

Fazlur Rahman's Thoughts of Double Movement in the Context of the Development of Unity of Sciences

Nasitotul Janah^{1*}, Irham Nugroho¹

¹Universitas Muhammadiyah Magelang, Magelang, Indonesia

*email: nasitotuljanah@ummgl.ac.id

DOI: <https://doi.org/10.31603/tarbiyatuna.v13i1.5718>



ABSTRACT

Article Info:

Submitted:

03/09/2021

Revised:

25/06/2022

Published:

30/06/2022

The paradigms of rationalism, empiricism and positivism as the basis for the development of Western science adopted by the Islamic world have led to the emergence of a dichotomy and dualism that puts science and religion a vis a. The implication is that science becomes value-less, wild, secular and sometimes destructive. Science and religion are two independent entities, do not interfere with each other and are in different zones, even their relationship is sometimes colored by conflict that negates each other. To find a solution to this situation, ideas and concepts for the integration of science and religion, such as de-westernization and Islamization of knowledge, emerged from Islamic thinkers as an effort to build a more harmonious, conducive, and constructive relationship between science and religion. However, this idea received resistance from Fazlurrahman because according to him science is objective so that Islamization or dewesternization is not needed, but rather integration or unity of science. This research is a library research. Sources of data were obtained through various written works, both in the form of books and journals, to find out how relevant Fazlurrahman's thoughts are in the context of developing unity of science in the Islamic world. The results of this study offer the concept of returning knowledge to its natural state by placing Allah as the main source of knowledge in the context of the ontological dimension; making the universe (kauniyyah verse) and sacred texts of the holy book (qauliyyah verse) a source of knowledge in the context of the epistemological dimension; in its application and implementation, science must have a moral responsibility to humanistic values in the context of the axiological dimension.

Keywords: *Unity of Science; Ontological; Epistemological; Axiology*

ABSTRAK

Paradigma rasionalisme, empirisme, dan positivisme sebagai landasan perkembangan ilmu pengetahuan Barat yang dianut dunia Islam telah menyebabkan munculnya dikotomi dan dualisme yang menempatkan ilmu pengetahuan dan agama berhadap-hadapan. Implikasinya, sains menjadi tidak bernilai, liar, sekuler, dan terkadang destruktif. Ilmu dan agama adalah dua entitas yang berdiri sendiri, tidak saling mengganggu dan berada pada zona yang berbeda, bahkan hubungan keduanya terkadang diwarnai oleh konflik yang saling meniadakan. Untuk mencari solusi atas situasi ini, muncul gagasan dan konsep integrasi sains dan agama, seperti de-westernisasi dan Islamisasi pengetahuan, dari para pemikir Islam sebagai upaya membangun hubungan yang lebih harmonis, kondusif, dan konstruktif antara sains dan agama. Namun gagasan ini mendapat perlawanan dari Fazlurrahman

karena menurutnya ilmu pengetahuan bersifat objektif sehingga tidak diperlukan Islamisasi atau dewesternisasi, melainkan integrasi atau kesatuan ilmu. Penelitian ini merupakan penelitian kepustakaan. Sumber data diperoleh melalui berbagai karya tulis, baik berupa buku maupun jurnal, untuk mengetahui seberapa relevan pemikiran Fazlurrahman dalam konteks pengembangan kesatuan ilmu di dunia Islam. Hasil penelitian ini menawarkan konsep mengembalikan ilmu kepada keadaan alamiahnya dengan menempatkan Allah sebagai sumber utama ilmu dalam konteks dimensi ontologis; menjadikan alam semesta (ayat kauniyyah) dan teks-teks suci kitab suci (ayat qauliyyah) sebagai sumber ilmu pengetahuan dalam konteks dimensi epistemologis; dalam penerapan dan implementasinya, ilmu pengetahuan harus memiliki tanggung jawab moral terhadap nilai-nilai humanistik dalam konteks dimensi aksiologis.

Kata-kata Kunci: Kesatuan Ilmu Pengetahuan; Ontologis; Epistemologis; aksiologi

1. INTRODUCTION

Ian G. Barbour maps the relationship between science and religion into four typology: conflict, independence, dialogue, and integrity (Fitria & Al Giffari, 2021) (Yaqin et al., 2020). The relationship between conflict and independence grows in Western tradition, where the development of science is based on the paradigm of positivism (Nugroho, 2016), has resulted in the wildly and secularly growing science, which actually often keeps humans away from the source of knowledge: God. As the result, dualism and dichotomy of science becomes unavoidable and it put religious science and general science in the position of anti-thesis, biner, and a vis a. Consequently, science becomes value-free, men are alienated from their identities, sometimes even become the victims of science they have made by themselves. The implications of the science become valueless, wild, secular, and sometimes destructive. Science and religion become two independent entities that do not interfere with each other and are in different zones. Their relation even often be colored by conflicts that negates each other.

The idea of the need to build dialogue and integration between science and religion in the Islamic world which is getting stronger is a form of concern for the secularization of science. The ideas of science Islamization historically appeared when the first world conference on Islamic Education in Makkah, in 1977. It came out from the perspective that science is not value-free but value-laden (Hanifah, 2018) (K. Rahman, 2017) (Sifa & Adha, 2019). Hence, making Islam the worldview of science development is possible, since Islam has integral views toward the concept of science (epistemology) and the concept of God (theology).

Among figures involved in this idea are Muhammad Naquib al-Attas, Ismail Raji al-Faruqi, Seyyed Hossein Nasr, Ziauddin Sardar, and other figures. In fact, the idea of science Islamization is not agreed by Islamic intellectuals. One of them is Fazlur Rahman. In today's modern world, discussions on science Islamization

become important discourses. It is in accordance with the fast growing science and technology based on the Western paradigm that is rational, positivistic, and also dualistic. Many Islamic scholars offer ideas and concepts, including those from Indonesia. Among them is Mukti Ali, who offers the concept of Scientific cum Doktriner (Rosa et al., 2015). He believes that science does not need to be Islamized as there is nothing wrong in science. Science is objective, yet it has two qualities like 'double-edged sword' (Taufik & Yasir, 2017) The problem is not on the essence of the science itself, but on the utilization that has to be careful and responsible. It is important to use it correctly.

Fazlur Rahman is an intellectual whose concern on Muslims' development and improvement is great (Fathonah, 2019). Fazlur Rahman is considered as someone who seriously thinks about the problems of Islam and its people. His thoughts have given great influence to the intellectual development of Islamic world. The influence of Fazlur Rahman's thoughts has even started to be felt in Indonesia. Plenty of his works has been translated into Indonesian language. At least it can be a proof that his ideas get positive responses and start to be considered by Muslims in Indonesia. However, research on Fazlur Rahman's thoughts has so far been associated with themes of Islamic thought or themes on the development of interpretations.

Purwaningsih, (2010) states that de-westernization and Islamization have led to the disappearance of the separation between religion and general science in studies of the principles and concepts of combining science and religion and de-westernization. (Brisson, 2015) Islamization is the process of developing and perfecting the right technique as an Islamic idea, not just an activity of ayatization and labeling of information. Students are not only excellent in science but also own Islamic characters. According to the study on science Islamization from *ulama* by (Siregar, 2015), science Islamization can also be the process of the purification of knowledge from ideas that are not in accordance with Islam. Islamization is a process to build and perfect the correct technique as Islamic ideas, not only activities of information labeling.

While science development and Islamic political influence are fading, the fast growing West world indirectly gives benefits to Islam world (Wahyuni, 2018). One of the important factors in achieving the goals of Islamic education is Islamization of information. The main objective of education is developing morality, which is more important than producing intellectually outstanding Muslims. Scientific philosophical assumptions are not based on philosophy of materialism in the integration of science and Islam, unlike modern science, which has negative impact on human race (Fauzi, 2017). According to (Ridwan, 2020), science and religion cannot be compared by the formal material object (ontology), research methodology (epistemology), and benefits of science and religion (axiology). Other studies show

more harmonious, conducive, and constructive relation between science and religion (Bechtel & Hamilton, 2007).

One thing that fail to get the attention of previous researchers and, which potentials have not been explored, is the development of Islamic ontology, epistemology, and philosophical axiology which is different from the Western paradigm. The theory presented in the unity of science includes the elements of ontology, epistemology, and axiology which are firmly rooted in Islamic law. To find a solution to this situation, ideas and principles to integrate religion and knowledge, such as de-westernization and Islamization of Muslim knowledge, need to be developed as means to create a more harmonious, cohesive, and constructive relationship between religion and science. The objective of this research is to understand how Fazlurrahman's works relate to the development of the unity of science concept in order to be acknowledged as the basic text of Islamic Education.

2. METHOD

This research is library research. The sources of data obtained through primary sources are the authentic works of Fazlur Rahman, such as Major Themes of the Qur'an, Islam, and Revival and Reform in Islam: A study of Islamic Fundamentalism and also secondary sources from various works of writers and researchers who analyze and discuss Fazlur Rahman's thoughts both in the form of books and journals. This research is a qualitative descriptive study that provides a clear picture of Fazlur Rahman's thoughts that are relevant to the discourse and the concept of unity of science. The focus of this study is the philosophical foundation and urgency of the concept of unity of science in the context of the development of science in the Islamic world. The concepts used by Fazlur Rahman in the context of unity of science are philosophical approach both in the ontological, epistemological and axiological dimensions.

3. RESULT AND DISCUSSION

Rahman is an important figure whose thoughts are deeply influenced by two different traditions; tradition of thought of traditional Islam that he got in the country he was born, India-Pakistan, and tradition of thought of rational and modern West he got from where he underwent his higher education process. In Rahman's view, the Qur'an often mentions the quote *'ilm* and its derivation in its meaning as "knowledge" through learning, thinking, experience and so on. With this understanding, the quote *'ilm* was used from the time of the prophet to the heyday of medieval Islam. According to him, in its final use, the definition of *'ilm-fiqh* was almost identical to the material of hadith-sunnah. The term *thalabul 'ilm* is known

among traditionalists as the process of a long and difficult journey from one place to another and from one country to another, sitting in reverence facing a traditionalist teacher and accepting the traditions of the teacher. Later on and among other circles, the use of the term knowledge became more widespread.

In the early years of Islamic history, the emergence of higher education was not planned. The school only taught the Qur'an, reading, writing, and sometimes the basics of arithmetic to elementary school-aged students. Higher education, on the other hand, was not institutionalized; rather, only a group of selected people studied from one sheikh to another and obtained a certificate or degree. There was no formal organization of the higher and lower level; both operated independently. Later on, Baitul Hikmah was the most significant research center during the reign of Al-Ma'mun Abbasiyah, but it was still under the rationalist influence of *Mutazilah*. After the long procedure, well-known instructors, Ghazali, Nidzam-alMulk, have established in the 11th century. The world of Islamic higher education at that time experienced a critical period of development. But at the same time, a philosophical movement emerged. Orthodox scholars attacked philosophers, who were almost all scientists and scientific intellectuals. This shows how toxic the dogmatic mentality was, especially with regard to advantageous knowledge. Rahman emphasizes that this was where the dark era of Islam began, when Gazali attacked philosophers and scientists.

According to Rahman, as philosophy has been monopolized, many common people were proud of their careless rejection to the scientific claims of the philosophers, even when the truths have been obvious. According to Ghazali, if philosophical theses and scientific theories are accepted, it will be dangerous for religion to continue to exist. However, according to Fazlur Rahman, Ghazali's view is fatal because it is the first explicit and formal attack on positive knowledge by orthodox *ulama*. Other *ulama*, like Syatibi (14th century), who banned the use of pure philosophical intellectual disciplines as they were risky and did not relate with *amal*, followed the example from Ghazali. Syatibi opposed the ideas that most of moral responsibilities (*maqashid syari'ah*) come from intelligent. Rahman believed that Ibnu Taimiyyah and Syekh Akhmad Sirhindi, a scholar and a reformer of the 17th century, also reproach philosophy and science. He criticized the philosophers, and claimed that learning the basics of maths was all needed to count the distribution of inheritance and predict the direction of *kiblat*. It was said that geometry was a useless knowledge.

Positive information has been fatally misunderstood by the orthodox as it disadvantaged Islam. Astronomy, mathematics, and other disciplines were originally taught in medieval educational institutions when philosophy was still building a foundation in the Islamic world. At that time, education institutions were

independent “field of knowledge” looking for profits. However, Rahman claimed that in the 12th century, when creative and philosophical traditions no more get important place, philosophy and science were removed from the curriculum and considered as “non religious” in the world of Islam

Since then, according to Rahman, Islam was suffering as the result of extreme belief that was stiff and did not respect rational thoughts and science. An obvious line was drawn between ‘syariah’ sciences and “non syariah” sciences, or between “religious” knowledge and “secular” knowledge, as philosophy can be darkened. Rahman emphasizes that the limitation caused significant decrease in quality and standard of Islamic thoughts and education.

Islamic traditionalism, with its *fiqh* and theology, has gathered, invaded, and dominated all rational knowledge and thoughts to close all doors for potential creative challenges. The spirit of intellectualism and science became stiff as the result of uniting all kind of knowledge and directing them to dogmatic theology, weakening Islamic education and emerging limited insights.

But many unintelligent people remained as inert as rocks, frozen in blind imitation of the ancient. Without deliberation, they rejected and repudiated the new sciences. They passed for learned men, while all the time they were ignoramuses, fond of disparaging what they called “the philosophical sciences” and knowing nothing of earth or sky. The admonition “Have they not contemplated the Kingdom of heaven and Earth (QS 7:184) made no impression on them. They thought “contemplating the world and the firmament” mean staring at them like a cow) (F. Rahman, 2009).

Rahman stated that it was the main reason of the fall of Islamic education standard as it became arid and disconnected from intellectualism. Therefore, science of religion deconstructed so that it seemed to be independent and it filled the voids left by other branches of science. According to Rahman, other sciences were taken as useless.

The real reason for the decline of the quality of Islamic learning was the gradual starvation of the religion sciences through their isolation from the life of lay intellectualism which itself then decayed. From their successful opposition to the Mutazila dan the Shia, the ulama had gained the experience of developing their own sciences and teaching them in such a way that defense would be erected for this body of teaching. This did not have to do merely with the relatively external factor of a school system which would be physically isolated against opposition. Even more important was the way in which the content of orthodox sciences was developed so that they would be isolated from any possible challenge and opposition. The inner constitution of these religious sciences was so created as to make them apparently absolutely self-sufficient, they filled not only their own place but the place of the entire field of knowledge. All other knowledge was superfluous, if not utterly condemnable (F. Rahman, 2021).

According to Rahman, in this context, education tended to be dichotomous, defensive, and oriented to the afterlife only, whereas at first the classical traditional education system in Islam was based on a set of values derived from the Qur'an. In the Qur'an it is stated that the purpose of education is to create human beings who obey God's commands and who will always try to understand all phenomena inside and outside themselves. Meanwhile, the dichotomy system tried not to involve God in explaining the origin of the universe or the phenomena encountered by humans in life.

According to Rahman, in conditions like this, the educational strategy was mechanical and even prohibits anything that came from the West, including science and technology. Real steps must be taken to anticipate this. First, the reorientation of educational goals that are only defensive and oriented to the afterlife must be reconstructed to be oriented towards the life of the world as well as the afterlife, and sourced from the Qur'an (Dennerlein & Hamid, 2010) (Amal, 1989). Second, the psychological burden of dealing with the West must be removed. Therefore, a comprehensive historical and systematic study of Islam must be carried out regarding the development of Islamic scientific disciplines by adhering to the Qur'an as an assessor because it is the scientific disciplines that developed in Islamic history that provide intellectual and spiritual continuity for the Muslim community. Third, the negative attitude of Muslims towards science must be changed. According to Rahman, there is nothing wrong with science. What is wrong is its use. For example, the science of atoms, it can be used as electricity and also atomic bombs.

Furthermore, Rahman offers unity of sciences because the dichotomy system of science that has almost hit all Islamic countries in the modern century is not in accordance with the Islamic worldview and even contradicts. Thus, science was finally formed on the basis of typical Western values. Science is identical with only methodological issues (epistemology in a narrow sense), and rarely touches on the ontological and axiological aspects. Through the transfer of scientific technology, the positivism paradigm has finally become very hegemonic. When he claims scientific methodology as the only possible form of knowledge about reality, then it is no longer just a paradigm of thought, but has metamorphosed into an ideology. Finally, modern science has a unique inherent value bringing humans to the secularization of the mind and of course utilitarianism which affects the standards of assessment and also human values. According to Stephen Mason, quoted by Mahdi, the scientific method has the greatest influence on humans compared to any other theory. An example is basing arguments and judgments more on the rationality dimension than other considerations or deciding the truth with empirical evidence. Since then, the most fundamental change of modern man is to become a rationalist and empiricist.

The reality that is considered real is only that appears empirically or which can be thought rationally.

History has proven that the Western-style dichotomy system often destroys Islam and hinders the implement of Islam as a whole (*kaffah*) in the lives of Muslims. Because even though in the past the West had studied Islam, it must be admitted that today's history has reversed direction, Islam is learning from the West, which has processed the epistemology that they previously learned from Islam into a science that is in accordance with their worldview. Besides that, according to Rahman, a dichotomous paradigm that is fragmented and that contradicts the concept of the organic unity of science will result in humans with a split personality, not an integrated personality. So even if there is development, it is not fragmentary but specialization of science in order to improve its quality as he states.

Adhering uncontrollably to the fragmentation of science makes humans like robots, only mechanical beings. The fragmentation of knowledge ultimately results in the fragmentation of the human personality which is vicious and makes humans forget the essence of their needs as a whole. The present era generally suffers from the fragmentation of knowledge and personality. Science is used for dehumanizing purposes, and knowledge is used not as a human guide, thus causing destruction.

According to Rahman, the main reason for the decline of the Islamic world is the education factor which is very dichotomous, when science is kicked out of the world of Islamic education. Therefore, to restore the glory of Islam, knowledge must be returned to its nature, that is, everything comes from Allah.

a. God as the source of knowledge: Ontological Dimension

In Rahman's view, when Allah created something (nature), then He gave it the law of behavior which in the Qur'an is called "guidance", "command" or "measurement". If the law is violated, or exceeds its measurement, then nature will be chaotic. This is because the "measurement" has a strong holistic bias, i.e.: patterns, characters, and tendencies. Therefore, the notion of "measurement" (*qadr*) does not indicate a theory of destiny which is understood as pre-determination, but a finite and limited holistic determination (F. Rahman, 2009). The universe and its regularities must be viewed as a natural "sign" of God, besides the supernatural "sign". However, two things must be realized. First, although the "sign" in a religious sense refers to the Initial Cause (Causa Prima), it is not just a rational proof. To know the meaning of a "sign", in addition to reason, we must also have a certain disposition: the ability to believe. That is why, according to Rahman, many naturalist figures do not view the universe as a "sign" but rather as the ultimate reality. Therefore, the Qur'an always emphasizes that in order to understand the signs correctly, a certain mental and spiritual attitude is needed so that we can really see, hear, and understand that behind all phenomena,

God exists. The creation of the universe with its cohesive order has a more fundamental objective framework, which is to invite people to believe. That is why the Qur'an repeatedly calls out, "Do you not contemplate, pay attention, and think? This rhetorical question is a command that God is believed not as something "irrational" but rather as the Supreme Truth. This is because nature is "autonomous" but not "autocratic". Because it comes from God, nature cannot guarantee its existence (it works by its own laws, which have been ingrained in it by God, and is, therefore, autonomous, but it is not autocratic, for, in itself, it has no warrant for its own existence) (F. Rahman, 2009).

According to Rahman, it should be by looking at the universe that rational and moral spiritual awareness about the existence of God should emerge.

This lack of rational and moral ultimacy raises the all-important question of whence it derives its being. In particular, the crucial questions must be answered: Why nature and the richness and fullness of its being? Why not just nothing and pure emptiness-which is, on all counts, the easier and the more natural of the two alternatives. From the Greeks through Hegel it has often been said that "nothing" is an empty word without any real meaning since "there can be no nothing and we cannot imagine it. But the question then is "Why can we not imagine it" It is certainly theoretically possible that there might be no nature at all. Those who think that nature is "given" and therefore somehow "necessary" are like a child for whom toys are a "given" and therefore somehow "necessary". This is exactly the meaning of contingency. But a contingent cannot be thought of without that upon which it is contingent. God is that dimension which makes other dimensions possible. He gives meaning and life to everything. He is all enveloping, literally, infinite, and He alone is infinite. All else carries in the very texture of its being the hallmark of its finitude and creatureliness (F. Rahman, 2009).

According to Rahman, as the nature is intertwined perfectly and works according to the law created by Allah, so it is clear that there is a natural law of cause and effect. Al Quran also acknowledges this causality law. However, it does not mean that Allah does not contribute nor intervene at all, and it does not mean that there are "rivalry" and "duality" between Allah and human and the universe because without Allah's contribution and intervention the nature's activity will be wild and perverted. Nevertheless, God is still not a part among other parts, not an existence among other existences. God is "with" everything that exists.

Since nature is well knit and working with laws that have been made inherent in it, there is undoubtedly "natural causation", but this does not mean that God creates nature and or God goes to sleep, nor, of course, does this mean that God and nature or God and the human are rivals and function at the expense of each other; nor yet does it mean that God operates in addition to the operations of man and nature. Without God's activity, the activity of nature and man becomes delinquent, purposeless, and self-wasting. Things and human are, indeed, directly related to God just as they are related to each other, and we must further

interpret our statement that God is not an item among other items of the universe, or just an existent among other existents. He is “with” everything, He constitutes the integrity of everything (F. Rahman, 2009).

Regarding the logical consequences of recognizing God as the center of nature, Rahman emphasized the relationship between reason and morality. Reason must be manifested in divine morality. This is related to the primordial covenant made by humans with God. The logical consequence of this primordial agreement is that humans must bear moral responsibility for their willingness to become caliphs. The facility given by God to humans is when Adam was given the ability to master creative knowledge, so that humans then have a very large capacity to master science. Although reason has a great contribution to shape science, it should not be left alone. It must follow the signs of a primordial promise, which clearly always upholds morality (Sumantri, 2013).

b. Between *Kauniyyah* Verses and *Qur’aniyyah* Verses: Epistemological Dimension

According to Rahman, to eliminate the dichotomy of science is to integrate the science of religion and general science in an organic and comprehensive manner. This is because basically science is integrated and cannot be separated. Thus, Islamic education must include general sciences such as social sciences, natural sciences, history and also religious sciences such as theology, interpretation, *fiqh* and others. This integration method is a step of re-actualization of the scientific spirit that existed during the golden age of Islam, when science was studied in a whole and in balance between the knowledge needed for world welfare (general science) and the welfare of the afterlife (religious science).

This integration approach sees a functional relationship between general science and religious science. The concept of the integrity and integration of science as shown in Figure 1 proves that Islam is able to produce encyclopedic scientists (polymaths) such as ibn Sina, Ibn Rushd, al Kindi and others who master various sciences, both general and religious. Rahman claims that in principle knowledge is one, originating from Allah. This is in accordance with the explanation of the Qur'an which says all knowledge comes from Allah. He revealed some of it to the chosen people through the Qur'anic verses and partly through the *Kauniyyah* verses that were obtained by humans by using their senses, reason, and heart. The revealed knowledge has absolute truth while the acquired knowledge is relative. Thus Allah's knowledge can be known through two paths: the Qur'anic verse and the *kauniyyah* verse (Muhaimin, 1999).

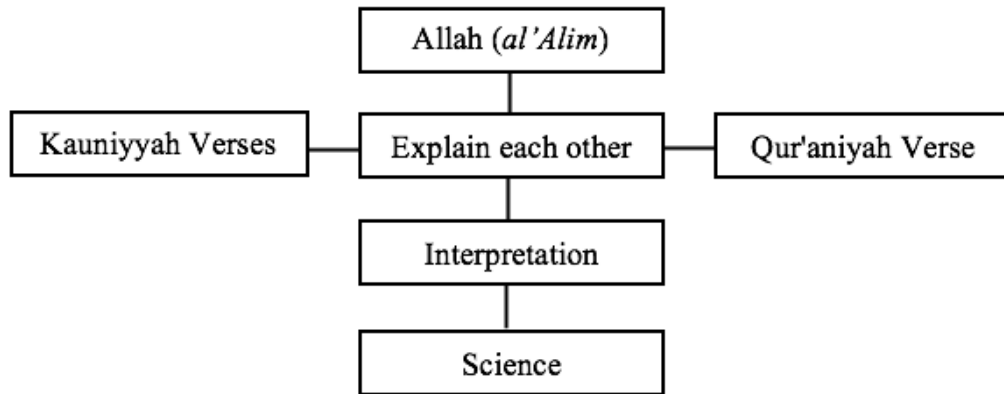


Figure 1 : The Source of Knowledge

According to Rahman, between the *kauniyyah* verse and the Qur'anic verse there is an organic relationship. Therefore, Rahman offers to reconstruct the speculative deductive method and re-actualize the induction method which once made the Islamic world shine with the advancement of science. The induction method needs to be used because science is dynamic and developing as described in [Figure 2](#).

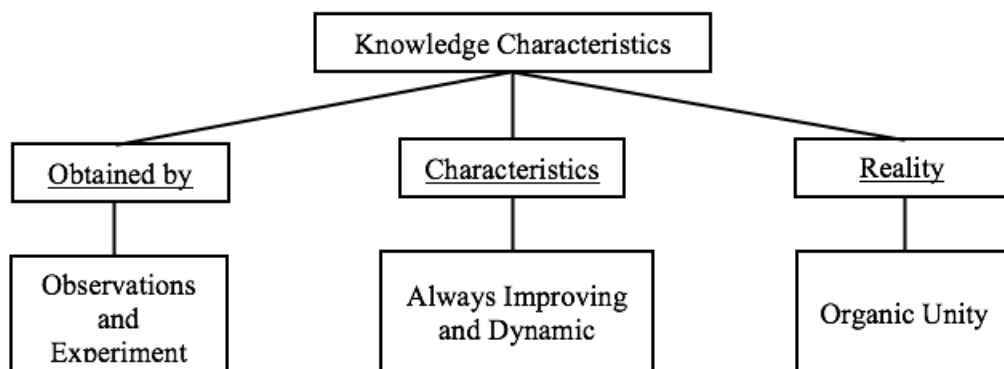


Figure 2 : The Characteristics of Knowledge

Furthermore, Rahman's concrete view begins by making a classification of science ([figure 3](#)) i.e. natural sciences (the physical universe), such as physics; human science (the constitution of the human mind); and the historical study of society, which examines human civilization. The three sciences are developed by observation and still based on moral considerations. Without moral, science will be very dangerous. (This knowledge is scientific knowledge. It is called scientific knowledge because it is based on observation with the eyes and ears. Therefore, scientific knowledge finally reaches the heart and awakens human perception which will transform scientific and technological skills according to the moral perception that is expected to be born from it. Without this perception, scientific and technological knowledge will be very dangerous) ([Fazlurrahman, 2018](#)).

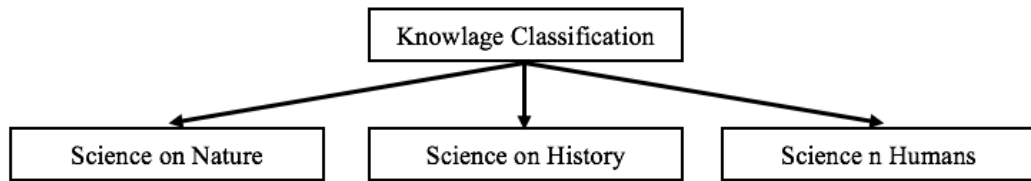


Figure 3 : Classification of Science

However, Islam abandoned the methods of observation and induction as well as experimentation at the end of the Middle Ages, was stuck to pure speculation that had imprisoned the people in the framework of empty theological speculation, was crazy about mysticism, and too much on literature, so that it became unrealistic and stuck merely on technicality without insights and deep inspiration. Therefore, in order not to make science useless, the method of observation and experimentation must be carried out, not only for scientific knowledge but also for theology to becomes meaningful, so that literature and mysticism are full of inspiration (Fazlurrahman, 2018).

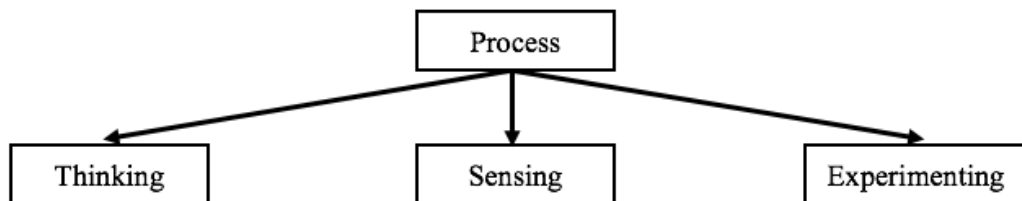


Figure 4 : The Process of Science

This double movement (figure 5) borrows Fazlur Rahman's hermeneutic theory of "Double Movement", in which the steps taken are; The first movement, that is the movement from the current situation and conditions to the socio-historical context when the Qur'an was revealed, that is in Arabia in the 6th century AD. The second movement, after moving from the situation and conditions when the Qur'an was revealed, then returns to the current situation and conditions here. With these two movements, it is hoped that the universal and temporal moral ideals of the Qur'an can be formulated. Farid Essack describes this as quoted by Ilyas Supena (Mustaqim, 2010).

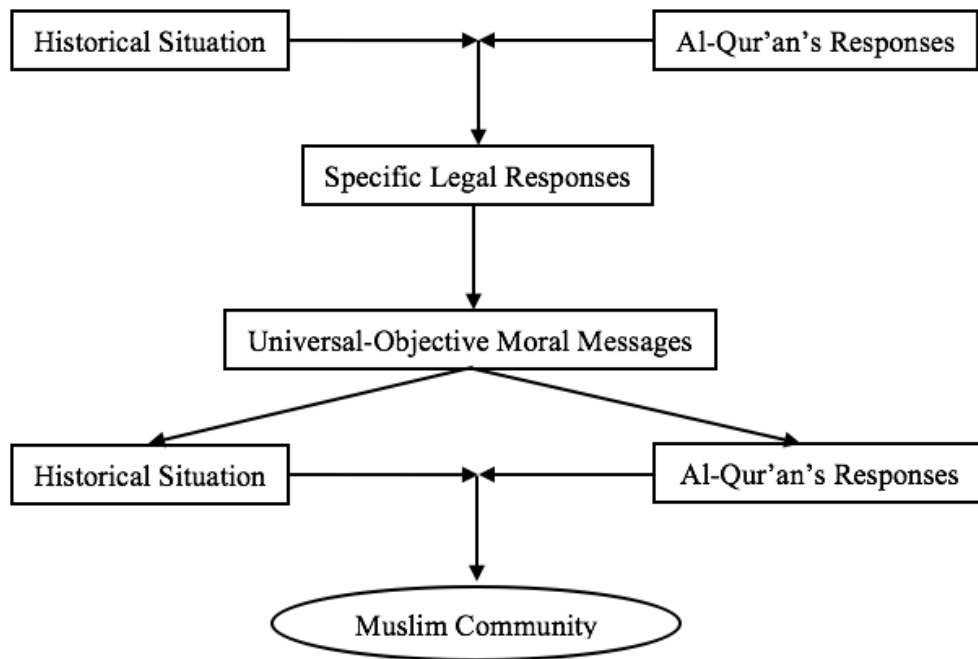


Figure 5 : Chart of Double Movement Method

c. Between Science and Responsibility: Axiological Dimention

According to Rahman, as explained by Aksin Wijaya, Allah chose humans and gave them the gift of reason that made them possess the knowledge abilities that angels do not have. This ability, according to Rahman, makes humans have a sense of responsibility. Therefore, the relationship between science and responsibility is compared by Rahman to a sword in the hands of children which can actually harm themselves if it is not accompanied by a sense of responsibility that can control themselves, even more for scientists. Ironically, scientists often neglect their responsibilities. According to Rahman there is nothing wrong with science itself. The fault is in the misuse of that science. Therefore, the most important thing is to make humans responsible for the science they make. So what needs to be Islamized is not science, but moral responsibility (Wijaya, 2014).

According to Ilyas Supena, starting from Rahman's view of the parallelism between materialism and spiritualism, Islamic sciences must be developed based on the Theo-anthropocentrism or synthesis between theocentric-anthropocentric humanism. Science must be developed with a pattern of understanding that is episteme *bayani* which is based on the text and has a theocentric pattern and with episteme *burhani* which is based on social reality and has a humanistic pattern. These two entities must be understood positively and proportionally in every formulation of the Islamic sciences in order to produce synthetic science. Therefore, this dialectical pattern seeks to find creative syntheses between the

revelation text (*qur'aniyyah*) and social reality as a *kauniyyah* verse (Supena, 2008).

Furthermore, according to Rahman, Muslims must shift the epistemology of the Islamic sciences from an idealism textual epistemology model to a realism contextual epistemology with a strong ethical base. This will result in reintegration or harmonization of Islamic sciences including theology, ethics, law and other sciences; reorientation of Islamic knowledge which is more focused on actions and practical matters, not speculative; the modernization of Islamic sciences or the process of contextualizing Islamic knowledge based on the assumption that humans are privileged by Allah as the caliph who has the ability to build a dynamic civilization on Earth. Islamic science is not absolute relativism, which is value-free because it is limited by the moral ethics of the Qur'an, but is objective relativism (Supena, 2008). For this reason, it is also necessary to take advantage of history and social science in understanding the Qur'an. History and social science as disciplines are modern phenomena that are very important to understand in order to reconstruct Islamic science because the task of history is to reveal the real situation and conditions regarding the moral message of Islam and social science seeks to understand the socio-political and economic aspects so that the moral message can be implemented properly for the welfare of humanity.

d. The Significance of Unity of Science in Realizing Competitive and Solutional Islamic Education

Islam was once the orientation of world science in the Middle-ages. Simultaneously, Islam also experienced the peak of development, prosperity, and glory. However, along with the emergence of the dichotomy of science, Islamic intellectualism tended to make distance from an intellectual, critical and objective scientific attitude, and instead stuck to a scriptural/textual/bayani approach. Al-Qur'an and Sunnah are only translated into limited sciences such as interpretation, *fiqh*, *tasawuf* and others (Abdullah, 1995) (Reisch, 1997). Since then, according to Rahman, and also strengthened by Kuntowijoyo, Islamic scholarship has been "involute" and "expansive" (Kuntowijoyo, 2006). Involution is a symptom of "inward" development of a science, so that science becomes a science that is getting smaller and only repetitive. The development of science is only limited to writing syarah / elaboration so that there is no development of new knowledge. The involution of knowledge is shown in the mastery of ad-verbatim books. In Rahman's language, Islamic scholarship becomes very elaborate, repetitive, full of literature which is only in the form of comments, explanations of a work; and of course very few generate new ideas. Meanwhile, "expansive", means that Islamic scholarship is sometimes so expansive that things that are not actually religion are

considered as an intrinsic part of religion. The result, according to Amin Abdullah, is the emergence of sanctification, absolutism, authoritarianism and the hegemony of scientific thought which results in the status quo, congestion, and stagnation, which cause the decline of the Islamic world.

In this context, the idea of unity of science becomes significant, at least for 2 purposes. First, for external purposes, that is in response to Western criticism that Islam is only a Bedouin doctrine that does not know scientific reasoning, as explained by Rahman as follows:

The criticisms against Islam came with a double force from certain western critics like E. Renan and Sir William Muir who contended that the social and economic backwardness of the late medieval muslim society was due to the inherently inferior character of the Islamic civilization. This, in turn, was alleged to stem from the inferiority of Islam as a religion which was seen as a “ Bedouin” phenomenon alien to “reason” and tolerance. At this stage of the argument, the medieval muslim conflict between philosophers and orthodox theologians were unreservedly identified as war between “reason” and “religion” and the net conclusion drawn was that Islam inherently opposes reason (F. Rahman, 2020).

According to Kuntowijoyo, human knowledge must be based on the Theanthropocentric paradigm, therefore it is divided into two: *qauliyyah* and *kauniyyah*. This means that Muslims must see reality through Islam and the existence of the humanities in the Qur'an. Islam as a text (Qur'an and *Sunnah*) must be able to be faced with scientific reality (Kuntowijoyo, 2004). Islamic knowledge requires a step called "objectification" that is, anything that comes from religion must be an objective value. This means that the doctrines, dogmas, and values of Islam can be felt by adherents of other religions, non-religious, and even anti-religious followers no longer as norms of a particular religion but as objective values, not normative religions so that they can be felt universally by all humans without exception in their function as *rahmatan lil 'alamin* (Badar, 2020), which in Mahzar's language is referred to as “Islamic integralism” (Mahzar & Dj, 2004).

Second, for internal purposes, the unity of science can be used as a solution to the problems of the decline of Muslims in various dimensions of life which makes them far behind their competitors.

For this internal interest, the great idea of unity of science has emerged many concepts. For example, the idea of 'integration - interconnection' which aims to build a paradigm based on an integrative and holistic Islamic worldview. This is different from the fact of the "dichotomy" and "specialization of science" in the West which emerges a hierarchy of science based on superior-inferior and also the exclusivism of science. The integration and interconnection paradigms emphasize that different fields of science are interrelated. Therefore, it is necessary to utilize

these various fields of science together based on the Theo-anthropocentric paradigm (Abdullah & Abdullah, 2007) (Amigue et al., 2021). This concept is described by Amin Abdullah through Figure 6 in the "Spider Web" Theory as follows.

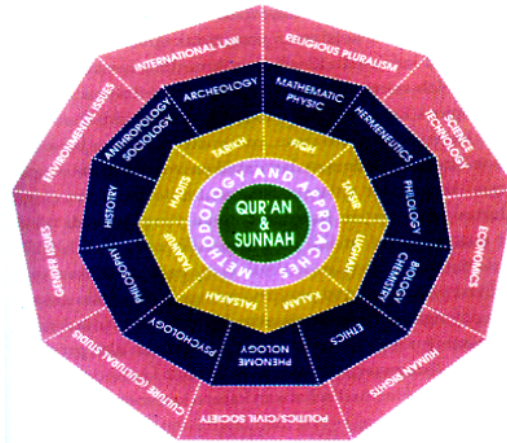


Figure 6 : *Spider Web Theory*

The picture above describes that Islamic studies should have a very broad horizon because they are needed to support human life in the current era and also to handle and analyze humanitarian and religious issues in the modern era by utilizing approaches of natural sciences, social sciences, and contemporary humanities. However, it must still be done in the worldview of the Qur'an and hadith as the primary source of ethics. According to Amin, this spider-web is the result of the process of integrating the triangular relationship between the *bayani* (textual-deductive) method which is often used in normative studies; the *burhani* method (demoscentrative-empirical) in historical studies; and of course the *irfani* (ethical-intuitive) method which serves as a bridge between the *bayani* and *burhani* methods. Figure 7 describes the triangular dialectic which is the interaction between three entities; *hadharah an-nash*, which means considering the content of religious texts as a form of moral commitment; *hadarah ilm*: taking an objective and professional approach through a scientific point of view that tends to be empirically inductive; and *hadarah falsafah* the sincere willingness to always have a dialogue with the first two variables in the moral and ethical perspective of Islam (Izudin, 2015). This is what is referred to as the pattern of circular relationships between the *bayani*, *burhani* and *irfani* methods.

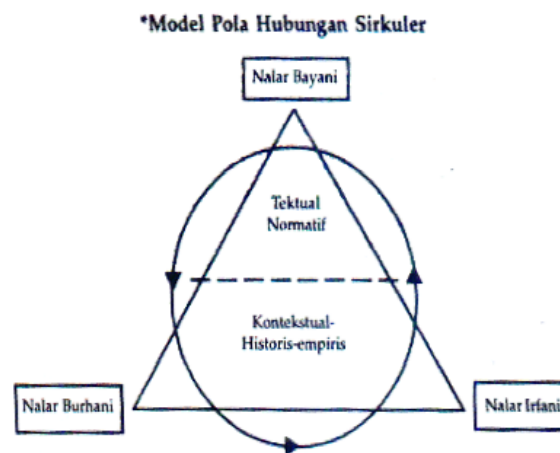


Figure 7 : Relationship Pattern of *Bayani*, *Burhani*, and *Irfani*

Furthermore, the idea of unity of science is also followed up by the world of Islamic education with the growth of Islamic educational institutions from the basic to the top level, which curriculum integrates religious science and general science. Not to forget, higher education such as IAIN has also metamorphosed into UIN, which no longer only focuses on religious science, but also general science in an integrative way.

4. CONCLUSION

According to the Qur'an, Allah chooses humans among other creatures as caliphs because they are considered capable of managing and prospering the Earth for the welfare of humans themselves. In order to carry out the mission of this caliphate, Allah gave two provisions of knowledge; formal knowledge directly through revelation/*qauliyyah* verses and reason as potential knowledge that can be used to understand and respond to the universe as *kauiniyyah* verses. The knowledge is given by God so that humans can realize their mission: humans' prosperity and welfare.

However, when the two sciences are separated extremely (religious sciences and worldly sciences), then what happens is that the welfare of the world is not oriented towards the afterlife (as the case in the Western world) and welfare that is left behind (as the case in the Islamic world). Therefore, reuniting the two sciences as before is a necessity for the people in order to realize the welfare of humanity in this world and the afterlife.

This research is limited to analyzing the philosophical basis of Fazlur Rahman's concept of unity of science and its implications for the development of science in the Islamic world, so that there are still many areas that can be used as objects of study for other researchers to continue this research, for example how to

implement Fazlur Rahman's concept of unity of science in world of Islamic education.

5. REFERENCES

- Abdullah, M. A. (1995). *Falsafah kalam di era postmodernisme*.
- Abdullah, M. A., & Abdullah, M. A. (2007). *Islamic studies dalam paradigma integrasi interkoneksi: sebuah antologi*. Suka Press.
- Amal, T. A. (1989). *Islam dan tantangan modernitas: studi atas pemikiran hukum Fazlur Rahman* (Vol. 11). Mizan.
- Amigue, F. F., Essiane, S. N., Ngoffe, S. P., Ondoa, G. A., Mengounou, G. M., & Nna Nna, P. T. (2021). Optimal integration of photovoltaic power into the electricity network using Slime mould algorithms: Application to the interconnected grid in North Cameroon. *Energy Reports*, 7, 6292–6307. <https://doi.org/10.1016/j.egy.2021.09.077>
- Badar, M. Z. (2020). Konsep Integrasi antara Islam dan Ilmu Telaah Pemikiran Kuntowijoyo. *An-Nas*, 4(1), 45–58.
- Bechtel, W., & Hamilton, A. (2007). Reduction, Integration, and the Unity of Science. *General Philosophy of Science*, 377–430. <https://doi.org/10.1016/b978-044451548-3/50009-4>
- Brisson, T. (2015). Western and Non-Western Views of the Social and Behavioral Sciences: De-Westernizing the Social and Behavioral Sciences. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (Second Edition, Vol. 25). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.03201-3>
- Dennerlein, B., & Hamid, A. (2010). Reconfiguring Islamic Tradition: Reform, Rationality, and Modernity. *Religion*, 40(4), 341–342. <https://doi.org/10.1016/j.religion.2010.06.001>
- Fathonah, P. (2019). Thoughts of Fazlur Rahman Education and Its Contribution to The Development of Islamic Education Theory. *DINIKA : Academic Journal of Islamic Studies*, 3(3), 359. <https://doi.org/10.22515/dinika.v3i3.1287>
- Fauzi, A. (2017). Integrasi dan Islamisasi Ilmu Dalam Perspektif Pendidikan Islam. *Jurnal Pendidikan Islam*, 8(1), 1–18.
- Fazlurrahman, M. (2018). Modernisasi Pendidikan Islam: Gagasan Alternatif Fazlur Rahman. *TA'LIM: Jurnal Studi Pendidikan Islam*, 1(1), 73–89.
- Fitria, V., & Al Giffari, H. A. (2021). The language of science and religion: An approach to understand the encounter between science and religion according to Ian G. Barbour. *Humanika, Kajian Ilmiah Mata Kuliah Umum*, 21(1), 55–68.
- Hanifah, U. (2018). Islamisasi Ilmu Pengetahuan Kontemporer (Konsep Integrasi Keilmuan di Universitas-Universitas Islam Indonesia. *TADRIS: Jurnal Pendidikan Islam*, 13(2), 273–294.
- Izudin, A. (2015). Paradigma Integrasi-Interkoneksi: Analisis Epistemologi Pemikiran Keislaman M. Amin Abdullah. *Islamic Review: Jurnal Riset dan Kajian Keislaman*, IV, 1.
- Kuntowijoyo. (2004). *Islam sebagai ilmu: epistemologi, metodologi, dan etika*. Teraju.
- Kuntowijoyo, I. S. I. (2006). *Epistemologi. Metodologi dan Etika*, Yogyakarta: Tiara Wacana.
- Mahzar, A., & Dj, A. S. (2004). *Revolusi integralisme Islam: merumuskan*

- paradigma sains dan teknologi Islam*. Mizan.
- Muhaimin, H. (1999). *Kontroversi pemikiran Fazlur Rahman: studi kritis pembaharuan pendidikan Islam*. Pustaka Dinamika.
- Mustaqim, A. (2010). *Epistemologi tafsir kontemporer*.
- Nugroho, I. (2016). Positivisme Auguste Comte: Analisa Epistemologis dan Nilai Etisnya Terhadap Sains. *Cakrawala: Jurnal Studi Islam*, 11(2), 167–177.
- Purwaningsih, Y. (2010). *De-westernisasi dan Islamisasi Pendidikan perspektif Syed Naquib al-Attas*. IAIN Sunan Ampel Surabaya.
- Rahman, F. (2009). *Major Themes of the Qur'an*. University of Chicago Press.
- Rahman, F. (2020). *Islam*. University of Chicago Press.
- Rahman, F. (2021). *Revival and reform in Islam: A study of Islamic fundamentalism*. Simon and Schuster.
- Rahman, K. (2017). Konsep Pendidikan Islam Modern dalam Perspektif Kiai Pesantren. *LISAN AL-HAL: Jurnal Pengembangan Pemikiran dan Kebudayaan*, 11(2), 209–236.
- Reisch, G. A. (1997). How postmodern was Neurath's idea of unity of science? *Studies in History and Philosophy of Science Part A*, 28(3), 439–451. [https://doi.org/10.1016/S0039-3681\(96\)00027-1](https://doi.org/10.1016/S0039-3681(96)00027-1)
- Ridwan, I. M. (2020). Harmoni, Disharmoni, dan Integrasi Antara Sains dan Agama. *Jurnal Filsafat Indonesia*, 3(1), 8–13.
- Rosa, A., Kurniawan, A. F., Pelaksana, R., Ahmad, L. T., Syukron, T., & No, J. J. S. (2015). *Redaktur Ahli (Mitra Bestari): Utang Ramuwijaya (IAIN "SMH" Banten) Ja'far Assagaf (IAIN Surakarta) Muhajirin (UIN Raden Fatah Palembang) Penanggungjawab: Udi Mufradi Mawardi*.
- Sifa, A. N. A., & Adha, A. F. (2019). Understanding the Hermeneutic Debate as a New Method of Understanding Hadis. *Journal of Hadith Studies*, 2(1), 54–72.
- Siregar, A. B. A. (2015). Islamisasi Ilmu Pengetahuan. *Jurnal Fikrah*, 6, 91–100.
- Sumantri, R. A. (2013). Hermeneutika Al-Quran Fazlur Rahman Metode Tafsir Double Movement. *Komunika: Jurnal Dakwah dan Komunikasi*, 7(1).
- Supena, I. (2008). *Desain Ilmu-ilmu Keislaman dalam Pemikiran Hermeneutika Fazlur Rahman*. Semarang: Walisongo Press.
- Taufik, M., & Yasir, M. (2017). Mengkritisi Konsep Islamisasi Ilmu Ismail Raji al-Faruqi: Telaah Pemikiran Ziauddin Sardar. *Jurnal Ushuluddin*, 25(2), 109–123.
- Tharaba, M. F. (2019). *Kajian Pemikiran Integrasi Keilmuan Universitas Islam Negeri (UIN) Maulana Malik Ibrahim Malang melalui Ulul Albab*.
- Wahyuni, F. (2018). Islamisasi Ilmu Pengetahuan (Upaya Mengurai Dikotomi Ilmu Pengetahuan dalam Islam). *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, 10(02).
- Wijaya, A. (2014). *Satu Islam, Ragam Epistemologi*. IRCISOD.
- Yaqin, M. A., Astuti, E. W., Anggraini, C. E. A., & Hidayatullah, A. F. (2020). Integrasi Ayat-Ayat Al-Qur'an dalam Pembelajaran Sains (Biologi) Berdasarkan Pemikiran Ian G. Barbour. *Jurnal Kajian Pendidikan Sains*, 6(1), 78–83.

