Abstract

The discourse about relationship between Islam and science today has been an important issue for the intellectual movement in the modern age. Besides bridging the separate gap between the general sciences and the religious sciences, this notion has the main goal of becoming a solution to the problems of contemporary humanitarian crisis. Although there is still a strong debate about the most appropriate model in this discourse, however the study of Islamic relations and science in the future will be an alternative solution for the development of modern human civilization. This article attempts to highlight the existing models of Islamic and science integration in Indonesia, by focusing on three Islamic universities leading the study of Islamic and science relations in Indonesia: State Islamic University of Sunan Kalijaga Yogyakarta, State Islamic University of Syarif Hidayatullah Jakarta, and State Islamic University of Maulana Maliki Malang.

Keyword: Relation of Islam and Science; Model of Islamic Integration and science in Indonesia.

1.0 FOREWORD

Discourse about a construction paradigm will always be alive and interesting. Because this thing will have significance to the function and relevance of a discipline for human life. One of them is the appear of a strong debate between the idea of Islamization of science and Islamic scholarship. These two ideas arise in relation to seeking what is the ideal form of relationship between science / science and religion.

At first, the idea of Islamization of science arises from the anxieties of some intellectual Muslim (among others: Syed M. Naquib al-Attas, Ismail Raji 'al Faruqi, Ziauddin Sardar) for the strength of western hegemony against Islam. Especially after they realized that science is developing very rapidly in the West until today is actually built on the basis of secular values-materialistic and atheistic, so it is necessary to Islamize. And truth, in this case a deeper reinterpretation of the Islamic genuine concept of science and education is by itself a top priority. Moreover, if the superiority of the achievement, processing, understanding, usage, and circulation of information and science publishing plays an important role in determining the power of the coming centuries, surely this requires something a greater role than the role in the previous centuries.

On the other hand, the rise of Islamization idea of science give a lot of agree and disagree responses. For those who agree of Islamization of science, consider that this can make science guided by religious values. While who refuse, assume that science must be objective and must always be neutral. Among the contemporary thinkers who rejected the idea was Kuntowijoyo, who describe his idea of the importance of Islam as a Science. In contrast to the idea of Islamization of science which is a scientific movement from the...
context to the text, so for Kuntowijoyo, the present intellectual movement must move from
text to context, which is based on three things: (1) "Islamic scholarship" the text of the Qur’an
to the social and ecological context of man; (2) The "Islamic paradigm" is the result of
science, the new paradigm of integralistic sciences, as a result of the unification of religion
and revelation; (3) "Islam as a Science" which is a process as well as a result.4

In the context of Islamic discourse in Indonesia, Kuntowijoyo's thoughts have
inspired many other Islamic thinkers (such as M. Amin Abdullah, Azylumardji Azra, Imam
Suprayogo etc.). Particularly, in term of the idea of a relationship model of religion and
science. Unfortunately, the studies that discuss about mapping religious and science relations
in Indonesia so far not so much appear today. Even if there are such studies, until now the
nature still tends to be partial-partial—not fully and comprehensively.

Based on the explanation above, this paper is trying to provide a basic description of
how models of religious and science relationships that suitable with the experience in
Indonesia. Hopefully this paper can be a part in efforts to advance the scientific and Islamic
landscape for the advancement of civilization.

2.0 AT A GLANCE OF THE TWO GREAT THEORIES OF ISLAMIC AND
SCIENCE RELATIONS

The discussion in this section, basically not trying to negate some other concepts that also
talk about the relationship between religion and science. Like the typology of religion and
science relations ever conceived by Ian G. Barbour by dividing it into four typologies:
Conflict, independence, dialogue, and integration.5 Nor is the idea of Islamic and scientific
reconciliation ever conceived by Nidhal Guessoum.6 However, this study focuses on several
theories that are directly related to the model of Islamic relations and science. Among them
are: the idea of Islamization of science and the Islamic scientific movement.

2.1 The Discourse of Islamization Science

As an intellectual movement, the Islamization of science movement was first raised by
Isma'il Raji al-Faruqi from the International Institute of Islamic Thought in the United States
by the 1980s. The idea towards the Islamization of science has been preceded by Naquib al-
Attas of Malaysia. Related to the idea towards the Islamization of science, there are three
most important scientific findings in the Islamic world found by Naquib al-Attas; (1) the most
important problem facing by Muslims today is the problem of science; (2) modern science is
not free (neutral) because it is influenced by religious, cultural and philosophical views,
reflecting the awareness and experience of western people; and (3) Muslims, therefore, need
to Islamize contemporary science by Islamizing linguistic symbols of reality and truth.7

The Islamization of Knowledge seeks to keep Muslims from imitating external
methods by restoring knowledge to its center, that is, Tawheed.8 From the Tawheed, there
will be three kinds of unity, the unity of knowledge, the unity of life, and the unity of history.
As long as Muslims do not have their own methodology, then Muslims will always be in
danger. The unity of knowledge means that knowledge must lead to one truth. Unity of life

5 Ian Barbour and others, ‘BARBOUR ’ S TYPOLOGIES AND THE CONTEMPORARY DEBATE ON ISLAM AND SCIENCE by
See also: Refleksi Filosofis and Ian G Barbour, ‘HUBUNGAN SAINTS DAN AGAMA; Refleksi Filosofis Atas Pemikiran Ian G. Barbour’,
15.1 (2014), 76–89.
7 Wan Daud, wan Nor Mohd, Filsafat dan Praktik Pendidikan Islam syed M. Naquib al-Attas, (Bandung: Mizan, 2003), p. 317
means the abolition of the distinction between value-filled science and value-free science. The unity of history means that knowledge must serve both mankind and people. Islamization of knowledge means restoring knowledge to monotheism, or context to text, or text-context. That is, in order for coherence (Latin cohaere means "stick together"), knowledge is inseparable from faith.9

The concept of Islamization of science by al-Attas is based on the assumption that knowledge which is developed in the West inherited many anomalies, among them: unfair and ethnocentric understanding that has caused global chaos, rather than peace and justice. Moreover, Western knowledge is atheistic, raising doubts and predictions to scientific degrees in methodology. Modern science is projected through a view of life built on the intellectual and psychological vision of Western culture and civilization. According to al-Attas there are 5 factors that animate the culture and civilization of the West are inter-related characteristics: (1) Rely on the power of brain to guide people through life; (2) faithfully follow the validity of reality and truth; (3) justifying the temporal aspect of being that projects a secular world view; (4) defense of the doctrine of humanism; (5) imitation of dramas and tragedies are considered as universal realities in the spiritual, or transcendental, or inner life of man, by making dramas and tragedies as real and dominant element in human identity and existence.10

The Islamization of knowledge that is offered is not merely a labeling of science with Qur'anic verses or hadiths that are deemed relevant to scientific discoveries, but operating at an epistemological level, where "deconstruction" of Western epistemology develops now and then "reconstructs" alternative epistemology by concocting critically the ingredients of "Muslim intellectual traditions" that have been fostered for over a millennium by classical philosophers and scientists. According to Mulyadhi, this reconstruction epistemological will consist of discussion of the ontological status of science objects, classification and methodology of science.

2.2 Discussion of Islamic scholarship (Response and criticism toward "Islamization of science")

Responding to the emergence of the idea of Islamization of Science, Kuntowijoyo criticized and offered different concepts, namely the idea of Islamic scholarship. Islamic scholarship is not a form of reaction to a scientific building that has been implemented and contrary to Islamic values. The methodology used in the "Islamic scholarship" movement not only takes care of scientific matters; one of its aims is to contextualize religious texts; in other words connecting religion with reality. Another term that can be used here is "earthing Islam", and the reality of life is the context of the religious.

In addition Kuntowijoyo offers methodological objectivism, while rejecting methodological secularism by bringing the alternative of prophetic social science. So, on the one hand what Kuntowijoyo wants is to continue the journey of the secular sciences and to try to improve from within. The achievement of secular sciences is not denied, but it is integrated into a new theoretical framework that has a clear bias toward humanitarian / emancipation, liberation and transcendence values. The theoretical framework offered by Kuntowijoyo and called by the method of transcendental structuralism is derived through the letter of Imran Ali (3) verse 110.11

According to Kuntowijoyo, a truly objective knowledge does not need to be Islamized, because Islam recognizes objectivity. Technology is the same, either in the hands

---

9 Kuntowijoyo, Islam sebagai Ilmu (Epistemologi, Metodologi dan Etika), Tiara Wacana, Yogyakarta, 2006), p. 07-08
10 Wan Daud, wan Nor Muhd, Filsafat dan Praktik Pendidikan Islam ..., p.333-334
11 Kuntowijoyo, Islam sebagai Ilmu (Epistemologi, Metodologi dan Etika), Tiara Wacana, Yogyakarta, 2006), p. 38
of Muslims or in the hands of infidels. Therefore we must be clever in choosing which one needs to be Islamized, which is not. For Kuntowijoyo, the method is everywhere the same: survey methods, participant methods, or grounded methods can be used safely without the risk of going against the faith. There is no concern whatsoever with the science that is truly objective and true. So, for Kuntowijoyo, the Islamization of knowledge is necessary, and part of it is useless work. As for the "lack of judgment" of a science is it against the desire to be objective in doing objectification.

Kuntowijoyo explains that what he wants to emphasize is an objective character of science, in a public sense that can be understood as many members of society as possible (and thereby can lead to universality). The objective is to take distance the subjectivity of the observer. The philosophy of contemporary science has simply shown that "pure objectivity" is clearly impossible, and so some philosophers prefer to use the term "trans-subjective". But the edges are the same: there is agreement on reality among the scientific community.

Kuntowijoyo sees that while the modern social sciences are value-free, in reality there are many cases hidden allegiances or interests. Some examples are proposed by Kuntowijoyo like the case of early anthropology that took side with colonial interests; neo-liberal economics is more in favor of the interests of capital owners. In such cases, there are always several options available and one must be taken; this is the ethical selection process. So far ethical considerations have been incorporated, as an external attribute, not inherent in science itself.

The attempt is to incorporate the ethical considerations into the body of science. In the end, the science that is born with ethics should not be partisan, but must be beneficial to all human beings. Integralistic science will not exclude God or man. Finally, By raising the idea of "Islamic scholarship", Kuntowijoyo wants to emphasize the objective (or trans-subjective) nature of science, which is public, transcends the individual. The lack of knowledge he sees is his separation from ethics, and avoids partiality. This is attempted by integrating modern science with prophetic ideals originating from religion.
MODELS OF ISLAMIC INTEGRATION AND SCIENCE IN INDONESIA

3.1 The concept of integration—the interconnection of science M. Amin Abdullah and the experience of UIN Sunan Kalijaga Yogyakarta

The idea of integration-interconnection the science of M. Amin Abdullah departed from his anxiety about the widening of the scientific dichotomy gap. According to Amin, secular sciences tend to place God only as a cover of unfinished holes of difficulty (to fill gaps) and are answered by their scientific theory, until the time comes to obtain a more complete data or a new theory that can answer the difficulty. When these difficulties can be answered, then God's intervention is automatically no longer needed. In the eyes of the "secular" scientist God is only a clock maker. Once the universe has been created, it does not care about the nature of His creation and the universe goes by itself without any intervention from God. Meanwhile, the Islamic world only tends to teach matters of a normative-textual nature without going to follow the development of science, technology, social sciences, economics, law and humanities.12

These two opposite poles are ultimately causing deadlock and crisis of relevance (unable to solve many problems), experiencing stagnation and deadlock (closed for the search for alternatives that are more prosperous to humans) and full of biases of interest (religious, racial, ethnic, philosophical, economic, political, gender, civilization). From such a background, the Rapprochment movement (willingness to accept each other's existence gracefully) between the two camps of science is a necessity. The Rapprochment Movement, also referred to as the unification or reintegration movement of science is a necessity and absolutely necessary to anticipate complex and unpredictable developments in the third millennium as well as globally shared humanitarian responsibilities in managing the limited natural resources and resources quality human beings.13

By borrowing a concept developed by Kuntowijoyo, the Integration-interconnection-paradigm of M. Amin Abdullah presupposes open dialogue among the sciences. The dichotomy opportunity is closed tightly. The three civilizations are reconciled within it, ie, al-nas (text culture), ad-‘ilm (cultural science), and ad-‘arah al-philosophy (philosophical culture). This approach that combines God's revelation with the discovery of the human mind will not result in discouraging the role of God (secularization) or excluding man from alienation of himself, society, and environment.14

In the view of this concept, although religion claims to be the source of truth, ethics, law, wisdom and a little knowledge. Yet religion in the integration approach never makes the revelation of God the only source of knowledge. According to this view the source of knowledge can originate from two sources namely God and Man or the so-called

---

13 Ibid., p. 97
teoantropocentric. This is where there is a need for a change in the direction of the reconstitution movement, religious privatization with the end being de-differentiation (reunification and reconciliation).

Another aspect highlighted by Amin Abdullah is the Islamic scholarship building that has been rooted in academics of Islamic Higher Education (PTAI). He felt public complaints against PTAI alumni who only know the problems of "normatifitas" own religion, but difficulty understanding historicity, let alone the historicity of other people's religion. This fact is concerned with the central issue of the point of integration between "science" and "religion". The scientific buildings taught in PTAI still follow the single entity or isolated entities model, and have not yet accepted or have not been able to apply the interconnected entities model. At the praxis level, students and lecturers in natural sciences do not recognize the basic issues of social-sciences, and humanities and more religious studies and vice versa. This separation will only print scientists and non-characteristic practitioners. Indonesia and the third world in general are following the scientific pattern without modification, leading to a multidimensional crisis from a prolonged environmental, economic, political, social, religious, and moral environment. Therefore, lest the educational system that runs for this indeed has a share indirectly formed split of personality (personality split).

In dealing with the problem, M. Amin Abdullah offers the concept of spider web (spider web). As a map of the concept of web spiders, this map can be interpreted as follows; (1) that every item contained in the map has relationships, though not entirely, between one another; this is what Amin Abdullah means by integrative scholarship; (2) the scholarship centers on the Qur'an and Sunnah and is hierarchically related to some knowledge according to the level of abstraction and its applied; (3) items contained in a single layer of circumference show equality seen from the level of abstraction or theoretical; and (4) the lines separating one item from another item in a single layer of circumference can not be understood as a dividing line. As shown in the figure, the content of this spider web consists of 4 layers of circles; three of which form a path. Layer 1 (deepest) is the Qur'an and Sunnah which is the main source of Islamic knowledge. Above the circumference of layer 1 there is a 2nd layer of circle that forms the path and contains 8 disciplines of Usuluddin sciences.

---


namely Kalam, Philosophy, Tasawuf, Hadith, Fiqh, Tafsir, and Lughah. The third layer is the path of theoretical knowledge consisting of; Sociology, Hermeneutics, Philology, Semiotics, Ethics, Phenomenology, Psychology, Philosophy, History, Anthropology, and Archeology. While layer 4 layer (outer) is the path of aplikatif knowledge, which consists of; Issues of Religious Pluralism, Sciences and Technology, Economics, Human Rights, Politics / Civil Society, Cultural Studies, Gender Issues, Environmental Issues, and International Law.  

3.2 The Concept of Reintegration of Azyumardi Azra and the experience of UIN Syarif Hidayatullah

According to Azyumardi Azra, integration of general scholarship in study of Islamic Studies in State Islamic University (UIN) actually already has Stock. This capital according to Azra at least there are three: Firstly, Islamic studies in UIN are non-sectarian (Mazhab), so the studies non-Sectarian (Mazhab) doesn’t take side any school and in Islam and its studies tend to be more objective; Secondly, the shifting of Islamic studies from normative studies to historical, sociological and empirical studies. Third, the broader scientific orientation, where science in UIN is not only oriented to the Middle East, but also to the Western world.

According to Azyumardi Azra, the basic concept of the early development of IAIN Jakarta in the 1990s was the change of IAIN Jakarta to UIN "Syarif Hidayatullah" Jakarta, or Syarif Hidayatullah Islamic University. The idea of becoming UIN is based on several problems faced by IAIN so far, namely: first, IAIN has not played optimally in the academic world, bureaucracy and Indonesian society as a whole. Among these three environments, it seems that IAIN's role is greater for the community, because of the strength of mission orientation rather than the development of science. Second, IAIN's curriculum has not been able to respond to the development of science and technology and the increasingly complex

---

17 Jurnal Studi Islam and Universitas Muhammadiyah Surakarta, ‘DAN RELEVANSINYA BAGI PENDIDIKAN TINGGI’, 17.1 (2016), 80–89. See also: Kajian Terhadap and Pemikiran M Amin, ‘EPISTEMOLOGI KEILMUAN DALAM ISLAM’;
society. This is due to the field of religious studies that specialize in IAIN, lack of interaction and reapproachment with the general sciences, and still tend to be dichotomous.  

The step of changing IAIN became UIN received Government recommendation by signing Joint Decree (SKB) between the Minister of National Education and the Minister of Religious Affairs of Indonesia on 21 November 2001, which was then followed up by Presidential Decree No. 031 On 20 May 2002 on Amendment of IAIN Syarif Hidayatullah Jakarta became UIN Syarif Hidayatullah Jakarta. Responding to the signing of this SKB, Prof. Azra considers that "This signing certainly marks the new history of IAIN Jakarta. We are determined not to have a dichotomy between the science of religion and non-religious knowledge". The concept of scientific reintegration above for the first time initiated by Azyumardi Azra. According to him, it takes reconciliation and reintegration between the religious sciences with the general science, that is to return to the transcendent unity of all sciences. Therefore, UIN Syarif Hidayatullah Jakarta directs itself to the integration of the science of this model, based on faith, knowledge and good deeds, which then becomes the university's base for the development of its scholarship.

3.3 Integration of the "Tree of Knowledge" of Imam Suprayogo and the experience of UIN Maulana Malik Ibrahim

The concept of "Tree of Science" initiated by Imam Suprayogo tried to build the concept of scientific integration for UIN Malang. According to him the presence of the concept of integration is intended to eliminate the widening scientific dichotomy widened. So from there, Islam is not only understood as a religion alone, but also as well as science and civilization. The cause of the decline of Muslims that occurred until now is undoubtedly as a result of the dichotomy of such science. Therefore, one of the fundamental and strategic efforts to be pursued by UIN Malang is to reconstruct the scientific paradigm by putting religion as the basis of science. Through deep reflection, Imam Suprayogo discovers a scientific integration format for UIN Malang with the metaphor "Tree of Knowledge" as follows:

---

From the tree picture above, it can be seen that the building of scientific structure UIN Malang more based on the universality of Islamic teachings. The metaphor used is a sturdy tree, branching leafy, leafy, and fruiting because it is supported by a strong root. The roots of the tree illustrate the foundations of university scholarship, namely Arabic and English, Philosophy, Natural Sciences, Social Sciences, and Education Pancasila and Citizenship. The mastery of this scientific foundation becomes the basic capital for the students to understand the whole aspects of Islamic scholarship, which is described as the principal tree of the university student's identity, namely: al-Qur'an and al-Sunnah, Sirah Nabawiyah, Islamic Thought, and Insight Islamic Community. The branches and twigs represent the university's growing fields of science. Flowers and fruits illustrate the output and benefits of this university's education efforts, namely: faith, piety, and scholarship.24

4.0 CONCLUSION

The concept of the relationship between Islam and science today, has issued debate that is so interesting among contemporary intellectuals. However, this does not necessarily lead to problematic noises among academics. But it has succeeded in bring forth new efforts and ideas in order to overcome the gap of separation between Islamic studies and science studies. Nowadays there are many new variants of this discourse, but in the outline, early studies on the integration of Islam and science in Indonesia are present in three models: First, the idea of integration-interconnection of M. Amin Abdullah and State Islamic University (UIN) experience Sunan Kalijaga Yogyakarta; this idea holds the concept of spider web (spyder web) science, by seeking open dialogue between the sciences. And bring together the three civilizations within it, ie $h\{ ad\} \text{aráh al-nas}\}$ (text culture), $h\{ ad\} \text{aráh al-ilm}\}$ (cultural science), and $h\{ ad\} \text{aráh al-philosophy}\$. Second, the idea of the Reintegration of Scholarship Azyumardi Azra and the experience of UIN Syarif Hidayatullah Jakarta, namely the need for reconciliation and reintegration between the religious sciences with the general sciences, that is to return to the transcendent unity of all sciences. In this case UIN Syarif Hidayatullah Jakarta directs itself to the integration of the scientific model, based on belief, knowledge and good deeds, which then becomes the university base for the development of its scholarship. Third, the idea of the "Tree of Knowledge" of Imam Suprayogo and the experience of UIN Maulana Malik Ibrahim Malang, this concept is based on the universality of Islamic teachings.

By Taking a scientific metaphor is like a sturdy tree, branching leafy, leafy, and fruiting because it is supported by a strong root and produces flowers and fruits that benefit from the education, namely: faith, piety, and scholarship. Finally, regardless of how an academic should really be oriented. Of course it is very necessary to appreciate these ideas as a fruit of deep thinking on the objective reality of Islamic scholarship that is still struggling at the formal level of religion. Hopefully these ideas are able to deliver and actualize Islam as what we often refer to as rahmatan lil ‘alamin.

5.0 BIBLIOGRAPHY

Amin Abdullah, “Islam dan Modernisasi Pendidikan di Asia Tenggara: Dari Pola Pendekatan Dikotomis-atomistik kearah integratif-interdisiplinari”, Makalah disampaikan dalam


----------------------, Pendidikan Islam, Tradisi dan Modernisasi Menuju Milenium Baru (Jakarta: Logos, 2002).


Kajian Terhadap dan Pemikiran M Amin, ‘EPISTEMOLOGI KEILMUAN DALAM ISLAM’:


