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Contemporary Discurse on Science and Theological Studies

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CONTEMPORARY DISCURSE ON SCIENCE AND THEOLOGICAL STUDIES

(DISKURSUS KONTEMPORER ANTARA SAINS DAN TEOLOGI)

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Abstract

This article highlights the "Contribution of Science in Theology". A contemporary discourse that will briefly describe the general description of "The Essence of Science and Its Purpose" and "Theology and Dynamics", then formulates the possibilities for the contribution of Science to Theology, or vice versa. This article is not a comprehensive description, but it is an article that will give a concise and concise review of the intended topic.

The presupposition of the topic discussed can be formulated briefly that science contributes to developing the "adventure" of theological education. The process of gaining satisfaction in the world of theology is obtained in the same way as the process of acquiring science, namely: First, Starting with confidence and continuing by looking for supporting arguments (a priori). The Bible is the primary and absolute source, while tradition, literature, historical studies and experiments are complementary. Second, start with doubt and continue by looking for evidence of its justification (aposteriori). Primary and secondary sources are the same as above. Both of the above will not be discussed at length in this article, but will be described in such a way that eventually the reader will get an initial prediction that "science and theology" never "duel" each other but can "mutual", as well as "dialogue".

Keywords: Science, Theology, Dialectics, Dialogue, Integration

ABSTRAK

Artikel ini menyoroti mengenai “Kontribusi Sains dalam Teologi”. Suatu Diskursus Kontemporer yang akan mendeskripsikan secara ringkas mengenai gambaran umum “Esensi Sains dan Tujuannya” serta “Teologi dan Dinamikanya”, kemudian akan merumuskan kemungkinan-kemungkinan adanya sumbangan dari Sains terhadap Teologi, atau juga sebaliknya. Tulisan ini tidaklah merupakan uraian yang komprehensif, akan tetapi merupakan artikel yang akan memberi ulasan yang singkat dan padat mengenai topik yang dimaksudkan.

Presaposisi atas topik yang dibahas ini dapat diformulasikan secara singkat bahwa sains memberikan kontribusi dalam mengembangkan “petualangan” pendidikan teologi. Proses untuk memperoleh kepuasan dalam dunia teologi, diperoleh sama halnya dengan proses memperoleh sains, yakni: *Pertama*, Memulai dengan keyakinan dan diteruskan dengan mencari argumen-argumen pendukungnya *(apriori)*. Alkitab merupakan sumber primer dan absolut, sedangkan tradisi, literatur, studi sejarah serta eksperimen menjadi bahan pelengkap. *Kedua*, Memulai dengan keragu-raguan dan diteruskan dengan mencari bukti-

bukti pembenarannya *(aposteriori)*. Sumber primer dan sumber sekunder adalah sama dengan yang di atas. Kedua hal di atas tidak akan dibahas panjang lebar dalam artikel ini, akan tetapi akan digambarkan sedemikian rupa, sehingga pada akhirnya para pembaca akan memperoleh suatu prediksi awal bahwa "sains dan Teologi" tidak pernah saling "duel"akan tetapi dapat saling "duet", sekaligus "dialog".

Kata Kunci: Sains, Teologi, Dialektika, Dialog, Integrasi

INTRODUCTION

Theology and science are often two things that are often controversial. On the one hand theology becomes a kind of dogmatic axiom, which demands submission from science. But on the other hand, theology is helpless when the progressive developing world raises various questions that are often raised in science. Theology and science should have dialogue with each other rather than dueling. Theology and science are a harmonious, friendly duo in answering various problems of man and the universe about their existential meaning. Therefore, between theology and science, they cannot feel to be independent in contributing to the world of education as well as other social and scientific aspects. It can be stated that science makes a positive contribution to theological education, as will be reviewed in this article.

The world of education, has developed so rapidly since the advent of modern time[1] to the postmodern age[2]. At first, education was only in models, methods and systems that were so simple and conventional[3]. However, along with the changing times, so now the world of education is required to reformulate the ideas of renewal in the field of education in the face of major changes and progress in the field of knowledge in the process of globalization[4]. Therefore, in modern and postmodern society, the terminology of "science" has become inherent. Not only has it been the performance of academics and technocrats, but "science" has entered and permeated all aspects of our lives[5]. Thus, "theological education" as part of the world of education, also requires contributions from science.

[1]Modern times range from the Middle Ages to the present: from the Renaissance (14-16th century) to the Enlightenment in the 18th Century and reached maturity in the 19th Century. Modern times are marked by the Industrial Revolution and the development of Science. See Bagus Suryantoro, "Memberitakan Injil dalam Era dan Semangat Postmoderenisme" dalam *Jurnal Transformasi Volume 1 Nomor 1 – Agustus 2005* (Bandung: Institut Teologi Indonesia, 2005), 80.

[2]Postmodern is a broad concept that illustrates the general intellectual view after the collapse of modernity. In a sense as a denial of historical times called modernity (see Junifrius Gultom, "Tendensi postmoderenisme dan Tantangannya Bagi Misi Kristen" dalam *Jurnal Gnosis* (Jakarta: BPD GBI DKI Jakarta, 2004), 89.

[3]In the sense that the world of education is only confronted with classic problems such as low quality of education, low quality of teachers, limited educational facilities and financial problems.

[4]Globalization is marked by advances in information and communication technology.

[5]The role of science in economic development and growth (for example) has attracted the attention of many experts. Peter F. Drucker has suggested the birth of a knowledge society. In this society, the role of science is very prominent, not only being one source of economic together with labor, capital and land, but has become a major source of economic growth (see H.A.R. Tilaar, "Pendidikan Abad Ke-21 Menunjang Knowledge-Based Economy" dalam *Jurnal CSIS Tahun XXIX/2000, NO. 3* (Jakarta: Center For Strategik And International Studies, 2000), 257.

SCIENCE AND ITS NATURE

Before discussing about science, it needs to be preceded by reviewing the notion of the term "knowledge". Because in philosophy and literature, science has been distinguished from knowledge[6].
Knowledge is "everything that can eliminate human doubts". Usually knowledge is obtained from: experience, senses, and revelation /vision/inspiration. Therefore knowledge is often subjective and temporary as an analytical tool which is basically interpreted as a whole form of the product of human activity in an effort to find out something[7]. One form of knowledge is characterized by:
(1) Ontological object: human experience, that is, all forms which can be reached through the senses or tools that help the sensory abilities.
(2) Epistemological foundation: scientific method in the form of a combination of deductive logic and inductive logic with the submission of hypotheses.
(3) Axiological foundation: This means that all forms of knowledge are morally intended for the good of human life.

Knowledge can become a science after experiencing the following steps: categorization (sorting), identification (grouping), examination (testing), and codification (marking). The term "science" refers to natural science (exact), especially physics, cosmology, biology (especially evolutionary biology and genetics) and neuroscience[8] and can be defined as a whole of objective and coherent knowledge (related), which is obtained methodically, systematically and critically, and which is intended to find information that generally applies to certain fields or aspects of reality[9]. Often science has a double meaning, namely:
(1) According to its scope: Science is a general terminology to refer to all scientific knowledge which is seen as a roundness.
(2) Science refers to each field of scientific knowledge learn a certain subject matter, for example: Anthropology, sociology and so forth.

Since the 19th century, knowledge has evolved into science. It means to become a science of human methods using natural materials and natural forces according to certain methods and systems, obtained by humans through experimentation. From this point of view, science becomes a series of knowledge about nature and its various laws. The role of experimentation in this case becomes so strong, that science is more used for all experimental knowledge and even then empirically. To distinguish between knowledge and science, the nature of science needs to be traced to the existence of basic elements as follows:
(1) Objective knowledge: In order to be called scientific, science must be tried to be objective. A scientist is trying to make a reconstruction of what is happening in reality. He intends to explain or understand the facts and the relationship between facts, so reality is the norm for his knowledge.

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[6]Science is not applied to all types of science. Natural science-natural-biology is considered science, while others are not. However, experts such as Thomas Kuhn have launched criticisms of science that consider themselves to be single and free from various assumptions, by showing that even in the history of science there is a change or paradigm shift, so in fact it must be questioned that there is a habit to distinguish between science and knowledge . Complete information can be seen in Thomas S. Khun's book, The Structure of Scientific Revolution (Chicago: The University of Chigaco, 1970).

[7]See Jujun Suriasumantri, *Filsafat Ilmu.* (Jakarta: Pustaka Sinar Harapan, 2005), 293.

[8]See Ted Peters dan Gaymon Bennett, *Menjembatani Sains dan Agama*, (Jakarta: BPK Gunung Mulia, 2004), 24.

[9]See Nico Syukur Dister, *Pengantar Teologi,* (Yogyakarta: Kanisius, 2003), 23.

(2) Looking for methodically, systematically and critically: By searching for truth, that is, the compatibility between science and its object, a scientist investigates reality in a certain way or way to find and reach truth. It is arranged in such a way that everything forms an organized and organized whole and can be accounted for.
(3) Overall coherent knowledge: Thinking methodically and systematically results in a whole science in which the elements are not separated from each other but are related or universally connected.
(4) Generally accepted information: The truth that is sought by science (and also knowledge) as well as what is revealed in the decision, is only satisfactory if it applies to the entire field of investigation.
(5) For certain fields or aspects of reality: The reality as objects of science (as well as knowledge) consists of many and various fields. Therefore, there is a lot and variety of knowledge. The field of investigation of a science is called the "material object" of the science in question.

In short, it can be said that science has a goal (which is a bit similar with the aim of a religion), namely to glorify human civilization by helping to "alleviate" the physical physical burdens borne by mankind in the face of the might and might of the universe[10]. In everyday life, humans are faced directly with the threat of hostile natural weather. Coldness, flooding, overheating, fire, darkness, disease, death, earthquake, sea wave /tsunami storm which is very terrible and so on. Likewise, psychological problems such as anxiety, peace, certainty, belief, uncertainty, anxiety, worry, bitterness, success, alienation, failure, extinction and so on. In addition, all demands for the fulfillment of primary, secondary and tertiary needs such as food, clothing, shelter, transportation, information, communication, education, health, entertainment, and so forth. This is where scientific contributions are very important. Just as religion cannot be separated from human life, so does science. Therefore, there are those who claim that both religion and science are the basic needs needed by human beings wherever they are today.

THEOLOGY AND IT'S DYNAMIC

In a narrow sense, the term theology can be defined as science or teachings about God or explanations about God.[11] However, substantially in theology, the term 'theology' is not understood in the narrow sense as mentioned above on the grounds that God is still God and man is still human. This means that God, the creator of the universe, including humans in it, is very much different from humans. Humans are still humans and God is still God. Humans as creatures certainly have limitations in examining the terms of God (the Creator) by using science, philosophy, or methods as they are in other fields of science. Humans have limitations in investigating God with the wisdom they have.

Some experts give an adequate definition of theology, for example Geoffrey W. Bromiley gives a definition of theology in two senses, namely in the narrow and broad sense. In the narrow sense 'theology' is defined as a knowledge of God, and in a broad sense theology is defined as an attempt to think, say and formulate about God. While Leon Morris,

[10]See Ted Peters dan Gaymon Bennett, *Menjembatani Sains dan Agama*, (Jakarta: BPK Gunung Mulia, 2004), x.

[11]See Paul Enns in his book *The Moody Handbook of Theology*, has a definition similar to that of theological terminology, namely from the Greek words theos, meaning "God", and logos, meaning "word" or "conversation"; so theology is "a conversation about God".

gave the definition that theology is the study or science of the nature and nature of God and its relationship with humans and the universe[12].

To define theology, Dr. Dorothy Marx, founder and former Chancellor of Bandung Theological Seminary, explained the following:

(1) Theology is the teaching about God which is the ministry of God's Word (*Ministerium verbi divini*), which means the ministry of God's word. Why are we talking about theology? Because God has revealed himself through His words and they contain historical events, which were delivered to us systematically by Old Testament prophets and by New Testament apostles.

(2) Theology is also a human effort to analyze God's word scientifically and that analysis will raise questions about the basis and norms that will cause the preaching of God's word. In other words, theology is an examination of the foundations, writings of the Old and New Testaments and then will give rise to statements about the preaching of the church. The gospel never changes, but the way that must be emphasized in each age, time, and generation, it will be different. E. Lohse (German theologian) says: "These writings are to examine carefully and systematically all thoughts contained in the New Testament, so that we know the ways the ancient church preached the gospel". Theology always questions how we preach the gospel in this day and age. How and what pressures appear in the preaching of God's word. That's the New Testament. As for the Old Testament, Davidson, an English theologian in his book "Theology of the Old Testament" says: "Old Testament theology depends on its source, for example our source is the Bible, so we talk about Bible theology. If the source is theological events from the centuries, then that is systematic theology ". According to Davidson, through these sources especially if it is the Bible, we can understand how God presents His kingdom. How the Kingdom of God grew and developed through the nation of Israel and how God presented and developed it in the days before the New Testament.

(3) Theological human existence. In the thoughts and writings of Karl Barth (1886-1968), it is said that the word of God is primary. The Word of God is a dynamic event, every new day, and the only word of God is Jesus Christ. There are several emphases from the thought of Karl Barth. First, that the word brought victory over all opponents. Second, through His word. God bears all things, answers all problems and problems, and does everything fairly. Third, our hearts must be rooted, bound to God's word. In thinking about (education) theology, this must exist.

Based on this definition, 'theology' can be defined as the language of the church about God to test and achieve purity and loyalty to the Word of God in the midst of changing language, mind and cultural context. Theology is a human endeavor (science) that investigates God and in relation to the universe revealed by His general revelation[13] and special revelation[14] and how they relate to one another. The inquiry referred to here is an investigation carried out with reference to scientific thinking about God through what God has revealed about Himself to humans. The basis of the investigation is limited and based on

[12]See Leon Morris, *Teologi Perjanjian Baru* (Malang: Gandum Mas, 1996), 10.

[13]The term revelation is actually the task of bibliology (Bible doctrine). understanding is God's action to unmask himself or communicate truth to the mind. Revelation is an act of God introducing Himself to humans, because without that action, man cannot know Him. In other words, revelation is a manifestation of God himself to humans with the aim that humans can recognize and ally with Him. general revelation is God's own communication to all people at all times and places, namely through creation, the universe, human conscience, history, people and world religions.

[14]Special revelation is the manifestation and communication of God himself specifically to special people, at a special time also, which appears through the Bible. Special revelation consists of the Bible, the written word and the Lord Jesus Christ, the Word which became human.

what God has stated specifically as stated in the Bible. This statement is then formulated systematically in accordance with the points to be examined.

Through the various definitions above, there are many questions that need to be answered such as: Does God exist? What is the nature of God? What is the relationship between God and its inhabitants? How do humans know and know God?[15] To answer this, several branches of theology were born related to the history of religion[16], such as: research on the Scriptures (Biblical), religious doctrines (Systematics), and some applications of these beliefs in the realities of everyday life (Historical and Practical).

Dr. A.W. Tozer, a priest summarizes the importance of theology as follows: (1) Because God exists. (2) Because humans were created in His image. (3) Only Christian statements have answers to questions that are not answered except in the Bible and in Jesus Christ. (4) The secret of life and the key to unlocking it is theological. Millard J. Erickson, a dogmatic theologian gives a good and comprehensive definition of theology, that is "a discipline that strives to give a coherent statement of the doctrines of the Christian faith, especially based on the Scriptures, placed in a general cultural context, put into words

[15]These questions are not only asked in the world of theology and religious science, but also asked and expressed by philosophers, therefore theology and philosophy are very closely related.

[16]Church history witnesses how in each period of history, people have different questions about God. Dr. Yakub Susabda has concluded this in broad outline as follows: (a) Church of the times The church fathers (4-5th century) questioned the nature of God. Is the true God the One God? How does the church explain its faith in the One God, who is also at the same time, called the Father, Son and Holy Spirit? The struggle of that era was a struggle with the problem of the Trinity. (b) The medieval church questioned the existence of God. Is there really a God? How can the church prove the existence of God? Thomas Aquinas (13th century) can be called a church leader who tries to answer the questions of his era. With ontological, teleological, causalistic, etc., he has tried to prove the existence of God. (c) The Reformed church faced another question. The reformers (16th century) no longer question the existence of a metaphysical God. For them the church needs experience with a personal God, who plans, considers, establishes, chooses and so on. Calvin, with his zeist geist, he tried to develop doctrines that revolved around "a personal God". He starts with basic premise (a basic proposition and assumption) about "the sovereignty of God". From there, Calvin drew on a logic of thinking, if God is sovereign, he is the originator and creator of everything that happens. He is a God who has a plan and is actively involved behind every phenomenon. Surely He has determined (decrees of God) things that will happen. Therefore nothing can happen by chance or beyond His knowledge. Thus Calvin talks about Providensia (providence of God), predestination, election, and even reprobation (destruction that has been fixed for those who do not believe). This is a manifestation of the spirit of the era in which the church wrestled with their knowledge of a personal God, whose thoughts, feelings, desires and plans can be understood by humans. (d) The modern church (17-19 century) has another question about God. The Objective Authority (what the church, theologians and even the Bible says literally) is no longer interesting. They feel how humans are actually determined by their own way of thinking (rationalism). Therefore their main question is no longer on "what the Bible says, or what the church says," but rather, "how can humans know God with their own ratios?". The spirit of rationalism dominated the first part of modern times, and the rise of romanticism has changed human questions about God. For example Friedrich Schleiermacher (1768-1834), the father of Modern Theology, who lives in the second part of this modern era, poses an important question: "How can humans experience the experience of true faith through their feelings?" For him, experience with God does not depend on human ratios, but on "inner" or "feeling of absolute dependency" experiences. (e) The church of the 20th century is a church that has difficulty formulating their questions about God. Karl Barth (1886-1968), tried to prove the falsity of the concept of God which was built on the experience of human ratios and feelings. For him God is a wholly Other that is totally different from what humans feel, imagine, think and experience. Barth wants to bring the church back to the concept of a transcendent God. But the emergence of theological views from Albrecht Ritscl (1822-1899), Adolf von Harnack (1851-1930), Paul Tillich (1886-1965) and the upheaval in South America with its Theology of Liberation (liberation theology) have brought the church back to the need for the concept of God which is immanence. (To learn more, see *Teologi Moderen Vol. I*, oleh Yakub B. Susabda, Penerbit Lembaga Reformed Injili Indonesia, Jakarta dan Tony Lane, *Runtut Pijar*, Penerbit BPK Gunung Mulia, Jakarta).

relevant to that era, and related to life issues. Erickson also proposed five formulations in a theological definition: (1) Theology is biblical, using the tools and methods of biblical research (also using knowledge from other areas of truth). (2) Theology is systematic, the material of which is taken from the entire Scripture and correlates with each other. (3) Theology is relevant to culture and teaching, taken from cosmology, psychology and historical philosophy. (4) Theology must be contemporary, linking God's truth with the questions and challenges of this age. (5) Theology must be practical, not merely declaring objective doctrine, but linking it to life it self. Thus, aside from being systematic, theology will try to connect itself with other sciences that people can understand today and relate to life, not just beliefs, let alone philosophy!

It is interesting to note, the definition of F.F. Drewes and Julianus Mojau about Theology, which is the field of scientific study that serves the church that was sent into the world in an effort to understand and live the work of God, in accordance with the living Word of God; this means that theology critically reviews the practice and mission of the church in the light of the truth of God's Word. Thus the term "theologian" is someone who studies theology or aspects of theology systematically. In church history, the term "theologian" is indeed often reserved for theologians or priests who are active as teachers, thinkers, or writers of the Christian faith. Since the founding of large seminaries in the 19th and 20th centuries, most of those who graduated from academies and specialists were referred to as "theologians."

In detail, the nature of theology can be described as follows: *First*, supernatural. Theological truth, not truth that can be proven empirically, and makes sense, but is truth that is accepted by faith because of God's revelation. *Second*, are scientific (Science). This is evident from the way theologians conduct investigations / studies. Methodically, the truth is to find out what is revealed and what the revelation really means. Because the composition of the truth there is a system. Theologians also strive for "objectivity", to recognize and know the object as it is and not just as imagined by himself (subjectivity). This means that theology is built "critically". *Third*, theology is different from its formal object (the perspective used to understand theology). As a "science of faith," theology studies God's revelation. The material object (the thing investigated) of theology is what God revealed. However, the contents of one's faith depend on the person concerned. That is, a person may accurately understand Christian theology and clearly explain it, but he himself does not mean that he already has faith in the Lord Jesus Christ as the center of Christian teaching. Therefore, it is not surprising that theology also varies according to the religious perspective adopted by the theologian, for example: Jewish theology, Islam, Christianity, and others.

DISCURSION BETWEEN SCIENCE AND THEOLOGY

In pre-Enlightenment, theology was included in science and philosophy, and even ruled over science as the Queen of all sciences (*Regina Scientiarium*). Theology which in this case is the formulation of church dogma is a reference to other sciences. At that time, the sciences were developed from the stories in the Bible about this world / universe. Therefore, at a very long time ago people believed more in irrational knowledge, when measured by the development of science since the Enlightenment.

In the post-enlightenment or modern era, the situation has changed completely. Science, in this case the exact sciences and nature seize the place that was once occupied by theology. Science is called the queen of all sciences (Regina Scientiarium) and until now, when it has entered the postmodern period, the position of science remains at the top. Prof. The Houw Liong, a Christian physics lecturer at the Institut Teknologi Bandung, is correct in stating that the world scene of the 20th & 21st centuries, the figure of Albert Einstein and

Stephen Hawking was "ordained" as "Person of the Century", compared to the most famous theologians of the same century, for example Cornelius Van Till, Carl Henry, John Stott or Billy Graham.

The paradigms and theories of science that serve as a reference in building contemporary worldviews, are no longer the narratives found in the Bible or the biblical religions. Theology has come down to the very bottom of the ladder and it is not uncommon for it to have been expelled from universities into seminaries or theological schools which have only spiritual significance and are free from philosophy and academia.

Therefore, instead of "dueling" between theology and science, or perhaps between Darwin's "Bible" and "Origin of Species," it's good to formulate a "methodology" or approach that bridges the link between theology and science. From this it will appear that it turns out, science contributes to theology, because theology has already stimulated science first, as revealed by physicist Ian Barbour, and theologian J.F. Haught:

(1) Conflict, which includes scientific materialism and biblical literalism. Adherents of scientific materialism claim, the world consists only of matter alone, there is no room for soul, spirit or God. They claim that science is the only way to gain true knowledge: neither religion nor theology reveals anything truly valuable about the human world[17]. Biblical literalists believe that the Bible must be read literally, without interpretation, and the Bible itself gives us true knowledge about cosmology, anthropology, and God. They often see science as a challenge to biblical beliefs[18].

(2) Independence, which confirms science and theology using methods that are opposed to different languages. Here science and theology remain separate from one another. So, there is no conflict, but also no interaction or even dialogue. Some other experts argue that science and theology use totally different research methods, for example reason versus faith, and science based on facts, while theology is based on values. Objective science and theology are often subjective. Science can be falsified, while theology that comes from the Bible is impossible to fake. Scientific language refers to descriptions of the universe, while theology often uses language to describe human emotions, hopes and beliefs.

(3) Dialogue, as a model for correlating science and theology, includes questions about methodological boundaries and alignment. Although science reveals to us many things about the world, there are a number of questions that lie at the edge or boundary of science, namely the questions that science poses, but it itself cannot ever be able to answer them. If the universe had a beginning, what happened before that? Why do we feel compassion or altruism? Why does the universe exist, what is its purpose?[19] The statement of Prof. Dr. The Houw Liong, that physics cannot solve the problem of "consciousness", nor the world and spiritual experiences. Meanwhile, many claim that the methodology used by science to test its theory is not entirely different from that used by theology. Both use data (empirical facts for science; scriptures, religious experience, liturgy for religion), both involve a community of scholars who work together to find what is true, both using reason and also aesthetic values to choose from many theories which competes with each other (in theology as explained above, theories are called "doctrines") and so on.

[17]Atheist philosophers such as Feuerbach, Marx, Nietzsche and Darwin are adherents of this understanding.

[18]The theologians of fundamentalism are the originators of this view.

[19]Einstein's most consistent theory of relativity cannot answer the existential questions mentioned above.

(4) Integration, including natural theology, theology of nature and systematic synthesis. Natural theology is an attempt to start with the world and find something about God; that God exists, God's nature, God's will and purpose, and so on. A natural theology begins with theology and seeks to incorporate it into scientific discoveries. Natural theology involves a reformulation of theology from the point of this discovery. The purpose of systematic synthesis is the merging of theology and science in a single framework. This systematic synthesis often combines both by using a single metaphysical system. With this method, concepts such as space, material time, causality, mind, spirit, even God, are used in similar ways in both theological and scientific theories and research[20].

(5) The theological expert from Georgetown, named John Haught, added the term "confirmation" in enriching what Barbour had said. The confirmation is that there are important philosophical assumptions that underlie science which are rooted in theology. One such philosophical assumption is that the universe is dependent (contingent): its elements and laws may have been different from what they are today. This means, if we want to know what is "out there", we must make observations and collect data. Thus, the empirical method that underlies science rests on the assumption that nature is dependent. This assumption has historically been based on the doctrine of creationism in Christian theology: God created the universe as a free act and God, as a possibility, could have created it differently from what is now. So in this "second order" way, Christian theology underlies the philosophy of science and in turn the view of nature from which science works[21].

The researchers who are the authors of this article argue that science and theology are proportional as well as correlative in a discourse that is interdependent and work together. These two fields do not have to be contested, but are complementary. The proportional and correlative nature of theology and science is an epistemological subjectivity. This means that a person's attitude towards science and theology will determine how he behaves in dealing with other problems. If someone treats science with skepticism, he will be defensive towards religious experience and theology. If someone treats theology as irrational and skeptical, he will also ignore his teachings.

If one considers each to contribute well to understanding humans and the universe, he will treat it seriously and try to relate what theology and science say. Therefore, the steps to harmonize theology and science are:

(1) We must believe that we fully understand the facts presented to us, both by theology and by science, such as the problems of anthropology, cosmology, astronomy, hydrology, biology, geophysics, and so on.

(2) We must interpret the facts correctly: that we separate them for consideration, analyze them, relate them to other facts, because of their causes and so on.

(3) We must correlate the two interpreted sets of information - theological as well as scientific, religious and scientific. At first they can seem contradictory, that is, when we misinterpret our facts, or when we misrepresent the nature of the scientific explanation of theological explanation, or the relationship between the two. We must understand how the two in principle relate before we can adequately explain certain things[22].

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[20]Liberal theologians are adherents of this opinion, besides philosophers of Rationalism such as Rene Descartes, Baruch Spinoza and Blaise Pascal.

[21]Haught's perception can be seen in his book *Penjumpaan Sains dan Agama*, (Bandung: Mizan, 1995).

[22]This is the importance of the philosophy of science and theology of theology.

More broadly, theology and science can really interact constructively, where science impacts (contributes to theology), and vice versa theology impacts science:

(1) Physical theories can act as data that limit theology. For example, a theology of divine action should not violate special relativity.
(2) Physical theories can act as data to be incorporated into theology. For example, the beginning of time or t=0 in the Big Bang cosmology can be explained through the creation of non-existent (*creatio ex nihilo*), but the explanation is part of theology, not of science.
(3) Theories in physics, after philosophical analysis, can act indirectly as data in theology. For example, t=0 can be interpreted philosophically as proof of dependence (contingency) in the Big Bang universe and thus implies the existence of God.
(4) Theories in physics can also act indirectly as theological data if they are combined with a fully articulated natural philosophy.
(5) Theories in physics can function heuristically in the context of theological discovery by providing conceptual, experimental, moal, or aesthetic inspiration.
(6) Theology has provided the main historical assumptions that underlie the development of science, for example the question of the possibility and rationality of nature[23].
(7) Theological theories can act as sources of inspiration in scientific "discovery contexts". For example the influence of religious ideas on the pioneers of quantum theory, including Planck, Einstein, Bohr, and Schrodinger.
(8) Theological theories can provide criteria / standards, besides empirical sufficiency, coherence, reach and fertility for the choice of theories in physics[24].

Science is at its best and theology is at its best, both seeking truth. Thus if, we define a "truth", then there is no longer a dichotomy or polarization between spiritual/sacred theological issues and secular science[25].

EPILOGUE

Theology should provide a spiritual foundation for the administration of science. The need for theologians who are willing to be moderators of encounter and dialogue between theology and science. The moderator should understand the philosophy of science and theology (Christian) philosophy. Theology can help the organization of science, so that a scientific educational institution with scientiarium with a Christian perspective appears. On the other hand, the world of theological education itself will be better prepared to respond to the development of epidemic science in all fields. That way, the presence of both theology and science will be felt as a blessing both at once scientific and scientific, and not a burden in this postmodern era.

[23]For example, the view of nature created *ex Nihilo* implies that the universe is unpredictable and rational. This implication provides two of the fundamental philosophical assumptions on which modern science is based.

[24]See Ted Peters dan Gaymon Bennett, *Menjembatani Sains dan Agama*, (Jakarta: BPK Gunung Mulia, 2004), 41-42.

[25]This does not mean that the noumena or essence of the truth of the gospel and science are the same. But this means that the search for the logical truths of theology and the logical truths of science must be equally serious and the best.

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