CHAPTER 2

MUSLIM INTELLECTUALS IN IRAN ON SCIENCE, ISLAM AND MODERNITY

2.0 Introduction

The appearance of modern science in the Islamic World began in the nineteenth century, when the entire debate on the compatibility of Islam and science took place and resulted in two dissenting opinions where: 1) A group of followers believed in the incompatibility of Islam and science 2) A group believed that Islam and science could reach a compromise.

The serious discussions of the matter made the question even more crucial. First of all, Islamic texts have always put emphasis on the matter of learning and development; therefore, we can see the compatibility of Islamic *sharia* with science. Islamic scholars have proved this by their contribution to the world of science. They have told their followers to pursue knowledge wherever they find it.

The other thing about Islamic science is that it is based upon the revelation from the side of God, rather than on the human understanding of the truth. Thus, it has been said that there is a full compatibility between the science and religion.

The main motive behind the success of the Muslim scientists in the medieval times is the emphasis that religion puts on the learners and teachers. The emphasis is on learning in every aspect of living. Many scientists believe that there is no conflict between what is said in Quran and the conventional knowledge. As one of them Maurice Bucaille puts it:

> Without any prejudices, I have started a study of the Quran and so far I have found no conflict between what I can find there and the conventional science (Bucaille, 1989, p. 10).

Discovering the actual truth of this debate, this study takes us further in to form a survey and analysis of the basic Muslims Intellectuals in Iran. However, what we are to experience through this chapter is what we could consider a detailed analysis concerning each Muslims intellectual that owned a strong bond between Islam with regards to modern science Though having different perspectives on modern science and modern necessities of the world, Islamic thinkers have one goal in common: attracting attention to the situation of Islam and Islamic traditions in the modern world. Modernity and new civilization has had such a great impact on most societies in the world that has amazed many, whether religious or not. This concern has created a new sense of urgency in finding a solution to the introduction and dealing with modernity. The new Islamic thinking wave which has been described in earlier lines, have the goal of:

A) Trying to face the treatment of Islam by the modern world as an opposition to all kinds of science, its traditions and principles. For this aim, the description and the analysis of the tradition and modernity needs to be introduced which will therefore, enable us to have a clear view of the boundary between tradition and modernity and their places of conflict. By this, we will be enabled to have a better dialogue between traditionalists and modernists, facing them to encounter the two in an equal situation. The other is to provide a sort of new discussion of Islamic thinking by changing the concept and creating new, more efficient concepts of Islamic intellectualism.

B) Creating dialectic between religion (Islamic faith) and modernity, therefore avoiding the consideration of modernity as the peak of humanity by criticizing its negative aspects, and therefore recreating a modernity which is compatible with Islam.

Undoubtedly, we are at the centre of the most serious challenges between Islam and modernity. This has in fact, turned into a critical crisis as a result of which many philosophers and thinkers of the twentieth century have thought of renewing their views

of science and religion. It has always been the common wisdom that in the case of a rising challenge between science and religion it was assumed that religion retreats for the sake of science and technology or at least continues its minimal role in society, as human beings do not seriously need it anymore. Human science was considered to be the key to salvation. Until the modern crises in society, ethics and environment started to rise as a direct result of uncontrolled development. Today, even secular thinkers talk about a return of religion to society as a way out of the several crises which were named before. In other words, the necessity of religion in their view is the fact that science and modern Western civilization cannot deal with all human problems on its own. Now the question is what kind of relationship can modern science have with the religion? Two different sorts of answers can be received, first from the side of the believers who support a role for religion in society, and who, despite living in a modern society, still believe that the only way to salvation is through religion. On the other side are the ones who believe that scientific mentality and thought is the only way out of dogmatism and unawareness. They consider the human science as the only way to attain real knowledge of the realities of the universe. Therefore, their deep belief in science is somehow as a result of their prejudgments about scientific knowledge and its benefits. These two groups have a very different view towards the challenges they face, a believer deeply avoids situations where their belief is questioned and a modern believer in science always concerns the adoptability of the reasons in order to have a scientific reasoning, and not searching for a case of illegitimatizing science and abounding it.

In the Islamic ideology, there are several ways of approaching the relationship between science and religion. In Iran, the discussion of the relationship between science and religion has always been a matter of interest and scientific development. Iran has emphasized on clarifying the relationship between the conventional knowledge and

religion. At the same time, we can see that the process of Islamization of science has always played a role in the thoughts and the ideology of many of contemporary Iranian Muslim Intellectuals. What came as a result was the occurrence of the Persian Constitutional Monarchy which paved the way for a Persian nationalism theorized by the contemporary elites. With the flood of science and development to Iran, Iran was divided into a religious, domestic branch and the pro-Western, secular minded one. Although there was occasional, strong objections to the import of science from the West, such voices would be quietened as the Persian elite had no intention to block the inflow of science to the country as science was considered to be one of the highest virtues of all.

Therefore, this investigation defines thoughts and ideas of four Iranian Muslim intellectuals such as: Abdolkarim Soroush, Seyyed Hossein Nasr, Murteza Mutahhari, Mehdi Golshani , on science, Islam and modernity.

2.1 The History of Critical Intellectuality in Iran

Being formed around a century ago, modern intellectual thinking has been divided into religious and pro-Western modern thinking. Perhaps the most distinctive aspect of the pro-Western thinking in Iran is the belief in separation between religion and politics [secularism]. The religious thinkers on the other hand are trying to draw a connecting line between the two. One can say that the pro-Western thinkers assume that the most important reason behind the maladies of the Islamic world in fact is the Islamic and local traditions of such societies. Therefore, they introduced religion as the single most important problem in the Islamic societies and tried to decrease the role of religion in their societies so as to minimize its aspect on the society and development. Their endeavor peaked in the 19th century in Iran. On the other hand, the religious thinkers attempted to repel the impact of the modern world on the traditional societies hence,

some of them accepted in some ways or the other the idea of influences of the modern world. This group, known as modernists includes Dr. Soroush. The other groups of religious thinkers are traditionalist include Dr.Nasr and reformist-traditionalist such as Dr. Golshani and the reformists, such as Ayatollah Mutahhari.

Traditionalists try to repel the influence of the modern world on Islamic societies altogether. They stand firmly against any attempt to introduce any Western-like influence or ideology in the Islamic societies, justifying their action by saying that the products of the West are completely against Islamic teachings, rejecting any attempt to make them Islamic. Therefore they are anti-modernization and uncompromising (Yousefi Eshkevari, 1997, p. 38). They also consider democracy, liberty and human rights as Western and therefore anti-Islamic (Mesba Yazdi, 2000).

Reformists on the other hand are a lot more aware of the necessities and the events of the modern world and therefore they are trying to represent religion with its old functions in the context of the modern world. They lean against tradition and look forward to modernity. They constantly attempt to put a religious cap on the modern products of the West and introduce them as religious, forming a totally new social necessity. Although, they believe modernity, but they still consider a vital role for tradition in Islamic societies. In other words, they try to find the new necessities and meanings of the modern world in the context of old, religious texts and imply that the new concepts, such as democracy, freedom, human rights etcetera indeed existed in the religious context long before the Western civilization came up with them (Kazemi, 2008, p. 119).

Modernists do not accept the position of reformist on modernity, and they reject the notion of extracting modern concepts from religious texts. They believe that it is religion which should make up its mind and be present in the modern day lives by

renewing and regenerating itself, not the modern concepts. They believe that not every Western product is corrupt and in fact we can import the new, modern ideas on technology, science and philosophy without doing any harm at all to religion and traditions (Borojardi, 1996, p. 241).

In the remaining of this chapter will concentrate on the ideas of Soroush, Ayatollah Mutahhari, Golshani and Nasr on science. Ayatollah Mutahhari is the representative of the reformist, both Golshani and Nasr are representatives of traditionalism who are concerned with reviving the Islamic tradition in the modern day by reintroducing religious concepts using modern idioms, and Soroush is a modernist who believes in a regeneration of society and religion based on modern concepts are they be. They believe at the same time in religious reforms suitable to present day necessities.

2.2 The Relationship between Science and Religion

Muslim scholars believe that there are different ways to react to modern science in the Islamic World. According to Golshani (Golshani, 2004, pp. 293-294):

1) A small group of Muslim intellectuals believe that, modern science is incompatible with Islamic knowledge. Islamic world must have their own knowledge.

2) Some Muslim scholars accept modern science in its totality. They believe that acquiring modern science is the only from of salvation against the decline of the Muslim world and they say that science is the only means of genuine enlightenment.

3) In addition, some Muslim intellectuals believe that science is responsible for the progress of the West and therefore they defend the attractiveness of modern science. This group has several proponents:

a) Some Muslim scholars such as Seyyed Jamal al-Din and Rashid Reza, (d.1935) have tried to justify modern science on religious grounds. They tried to convince Muslims to obtain modern knowledge to protect their independence and to protect their communities from the criticism of Orientalists and Muslim intellectuals.

b) Some Muslim thinkers have attempted to trace all innovation and discoveries to the Quran and Islamic tradition, and refer to modern science to explain different aspects of faith.

c) Some Muslim scholars advocated a reinterpretation of Islamic theology based on modern science. For example, Sir Sayyid Ahmad Khan (d.1898).

4) Finally, some Muslim thinkers defend the mystery of the revelation of nature by way of experimentation and theoretical work, and science can show aspects of the physical world. Nevertheless, they say science alone is not enough. They believe that in order to know reality, science should be viewed from an Islamic perspective.

2.3 Iranian Muslim Intellectual Responses to Modern Science and Technology

In this section I will discuss in detail the views of Abdolkarim Soroush, Seyyed Hossein Nasr, Ali Shariati, Murteza Mutahhari, Mehdi Golshani on modern science and technology.

2.3.1 Ayatollah Murteza Mutahhari

2.3.1.1Biography

Ayatollah Murtaza Mutahhari a renowned intellect of his time was born on February 2, 1920 in Fariman near Mashhad. He was a student of Allama Tabatabai and Ayatollah Khomeini. He furthered his studies in Fiqh, Usool, Tafsir and Islamic

philosophy in Qum. He held the position of a professor in philosophy at the University of Tehran and was a *Mujtahid* (highest religious authority) in Iran.

Given Mutahhari's position, he was a powerful thinker and was one of the architects of the Islamic Republic of Iran which created a huge level of awareness in Iran (Algar, 1985, p. 9). He was amongst the best intellectual that created Islamic ideology in the plight of Islamic Revolution in Iran. He also served as a reformer, radical and a distinguished political theorist (Martin, 2000, p. 75). According to Ayatollah Khomaini, 'Mutahhari is a high ranking thinker, philosopher, jurist and a rare Islamologist' (Khomeini 1961, p. 104) .

It is the same with Mutahhari as far as the understanding of political philosophies and modern Islamic spheres were concerned. The Islamic movement within the Islamic Iran community was very clear. He was assassinated on May 1, 1979 by the Furqan group in Iran. Mutahhari was still one of the influential of the intellectuals of Iran then.

2.3.1.2 Ayatollah Murteza Mutahhari on the Encounter between Modern Science and Religion

Mutahhari tries to trace the roots of conflict between religion and science in 'Western ideology' and while discussing the subject in a 'social and religious' context, he reveals the Islamic point of view on the matter. He first emphasized that this conflict can be for attributed to the action of two groups: first, irresponsible educated elite class and second, unaware clergy (Kashefi, 1997, p. 39).

In tackling the very reasons behind this conflict, he notes three main points:

(a) The how-being of religion,

(b) That of Western science and,

(c) That of philosophy.

He believes that the main reason behind rejection of religion and its existential conflict with science originated in the ‘interpretations of religion’ given by the ‘clergy of Church’ in the West. Those interpretations popular in medieval times had structural conflicts and drawbacks which had no compatibility with human wisdom and knowledge.

Mutahari saw the reasons in four areas:

1. Distorted religious texts,

2. A wrong image of Christian God,

3. Putting the accepted Greek philosophy in place of religious rituals and beliefs,

4. Church-led violence and atrocities.

He says the Christian God at that time was a ‘row of natural causes’ and therefore belief in God and natural science were certainly incompatible with each other (Mutahhari, 2000, pp. 25,27). The misunderstanding between philosophical concepts has affected the relationship between science and religion in three different ways: first, the philosophical concepts had no compatibility with the modern discoveries and concepts. Second, reducing the concept of God to natural reasoning was another reason for the insufficiency of the contemporary religious philosophies. Third, the thinking of the Middle Ages defined empirical science as an enemy of religion.

God in this world view, like other natural causes was a ‘factor’ in line with other factors, and this factor was an ‘unknown and mysterious’ phenomenon that should be given credit for the existence of all other simultaneous ‘unknown factors’(Mutahhari, 1994, p. 62).

About the church violence, one can say that in those times, church would not be satisfied just by giving sentence of 'apostasy', and segregating a sinner from Christian society, but it used all its power with no hesitation in harsh inquisitions to find the very roots of smallest 'opposition' (Kashefi, 1997, p. 45). Therefore, he believes:

> When the religion is named the enemy of science and scholars and scientists be thrown in the fire and guillotined in religion's name, surely and certainly people will be pessimistic (Mutahhari, 1994, pp. 67-72).

Thus, he believes that the 'misunderstanding' between the two has resulted in three deadly consequences for religion. First is the fact that religious and philosophical concepts did not match the natural realities. In other words, minimizing the meaning of God to just a reason for being and looking for it in the utmost of mysteries was in apparent conflict with science. The second result was interpretation of some of scientific discoveries and philosophical concepts of medieval times as though they were reasons to reject the existence of God. The third and the most important impact was that with the rise of the new science which was based on empirical research methods, the old philosophy and religion were put aside all together, which was a result of ineffectiveness of medieval philosophy (Kashefi, 1997, p. 47).

About the science factor, he believes that there were two sufficient reasons which led to 'enmity' between science and religion in Medieval times and a catalyst for intolerance between the two. First was the fact that science was, in that era, only based on and nurtured in anti- religious contexts. In this process, science got detached from religion and took the responsibilities of religion, i.e. spirituality, by its own. As Mutahhari puts it, they escaped from faith by replacing it with science, as though it is the answer to all question (Mutahhari, 1994, p. 93).

The ultimate result of this separation, was the retreat of religion and rise of a new materialistic science which ended up in absolute separation of church and science,

and consequently, between religion and science, and ultimately alienation of human being from God. Therefore, the new science ended up in a new type of definition of the universe, human and God which had no reliance on religious and philosophical overviews of them at that time.

Meanwhile, Mutahhari sees no conflict between science and religion and even put it in a way that science and religion are 'complementary' to each other. Therefore, he considers the separation between science and religion as the greatest loss and says:

> For humanity nothing is worse than separation between science and religion as this separation deteriorates the social balance of humanity and we have seen this happening in the Old and New World as well. People looked for their way out of religion for ages and this is what is happening now again, in our era. Many deviations and miseries with which today's human is dealing with are the direct result of separation of science and religion. Ultimate prosperity is only attainable through deep understanding of the need for both the entities, at the same time. In other words, if the balance between religious and scientific belief is blared the modern disease of the time will appear which is the search for a science without religion. Many of the moral and social issues of the world are the direct result of such a science. Humanity needs to understand that science without religion is not moral and they are like two wings which required to function together to let a bird (human salvation) fly(Mutahhari, 2001, pp. 200-201).

Mutahhari believes that religion can 'deepen and fertilize' scientific and philosophical concepts, and use them in 'its own way'.

Therefore, he considers three actions necessary for this aim to be achieved:

(a) For science, because it cannot give a comprehensive and coherent account of God, spirituality and eternity, it needs to keep its borders. In other words, it is not its duty to limit the interpretation of being and of the universe based on a particular world view and it cannot change the goals of humanity based on rational expectations(Kashefi, 1997, pp. 49-51).

(b) 'Interpretation' has a pivotal point in the view of Mutahhari. He believed that many of the conflicts between science and religion are rooted in wrong interpretations.

Therefore, they are avoidable. Other than that, he believed that interpretation has a very crucial role in spiritual and metaphysical representations. Also, he believes that philosophy has a very important role in scientific discoveries because in every scientific 'identification', there is a reasonable, inductive argument which is the reliance point of the 'empirical knowledge'. Thus, science needs causality to describe the scientific procedures (Mutahhari, 1999, p. 10).

Therefore, because there are two types of philosophical concepts, i.e. purely philosophical and partly philosophical, in Mutahhari's view, we need to differentiate between the two and know that it is only the latter one which has relationships with science, i.e. the partly philosophical concepts and not the former one, and scientific conclusions not the former one, and we need not to mix the two. That is, one must not try to examine the purely philosophical concept, i.e. life and reasons beyond it, by using the conventional scientific tools. By avoiding this, the contrast between science and pure philosophy, i.e. religion, will not arise.

(c) Religion is not in conflict with science in Mutahhari's view. This idea shows itself particularly, in Islam, which has admired science and scientists throughout its existence. Therefore, we need to understand this idea that being educated has no defendable relationship with rejecting religion but rather, it is a cultural issue in the West. Therefore, human being needs religion both in social and human contexts. In other words, Man take science to wherever he wants it to go, and uses it whichever way he wishes, but a religion takes control of one's life and changes it to a great extent (Mutahhari, 2008, pp. 358,401).

Therefore in Mutahhari's view, both science and religion have appeared to give humans enough means to know. The difference is that science is a set of tools by which human takes over nature, i.e. has a vertical development. On the other hand, religion

gives directions to human and describes the eternal life to us. So religion does not omit anything from the greatness of the universe, but adds to it by describing it to us (Mutahhari, 1989, pp. 166,167).

In conclusion we can say that in Mutahhari's view, there is no conflict between religion and science and therefore between religion and wisdom. Conflict only arises when we over shoot one's boundary or try to invoke the wrong resource to solve our problem. Therefore, the ultimate aim of reason is to strengthen religious beliefs and to represent the scientific reasons. So the role of science is to unlock the natural realities and to strengthen the religious beliefs using those scientific logics.

Science, religion and philosophy each unveils a particular side of the universe to us and for better understanding of each and their internal relationship we need the resources and tools designed for this reason. For this, an epistemological view helps a lot.

2.3.2 Seyyed Hossein Nasr

2.3.2.1 Biography

Seyyed Hossein Nasr was born on April 7, 1933, in Tehran, Iran. What made him different was his scholarly and religious family background that distinguished him from the rest. He completed school and moved to the United States where he obtained a Bachelor in Physics from Massachusetts Institute of Technology in 1954. Later, he moved on to Harvard University, where he received M.A in the Geophysics in 1956 and PhD in the History of Science and Philosophy in 1958. Soon, he returned to Iran where he was conferred the position of Professor at Tehran University (1974-1978). Through all this experience, he emerged successful being the Dean of Faculty, Chancellor of Sharif University of Technology, founder and first President of the Iranian Academy of

Philosophy. He was a Professor at the American University of Beirut, Princeton University, University of Utah, Temple University, before occupying his present position as a Professor of Islamic Studies at George Washington University (Borojardi, 1996, p. 124).

Today, the achievement speaks for himself as he has published over 400 books, articles, and speeches pertaining to vast ideas of life consisting of philosophy, religion, spirituality, music, art, architecture, science, literature, civilizational dialogues, and the natural environment (Giles Leigh Jr, 1998, p. 124). He also excelled in the area of language as he managed to master several languages including Persian, English, French, German, Spanish and Arabic that were seen beneficial in his process of rediscovering (Golshani, 1998, p. 279) . Osman Bakar (Bakar, 2001) viewed him as follows:

> Seyyed Hossein Nasr is a philosopher of science in the real sense of the word as demonstrated by his invaluable contribution to a wide range of philosophical issues pertaining to science and scientific thought. In philosophizing about scientific thought, not only does Nasr dwell on the different meanings and appreciation of science across cultures, but also draws clearly the legitimate epistemological boundaries that separate science from other branches of knowledge. He offers a powerful critique of modern science, its philosophical worldview, and its very character that arises from its methodological limitations and intellectual pretensions. Nasr delivers his critique of modern science based on his conviction that there exists another conception of science far superior to the modern one that is more harmonious with other domains of human thought. He maintains that science should be cultivated within the conceptual framework furnished by traditional cosmology. Nasr presents himself as a traditional philosopher of science to be distinguished from the majority of contemporary philosophers of science.

2.3.2.2 Nasr's Fundamental Ideas on Science

2.3.2.2.1 Islam and Science in the Eyes of Seyyed Hossein Nasr

The most powerful faces seen of traditionalism among the Iranian Muslim intellectual was Nasr who believes that the confrontation of Islam and modern science

as one of the most important issues facing the Muslim world. He believes there is a serious confrontation between modernization and the field of epistemology in traditional Islam. To investigate better, we can divide science into two categories: Science of: (1) Physical, (2) Metaphysical world.

About his "philosophical position" Nasr writes:

> If I were to summarize my so-called "philosophical position" I would say that I am a follower of that *philosophia perennis* and also universalis that eternal Sophia, who has always been and will always be and in whose perspective there is but one Reality which can say "I". This Sophia is based on a universal metaphysics with its applications to the domains of cosmology, psychology, art, etc... but in practice, this Sophia cannot be attained save with the aid of that macrocosmic manifestation of the intellect, namely tradition or religion which alone provides the necessary means to make the intellect operative within man and to enable him to become transformed through knowledge until he himself becomes the embodiment of this Sophia (Nasr, 1994, p. xxxi).

Based on the quote above, one could describe Nasr as being critical towards all modern civilization projects such as knowledge and secular science, superiority of mind and body over the spirit, stripping of nature's divine essence, and abandonment of mystical vision (Borojardi, 1996, p. 123).

Nasr believes that in the heart of the Islamic worldview, there exists the ideas of *Tawhid* (Uniqueness of God) or in Islamic perspective, the Divine Unity. Western science and the flow of technological inventions into everyday life of Muslims have changed the worldview about life in their heart to a great extent. Many Muslim academics believe this scientific identity is the continuation of Islamic scientific development during the 8th to 14th centuries AC. Therefore, they felt a sort of familiarity with it, though many recent Muslims believe this science is too far from that idea. They tried to keep their belief from the onslaught of modern science but could not criticize Western science based on solid reasoning. However, through their awareness of the reality of modern science, and its unspiritual and secularizing wholeness, in recent

times Muslims have felt the need to find other alternatives (Nasr, 1988, p. 45). They however, tried to protect faith from the onslaught of western thought but failed to provide a critical examination of modern science on the basis of Islamic criteria. But with the awareness of the negative influence of modern science and its quantitative, unspiritual and secularizing nature in recent times, Muslims have begun to find alternatives.

However, Nasr has tried to prove that the traditional Islamic science including mathematics, astronomy, cosmology, natural science and alchemy, were ultimately based on metaphysics (Nasr, 1985, p. 10).

By reading the book of Allah's creation this message will reveal that nature still resembles the shape of God's materialization (Nasr, 1985, p.25). And also,

> The most important job of the traditional sciences has always been to help perception to see the material world and in fact all levels of existence, not as fact or objects but in form of symbols which resembles mirrors in which is reflected the face of God from whom all originates and to whom everything returns (Nasr, 1985, p. 13).

This is basically the difference between modern science and traditional Islamic science. Nasr believes that the traditional sciences are based on a hierarchic worldview of the universe; one in which the higher states are reflected at the lower levels by means of symbols which have remained an ever-transparent way to spirituality and metaphysics.

In his view, the bases of the modern secular sciences are 'immoral leftovers' of Islamic sciences that studied nature to interpret beyond it. From the traditional Islamic perspective natural phenomena were symbols in the "Book of Nature" equivalent to the verses of Quran, whereas secular science sees in phenomena only natural facts. The role

of traditional sciences in facing religion and science is an 'Oriental Perspective' (Naseem Rafiabadi, 2007, p. 677).

2.3.2.2.2 Nasr's Critique of Modern Science

Nasr has been one of the most active critics of the Western world. In a number of works, he has tried to say that the bases of modern science are philosophical assumptions that put a boundary between Christianity and the modern west.

Nasr assumed that the events which took place in the scientific revolution during the 16th and 17th centuries were very significant changes in the history of Europe and it is marked by the beginning of the slow decay of Christian thought and the rise of secular views of the universe. He believes on the other hand that the rise of modern science is not the result of some important discoveries in scientific measurement and instruments but rather of a change in the worldview of 'modern man' that began to exist in Europe after the sixteenth century.

He categorized his criticism of the Western world based on four distinguished identities of the West: (1) the secular view of the universe with no clue of God in nature; (2) converting life and order into a machine; (3) rationalism and separation between 'res cogitans' ('what am I?' as it occurred after the method of doubt) and 'res extensa'(In Descartes' substance-attribute-mode ontology, extension is the primary attribute of corporeal substance), that is, between the knowing subject and the object to be known; and (4) using nature as a source of power and domination (Iqbal, 2007, p. 175).

Then he explains further his idea that the 'disfranchisement' of religion today is the result of 'failing' to accept God, who created the world, and the world finally returning to God. These truths are of course basic for understanding "the religious view

of the cosmos," but they do not include all that this view tries to express. 'Religion' in the term 'religious view', is meant as a tradition which includes not only a metaphysics dealing with the nature of God, but also cosmological sciences which explain all that: The religious view of the universe matches not only the beginning and end, in the external sense to God, but also explains nature as signs and symbols of higher levels of reality leading to the Supreme Reality and all causes as being eventually matched to the Supreme Cause of all (Nasr, 2001c, p. 464).

For Nasr, and all Traditionalists, modernity is an irregularity, in the history of the world, because it is only in the modern 'Weltanschauung' that forgetfulness becomes most effective, even though forgetfulness of the sacred has always been an element in human history. Amidst the absence of an organized religious framework, and neglect of the divine origins of human nature, Nasr tries to remind us of the elements of reality that has been lost under the dominance of modern science. Based on his sufistic belief, he means to convey that:

> Knowledge of self and the natural world remains shallowly explained in the modern world, an extorted image away from the orderly centre because the mistake of the modern civilization is to misplace the huge quantity of information for qualitative affluence into the deeper meaning of things... And that: The modern science abolishes the metaphysical bases of knowledge, because it is the most human-centered form of knowledge, making human logic and empirical data the only factor of the correctness of all knowledge (Nasr, 1985, p. 14).

Osman Baker believes that in Nasr's view of modern science and technology, three points can be understood:

> (1) Modern science is not the only legitimate science of the natural order, but is simply a science of nature, legitimate only within the premises of its assumptions of the nature of both the known object and the thinking subject;

(2) Islamic civilization cannot simply emulate Western science and technology without destroying itself; to those who know well both the religion of Islam and the nature of modern science, it is very clear that modern science is a direct challenge to the Islamic worldview;

(3) Modern science and technology is not neutral or value-free; it imposes on humanity the worldview and the value system inherent in its operators (Bakar, 2010).

2.3.2.2.3 Sacred Science in Nasr Opinion:

Facing the modern science, Nasr turns to the wisdom-oriented tradition within religions, for a Godly treatment of the levels of knowledge that match to different orders of reality. On the other hand, the natural sciences limit 'valid' knowledge to a rationalist understanding of the phenomenal world, which gives rise to an analytical and discontinuous conception of the world, while a holistic conception of knowledge turns to the intellect and Reason, that is, to both intuition and rationality (Smith, 2001, pp. 142-143).

Anyway, it is absolutely the intuitive understanding of higher levels of reality that is comprehensible and potentially allows Man to know God (Nasr, 2001c, p. 311). Nasr believes that without rejecting the idea of absorbing science, and reconstructing a religious-based science, it is impossible to progress, as if it were the 'ilm', the knowledge that the Quran seriously orders believers to seek. Muslims must discriminate between 'science' from 'scientism', so as to recognize the limits of science in order to develop an intellectual and ethic-social critique of modern science (Nasr, 2001c, p. 306). Nasr has always emphasized that the knowledge to which the Quran refers to is to

be adjusted, based on a metaphysical conceptual structure, just as all the traditional Islamic sciences were (Nasr, 2001c, pp. 463,464). He argues that:

> Were a true metaphysics, a science sacra, to become once again a living reality in the West, knowledge gained of man (and nature) through scientific research could be integrated into a pattern which would also embrace other forms of knowledge ranging from the purely metaphysical to those derived from traditional schools of psychology and cosmology. But in the field of the science of man, as in that of the sciences of nature, the great impediment is precisely the monolithic and monopolistic character which modern western science has displayed since the seventeenth century (Nasr, 1985, p. 11).

The process of 'reconstruction' requires, therefore, the restatement of the priority of the intellect over and above the place of Reasoning, so that humanity may once again match the missing link with God, the relative with Absolute. Since the 'intellect' is the ability to know the Absolute, it must form the basis for a reconstructed pattern of knowledge (Nasr, 2001c, p. 311). With the recognition of the anthropocentric nature of modern knowledge (belief that humans are the central and most significant entities in the universe), the reconstruction of knowledge must be a turn around to concept of *Tawhid* to understand the true meaning of 'unity and interrelatedness of all that exists' (Kalin, 2001, p. 451). But what does *Tawhid* exactly mean? In the first instance a theological notion referring to the strict unity and oneness of God. The 'reconstruction of knowledge' within the framework of *Tawhid* will require a re-conceptualization of the world, and to make the world sacred, in other words, a reversal of the process of rationalization (Nasr, 2001a:305). Although Nasr does not point out specifically to the process of 're-enchantment', the re-birth of tradition plays a central role in it, because for him a de-traditionalized world cannot manifest the holiness (Wolf-Gazo, 2001:279).

It is only a sacred science that can disable scientism, which otherwise will not stop dominating, at the same time when practice of science in the form of technology

projects to an abolition of ‘sacredness’ in the West, and the same time also speeding things up to the destruction of the globe ecologically (Nasr, 2001b, p. 275).

2.3.2.2.4 Nasr’s Views on Religion and Ecology

Nasr has been one of the first thinkers who, three decades before the crisis of human-nature confrontation and the spiritual degradation of modern human, warned against the crisis ahead. He has a holistic view of nature in religion and criticizes modern humanity for what he calls ignorance toward the holy spirit of nature(Nasr, 1996, p. 6). He studies the view of different religions toward nature but does not consider present religion or morality powerful enough to overcome nature’s disasters. He actually offers global spiritual solutions to deal with the issue. He considers modernity as the only cause of the crisis in nature and believes that modernity on its own cannot reverse the process of destroying nature. If it does so, and if it wants to take nature seriously, it will lead to the destruction of modernity itself by empowering nature a different worldview to replace the current one. Being accused of destroying nature, modern Man clings to whatever solution to free itself from the guilt. Nasr rejects the notion of absoluteness of science and believes that we can only talk about nature’s holiness if we have already recognized the holiness of life as a whole. In fact the modern human has abandoned its very original holy origins and is therefore suffering from a spiritual and physical despair. This is why Nasr considers the crisis in nature as a direct demonstration of the internal identity crisis among humans. Modern Man have forgotten the Hereafter in the name of modernity(Nasr, 1996, p. 7). He believes that humanity has maximized his endeavor to overcome nature to increase its dominance in the world, today more than ever. Technology and its offsprings is the result of this worldview. It is the child of humanity’s desire to overcome natural forces. He criticizes technology from its roots by the means of criticizing this very worldview. He believes

that we have to revise the role and inner meaning of technology through this original worldview and adds: the modern technology is the result of a certain view toward nature and toward humanity (Nasr, 2006, p. 279) .Everything started to change in nature as soon as we changed our view toward nature and abandoned the meaning of humanity and nature in their holy existence. As mentioned earlier, technology is the result of a change in humanity's view of nature. In criticizing technology this view should be emphasized. He believes:

> Humanity should first redefine its holy and spiritual meaning to be able to step into redefining the holiness of nature (Nasr, 1996, p. 7).

This is only possible through putting aside the misbelieves of yearning for more. This will bring back the holiness and innocence of nature to the desperate souls of humanity. What is needed is to redefine the spiritual meaning of nature and the rebirth of humanity as the guardian of nature's soul. What he means by holiness is in fact God's original creation and explains:

> The Islamic view of the natural order and the environment, as everything else that is Islamic, has its roots in the Quran, the very Word of God, which is the central theophany of Islam (Nasr, 1993, p. 65).

What we understand from the Quran is that nature is defined as whatever exists outside the realm of humanity and human being itself cannot be defined without this equation. God has given us freedom of choice to make use of this nature to develop ourselves. Nature is the mother and the origin of human's salvation. This idea has existed in all religions and cultures throughout history and all that is needed is to be reminded of this fact. The origin of creation is God and this is the reason for it being the holiest. It is in fact humans who have forgotten this fact. In other words if humanity wants to give back this holiness to the realm of nature again humanity is going to be one step closer to solving the very issues and disasters to humanity which have been caused by abandoning the fact. The problem is that humanity has allowed itself to exploit the

resources of nature at a pace and in quantities never seen before and instead of recognizing its limits and the necessity of the existence of a cooperative interaction between humanity and nature, humanity has sometimes contributed in spoiling the resources altogether.

Wasting the resources of nature is the direct result of materialist view of the world. The believers in such an ideology consider nature as a quantitative entity which can be wisely managed by policies and programs, change in technologies or even budget planning, even though the disastrous view is still there. As long as there is no change in the worldview, based on the recognition of holiness of nature and the real, original needs of humanity, such policies for protecting nature are fruitless (Nasr, 1993, p. 71).

So in his view, in order to solve the problems of humanity we need to return to the religious view of humanity and nature. With such a view the problems which are caused by technology are solved. If we recognize that nature is in fact in interaction with our soul and mind and identity we will not be thinking about destroying it anymore in order to increase our share of the power and influence in the world. He then goes to his solutions for the Islamic nations to confront the destructive disasters of humanity's actions. The first is to recognize the perspective of Islam toward nature, and the very close relationship between the nature and human soul in Islamic belief. He believes this should also include the critical revision of the modern science and the worth of the traditional Islamic sciences. His second solution is confronting nature based on the teachings of Islamic *Sharia* (divine laws) which is based on morality and fairness. He recognizes the need for Islamic governments to emphasize on the existence of religious meanings in the very nature of global law and regulations to curb the pollution in order

to remind the believers the very religious origins of the need to be fair and kind toward nature (Nasr, 2011, p. 53).

It is needless to mention that the environmental crises and the destruction of many important ecosystems as a result of the technological shifts is in fact the very demonstration that this is not the best solution to face the natural world. This gives the opportunity to different religions to propose their own perspectives toward exploitation of nature in a sustainable way. In this view there is a large amount of rhetoric; therefore empowering the discussion of religion in this situation can largely affect the revival of spirituality in the world. This revival will also help the humanity to remember the lasting realities of nature and to project the light of holiness to the whole world.

2.3.2.2.5 Creating a Noble Islamic Science According to Nasr:

In order to create a noble Islamic Science, Nasr proposes the following:

1- Ending the current worshipping of modern science.

2- Deeply scrutinizing the holy texts, *Hadith*, and all the classical masterpieces on science, philosophy, astronomy, and etcetera to define the Islamic concept of nature and natural sciences. Natural sciences are all based upon a natural philosophy and we have to extract the Islamic concepts on nature and natural world from the holy and classical texts and then gain natural science. This will result in creation of Islamic science. The reinvention of the noble Islamic worldview and defining its relationship with natural sciences requires a deep understanding of the history of Islamic science and identity.

3- A large number of Muslim youngsters have to take up new sciences especially basic sciences which the Westerners call the ‘fundamental sciences’. Currently in the Islamic World the number of experts in the fields of medicine and engineering far outnumber our experts in mathematics or physics. His best suggestion has always been to learn the

Western science in its best way, and at the same time critically scrutinizing its characteristic identity. The need to have scientists with Islamic identity does not mean to change the Western science by its cores, but to learn it and criticize its worldview.

4- Revitalizing the Islamic science in the fields of medicine, mathematics, agriculture and architecture to reinvest in the local identity and increase the self awareness and trust among the masses. This has great financial and social advantages as well.

5-Building Islamic philosophy in a way that enables the natural sciences to develop. By this, we can remove the controversy at the heart of the Islamization of science; that is, changing the worldview of the science which the very science originates from.

2.3.3 Mehdi Golshani

2.3.3.1 Biography

Mehdi Golshani was born in Isfahan, Iran in 1939. He studied in Esfahan, and continued in Teheran, graduating in physics in 1959 after which he went to the US to further studies in physics. He received his Ph.D. in Physics from the University of California in Berkeley in 1969 specialized in particle physics. In 1970, he joined Sharif University of Technology in Tehran and for more than thirty years, he has had a deep influence in the direction and design of the educational curriculum in the departments of Science. He was the chairman of the Physics Department from 1973 to1975 and 1987 to 1989. From 1978 until 1980 he was the Deputy Vice-Chancellor of the university, dealing with academic and student affairs.

Since 1989 he has been one of the members of the Scientific Council for the Institute of Theoretical Physics and Mathematics in Teheran. He was the head of the Department of Basic Sciences at the Academy of Science during the 1990s. Also he was awarded the John Templeton Award for Science and Religion Course Program in 1995,

and has been a judge for the John Templeton Award for Progress in Religion (Richardson & Slack, 2001, p. 120).

Mehdi Golshani has been the director of the Institute for Humanities and Cultural Studies in Tehran since 1993 and has served as a member of Iran's High Council for Cultural Revolution since 1996. He holds membership in the Academy of Sciences (Islamic Republic of Iran), the American Association of Physics Teachers, the Philosophy of Science Association (Michigan), the European Society for the Study of Science and Theology and was Senior Associate, International Center for Theoretical Physics, Trieste 1990-1995.He has authored a number of books and articles on physics, philosophy of physics, science and religion, and science and theology. In all he has done, there is a clear attempt to what he sees as reviving scientific soul in the Muslim World.

2.3.3.2 Truth in the Eyes of Islam in Golshani's View:

Dr Mehdi Golshani, believes that science is more than just physical knowledge:

> "No science at all is condemned in the eyes of Islam," he wrote in his book called *From Secular to Religious Science*. He adds "In other words, it is because of the 'transversal' or marginal reasons, why some knowledge is convicted, that is, it is because that certain knowledge can be a source of harm, it is criticized. Science is religious in itself and it is not correct to divide it into two—religious and non religious science (Golshani, 1998, p. 71).

He supports his claim in favor of science by the following arguments:

(1) It has been clearly defined in religious narrative and in the Holy Text:

> "Do you think those who know are the same as those who don't? It's only those who know, who accept." (Quran, 39:9)[1]

(2) Prophetic narration:

---

١. "أَمَّنْ هُوَ قَانِتٌ آنَاء اللَّيْلِ سَاجِدًا وَقَائِمًا يَحْذَرُ الْآخِرَةَ وَيَرْجُو رَحْمَةَ رَبِّهِ قُلْ هَلْ يَسْتَوِي الَّذِينَ يَعْلَمُونَ وَالَّذِينَ لَا يَعْلَمُونَ إِنَّمَا يَتَذَكَّرُ أُولُوا الْأَلْبَابِ "

> "If you take up learning, God will pave your way to Heaven." Even some verses in Quran imply that science does not solely mean the juridical science". This is clearly implied in "seek knowledge by even going to China, for seeking knowledge is incumbent on every Muslim"(Al-Suyuti, ?, p. 143).

Here, China is an ironical word to mean a far, distant and foreign land.

(3) It is easily understood from the very rich inheritance which is left from the first generation of Muslims that their science has not been limited to juridical understanding.

(4) For an Islamic society to survive, as any other society may feel, there is a need for a certain amount of required knowledge. And it is compulsory for Muslims to learn those sciences(Golshani, 1997, pp. 9-14).

Therefore, Golshani considers learning a sort of worship, as any activity which makes you feel close to God is a form of worship, and learning will expose us to the hugeness of creation, thus paving the way for worshiping the Omnipotent Creator (Golshani, 1998, p. 72). He also believes that:

> We have not done enough to gain scientific independence and as a result, we have not fully subscribed to what Imam Ali (Ali bin Abi Talib), who was respected for his courage, knowledge, belief, honesty, and unbending devotion to Islam, believed. He says there is no worship like reflection on God's creation.(Rayshahri, 1996, p. 2465) We study just as a habit, and we imitate the West, but we should know that in Islam science has a form of originality, and it has clear borders and limitation which the Western science has introduced (Golshani, 1999a, p. 15) .

Therefore, he considers the meaning of science, a lot broader than just the physical knowledge, and he believes that science needs a sort of theology to be fulfilled as many scientists believe that it is not possible to live without religion(Golshani, 2003).

2.3.3.3 Relationship between Science and Religion in Golshani's View:

As he believes, their relationship falls under one of these categories:

(a) Conflict,

(b) Independence,

(c) Interaction,

(d) Unification(Golshani, 1998, pp. 51-54).

In defining the exact relationship between science and religion, he introduces a fifth option which is interconnection of the two: "I believe that science is indeed a part of religion and learning is just as a religious ritual but this ritual has to be performed with its proper tools (experimental, theoretical word, etc.)" (Golshani, 2003).

He considers science to be as a column for religion not just an adjacent:

> One of the contributions of Muslims is discovering the nature around them; scientific activity is a part of religion, of course using its own tools. The tool is experience. I believe a Muslim should not discriminate between sciences, since he can get experiences and judge based on his own world view. The reason why we talk about religious and non religious science is that in our society, the living based on scientific experiences is very much familiar, but we want to explain the exact planning that Islam has from the very beginning to the end, one part of that planning is science (Golshani, 1998, p. 58).

The conclusion of such thinking is:

(1) In practice, a Muslim does not utilize his knowledge to destroy the humanity or the environment, and

(2) In deduction, he is concentrated to make sure he is not breaking the very cannons and principles he believes in, against which he can never practice (Golshani, 1999b).

2.3.3.4 What is Religious Science in Golshani's Opinion?

Dr Mehdi Golshani in on Islamic science (Golshani, 2004, p. 24) believes: the Idea of Islamic science has been around for the last thirty years. The usual argument against this concept is that science is free of values and ideologies. Thus, it makes no sense to talk about 'Islamic science' or 'Christian science'. This argument, however, neglects the fact that all theories of science, especially all fundamental theories, involve some metaphysical presuppositions and these are rooted in the scientists' worldview. Recent work in the philosophy and sociology of science supports this claim. Thus, one can define 'Islamic science' as a kind of science in which our knowledge about the physical world is embedded in the Islamic worldview. There is another area where the difference appears: it is in the domain of the practical applications of science. The Islamic worldview orients, as do other theistic religions, the applications of science in the direction of spiritual welfare of humanity and prevents its usage for destructive purposes.

Religious or Islamic science is the one which is useful for well being of Islamic society. But of course, limiting science is not at all what is meant, as Morteza Motahari believes: "It is basically incorrect to have such a division, i.e. Islamic and non Islamic, since this implies that some knowledge is against religion, yet it is not always true, any useful knowledge is Islamic, as long as it is serving Islamic society" (Golshani, 1998, pp. 175-176). As mentioned before, science is a lot broader than the physical realm and they can all actually be put under a metaphysical department, :

> What we mean by religious science is the one which holds the place of God as The Creator, which does not limit being to materials and believes in morality (Golshani, 1999a, p. 16).

Therefore, he considers Islamic science as a sort of metaphysically driven science which has its own terminology and methods. On the other hand, we should not

try to extract the physical sciences out of the Quran; but rather try to place science in a metaphysical context (Golshani, 1998, p. 171).

2.3.3.5 Religion Affects Science in Several Forms, According to Golshani:

In his view such effects can fall under one of these categories:

(1) Metaphysical understandings which resulted from science might have religious backgrounds. In other words he believes that generalizing the empirical findings to metaphysical phenomena is blocked by empirical science. Therefore, we need a metaphysical framework to be able to explain such phenomena (Golshani, 1999b).

(2) Religious views help to orient the scientific enterprise in a moral direction. In other words, presently, there is no limitation on how to practice science, i.e. by making biological bombs or even weapons of mass destruction (WMD) and the creator of such arsenals won't even oversee any moral issues. A religious minded scientist, would however, never practice his science in a way in which hurts humanity or environment, but he believes that science is a way for our salvation in both worlds (Golshani, 1999a, p. 18) .

2.3.3.6 The Reason behind Opposition to Religious Science in Golshani's Judgment:

The expansion of science and its effects on faith, has led to the rise of secularism which has had its own consequences (Golshani, 1998, pp. 35-39), including an opposition to religion, Golshani suggests the following reasons behind such opposition:

(1) Misusing the scientific facts: With the recognition which science give to its bearer [scientist], the Muslim scientists thought that whatever they say, although it is out of their professional limit, is recognized to be truthful .Using this recognition, sometimes

they even get brave enough to criticize the religious canons and principles (Golshani, 1998, p. 35).

(2) Identity crisis: Many Muslim societies have lost faith in what they are and come to the conclusion that they need to 'import' Western science, in whatever way they can. Therefore because of the secular nature of Western science, this secularism has affected the Muslim societies (Golshani, 1998, p. 37).

(3) Rise of relativism in religious beliefs, as it was mentioned before, has the direct result of secularism is relativism in religious identity, although there are discrepancies in canons and religious principles (Golshani, 1998, p. 38).

(4) Limiting the religious leadership to moralities: Some believe that we have to lead the world by science and leave moralities to religion(Golshani, 1998, p. 42).

There are two approaches taken in the Islamic World based on what has been said:

(1) Some forget their identity and leave their culture behind, follow the West, and turn a blind eye at the drawbacks (Golshani, 1998, p. 131), and

(2) Some reject development and stick to protectionism which results in ultra-conservatism(Golshani, 1998, p. 132).

2.3.4 Abdolkarim Soroush

2.3.4.1 Biography

Hosein Haj Farajullah Dabbagh, also known by his pen name 'Abdolkarim Soroush' was born in southern region of Teheran in 1945 in a lower middle class family. Soroush had his secondary education at the 'Alawi' private high school, which at that time was a prominent private institution in Tehran (Borojardi, 1996, p. 92).

He continued his education in Pharmacy but soon after he started, he left for London to study there and to see the aspects of the new world. He went to Chelsea College to do a Masters degree in Analytical Chemistry from University of London but started to study History and Philosophy of Science, there. He spent the next five and a half years there. It coincided with the uprisings in Iran against the former Shah of Iran and therefore he joined the club (Macleod, 2005).

In 1979, he went back to Iran, at the height of the Islamic Revolution which overthrew the Shah and brought Ayatollah Khomeini to power (Vahdat 1998, p. 388).

A year later, all universities were shut down, and a new body was created by the Revolutionary Forces, known as the 'Cultural Revolution Institution' having seven members, which included Abdolkarim Soroush, all of whom were appointed directly by Ayatollah Khomeini. The promise of this Institution was to re-open the universities and 'revolutionize' the entire university curriculum. In 1983, he quit from that body and applied for a transfer to the 'Institute for Cultural Studies and Research' where he was a member for many years. After resigning from the Revolutionary body, he has accepted no official position within the ruling system of Iran, except as an advisor to a number of government bodies.

Starting in 1990s, he became more critical of the political influence practiced by the Shiite clergy in Iranian government. Starting in 2000, he has been a Visiting Professor in the University of Harvard, teaching Islam and Democracy, Quran Studies and Philosophy of Islamic Law there. He also taught Islamic Political Philosophy at Princeton University in the 2002 to 2003 academic year. From 2003 to 2004 he has been a visiting scholar at Wissenschaftkolleg in Berlin. For the spring 2008 semester, he joined Georgetown University's Berkley Center for Religion, Peace, and World Affairs, as a visiting scholar (Wikipedia, 2007).

2.3.4.2 The Relationship between Science and Religion in Soroush's view

The issues surrounding the relationship between science and religion is one of the earliest events in Western thought which found its way into the Eastern and Islamic traditions and then into other religions. Soroush believes that as the result of a natural, historical process the technological advancements took place and found to be its way right up into the modern civilization. Such advancements were in some cases found contrary to the well-established religious thinking of the day. He believes that such contradictions then strengthened and affected the whole religious circle altogether, changing the masses' perspective toward religion and bringing it to totally different fronts. It then taught people to revise their religious views (Soroush & ed., 2002, p. 109). In his book *"Tradition and Secularism"* Soroush believes that the conflict between science and religion has not been totally disastrous; rather, it has led to the repositioning of science to its real, deserving position. Nobody would guess this in those days when the conflict reached its peak. This led to the repositioning of religion as well, drawing a new relationship between religion and science of the day. This conflict in those days seemed to be a disaster to both science and religion, but in fact what happened as a result was the faith of science and religion in the modern time (Soroush & ed., 2002, p. 110) .The fundamental question which Soroush is trying to answer is the behavior of modern science when facing religion today. If we look back in history we will see that, for example, modern science led to degradation of traditional Christianity. The peak of the conflict between the Church and the contemporary science happened in the 15th and the 16th century. It humbled Christianity and made it recognize its position and value, therefore rationalizing its presence in the humanities as well as theism, thereby forming a better coexistence with contemporary science. In other words, it became more of a "religion", or approaching its real function which is easing the

relationship between the Creator and humans. What Islam would do to modern science is more a theoretical question and therefore has a theoretical answer. Soroush considers the encounter of science and religion which reduced the power of religion as the first step toward secularism in Europe. He tries to prove his point that science and religion are not aligned and by using the actual history of the confrontation between science and religion, concludes that science, philosophy, art, technology and modern politics will eventually displace religion. In the second step, new interpretations of religion are made and are replaced this time by nonreligious understandings. Then come the third stage in which humanity wishes to return to traditions and blames modernity for the abolition of traditions. He believes that the technology which is in practice today is not impartial, making religion's presence in the modern world a paradoxical existence. He nakedly rejects the notion of religious or Islamic science and considers it totally impossible in a meeting with sociologists. He says in a speech which is published with the titled *Islam and Social Sciences: A Critique of Making Science More Religious*: "Whether we describe science as a subject, or as a means or as an aim, it is still incorrect to try to limit it to a school of thought, whether labeled 'religious', 'Islamic' or 'non-Islamic'" (Soroush, 2006, pp. 206-207). He also says that history of science is determined by the course of time and scientific discoveries are dictated by scientific method not by any ideology of any form. He believes that a religious science is not only unattainable, but also impossible, considering it deeply paradoxical. He interprets religious worldview in his own view and his main concern is solving the contradictions of the modern world with religion. It is hard by his standards of science and religion to attain to an answer to the problem of this contradiction.

In my view, the only way out of this dilemma is in the revision of scientific method and to inspire from religion rather than material philosophies. This is the only

solution for making a better world to live in which religion is not repelled and science and religion are cooperative and coexistent like a father and a son.

2.3.4.3 *Soroush on Islamizing Human Science:*

He believes that human sciences, like any other form of science is attained by empirical methods and thus is impossible to attain it otherwise. He then explains that the aim of human sciences is discovering the rules and patterns for individual, social, conscious and unconscious behaviors of human beings (Soroush, 1987, p. 24). He then quotes Karl Popper:

> in human sciences, there are two scientific stages: the first is gathering the scientific theories and the second is judging the theories and producing scientific discoveries (Soroush, 1987, p. 49).

The only way to judge such information in the second stage is experimentation and experimentation methodology: "The ingredients of these sciences are only judged by empiricism. On the other hand, human sciences are affected and inspired by the world around us and from the thinking of the researcher as well as the researchers' personality" (Soroush, 1987, p. 53) . According to Soroush there were four historical stages on the way to modern humanities:

(1) In the Middle Ages, religion-the teachings of Catholic church- was the only standard for science and moralities.

(2) During the Enlightenment, of the18th century, as a result of the introduction of secularism in the West, religion was pushed to the margins and wisdom took its place. Wisdom overwhelmed all and thus started to be considered the standard for truth and falsehood and right and wrong.

(3) During the 19th century wisdom was also asked for legitimacy and gave its supremacy to experimentation.

(4) Starting in the last decades of the Twentieth Century the legitimacy of experimentation was also shaken and the clear distinctions between science and pseudoscience started to be shakier than ever.

Soroush believes that human being can depend on his own knowledge in producing science and in this respect no space for religion is necessary or left. But to be honest, is it possible in the field of human sciences to be solely dependent on human wisdom and knowledge with no guidance at all from the side of religion? Has the West, after three centuries of activities in the field of social sciences attained this goal? The fact is that "secular human science" is unable to deal with the matter of designing and programming the individual and social sides of human life.

If the basis of human sciences is assumed to be empiricism, these sciences are to be considered modern, Western knowledge. Islamic human sciences on the other hand are not exclusively based on empirical methods, and are inspirable from religious texts as well. It is possible to examine religious resources by empirical methods and the other way around. Taking Islamic philosophy into account, all empirical results are to be examined using wisdom without which drawing meaning out of the results is impossible. (Tabatabai & Motahhari, 2008, p. 12) .

In Soroush's ideology, introducing science and answering human questions is not the responsibility of religion, but it indirectly points to it. Thought it is not much, but the smallest amount of human science which is offered by religion shows us that religion is not indifferent to science.

Soroush wrongly believes that the believers in Islamic science are actually trying to establish a new branch of science altogether whereas everyone knows that the production and nourishment of science is in fact a matter of independent, creative action

and cannot be done overnight. It is difficult to prove that such a branch of science can be actually established. The development of science is the result of an undersigned and unexpected process in which the accumulation of questions will lead to discoveries and such is the creation of science (Soroush, 2006, pp. 212-213).

Greek philosophy was and remained secular after it found its way into the Islamic World. Not only its principles, but also all its auxiliary rules and it is no wonder that the religious leaders opposed it exactly because they considered it to be too strange. The secular philosophy was in fact never accepted by the Muslim masses. The term "Islamic philosophy" was the result of the tinkering of Eastern-minded thinkers who wanted an easy solution to the lack of such an entity.

Of course Soroush was not initially an opponent of Islamic human sciences, and he explains in one of his writings, that 'the human sciences carry the tone and the ideas of their creators and this is exactly the root of the problem. In other words, natural sciences carry no values whereas human sciences do. When you invite human sciences from another country and background, you are in fact inviting them into your mindset. And most of the things we gain from religion are in fact such values. If we compare the religious values which have a holy root and compare them with the earthly, material values we will surely face conflicts' (Soroush, 1987, pp. 198-199).

In what was said we can conclude that Soroush is not trying to deny what he used to accept.

He once believed that the human sciences, unlike the natural ones, are filled with values whereas natural sciences are not, yet now he claims that human sciences are in fact real sciences and not just values and they are therefore universally acceptable facts.

His other claim is that Islam has a fundamental conflict with secular science, in other word; there are principles in the secular science which are contrary to the Islamic principles. He had pointed to such differences and/or conflict between Islamic principles and secular humanities, but at this point he believes that the arguments about science and religion as well as the project of Islamization of human science in the modern era is a political endeavor fueled by the Islamic governance in Iran. He then proposes that the only way to produce Islamic humanities is educating researchers and scientists in terms of Islamic principles:

> there are two stages to solving this problem, the first is the minor surgery in which we logically divide science and values and second is to leave the result with the knowledgeable faces of religion and science to cultivate this change for a full Islamic revival of science (Soroush, 1997, p. 96).

He believes that we can obtain our theories from the religion and theorize it in a scientific way after experimental sessions which are a minimal interpretation of human sciences. Just over two decades ago Soroush claimed in a meeting at the Center for Sociologists in Iran that human sciences in Iran are suspected of being too much affected by politics on one side and too much affected by religious authorities on the other side. This is exactly the reason why these human sciences are unattractive in Iran.

He is right and the reason is the deep conflicts between such sciences and the religious traditions and principles in Iran. But in fact he has left his conversation unfinished since the "relation" between science and religion does not show any controversies especially with a religion as holistic as Islam.

In fact, if the aim of secular science was promoting and recognizing religion it would never face such opponents among religious leaders. As Islam is a holistic religion, having direct and clear principles for every stage of human life, secular sciences cannot be expected to approve of religion, especially looking from a political

or social perspective. Such controversies are not only political, but at some point, it takes the form of an ideological battle which has been transferred to the religious authority.

In rejecting the notions of Souroush, therefore, we can also add that unlike empirical sciences, human sciences are fed from a certain worldview and perception of the world without which they cannot essentially exist. Thus, if they are based on secular values, the humanity which they promote is a secular humanity, therefore making such a science a secular science, and likewise, if it is based on Islamic teachings, the humanity it emphasizes is Islamic humanity, thus making it an Islamic science.

Anyhow, human sciences have no way of escaping from their attached values. Secular human sciences are based on secular values and are based on cultural and historical implications whereas Islamic human sciences are based upon the teachings of the Islamic faith for the proof of which we can produce wise statements. In this view Islamic human sciences are universal.

Soroush then ends the conversation with two more claims. First, he regrets the current situation of the scientific arena in Iran and hopes to get to the stage in which we produce science on our own. He proposes that the only way to get back on the track to produce science is to invest in essential research to produce the science we need. Second, he warns against practical research and claims that what we need at this point is going beyond practical knowledge since following others' lead in science is not something acceptable to the Iranian scientific circles.

2.4 Conclusion

This chapter has looked at the discussions on the matter through the eyes of the prominent Iranian thinkers. The first which is popular in the writings of Ayatollah Murteza Mutahhari, is the idea that Islam and science have no conflict at all. He firmly believes that it is wrong to divide a line between Islamic and non-Islamic science, since Islam is containing science and it is not precise to divide a line between science and Islam. He objected to those who try to describe science in this form and said that he does not recognize a difference between Islamic and non-Islamic science as long as the science under discussion is useful for Islamic society.

In Seyyed Hossein Nasr's view, the backbone of modern science is purely empirical and *has* no roots in revelation. In this view, phenomena have purely causal relationship with each other. Islamic worldview suggests that apart from the physical causality which exists between phenomena, there is a supernatural causal system as well. Islam wants the modern science to consider a space for supernatural causality effect in explaining natural phenomena. He believes, if the Western science is absorbed with its full culture and worldview, it is definitely disastrous for the Islamic worldview of the natural and supernatural. It is mentioned that receiving the Western science with its identity is disastrous but we are able to introduce an Islamic identity to minimize the harmful effect. It is necessary that the Islamic identity is reinvented and reintroduced to the modern world and it is only under this condition that we can absorb every modern science and to repel the harmful identity effects**.**

The third thinker is Mehdi Golshani . He believes that:

1- Limiting the Islamic science to Islamic text*, Fiqh* and etcetera is not fair to religion and has no trace in the holy text either. He considers Islamic science to be more than that.

2- Abandoning the modern science which humanity has gained during the recent past is neither possible nor desirable.

3- Quran and other holy texts have no trace of the details of science; therefore we have to learn and gain by research in the natural world and through human rationality and discover the laws governing them. It might be very misleading and wrong to assume that religion can help us in all aspects of science. Often, the reason behind opposition to religious science is because of the wrong interpretations which some people give. I do not agree with some of them either. But this should not lead us to believe that all kinds of religious science are farfetched and out of reach.

4- Many opponents of Islamic science believe that because of methodological reasons, it is impossible to have religious science. Golshani believes that such opposition is because of having wrong definitions. For example, limiting the religion to supernatural and apocalyptic usages is one of those wrong definitions in Golshani's idea. This is not the reality of religion, as many secular thinkers suggest. The other thing is being unaware of the limitations of science. Some seem to have forgotten that science itself has its limitation and empirical research cannot find the reality to everything possible. The other wrong definition in his view is assuming that all the paradigms and assumptions of science have a reality in the world outside science which is wrong. For example, atoms, electrons, genes, and energy are all scientific paradigms or assumptions which are needed to further science.

5- Maintaining a proper understanding of religious science. It seems to me that there is a strong tendency among the believers that a good religious science is one which pursue the study of nature in the frame of religious metaphysics and see the holistic totality of the phenomena in religious world view. In other words, the science which is more useful in fulfilling personal and social needs of the believers. If we can accept the impacts of metaphysical worldview on the understanding of various phenomena, we can then see that it will definitely fulfill the needs of the society as well. In other words, the practice of the Islamic science will be Islamic itself. Fundamental sciences should form before forming the industry and technology. Beyond the fundamental science there is a metaphysical entity upon which the practice of industry can take an Islamic or non Islamic form. The religious science is a science in which a Godly worldview rules, to minimize the harmful impacts of the modern science. Religious science is nothing but the impressions of metaphysical principle on the scientific activities of the scientists. Therefore it is not merely limited to rules and principle mentioned in Quran and other holy text, but it is an empirical science which has based its foundation on Islamic metaphysics.

The fourth thinker is, Abdolkarim Soroush, reformer, Rumi scholar and a former professor at the University of Tehran, who see the concept of Islamic or any other form of religious science as paradoxical. In this view, science and religion and the realm of the two are completely separate and they have no influence on each other. His view and that of his followers is that it is impossible to expect religion to fulfill our scientific and intellectual needs as it is unthinkable to expect science to fulfill our religious need.