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Research Article

Religion-Science Relationship in Western Thought: A Historical Review

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Abstract

Concepts are the products of the human mind and imagination that have emerged in the context of history-society. For this reason, their meaning contents also change throughout history. In this context, science and religion are two important concepts that the human mind has produced in history. However, both have found a wide application area in practical life and have influenced each other interactively throughout history. Until the emergence of scientific thought, religions have gained the power to organize human and social life by undertaking the task of meeting the need for knowledge of human beings. With the emergence of scientific thinking ability, the way religions describe and explain nature and its contents has also been discussed. However, the attempt to think scientifically, which took off in Ancient Greece in European history, could not show a significant presence during the Medieval Ages, when Christianity determined scientific thought. Some important scientific, social and economic developments that took place in Europe in the 15th and 16th centuries led to the questioning of the authority of the Church, and brought the importance and value of scientific thought back to the agenda of the Western people. As the power of science to explain nature increased, the power of institutional religion to determine thought began to decline. However, when we look closely at this period, it can be seen that the leading figures of the scientific revolution - although they are free-thinking people - also have sincere religious and metaphysical beliefs, and the struggle is mostly tied around the "problem of authority". In the following centuries, as modern science began to make itself felt more and more in public life with its spectacular achievements, institutional religion would have to largely leave the public sphere. From now on, science will claim to establish it on earth in return for the claim of heaven provided by religions in the next world. However, with the understanding that science cannot answer the existential problems of human beings and the need for certainty with the 20th century, the "sacred" has succeeded in reproducing itself in a new form. Thus, the history of science has clearly shown us once again that it is not possible to completely remove metaphysical beliefs from the human mind and scientific thought.

Keywords

History of Science; Science and Religion; Scientific Revolution; Christianity; Enlightenment

Highlights

- Religion and science are two important fields of mental activity that arise from the need to know and understand the universe in which human beings live throughout history.
- Until the emergence of scientific thought, religions have gained the power to organize human and social life by undertaking the task of meeting the need for knowledge of human beings.
- Throughout the history of European thought, the semantic contents of the concepts of science and religion have followed a dynamic course, and one has tried to expand its field of activity against the other.
- As the power of science to explain nature increased, the power of institutional religion to determine thought began to decline.
- Contrary to what the positivists claim, the development of science could not eliminate the need for a sacred, but it also knew how to transform the sacred.

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Araştırma Makalesi

Batı Düşüncesinde Din-Bilim İlişkisi: Tarihsel bir İnceleme

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Öz

Kavramlar insan zihninin ve muhayyilesinin tarih-toplum bağlamı içinde ortaya çıkmış olan ürünleridir. Bu sebeple anlam içerikleri de tarih boyunca değişikliğe uğrar. Bilim ve din bu bağlamda insan zihninin tarih içerisinde ürettiği iki önemli kavramdır. Bununla birlikte her ikisi de pratik hayatta geniş bir uygulama alanı bulmuş ve tarih içerisinde interaktif bir etkileşim içerisinde olmuştur. Bilimsel düşünce ortaya çıkana kadar dinler, insanoğlunun bilme ihtiyacını giderme görevini de üstlenerek, insan ve toplum hayatını düzenleme gücü kazanmıştır. Bilimsel düşünme yeteneğinin ortaya çıkmasıyla birlikte, dinlerin doğayı ve içindekileri betimleme ve açıklama biçimi de tartışılmaya başlanmıştır. Bununla birlikte Avrupa tarihinde Antik Yunan'da uç veren bilimsel düşünme teşebbüsü, Hristiyanlığın bilimsel düşünceyi belirlediği Orta Çağ boyunca önemli bir varlık gösterememiştir. 15. ve 16. yüzyıl Avrupa'sında vuku bulan bazı önemli bilimsel, toplumsal ve ekonomik gelişmeler, Kilisenin otoritesinin sorgulanmasına yol açarken bilimsel düşüncenin önemini ve değerini yeniden Batı insanının gündemine taşımıştır. Bilimin doğayı açıklama gücü arttıkça kurumsal dinin düşünceyi belirleme üzerindeki gücü de azalmaya başlamıştır. Ancak bu döneme yakından bakıldığında, bilimsel devrimin öncü isimlerinin -özgür düşünceli insanlar olmakla birlikte- samimi dinsel ve metafizik inançlara da sahip oldukları ve mücadelenin daha çok "yetke sorunsalı" çerçevesinde düğümlendiği görülebilir. Sonraki yüzyıllarda modern bilim, göz alıcı başarıları ile kendisini toplum hayatında daha fazla hissettirmeye başladıkça, kurumsal din kamusal alanı büyük ölçüde terk etmek zorunda kalacaktır. Bundan böyle artık dinlerin öte dünyada temin ettiği cennet iddiasına karşılık, bilim bunu yeryüzünde tesis etme iddiasında bulunacaktır. Ancak 20. yüzyıl ile birlikte bilimin insanın varoluşsal sorunlarına ve kesinlik ihtiyacına cevap veremeyeceğinin anlaşılmasıyla "kutsal" kendini yeni bir formda yeniden üretmeyi başarmıştır. Böylece bilim tarihi bize açık bir biçimde, metafizik inançları insan zihninden ve bilimsel düşünceden tamamen çıkarıp atmanın mümkün olmadığını bir kez daha göstermiştir.

Anahtar Kelimeler

Bilim Tarihi; Bilim ve Din; Bilimsel Devrim; Hristiyanlık; Aydınlanma

Öne Çıkanlar

- Din ve bilim, insanoğlunun tarih içerisindeki yürüyüşü boyunca, içinde yaşadığı evreni bilme ve anlama ihtiyacından kaynaklanan iki önemli zihinsel faaliyet alanıdır.
- Bilimsel düşünce ortaya çıkana kadar dinler, insanoğlunun bilme ihtiyacını giderme görevini de üstlenerek, insan ve toplum hayatını düzenleme gücü kazanmıştır.
- Avrupa düşünce tarihi boyunca bilim ve din kavramlarının anlam içerikleri dinamik bir seyir izlemiş ve biri diğerine karşı faaliyet alanını genişletmeye çalışmıştır.
- Bilimin doğayı açıklama gücü arttıkça kurumsal dinin düşünceyi belirleme üzerindeki gücü de azalmaya başlamıştır.
- Bilimin gelişmesi, pozitivistlerin iddia ettiklerinin aksine, bir kutsala yönelik ihtiyacı ortadan kaldıramamış ancak kutsalı dönüştürmeyi de bilmiştir.

Atıf Bilgisi

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Introduction

Aristotle's *Metaphysics* begins with a monumental sentence: "All men by nature desire to know."[1] On the other hand, Kant, in his masterpiece titled *Critique of Pure Reason*, states that the human mind is naturally prone to producing metaphysical concepts.[2] In this context, it is possible to say that both science and metaphysics are products of the human mind. However, it is clearly demonstrated by the history of humanity that both science and religion are not only abstract concepts, but have a vital importance in meeting the need of human beings to know/understand and believe/make sense. Mankind has produced and used a wide variety of tools throughout history for this purpose. Beliefs such as totem, ancestor cult, magic, animism, shamanism, mythology and polytheism have served as a tool in the effort to understand and explain nature both in certain periods of history and in primitive societies that still exist.

When examining the evolution of scientific thought in history, it is inevitably important to know the religious atmosphere of the period under consideration. Just as the yield and quality of the crop to be obtained from a planted seed depends on the quality of the seed, as well as on climatic conditions, planting time and soil structure -since science is not an activity that develops in a vacuum and by itself- the information produced will be strongly dependent on the time and atmosphere of the ground. Again, the religious/metaphysical values of the people who do science also affect the quality of the knowledge they produce. Because science is affected by human feelings and thoughts, ambitions, fears and anxieties, as is the case with any human-made activity. Indeed, when we look at the history of science, wars, revolutions, economic crises and disasters have shaped scientific studies and influenced scientific thinking. Considering these points, it does not seem possible to evaluate the history of science independently from the history of other ideas.

A great deal of academic work has been done on the nature of the relationship between science and religion, especially during the 20th century, when science began to play a central role in human lifeand human thought. Especially in the field of philosophy of religion, there have been many works defending the following claims: Science and religion have to conflict with each other due to their nature, it is not correct to make an assessment in this direction because they are not in a comparable structure by nature, or both fields are compatible with each other in the context of history-society. [3] However, the most systematic study on this subject is Ian Greame Barbour's 1966 book *Issues in Science and Religion*.[4] In this study, four categories called "Barbour's quartet typology" and modeling his science-religion relationship are mentioned: conflict, separation, dialogue and integration.[5]

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1 Aristoteles, *Metafizik*, trans. Ahmet Arslan (İstanbul: Sosyal Yayınları, 2014), 75.

2 Taşkıner Ketenci, "Kant Felsefesinde Metafizik ve İnsan Doğası", *Kaygı: Uludağ Üniversitesi Felsefe Dergisi* 4 (2005), 94.

3 See for detailed information: John Cobb, David Ray Griffin, *Process Theology: An Introductory Exposition* (Philadelphia: Westminister Press, 1976); Alfred North Whitehead, *Bilim ve Modern Dünya*, trans. Sercan Çalcı (İstanbul: Öteki Yayınevi: 2018); David Ray Griffin, *Religion and Scientific Naturalism: Overcoming the Conflict*, (Albany: State University of New York Press, 2000); Andrew Dickson White, *History of The Warfare of Science With Theology in Christendom* (New York: Cambridge Universty Press, 2009); John Hadley Brooke, *Science and Religion: Some Historical Perspectives* (London: Cambridge University Press, 2014).

4 Please See. Ian Greame Barbour, *Issues in Science and Religion* (New York: Harpercollins College Div., 1971).

5 Nebi Mehdi, "Bilim-Din İlişkisi Problemine Süreççi Yaklaşım ve Ian G. Barbour'un Dörtlü Tipolojisi", *M.Ü. İlâhiyat Fakültesi Dergisi* 23 (2002/2), 59-75.

However, in this article, instead of discussing the structure of science and religion or the relationship between them, we will try to evaluate the course of the relationship between science and religion in the history of Western thought from the perspective of the history of science.

On the other hand, any examination of the relationship between science and religion inevitably depends on the need to reveal what is meant by these two concepts. These concepts, which are used impudently in everyday language, can be the subject of serious debate when they are the subject of academic study: "What is meant by religion (religion)? Monotheistic Semitic religions? Does any metaphysical belief count as a religion? Can humanistic teachings and ideologies be considered religions? Can a noninstitutionalized faith be called a religion? So, is religion only about a transcendent field, or can it also report on the investigation of a field immanent to nature? Which one of the subjects of existence, knowledge and morality should religions deal with? Or can it make an all-encompassing and coherent statement?" Questions like this can be multiplied. It is clear that as long as religion is considered as a product of the human mind, as emphasized above, it has to be a dynamic and historical concept. In this respect, what is meant by religion has changed in content throughout history and cannot be defined statically. However, religions are not just concepts as we emphasized above. In this respect, many religions that have emerged throughout history have found a wide application area in practical life and gained visibility by interacting with other intellectual activities. Again, although not as old as religion, the concept of science is at least as controversial: "Really, what is science? Is every activity that declares about nature science? Does science have a legal framework? Can a field without factual detectability be the subject of science? Could there be a latent (esoteric) science? How can one distinguish between science and non-science? What is common between what pre-Socratic natural philosophers did and what 21st century scientists did? Is there a correlation between scientific knowledge and the concepts of doxa and episteme? Can the ancient of science become the modern? What is pseudoscience, what is actual science?" These questions are the subject of philosophy of science today and are open to discussion. The name and content of the concept of science in history have changed just like the concept of religion. However, when it comes to concepts such as science and scientist (science, scientist), it is known that these concepts were used for the first time in the first half of the 19th century by William Whewell, inspired by the Latin concept of *scientia*, to "explain nature with what is in nature". [6] Therefore, in this study, we mean the official/institutional/orthodox religions (Ancient Greek polytheism for the First Age, the Christian religion institutionalized around the Church for the later historical periods), and the concept of science, the modern understanding of science, that is, the investigation of nature as a form of factual explanation free from metaphysics. As far as it is known, in the history of thought, the attempt to explain nature only in terms of factual testability emerged in Ancient Greece for the first time. However, non-scientific explanation efforts continued to exist strongly in this period, and it was necessary to wait until the 19th century for the scientific explanation method to be completely purified from metaphysics. Although it is not easy to distinguish between non-scientific/metaphysical explanation forms and scientific thinking styles in the history of science, in this article, we will examine the

[6] Sydney Ross, "Scientist: The Story of a Word", *Annals of Science* 18/2 (1962), 65-85.

interaction of scientific thinking with Christianity in the development process in the Western world.

1. Ancient Ages

It is generally accepted that Thales, the founder of the Miletus school of history of science and philosophy[7], asked in the 6th century BC, "What is Arche?"[8] It starts with a question. With this, Thales investigates the fundamental particle of which the objects in our environment, which are in constant change and transformation, are made from, but do not need any other substance in order to exist. In Ancient Greek culture, where the idea of creating out of nothing (ex nihilo nihil est) did not exist, this question inevitably had to come to the fore. Although Thales answered this question, "Arche is the water." Although he gave a wrong answer in the form of an answer, what made him the ancestor of the history of science was not the answer he gave, but the question he asked. So much so that the studies to find the fundamental particle (main particle/God particle) that are still being carried out in the most advanced laboratories of the world today are scientific researches aimed at answering the ancient arche problem. Especially when it comes to Pre-Socratic philosophy, the philosophers of the school of Miletus – who would later be called *physicists* by Aristotle – saw God and nature somewhat identical and tried to understand the true nature of the divine being and to interpret the fate of man in the face of this divine nature. [9] In this respect, the natural philosophers of this period are like the prophets of the pagan religion. In fact, the main theme of the works of the great Greek poets Homer (8th century BC) and Hesiod (7th century BC), who inspired the ideas of pre-Socratic philosophers, was built on the relations between humans and anthropomorphic gods. Some, like Anaximander[10], found it in a more abstract principle (apeiron), and some, like Pythagoras, found it in number. Democritus also used atoms in this sense while thinking of them as divine beings. Despite this, this is the reason why almost all of them were labeled as "atheistic" by the people who had different beliefs and cults in their own time. Just like Spinoza, someone who was intoxicated with the idea of god was excommunicated in his own time, all of them became infidels of the orthodox belief of the period in which they lived.[11]

But there is something new and remarkable here; and that there is a limit to what the anthropomorphic gods in Homeric and Hesiodian theology can do, as well as the (animistic/hilozoistic) gods that pre-Socratic natural philosophers find in arche and

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[7] In this study, we will not enter into the discussion of how much Ancient Greek science owed to Egypt, Persia and Mesopotamia. About the subject, please see. Ahmet Arslan, *İlkçağ Felsefe Tarihi 1*, (İstanbul: Bilgi Üniversitesi Yayınları, 2009), 35-36, 61; George Granville M. James, *Çalınmış Miras*, trans. Murat Sürmen, (İstanbul: Yarın Yayıncılık, 2010); Martin Bernal, *Kara Atena*, trans. Özcan Buze, (İstanbul: Kaynak Yayınları, 2016); Walter Burkert, *Yunan Kültüründe Yakındoğu Etkileri*, trans. Mehmet Fatih Yavuz, (İstanbul: İthaki Yayınları, 2012)..

[8] William Keith Guthrie, *A History of Greek Philosophy I, The Earlier Presocratics and the Pythagoreans*, (Londra: Cambridge Unıiversity Press, 1962), 1.

[9] Arslan, *İlkçağ Felsefe Tarihi 1*, 26-29.

[10] In fact, Empedocles systematized the theory of the four elements by adding earth to water, air and fire.

[11] On the claims that Greek thought was influenced by the Egyptian religion since the 6th century BC, and that Socrates was killed because of his ideas and beliefs because this way of thinking contradicted the established religious beliefs in Ancient Greece, and that names such as Anaxagoras, Plato and Aristotle fled out of the Greek peninsula, please see. James, *Çalınmış Miras*.

principle. What limits them is *Destiny* (Moira). Gods, like humans, submit to fate. Thus, we witness that the idea that there is a strict natural law that determines everything in nature -which cannot be overcome by neither humans nor gods- starts to make itself felt for the first time.[12] Only after this belief has established itself can one begin to ponder what these laws might be. Indeed, after this point, some basic assumptions of the scientific research process began to come to the agenda of natural philosophers. For example, Heraclitus -unlike the philosophers of the Elea school- sees existence as being and reveals that everything is in a state of change at every moment (panta rei), but this change is based on a law (logos) instead of random and arbitrary and ultimately the amount of substance being unaffected by this change process, are the prototypes of the measurement process in the scientific research process, the laws of motion and the laws of conservation of matter/energy in the Antiquity. Similarly, Democritus developed a materialist explanation by defining atoms as existent/indestructible and moving particles by their nature without the need for a mover, and by arguing that every event in nature has a cause, he formulated the principle of causality, which is one of the basic assumptions of scientific thought. By the time of Aristotle, the need to systematize the scientific ideas up to that period emerged. Indeed, it was Aristotle who made the classification of sciences, institutionalized and systematized science education. Again, Aristotle revealed how the logic (formal logic) and method (hypothetical deduction) to be applied in scientific studies should be. This great philosopher/scientist, who trusts the senses and says that knowledge should start from sense experiments, is an interesting personality who has said/written something on almost all subjects and whose thoughts could not be overcome for two thousand years after him.

Aristotle's god is not a creator who creates out of nothing. At most, it must be pure (teleological) thought that gives shape (form) to the universe, gives it soul (psykhe), moves it, and attracts it towards a certain end. [13] It is far from change, transformation, it does not move. It cannot be immanent to the universe. Therefore, it cannot be involved in the universe. In fact, we can accept that not only Aristotle's but also many other important thinkers who lived in the Hellenic and Hellenistic periods had this understanding of god. Obviously, a pagan god formulated in this way would not give us any indication of the structure and laws of the universe and its contents. Therefore, the only way to have knowledge about the universe is to use the mind and senses, that is, to do science. Indeed, the ancient natural philosophers - although they do not have the modern scientific paradigm that we are working in today - approached nature in a rational and systematic way, outside of daily concerns, without hoping for benefit and profit, with a pure need to know and understand, and in this respect, it is the highest level of human activity that we call science. They were the first representatives. While explaining the formation of the universe, they turned to natural causes rather than supernatural/metaphysical assumptions, thus they moved away from the theogony of previous poets and approached cosmogony and even cosmology.

[12] Arslan, *İlkçağ Felsefe Tarihi 1*, 60.
[13] Arslan, *İlkçağ Felsefe Tarihi 1*, 205.

2. The Course of Religion-Science Relationship in the Medieval Ages

The transition from the pagan god of antiquity, who did not interfere with nature – maybe even careless – to the understanding of God who always interferes with nature, intervenes in history and society, and clearly states how he created nature and its contents, started with the domination of the state and social structure of the Christian religion. In the first half of the 4th century AD, when the Roman emperor Constantine I adopted Christianity as the official religion for himself and his subjects, ancient thought began to weaken and decline. As far as is known, this transition has not been easy for both sides. So much so that the basic belief propositions of the emerging new religion (Orthodox Christianity) were strongly influenced - inevitably - by the ancient thought from which it emerged, on the other hand, it entered into a serious struggle with it. For nearly two centuries, many issues, especially the divinity of Jesus, the nature and reliability of the holy books, have been hotly debated in Christian councils. During these negotiations, many thinkers and ideas were disbelieved because they were not suitable for Christian theology, followed by great massacres and exiles[14]. In this process, the supporters of Arius and Nestorious, who represent the rational wing of Christianity, suffered the most. Rome, which saw ancient thought as a rival and wanted to destroy it, finally won this showdown as of the 6th century, pagan schools where ancient thought was taught even in a weak way were closed and the thinkers in these schools were exiled to the eastern borders of the empire.[15] Thus ended the Antiquity and the Medieval Ages began.[16]

As Ahmet Arslan states in his magnificent work titled *History of Ancient Philosophy*, "It is possible to read and describe the whole medieval philosophy as a history of the relationship between philosophy and religions in both the Eastern (Islam) and Western (Christian) worlds."[17] This determination is undoubtedly valid for the relationship between science and religion. In general, however, it can be said that religions have never dared to come to an open reckoning with science in any period of history. Because no religion claims that it is contrary to reason. Indeed, Orthodox Christianity, which had a hostile approach to ancient thought in the early Medieval Ages, adopted a selective attitude, rather than entering into

[14] The majority of the exiles were accepted within the Eastern Churches of Christianity and the Zoroastrian Sassanid dynasty and continued their work here. The only reason why the members of the rational wing of the Christians, who were close to the ancient thought, were protected by the Zoroastrians is not only the ongoing Sassanid-Roman struggles. The Sassanids believe that Ancient Greek thought arose from artifacts captured during the invasion of Persia by Alexander the Great in the 4th century BC. Accordingly, this idea essentially belongs to the ancient Iranian wisdom that exists in the basic texts of Zoroastrianism. For more detailed information on the subject, see. Dimitri Gutas, *Yunanca Düşünce Arapça Kültür*, trans. Lütfü Şimşek (İstanbul: Kitap Yayınevi, 2020).

[15] These heterodox Christians, who were exiled to Northern Mesopotamia, will contribute to the contact of Muslim thinkers with ancient thought with the Islamization of the region in the 7th century. This acquaintance will save the ancient heritage from oblivion and loss, when evaluated together with the conquest of Egypt. However, since we limit ourselves to the course of the religion-science relationship in Western thought, we will not go into this subject here.

[16] According to some historians, the Middle Ages started with the 4th century, when the Romans became Christian and the tribes migrated, while according to some, it starts with the year 476 AD, the date when the Western Rome collapsed. Also, regarding the claims that there was no real Middle Ages because the Islamic world continued ancient thought in the late Antiquity/early Medieval Ages, see. Thomas Bauer, *Neden İslam'ın Orta Çağı Yoktu*, trans. Hülya Yavuz Akçay, (İstanbul: Runik Kitap, 2021).

[17] Arslan, *İlkçağ Felsefe Tarihi 1*, 16.

an open competition with scientific thought, and internalized scientific ideas that did not openly conflict with the basic tenets of Christianity, thus making it the product of the Christian religion and the mind. He has made an effort to show that science actually defends the same truth and does not contradict each other. This conformist approach, which will be experienced in the Islamic world later on, is the result of the weakness of seeing science as a source of information containing ideas that can be classified as objectionable and harmless, rather than as a competent investigative activity on its own. Of course, there is a hierarchy in this distinction, and the knowledge of revelation, which is the truth, will determine what is right and what is wrong in scientific thoughts. Thus, the understanding of science that was valid in the Medieval Ages Western world would continue on its way as a religiously objectionable interpretation of the understanding of nature developed in Ancient Greece and Rome. Indeed, all kinds of explanations made in this period will have no other purpose than an attempt to determine the correct relationship between the thing explained and the "Absolute Being" and to position the explained before God.[18] Towards the end of the Medieval Ages, thinkers such as Petrus Abelardus and Thomas Aquino developed a scholastic thought system by reconciling ancient thought, especially Aristotelian understanding with Christian theology. In this new understanding of the Medieval Ages, the universe was organic and spiritual, and the purpose of science was seen as reaching God's will by better understanding this nature. The method used in the Medieval Ages, on the other hand, was more deductive and in the form of understanding through faith rather than reason - based on the Bible and authorities.[19] However, with the end of *the problem of Universals* throughout the Medieval Ages in favor of the nominalists in the late Medieval Ages (14th century), the deductive method would eventually give way to observation and experimentation, that is, to induction, a new method starting from particulars.[20] This approach reduced the tension between science and religion, reason and belief, arguing that these two are different from each other in nature, it is unnecessary to try to reconcile them, and therefore each should go its own way, questioning the influence of the Church on free thought and leading to an important scientific revolution contributed to the turnaround.

3. The New Age and the Rise of the Scientific Revolution

In one of our previous studies on the subject[21], it was revealed that the transition from the Medieval Ages to the New Age did not occur in a rational and systematic way in terms of the history of science, and that the Renaissance and Scientific Revolutions era in Europe had -contrary to popular belief- irrational and metaphysical foundations. Indeed, thinkers such as Copernicus, Bruno, Galileo and Newton who led the scientific revolution were people with mystical, metaphysical and esoteric beliefs. Yes, they had a quarrel with institutionalized religion (with the Catholic Church), but this was not an absolute "religion-science" war, but perhaps a kind of "religion versus religion" conflict. The spirit that brought together the pioneers of this great transformation that began in the second half of the 15th century was Neo-Platonian Hermeticism. So what attracted these scientists in

[18] Sevim Tekeli etc., *Bilim Tarihine Giriş*, (Ankara: Nobel Yayın Dağıtım, 1999), 126.

[19] Cevdet Coşkun, "Tek Başına Bilim Yeter mi? Bilim-Metafizik İlişkisi Üzerine", Eskiyeni 21 (2011), 34.

[20] Ahmet Cevizci, *Felsefe Sözlüğü*, (İstanbul: Paradigma Yayınları, 1999), 865.

[21] Cevdet Coşkun, "Bilimsel Devrim Çağında Hermetik Metinlerin Rolü", İdrak 1/1 (2021), 23-46.

Hermetic thought? They thought that these texts (Corpus Hermeticum) were older than the holy books (Old and New Testaments), so the teaching here was the original form of religion.[22] Perhaps they believed that Hermetism could be a safe haven for them in their struggle against the oppressive attitude of the Catholic Church. However, these beliefs did not allow them to express themselves more easily, and many of them were unfortunately subjected to serious prosecution by the Inquisition for publishing their ideas contrary to orthodox thought.

On the other hand, Renaissance thinkers were very reactive to him, believing that this Platonic-Hermetic teaching was interrupted by Aristotle. According to these people, Satan has been using Aristotle's philosophy throughout history to mislead Christianity - or the true understanding of religion. Indeed, since the 13th century universities and monastic schools in Europe were official institutions in which Aristotelian science and philosophy were taught, heterodox understandings of science, which were contrary to the legal science of this period, were not tolerated[23]. Who knows, maybe for this reason the pioneers of the Scientific Revolution attacked Aristotelian physics and philosophy as the first thing. Indeed, even leaving aside some of the doubts that emerged in the Islamic world with the 9th century,[24] the trust in the authorities in the Medieval Ages in Europe began to be shaken by some new thoughts and observations that emerged in the early 16th century. The clearest example of this is Copernicus' rejection of the geocentric understanding of the universe systematized by Aristotle and Ptolemy - sanctified by the Church throughout the Medieval Ages and accepted as a model consistent with the belief propositions in the Bible. The Copernican model, albeit with a little delay, shook the trust in the authorities and led to the questioning of the medieval understanding of physics. With this aspect, the Copernican model triggered the process called the Scientific Revolution in Europe. A psychological effect of the Copernican model is that it upset the balance of the medieval European people, as it abolished the central position of human beings in the universe as it was fictionalized in the Bible and turned the earth into a satellite revolving around another center in the universe. This situation has revealed the need for a search for a new balance, and this has led to the strengthening of the thought that it can only be established with observation and reason.

An important issue to be addressed while examining the relationship between religion and science in the Western world is the reform movements that emerged in 16th century

[22] On the other hand, these early Renaissance intellectuals did not believe that the religion of Christianity actually contradicted science and philosophy. For them, the Hermetic texts were, in a way, the other side of Christianity. This was most clearly expressed by Bruno, who thought that Christianity was the result of a misunderstanding of Egyptian wisdom. See. Frances A. Yates, *Giordano Bruno and the Hermetic Tradition*, (Chicago: University of Chicago Press, 1964), 11.

[23] Richard S. Westfall, *Modern Bilimin Oluşumu*, (Ankara: Tübitak Popüler Bilim Kitapları, 1995), 126.

[24] A very common mistake at this point is the idea that the whole world entered a dark age in the Middle Ages, from a Eurocentric point of view. However, it can be said that while Europe was experiencing a dark period, a very bright period was experienced in the east and the far east. In fact, the Renaissance and Reform movements that emerged in the New Age in Europe and the painful birth of the Scientific Revolution were greatly influenced by this eastern accumulation. This issue is the subject of a separate study and has already been discussed in many studies. Please see. John M. Hobson, *Batı Biliminin Doğulu Kökenleri*, trans. Esra Ermert (İstanbul: Yapı Kredi Yayınları, 2011); Fuat Sezgin, *İslam'da Bilim ve Teknik*, trans. Abdurrahman Aliy-Eckhard Neubauer (İstanbul: Büyükşehir Belediyesi Kültür A.Ş. Yayınları, 2008); S. Frederick Starr, *Kayıp Aydınlanma*, trans. Yusuf Selman İnanç, (İstanbul: Kronik Kitap, 2019).

Europe. It is noteworthy that the early reformists opposed the Copernican revolution, as a result of their strict adherence to the Bible.[25] However, Calvinist puritanism, in which God manifests himself in nature with his creative power, so that understanding nature means understanding the glory of God, and scientific research that makes this possible, is seen as a religious duty in this respect, has managed to turn into a Protestant sect that encourages scientific progress over time. Again, Puritan morality's philosophy of life, which sees professional activity as worship and the workplace as a place of worship, reflects every individual in the society - "Love your neighbor, give to your neighbor" in the Bible, to see industriousness, efficiency, utilitarianism, punctuality, and thrift as essential characteristics of a devout Christian, in order to be useful to them by seeing them as neighbors, in accordance with his command, as opposed to the medieval monk driving himself into laziness or uselessness by sitting idle, praying, or starving and shedding tears. It will also show itself in the stages of scientific thought and scientific research. Indeed, it is no coincidence that many of the names who pioneered the scientific revolution during the 17th and 18th centuries were of Protestant (puritan or pietistic) origin[26]. One of the aims of the establishment of the Royal Society, whose members were mostly from this sect, was to provide a suitable environment where every religious and political view could be discussed comfortably under the leadership of scientists in the harsh political and religious atmosphere of the 17th century. Once again, we see that the conflict in the Age of Scientific Revolution was not actually between religion and science, but between the Church, which puts itself in the place of the sole representative (authority) of religion, and free-thinking scientists who want to lead a better life.

The belief that authorities, especially Aristotle, could be wrong led to the questioning of other dogmas that were sanctified by the Church during the Medieval Ages and accepted as consistent with the propositions of belief in the Bible. The distinction between the sublunar and superlunar universes in Aristotelian physics was rejected by observations made by Tycho Brahe in the late 16th century. Again, the concept of circular orbits was destroyed by Kepler, and the concept of perfect and central spheres by Galileo in the early 17th century. Galileo's declaration in 1613 that he supported the Copernican Model greatly contributed to the increase in the power of the new science. Of course, this did not please the Church at all, but this did not prevent the scientific model based on religion, whose basic principles began to erode, from losing power. The doubts that arose were no longer making the Church's minds water, and they could not defend their teachings as easily as before. Bruno's last words to the Inquisition that tried him show this: "You guys who judge my death today are actually more afraid of me than I am." Now the Church could block thoughts only by force. But, as Voltaire said, there was no force that could prevent an idea whose time had come. The French mathematician and philosopher Rene Descartes defined the material world as a machine and did not include spirituality, vitality and teleology in the Aristotelian sense. In the same years, the English scholar Francis Bacon would abandon Aristotelian logic in Novum Organum and propose induction as a new tool.

[25] See. Westfall, *Modern Bilimin Oluşumu*, 139; Bertrand Russell, *Din ile Bilim*, trans. Akşit Göktürk (İstanbul: Yapı Kredi Yayınları, 2019), 40.

[26] Kürşat Haldun Akalın, "Reform Sürecindeki İngiltere'de Rasyonel Bilimin Yükselişi", *Sosyal Bilimler Enstitüsü Dergisi* 28/1 (2010) 217-238.

The two thousand-year-old throne of Aristotelian physics began to fall. In the 17th century, Aristotle still meant the Church. Therefore, it was much safer to criticize Aristotelian philosophy/science rather than directly targeting the Church. Newton removed almost all remnants of Aristotle's understanding of physics. He combined Descartes' mathematical method with Bacon's experimental method. He laid the foundations of the Cartesian and deterministic universe with universal laws such as the law of gravity and the laws of motion. Thanks to him, faith in science preceded faith in the Church. Although Isaac Newton represented the peak in the Age of Scientific Revolution, it would be misleading to see Newton as a pur-rationalist who was free from any metaphysical beliefs. Because Newton devoted the most productive thirty years of his life to alchemy, a "medieval science".[27] At the time of his death, his personal library contained 175 books on alchemy and numerous pamphlets, about a tenth of his library.[28] Although alchemy moved away from being an Aristotelian science and towards becoming a Paracelsusian science in the New Age, its foundation was based on esotericism and occultism. While an interest in Cartesian philosophy and alchemy on the other is difficult to explain today, according to the understanding that emerged in 17th-century England, what would advance our knowledge and understanding of nature-whether it originated in religion, magic, or Hermetic texts. - should be given due importance and taken into account.[29] While Cartesian philosophy claimed that it was mechanical necessity that moved matter, alchemy claimed that the main cause of motion in nature was a kind of spiritual substance (spirit) contained in matter.[30] Newton was more impressed by the way alchemy explained nature than by its power to transform metals, but his alchemical experiments helped him make an important contribution to strengthening Cartesian philosophy: understanding the nature of the forces of attraction and repulsion. Some commentators claim that the muse of Newton's theory of gravity was not the "Lincolnshire apple" but alchemical experiments.[31]

On the other hand, Newton's thoughts on Christian theology are also admirable. In his unpublished essay, "A Historical Account of Two Significant Corruptions of the Bible,"[32] he claims that in the consuls of the 4th century, when Orthodox Christianity was formed, the scripture was altered to support the Trinity. According to him, the great fraud committed in the 4th century was to turn the Athanasian doctrine, which transformed Christianity from the unitarian belief in God to paganism, into the official understanding of religion. Newton became an Aryanist with the boldness one would expect from a Trinty member, but predictably he never made it obvious.[33] So what brought Newton to this point? Is it the contradictions he sees between his scientific ideas and the statements in the Bible about the creation of the universe and man? The injustices committed in the name of religion by the insincere Christians of 17th century England? Or is it really his genuine fondness for truth? Unfortunately, we will never know for sure.

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27 Richard S. Westfall, *Isaac Newton'ın Biyografisi*, trans. Orhan Düz (İstanbul: Alfa Yayınları, 2018), 304.

28 William H. Cropper, *Büyük Fizikçiler*, trans. Nurettin Elhüseyni (İstanbul: Oğlak Bilimsel Kitaplar, 2005), 42.

29 Westfall, *Isaac Newton'ın Biyografisi*, 325.

30 Westfall, *Isaac Newton'ın Biyografisi*, 293-345.

31 William H. Cropper, *Büyük Fizikçiler*, çev. Nurettin Elhüseyni (İstanbul: Oğlak Bilimsel Kitaplar, 2005), 42.

32 Westfall, Isaac *Newton'ın Biyografisi*, 325.

33 Westfall, *Isaac Newton'ın Biyografisi*, 293-345.

4. The Situation in the Modern Age

The 18th century passed with the spectacular achievements of modern science in Europe. As the power of science to explain nature increased, non-scientific explanations began to fall out of favor. This period, known as the century of enlightenment in the history of philosophy, is a period when the confidence in reason and science peaked. Just as ears and weeds[34] want to expand their field in a field against each other, modern science has begun to expand its field of activity at the expense of the Church. The development of science and the trust in reason naturally brought demands for secularization, liberation and enrichment. The process leading to the industrial revolution started with the understanding that science is a way of thinking that makes money as well as a way of explaining the universe.[35] On the other hand, demands for secularization and emancipation manifested themselves in a bloody revolution towards the end of the century. The French Revolution, which started with the slogan "Liberty, Equality, Fraternity", led to the overthrow of the monarchy and the establishment of the republic in France. The events that led to a serious reform of the Catholic Church led Europe -and the whole world, due to its universal results-to the birth of a new age (Contemporary Age). After that, nothing would ever be the same again. The ideas that led to the French Revolution spread rapidly all over the world with a pandemic effect.

On the other hand, the French Revolution had many negative effects on Christian sects and especially on the Catholic Church. With the French Revolution, the closure of the sects and the confiscation of their properties resulted in the transfer of great wealth to the state treasury. Accordingly, hundreds of monasteries with all their properties were transferred to the state treasury. The decision to transfer the property of the church to the state will be given a standing ovation in the Assembly. The next day, all monasteries and buildings in France will be plundered by the people, their belongings will be sold, or they will be plundered. Some will be turned into government offices, while others will be blatantly destroyed.[36] In the following years (1792-1794), the Cult of Reason[37] was developed by Jacques Hebert and his revolutionary friends in order to completely break the influence of Christianity on French culture and replace it. Thus, Christian symbols were abolished in Catholic churches and replaced by special symbols evoking the revolution. Catholic worship was banned; churches were converted into Sanctuaries of Reason, in which no gods were worshiped. In fact, a stance of respect and homage was made to an opera singer dressed in the colors of the Republic at the ceremony called "Mind Feast" held at Notre-Dame Cathedral in Paris on November 10, 1793. However, Maximilien Robespierre, one of the great pioneers of the French Revolution, thought differently from atheist revolutionaries about the religion of the new republic. For him, belief in a supreme being (a creative god)

[34] Inspired by Tage Lindbom's book of the same name. See. Tage Lindbom, *Başaklar ve Ayrık Otları*, trans. Ömer Baldık (İstanbul: İnsan Yayınları, 2018).

[35] For the Marxist history of science review, in which scientific research in the 17th and 18th centuries in Europe in general, especially Newton's work, was related to the economic and commercial demands of the period, see. Boris Hessen, *Newton'ın Principia'sının Toplumsal ve İktisadi Kökleri*, trans. Ümir Şenesen (İstanbul: Yordam Kitap, 2019).

[36] İsmail Taşpınar, "Fransız İhtilali ve Katolik Tarikatların Akıbeti". Yörüngedergi, (Erişim: 20.10.2022).

[37] Onur Atalay, *Türke Tapmak*, (İstanbul: İletişim Yayınları, 2019), 25-26.

was important to the social order. But this Supreme Being was not the God of the Catholic Church. Influenced by Voltaire[38], the great theorist of the revolution, he switched from an atheist "Cult of Reason" to a "Cult of Supreme Being" based on a deistic belief in God. Although this cult was accepted as the civil religion of France by the National Convention on May 7, 1794, all cults were officially banned by Napoleon Bonaparte in 1802 and the Catholic Church was on the rise again.[39]

As can be seen, even in the Age of Enlightenment, when the belief in reason and science was at its peak, the need for religion in the social and political sense prevailed. Because the atheist and deist rhetoric that excited the pioneers of the revolution did not seem to work very well when it came to governing society. Kant[40], who closely followed and openly supported the French Revolution, states in the preface to the second edition (1787) of his *Critique of Pure Reason*, "I had to deny knowledge in order to make room for belief." will say.[41] However, it should be warned that the belief here is not a belief in the principles of this or that religion. The belief here is the belief in God alone, which is not the subject of legal knowledge. According to Kant, if God were the subject of knowledge rather than belief, it would be impossible to talk about freedom and the autonomy of morality as a possibility of ethical life.[42] It is said that Kant needed God as a postulate of practical reason, that is, to justify morality. On the other hand, Kant, the pinnacle of the Enlightenment, is an important thinker who questions the trust in reason by revealing the impossibility of a rational metaphysics with his famous antinomies. So much so that the name that inspired the 19th century German romantics would again be Immanuel Kant.

The fierce debate between religion and science that took place in Europe in the 16th century was repeated in the 19th century with the evolution debate. Just as the heliocentric model of the universe put forward by Copernicus was declared superstitious because the Bible clearly states that the earth is at the center of the universe, the claim that human beings have existed on earth for millions of years was rejected by religious circles as unbiblical. Darwin and other evolutionist biologists after him showed that species have changed over many years, those who cannot adapt to the ecosystem disappear, and new species emerge over time. Advances in earth science (geology) and fossil science (paleontology) put the age of the earth much further back than six thousand years, as calculated by religious scholars. So much so that, with the radioisotope age determination method, which emerged with the development of radioactivity, fossils showing that living things existed millions of years ago, and rocks billions of years ago, were found. Scientific

[38] Attributed to Voltaire, "If God did not exist, it would be necessary to invent Him." in accordance with his word. See. Tolga Kerimoğlu, *Felsefenin Kısa Tarihi* (İstanbul: Kamer Yayınları, 2016), 301.

[39] Napoleon was not a religious person. However, in a speech to the National Committee in 1806, "Without religion in society, the poor kill the rich." has a meaning. See. Napoleon Bonaparte (creator), *Napoleon in His Own Words from the French of Jules Bertaut* (Yayın yeri: Andesit Press, 2015).

[40] When Kant heard the proclamation of the republic in France, he was very excited and said, "Now this servant can sleep peacefully in his grave, because I have seen the majesty of the world." he said. In a letter he wrote to F. Gentz in 1790, he described the revolution as the first practical triumph of philosophy. See. Manfred Kuehn, *Immanuel Kant*, trans. Bülent O. Doğan (İstanbul: Türkiye İş Bankası Kültür Yayınları, 2017), 346.

[41] Immanuel Kant, *Critique of Pure Reason*, trans. Werner S. Pluhar (Cambridge: Hackett Publishing Company, 1996), 31.

[42] Taşkıner Ketenci, "Saf Aklın Eleştirisi'nde Önsözler ve İşlevleri", *Beytulhikme: An International Journal of Philosophy* 6/1 (2016), 32.

evidence clearly refuted the creation scenes revealed in the Bible. These studies dealt a greater blow to institutional religion in Europe than in the 16th century. While the clergy could reinterpret the scripture with historicist/hermeneutic approaches, scientists would now have to choose their side clearly. So that, in the last quarter of the 19th century, when the Papacy was asked to act in harmony with the new scientific paradigm, the Papacy reacted sharply to these demands and declared the *Infallibility Doctrine* in 1870. British-born American chemistry and physics professor J. W. Draper (1811-1882) wrote a book in 1874 that almost declared the victory of science over religion, and stated that the pressures of the Catholic Church, not directly religion, were an obstacle to the development of human thought.[43]

But who would sit on the throne vacated by God in the 19th century? Neither the religion of reason, nor the cult of the Supreme Being. Positivism, which deified science and technology as a new source of holiness, would fill this gap.[44] The Cartesian understanding of nature peaked in the 19th century with the Frenchman Pierre-Simon Laplace. Laplace no longer even needed God to explain nature.[45] In the same years, another French philosopher, Auguste Comte, considered applying Cartesian certainty to the social sciences. According to Comte, if the social sciences want to have certainty in their research issues, they must have sound laws like the laws of physics and they must apply the method of physics to their own fields. Because the dazzling advances achieved in the field of science in this century were so impressive that Comte strongly believed that human beings would no longer need any metaphysical principles in the process of understanding the nature in which they live. Maybe we had to go through these theological and metaphysical stages until we got to today's point, but from now on, human beings would not resort to any metaphysical principle that could not be the subject of sense experiments, that could not be tested and justified by the senses, in this blessed walk.[46] Indeed, thinkers in every period of history have thought that they are getting closer to the knowledge of the truth compared to previous ages. So much so that physicists declared the end of physics at the end of the 19th century. However, post-positivist scientific paradigms that require us to reapply to metaphysics soon started to make themselves felt, just as in the historical background that prepared the positivist interpretation of science. Because the Cartesian understanding of the universe, the foundations of which were largely laid by Newton, began to be questioned with some anomalies that emerged in physics, which is a "model science", in the late 19th and early 20th centuries. The idea that nature is continuous (natura non facit saltus), with Max Planck's experiments on black body; absolute understanding of space and time, with Einstein's theories of relativity; deterministic understanding, with Heisenberg's uncertainty principle; notions of certainty and monovalence were replaced by Boltzmann's forms of explanation based on statistics and probability. Moreover, with the understanding that we see nature not as it is, but as we are, the understanding of "value-free science" began

[43] Cüneyt Coşkun, "Din-Bilim İlişkisi Ve Çatışmanın Araçsallığı", *Bilimname XXXVII*, 2019/1, 1057-1084.

[44] Atalay, *Türke Tapmak*, 32.

[45] When the famous French mathematician Pierre-Simon Laplace published his book titled Celestial Mechanics, when Napoleon read it and asked why he never referred to God in his work, Laplace is said to have said, "Your Majesty, I did not need such a hypothesis when I wrote this book." See. Russell, *Din ile Bilim*, 40.

[46] Coşkun, "Tek Başına Bilim Yeter mi?", 35.

to be questioned along with the understanding of objective and correct knowledge. While these were happening in the field of science in the first half of the 20th century, the Logical Positivists, who claimed that it was possible to establish a science free from metaphysics, could not keep up with these developments and continued to pursue their dream of science free from metaphysics for a while. Karl Popper, ironically, tells that in these years, conversions to religion increased in Europe, as it was understood that science could not meet the need for certainty sought by mankind.[47] On the other hand, Wittgenstein[48], who was initially seen as one of the savior philosophers of the Vienna Circle -a logical positivist-, but was evaluated as if he wanted to secure metaphysics over time, will say in the Tractatus: originates. Even though all possible scientific questions have been answered, we still feel that our problem has not been addressed at all" (TLP 6.52). In his Notebooks (NB 74), which was also written during the First World War but published after his death, Wittgenstein will say that believing in God means seeing that life has a meaning.[49] As can be seen, this naive belief of the positivists, who thought that the belief in a religion or God would disappear as science developed, came to naught with the developments in the 20th century.

Conlusion

Religion and science are two important fields of mental activity that arise from the need to know and understand the universe in which human beings live throughout history. In this process, undoubtedly, religions/beliefs started to appear before science and philosophy, and they served to meet both the curiosity of knowing and the need to believe. As people's mental faculties develop, on the one hand, needs such as making tools, making abstractions and grounding their beliefs begin to make themselves felt, on the other hand, religions/beliefs/cults have become institutionalized over time and have gained the power to regulate almost every aspect of life. Since there is always a place for a new god in the pantheon of polytheism, different forms of belief and explanation about the universe -until the emergence of monotheistic religions- had the chance to express themselves comfortably. For this reason, it is possible to say that religious thought in Ancient Greece did not completely separate from scientific thought, did not compete with it, and even contributed to the emergence of scientific thought. Indeed, the natural philosophies that emerged in the First Age gained a quality that was closely related to the sacred texts of the period such as the Iliad and the Odyssey. Accordingly, since the god of the First Age was not a power that created out of nothing, but a god that sustains him and gives him order, spirit and movement, it was okay to refer to him as a postulate to explain the universe. From now on, it was possible to reveal its structure and laws by observing nature. Thus, for the first time in the history of humanity, philosophers emerged who pondered on basic principles such as the structure of matter, the strict and unchanging laws of nature that ensure the order in the universe, and causality, and the way of thinking and explanation that we call science today began to make itself felt.

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[47] Bryan Magee, *Karl Popper'in Bilim Felsefesi ve Siyaset Kuramı*, trans. Mete Tunçay (İstanbul: Remzi Kitabevi, 1990), 20.

[48] Ali Utku, Wittgenstein: *Erken Döneminde Dilin Sınırları ve Felsefe*, (İstanbul: Doğu Batı Yayınları, 2009), 35, 236.

[49] Utku, *Wittgenstein: Erken Döneminde Dilin Sınırları ve Felsefe*, 239.

With the dominance of Christianity in the state and society structure in Europe in the 4th century, ancient thought began to weaken. The only god of the new religion made it clear that he created nature and its contents out of nothing, that he would intervene in nature, history and society if he wished, and that there was no insurmountable strict law for himself. All the information that mankind will need for both this world and the next world has been clearly revealed to them in the Bible, that they should now seek the right behavior instead of seeking the right knowledge, that all the information that has been produced until today without considering an absolute God, is an Absolute. It was revealed that they needed to be rearranged in line with belief in God as an entity.[50] Moreover, as in Ancient Greece, it was accepted that doing science was a pagan activity, that human beings could not understand the structure and laws of the universe with their limited capacity, and to attempt such a task was to challenge God. Such a religion, which saw human reason and production as a rival to itself, would not allow science in the old fashioned way. Indeed, in the early Medieval Ages schools of ancient thought were closed, books were burned, and scholars were exiled. After a few centuries of pitch darkness, some stirrings began to be experienced, thanks to the interaction of poor Europe with the prosperous Islamic world, which it neighbors on three sides. Translation activities in the High and Late Medieval Ages, the establishment of universities, the questioning of belief in concept realism, the interest in ancient forms of belief such as Hermetism, the rise of humanism and the concentration of capital prepared a new era in Europe. After a millennium in which thought was determined by the Church, confidence in the human mind and its potential was on the rise again. Despite all these developments, it is not possible to see the Age of Scientific Revolution, which started with Copernicus in Europe in the 16th century, as a result of purely logical and rational processes. This period is a complex period in which metaphysical, religious, artistic and magical processes were also effective. However, there is one thing that can be clearly distinguished in this complexity, which is that the official understanding of religion has not been able to adapt to the developing world and cannot respond to its needs.

Just as the stopping distance is important when examining a painting, our perspective on the developments in the history of science is also important. While it is possible to see the big picture from a far enough distance, many details remain unnoticed. Such is the view of historical events. Relationships that do not seem complicated at first glance can take a different view on closer inspection. In this context, the conflict in the Age of Scientific Revolution was not between religion and science in a simple sense, but between the Catholic Church, which puts itself as the sole representative of religion, and free-thinking scientists who want to lead a better life. The belief that the authorities could be wrong, which emerged with the Copernican revolution, would soon lead to the questioning of other dogmas that were sanctified by the Church during the Medieval Ages and accepted as consistent with the propositions of faith in the Bible. In about two centuries, nothing of the medieval worldview would stand, but it would not be easy to replace the destroyed order with a new one. Confidence in modern science peaked in the 18th and 19th centuries. All that was needed now was time and effort. In time, nothing would be left that science could

[50] Tekeli etc., *Bilim Tarihine Giriş*, 121-127.

not explain. However, the belief in the Cartesian worldview proposed by the new science began to be shaken by the anomalies that emerged in the first half of the 20th century. As a result of the quantum and relativity theories put forward at a time when physicists declared the end of physics and the developments in astrophysics that radically changed our understanding of the universe, the idea that the universe is a great machine devoid of spirituality began to be questioned. With the understanding that the universe can now be seen as a big idea rather than a big machine, consciousness came into play again and mystical and metaphysical tendencies in thought began to make themselves felt more.[51] In the history of Western thought, we have likened the relationship between institutional religion and modern science to spikes and weeds in a field that want to expand their fields against each other. However, we must also state that the development of science –contrary to what positivists claim- could not eliminate the need for a sacred, but it also knew how to transform the sacred.[52]

[51] Cevdet Coşkun, "Tek Başına Bilim Yeter mi?", 36.

[52] On how the sacred reproduces itself in different ways throughout history, please see. Ali Köse, *Kutsalın Dönüşü,* (İstanbul: Timaş Yayınları, 2020).

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