knowledge and is irrefutable and unprovable. True objectivity therefore lies not in a supposed detachment from reality, but in an engagement with reality in which it is sovereign and our notions of it are therefore relativized and revisable."14 Thus Torrance proposes that science and Christian theology, alike, deal with perceivable things, i.e. they expose themselves to us independently of being of natural or divine nature. All these are appreciated by Karl Barth as something positive and Torrance even underlines it in his thinking.<sup>15</sup> It can be really accepted by us, however it is not all the same to what extent one can think of things established by experience and via thinking that they are true. In Torrance's opinion, reality is discovered in both science and theology. He argues: "The concept of truth enshrines at once the real being of things and the revelation of things as they are in reality. The truth of being becomes to bear in its own light and in its own authority, constraining us by the power of what is to assent to it and acknowledge it for what it is in itself."<sup>16</sup> No matter how far Torrance goes in interpreting reality, eventually he identifies the final basis of every thing in the incarnated Logos as Jesus Christ. This always takes him back to the Holy Scripture, or exactly, this reminds him of where to start. This is where I can see his most valuable contribution to the dialogue between science and theology. This kind of biblical vision is the main value in his work. The same is seen in the case of Christopher Kaiser, a physicist and theologian, who treats the problem of creation by interpreting it from the scientific viewpoint, but grasps its meaning in the incarnation of Christ time after time.<sup>17</sup> I have had the opportunity to study Michael Welker's work, also about creation.<sup>18</sup> This work also presents God's creation with a deeply biblical basis. It is also clear that he never interprets the dialogue between science and theology starting

<sup>&</sup>lt;sup>14</sup> Dictionary of Scottish Church History and Theology. Entry by T. A. Noble about T. F. Torrance. InterVarsity Press, Downess Grove, Illinois 1993, 824.

<sup>&</sup>lt;sup>15</sup> Cf. Torrance, Thomas F.: *Transformation in the Frame of Knowledge*. Reprint (no data included).

<sup>&</sup>lt;sup>16</sup> Torrance, Thomas F.: *Reality and Scientific Theology*. Scottish Academic Press, Edinburgh 1985, 141.

<sup>&</sup>lt;sup>17</sup> Cf. Kaiser, Christopher B.: *The Doctrine of God*. Wipf and Stock Publishers, Eugene, OR, USA, 2001, 127–146; *Creation and the History of Science*. Marshall Pickering, London 1991.

<sup>&</sup>lt;sup>18</sup> Cf. Welker, Michael: *Schöpfung und Wirklichkeit*. Band 13, Neukirchener Verlag, Neukirchen 1995.

from human opportunities, but, on the contrary, from the revelation of God. It is exactly this biblical approach that has been characteristic of the thinkers of Reformed background when they evaluate the relationship between science and theology.

## View of a Debrecen Theologian

I was given the opportunity first to earn a degree in mathematics and physics and later to study theology. Therefore, I attempt to interpret this complex problem from both viewpoints, i.e. to present the scientific and theological approach with intellectual accuracy and honest. As for me, I have a biblical view of the relationship between science and theology, but, at the same time, to a certain extent I have a different view. If I consider the problem as a mathematician and physicist, I can conclude that it is not only the spatiotemporal and material world but also human intellect in its completeness is an organic part of the created universe. I do not think the human mind is a gift by which the creation of God can be explained perfectly or by which consonance or harmony can be achieved between human thinking and the revelation of God. What is divine cannot be completely understood by man. Man can get closer and closer, but cannot seize 'God's thoughts', as it was believed by Newton and many others. Neither do I think that man can exceed his own limits, go beyond himself or transcend himself by his own power. We have immanent minds. My theologian ego makes me claim that human intelligence is identical with the created reality and the Word is identical with God Himself.<sup>19</sup> Therefore I believe that God created the universe to allow me to search, understand, and explain it with my mind, and, at the same time, He gave my mind a chance to understand his Word through faith. The former is a congenital faculty, but the latter is not my preexisting property or possession by creation – it is the gift of God to me by His grace. This interpretation does not separate the mind searching nature from the one scrutinizing the revelation of God. I am talking about one and the same gift, and only God has power over it. That is why different people possess this gift to a different extent. It is only God who can enable me to understand his revelations to some extent beyond my capacity, which is limited owing to its created nature. The duality of human capacity can be distinguished, but cannot be separated from each other. Therefore there is no opposition between the two; on the contrary, they are gifts presuming, enriching, and supplementing each other. Man remains human, because ultimate knowledge cannot be reached through the intellect, and the complete recognition of God through the gift in faith is likewise impossible. It is sure that both nature and revelation offer the opportunity of recognition as both are about the wise act of God. The mind always searches for the truth as it

<sup>&</sup>lt;sup>19</sup> I learnt this from János Bolyki, professor of theology in Budapest.

has been fitted with this intention, and it is an aspect of God's creation of man as a living soul. But man can never reach the reality of the created universe; he comes down to relative truths and gets a bit forward along the path of truth. It is good as it is and as it can be! So I interpret the relationship between the mind and nature slightly differently from Thomas F. Torrance, my mentor. In my opinion, reality does not force man to understand things, it helps him and leads him instead. If one accepts it, he/she will see how true it is to say, "The fear of the Lord is the beginning of wisdom" (Prov. 9,10). I do not want to create theories to explain the relationship between science and theology, but I accept that God was in Jesus Christ, and thus He made the revelation about himself complete. At the same time, I also believe that God gifted man the ability to get to know himself and the surrounding world as well as Him, the Creator, Care-taker, and Redeemer. This revelation leads me a certain kind of approach – it could be called a realist or biblical approach – which serves as a starting point for interpreting the relationship between science and theology. This opportunity is possessed by man as a gift, by His grace.

I do not want to merge the different fields of science but I would like to point out that God's created world, nature, does not know physics, chemistry, biology or geography separately. Human intellect belongs to this universe, and the laws of thinking are congruent with the laws of nature even in mathematics. The created universe is a uniform, comprehensive whole.<sup>20</sup> The created world or its part is the object of these fields of science. In my opinion, the created universe, as a whole, is also the object of philosophy - and philosophy searches for the most comprehensive laws in this universe. More exactly, it searches for what is inherently eternal and timeless in the universe. Whichever I look at, either the laws of nature, or the truth explored and thought to be eternal and timeless by philosophy, I regard both of them as relative truth or the result of the immanent intellect. In each field of science and also in philosophy, man is always superior to the object of that field. However, there is a different situation in theology and the efforts of human intelligence enriched by faith. Human intelligence – and theology – researches the secrets of the revelation of God, and, in the meantime, it is aware that unlike in all other scientific activities, the object in this case is superior to him. Consequently, if I approach the world of science, its nature and way of thinking, from the viewpoint of the revelation of God, I can reach a certain point of recognition that divine revelation provides a view of the world for man. It can help him explore a given field of science, and, at the same time, the results of this research can be exploited as tools in understanding the secret of God. Christian ways of thinking based upon the biblical revelation altered the view of nature and represented a new view of the material world as compared to the Greeks.

<sup>&</sup>lt;sup>20</sup> Cf. Gaál Botond: *The Truth of Reason and the Reality of the World*. Böszörményi Foundation, Debrecen, University of Reformed Theology, Debrecen 2002, 169–178.

Newton thought of nature in a similar way. He was pre-occupied with the revelation of the Old Testament, and he considered the omnipotence and eternity of God in creating his theory of absolute space and time. The interpretation of the love of God, and more exactly, the essence of God conceived by James Clerk Maxwell can be presented in a similar fashion. He came to the conclusion that human existence and thinking, including human love, were only part of divine existence and love. This biblical view of love made him claim that thinking directed "from the whole to the part" is a rule of higher order than its opposite. This view resulted in the creation of the famous Maxwell's Equations. In my opinion, Michael Polanvi's scientific-philosophical thinking was also influenced by the Christian biblical approach. In his view, everything we know or think in the scientific sense of the word, has a hidden, tacit knowledge behind it which governs and guides our scientific activities. Moreover, the latter is real knowledge. And now, an analogy can be made between man's scientific knowledge and Christian religious knowledge. Actually, as far as broadening religious knowledge is concerned, one can see a reality of higher order – the mercy of God for man – in the background.

Thus theological science is not determined by exact sciences but it is helped by them. Likewise, the free investigation in sciences is not limited by Christian thinking, but, if it is really biblical thinking, it provides an approach which broadens this freedom and promotes the development of science. That is how I see the relationship between science and Christian theology. From my Reformed perspective, this dialogue has a promising future.