

Cultural Contexts of the Formation of Science in the Social-Historical Context of Islamic Countries

Maryam Shamsaei

Shiraz University of Medical Sciences, Iran

Email: shamsaie2008@yahoo.com

Abstract

Science has a social nature, which is formed and developed by the interaction of people in a society, and many sociological factors, including culture, are influential in its formation. This article deals with the cultural contexts of the formation of science in the social-historical framework of Islamic countries, which tries to answer the question of what place cultural factors and contexts have in the formation of science in Islamic societies. The research methodology is focused on the common paradigms in the field of the relationship between science and culture with the documentary method and logical reasoning and in the framework of the philosophy of the cultural system and has finally explained the process of how these two influence each other. The results of the study emphasize the to express the issue that science is the result of the systematic knowledge of people in every society. Science is formed and grows in the culture of societies, therefore, when a culture becomes materialistic, material sciences are inevitably formed in it with the same basis, and if it is a divine and religious culture, science is also formed on the same basis. Our definition of culture is "The set of human perceptions has reached a collective agreement ". These findings are the result of knowing the people of that society. Cognition is a tool that includes: the sense to collect information, intellect to categorize, conclude, and summarize, and heart to confirm the result. The solution for understanding science in Islam is to pay attention to the three tools of knowledge, are sense, intellect, and heart.

Keywords: science, culture, society, Islam, cognition

INTRODUCTION

Science is formed and grows based on the culture of societies; therefore, science cannot be formed independently of the general socio-cultural structure. In this regard, Merton believes that: "Only in societies that have suitable material and cultural conditions, science can be as much as the eye can see." science is developed. Before it is widely accepted and valued in terms of itself, science must be justified by cultural and social values." (Strawbridge, Shilaf et al., 2014) In fact, it should be noted that science is manifested and transformed within a framework of cultural-historical relations, therefore, it is a matter of course to reflect on science with careful consideration of the nature of its relations with culture, therefore, science is considered a part of culture. and it is one of its manifestations. (Mohsani, 1993) The simplest definition of science is systematic knowledge of the world. Here, the meaning of science and knowledge is knowledge and awareness.(Misbah&

Mohammadi, 2017). Angélica Salomão(2023) in an article titled "How Does Culture Influence Science?" states that: Recognizing and embracing cultural diversity in science can lead to an inclusive scientific inquiry and bring more effective solutions to scientific problems. Kapila Vatsyayan (2010) believes in the coexistence of science and culture in the book "Science and Culture." Based on the research of Jahanbakhsh and Sheikh Al-Iraqinzadeh(2019), it can be seen that: the production of science is a historical process and a social matter, which finds a different content under the social-historical guardianship systems. In his article, Siah Posh (2013) examined two major theories about the position of science in Islamic culture by historians of science: Some believe that science, the phenomenon of science, did not have a serious and important position in the Islamic education and training system. And it has been on the sidelines. Some people believe that science has enjoyed great dignity in Islamic culture.

Culture, which has an epistemological and collective identity, has different dimensions and levels, and in other words, there are different sets of knowledge within a culture. Symbols and signs, norms and values, beliefs, and fundamental beliefs, appear in the form of language, customs and habits, laws and regulations, literature, mythology, sciences, education, philosophies, and different religions. they do, each one is in a section or level of culture. Paying attention to different and extensive levels and components of culture is an important point that helps us in explaining the relationship between culture and science. When science enters the field of culture, it will be a part of culture in any sense. Culture can prevent the presence of science and can open its arms to it. The resistance or acceptance of culture towards science is due to the inherent characteristics of culture. So, the presence and absence of science or the existence of science is directly related to the identity of culture.

That science and knowledge in every society are formed and created based on the beliefs and acknowledgments reached by the collective agreement. In Islamic culture, the criterion of health in Islamic knowledge is attention to divine revelation, reason, and experience. Therefore, in the production and knowledge of science in Islam, attention is paid to three tools of knowledge, i.e. sense, intellect, and heart. The main point, that this article deals with, is that since Islam itself is the creator of culture and civilization, science and knowledge are the main foundation of this rich culture and civilization.

The purpose of this study is to pay attention to the cultural contexts of the formation of science in the social-historical context of Islamic countries, which tries to answer the question of what role cultural factors and contexts have in the formation of science in Islamic societies.

To answer the research question, we used the theoretical framework of "Social Constructivism" proposed by the New Sociology of Science (NSS). It should be said that there is not only one type of sociology of science, but as Bucchi (2004) emphasizes there are a large number of approaches, paradigms, theoretical positions, and experimental methods in the sociology of science. New Sociology of Science (NSS) was established by a wide and diverse group of thinkers in the 70s and 80s of the 20th centuries following the impairment of the effectiveness of the old sociology of science models in explaining the advancement of science and academic professions. It includes a wide range of thinkers. Thinkers such as Latour, Woolgar, Knorr Cetina, Jasanoff, and Epstein can be included in this school. All these thinkers are in "relativism" and insist on bilateral and internal interactions between "social processes" "cultural" and "science and scientific knowledge" share an intellectual commonality. (Shaping, 1995) In this school, science and culture are considered subjects for common evolution. Science and culture are associated with each other in scientific activities. They interact with each other and play a dynamic role in each other's development. Science, while making culture its audience, listens to its words. Meanwhile, the old sociologists consider science as an independent and functional social institution. they know and consider an asymmetric, linear, and one-way relationship between science and culture, in which science is a scientific reality, unquestionable, reasonable, and functional. In this view, the effects of culture on science are always external. In the New Sociology of Science (NSS), the relationship between science and culture is internal and dialectical. Therefore, this article tries to present a typology of the relationship between science and culture in societies by using the intellectual framework of the NSS school or the New Sociology of Science (NSS). is Islamic (Epstein, 2008:166) In this article, it will be stated that science is formed and grows in the culture of societies.

RESEARCH METHOD

The present article has investigated the common paradigms in the field of the relationship between science and culture with the documentary method and logical reasoning and in the framework of the New Sociology of Science (NSS), which shows the relationship between science and culture in an internal and dialectical way and has finally explained the process of how these two influence each other.

RESULTS AND DISCUSSION

To express the relationship between science and culture, we will first define the definitions of science and culture. To understand the relationship between science and culture, we must keep in mind our knowledge and definition of science.

Different definitions have been given for science, and these multiple definitions have their roots in different philosophical and epistemological foundations, and also these different definitions how explain the relationship between science and culture. (Parsania, 2008) Science, from the point of view of Sheikh Ashraq, means the emergence of truth (Sohrwardi, 1993). Mulla Sadra considers the presence of the forms of objects to be the definition of science. (Allameh Hali, 1992)

From Dampier's point of view, science means regular knowledge about natural phenomena and logical investigation of the concepts that these phenomena are expressed with the help of them. (Dampier, 2017) Positivists believe that: "Scientific knowledge is proven knowledge. Theories that are derived in a precise manner from empirical findings obtained by observation and experimentation" (Chalmers, 2013). Therefore, the simplest definition of science is systematic knowledge of the world. Here, the meaning of science and knowledge is knowledge and awareness.

Basics of Islamic epistemology

Since science is systematic knowledge, it is necessary to check how knowledge is obtained. One of the tools used for cognition is sense, which includes: vision, hearing, touch, taste, and smell, through which we can communicate with the world around us. Another tool is intellect, in which categories are categorized, compared, summarized, and concluded, and the tool that is used for confidence and trust, whether right or wrong, is the heart. In other words, confirmation is done in the heart.

According to the Qur'anic verses, there are three types of tools and equipment for knowing science: sense, intellect, and heart:

Sensation: Sense is one of the perceptive powers and the power by which sensations are perceived. (Shirazi, 1989) One of the tools of knowing a person is his senses. Motahari, like Aristotle, believes that "I lack senses, I lack knowledge" meaning that anyone who lacks one type of sense, lacks one type of knowledge, and says: If a person lacks all there are senses, it will lack all knowledge. (Motahari, 2017) Therefore, there is no doubt that sense is one of the principles of knowledge, but this sense alone is not sufficient for knowledge, that is, it is a necessary condition for knowledge. It is, but it is not a sufficient condition. (Motahari, 2017) according to this rule, the channels of the creation of sciences and the doors of knowledge acquisition are the human senses, and without any of these channels, a part of human knowledge is lost. Sensory knowledge belongs to the world of nature, which has temporal and spatial characteristics. (Hasanzadeh Amoli, 2021)

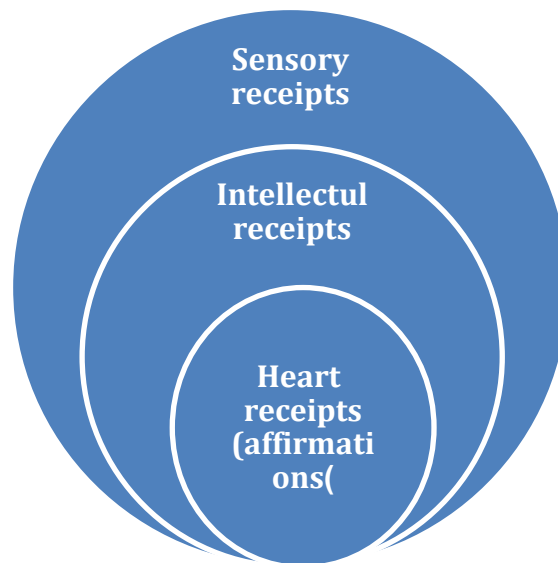
Intellect: apart from the senses, humans need analysis, which is done by the intellect, (Khosro Panah, 2015) which categorizes objects into different categories,

such as quantity, quality, addition, and lack are necessary and essential for knowing that this categorization is a rational and intellectual work that is analyzed by reason. In common sciences, things are felt in detail and then they are generalized and generalized. (Ibid) Another thing that is done by the mind is the act of abstraction. This means that the human mind separates two things that are the same in the world, they are never separated and cannot be separated from each other in the mind, which is called abstraction and separation. Therefore, according to the opinion of most philosophers because the mind abstracts, it can think and identify, so if the mind did not have the power of abstraction, it would not be able to think. Philosophers who only consider reason as a tool of knowledge include Plato and Descartes.

Heart: Here, the heart means the center of knowledge and awareness, which is neither sense nor intellect, which boils unconsciously from the depth of human existence. By referring to Islamic hadiths, the heart, in the sense of the soul, is the infinitive and the main source of all consciousnesses and cognitions, and the three sources of cognition are the valves through which the soul communicates with the universe. Therefore, another way of cognition created by humans is the path of the heart, which is known as the path of cultivating the soul or the path of cultivating the heart. Therefore, the heart is a source of knowledge, and self-cultivation is the way to use this source. As nature is a source of knowledge, and the senses are its tools, or reason is the source of knowledge, and reasoning and argument are its tools. The human heart is a source that can be used with a tool called soul cultivation. Bergson (1935) and William James (1980) can be mentioned among the philosophers who believe in knowing the heart.

According to the discussed topics, it seems that the solution to the knowledge of science is to pay attention to all three tools of knowledge, i.e. sense, intellect, and heart. The knowledge of any being is aimed at the sensory, intellectual, and heart reception of that being. The sensory dimension forms the tangible aspect of every subject; The intellectual dimension shows us its structure and composition, and the heart dimension is the belief that we find the effectiveness of that existence in the context in which it is placed. If each of these aspects does not exist, our knowledge is incomplete.

Figure 1 Cognitive tools



Next, we will go to "culture" because in some cultures, being scientific is the criterion for acceptance by the majority.

The Concept of Culture

Until now, several definitions have been presented about culture: some consider culture to be the "separating chapter" of humans from animals in the old logical term. Man is a natural being who has mastered the inner (instinct) and outer nature through culture, and by coming out of this nature, he has gone through the stages of cultural evolution step by step. (Valaiti, 2014) In the term of social sciences, culture is defined as: "an interconnected set of thoughts, feelings and more or less explicit actions that are accepted and disseminated by the majority of people in a group" (Rooh El Amini, Mahmoud, 1995) (Rashad University lists four major characteristics for culture: 1. thinking and learning power; 2. speaking; 3. technology; 4. group life or sociality (Zahid & Zahid, 2011)

Gay Roche has defined culture as follows: "Culture is a collection of connected ways of thinking, feeling and acting which is more or less clear and is learned by a large number of people and is shared between them and in two objective ways. And differentiation is used to transform these people into a special and distinct group" (Rosheh, 1988).

Some believe that culture refers to accepted norms in society. The norm is said to be the source of valuation in society; In such a way that opposing it is considered to be disliked and disliked by society. (Pirouzmand, 2012) and in other words, the culture of social rules rules over a society that is formed under the system of society's sensitivities. (Hosseini Al-Hashemi, 1992)

For this reason, culture is the carrier of society's values, and we can talk about Islamic and non-Islamic cultures in societies. Various definitions of culture have

been presented, but the above definitions can be considered as a kind of relative consensus among experts.

In 1958, Parsons and Kroeber introduced culture as a semantic symbolic system in their joint article; A system that can apply and apply cultural analysis in every field of social activity.(Tavakol,2008)

Some people introduce culture as a way of life and customs that are included in general culture, and some divide culture into material and spiritual:

"If we consider culture as the meaning of human efforts to satisfy their needs and overcome nature, then we can divide it into two parts, material culture and immaterial or spiritual culture. Material culture includes tangible things such as housing, means of living, and equipment. and tools and instruments, airplanes, cars, and machines. In the elements of culture, what is not material, they say spiritual culture: art, language, literature, philosophy, politics, thoughts and opinions, the way of thinking and reasoning, laws, and sciences are included in this field. ... The spiritual culture of the body is the main body of a national culture. It is this body that determines the spiritual power and vital force of a nation, it is this body that you should try to preserve with all your heart and soul because spiritual culture is the highest point and the starting point of life. It is national (Rooshd Electronic University, 2009)

Definitions for culture are either incomplete or not properly differentiated. The definition of culture presented here is novel because it is more comprehensive than previous definitions. Therefore, our definition of culture is "a set of human perceptions that have reached the collective agreement". (Zahed, 2014) (According to Quranic teachings, every human being has three means of cognition under the names of sense, intellect, and heart. According to the above definition, the set of resulting perceptions If sense, reason, and heart agree in a community or society, it creates culture. We can name the set of perceptions resulting from the senses as sensible, the set of perceptions resulting from the intellect as reasonable, and the set of perceptions resulting from the heart as beliefs.

That is, any of those sensations, understandings, illuminations, and beliefs that have reached a social agreement, in any society and any number of social persons, becomes the culture of that society. Culture is a kind of place, that is, its extent depends on the extent to which it is accepted. Beliefs form the value system of each person. In the social dimension, the set of sensory perceptions or sensations has reached a collective agreement, and the set of technology constitutes social technology and skill. Here, our definition of technology is the perception of "how" to do different things, and "skill" expresses the degree of this method relatively. and it forms the set of collective beliefs, the system of values, and the collective ethics of

the society. The three sets of "technology and skills", "science and knowledge" and "the system of values and ethics of Friday" form the different dimensions of each culture. It should be known that these three sets of components are not separate from each other. Rather, they form the three dimensions of culture. The relationship between technology and skills, science and knowledge, and the system of collective values and ethics are such that if the three circles we consider you in you, the value system and collective ethics form the central circle, science, and knowledge form the middle circle, and technology and skills form the outer circle.

Different layers of each culture

From the point of view of epistemology and ontology of this speech, culture can be considered to have three layers: sensory, intellectual, and heart, and cognitively it can be divided into three dimensions: (Pirouzmand, 2019).

Fundamental culture: defines the main root of culture and the direction of all cultural elements and includes the set of beliefs reached by collective agreement: the values and ethics of the society.

Specialized culture: It explains and clarifies the context of the implementation of the goals of basic culture and includes the set of common sense: science and knowledge.

General culture: It is the operational and executive part of the cultural system and includes a set of things that have been agreed upon: technology and skills.

We can also compare these three levels of culture to three nested circles, which form the basic culture of the central circle, the specialized culture of the middle circle, and the general culture of the outer circle.

The orientation of people in any culture is determined by the values and morals of the society. To act on the collective values and morals, it is necessary to create appropriate knowledge and knowledge and determine how it is operationalized with technology and skill. Looking at these dimensions in another way, we can say that every cultural element is in line with collective values and ethics, it is defined and explained by science and knowledge, and how it is implemented is determined by technology and skill.

Therefore, to achieve the cultural pattern of every society, considering that every culture has three dimensions, if we multiply the three dimensions of culture in the three layers of basic, specialized, and general culture, here the sensory dimension of culture can be called general culture, which can be found in the society. It is observed that the intellectual dimension is the specialized culture that produces thinkers and scientists in society, and the heart dimension is the fundamental culture that forms the fundamental beliefs of the people of that society.

In this regard, for all three layers of culture, sensory, intellectual, and heart dimensions are named as tendency, insight, and knowledge. That is, we call the sensory dimension knowledge, the intellectual dimension insight, and the heart dimension inclination. Therefore, to identify the culture of the societies, three layers must be multiplied by three dimensions, and the culture matrix or pattern is obtained.

Table 1. The matrix or basic pattern of culture

Dimensions of culture layers	Orientation	intuition	Knowledge
Fundamental	Fundamental orientation	Fundamental intuition	Fundamental knowledge
Professional	Professional orientation	Professional intuition	Professional knowledge
General	General Orientation	General intuition	General knowledge

To fully understand any culture or cultural phenomenon, the above table or matrix should be studied from its dimensions and layers.

Islamic culture

What became the main reason for Muslims' interest in learning different sciences is Islam's advice to learn science in all circumstances and the value it places on scientists. (Golshani, 2009:8)The Qur'an has repeatedly invited people to think about the state of the universe and to reflect on the secrets of the verses. He considered wisdom to be a great good (Surah Al-Baqareh). It is also stated in the prophetic hadith: Seeking knowledge is obligatory for every Muslim (Bahrani, 1995).

Based on the system theory, it was stated that the three layers of culture can be considered as three nested spheres. To establish balance, the centers of these three spheres must coincide with each other. In Islamic culture, the centrality is with God, blessed and exalted, for whom three attributes are considered: creation, creational lordship, and legislative lordship. If we assume that God is the only creator, but his involvement in the world of creation or legislation is not considered, we will become one with the seculars and the culture of the seculars. But when God's Lordship is considered, every change and transformation that occurs in man is dependent on God. In the legislative Lordship, God, the Lord of the worlds, has sent prophets to guide mankind.

The realities of the world can be divided into three categories: unseen realities, visible realities, and the reality of the link between the unseen and the

visible, which are the divine prophets. Visible reality is the things that can be seen, and the unseen reality has not reached the human senses and cannot be perceived by the external senses, Like the divine essence. This means that although God cannot be seen with the naked eye, His existence can be proven due to the conclusions of the heart and mind. Belief in the unseen is part of Islamic beliefs. In this regard, God says in the Holy Qur'an, verse 3 of Surah Baqarah:

"(The pious are those who) believe in the unseen world, perform prayers, and give to the poor from whatever we provide them." On the other hand, it is worth mentioning that an intermediary between the invisible reality and the visible reality is necessary, which is the legislative lordship. Because it is with the presence of prophets that divine messages reach people. When religion is accepted, it is necessary to adjust science and ethics based on it. The criterion of correctness and assessment of the unseen in Islam is the Holy Qur'an, and in this way, we can deal with the unseen and of course the visible reality. Therefore, considering these three types of reality leads us to get closer to the truth of the world. This means that we should worship God and obey God's orders. In this regard, Imam Ali (a.s.) says: "Whoever teaches me a point, has made me his servant." (Naraghi,2004), by obeying God's commands, a person becomes a righteous servant. In the basic culture, we recognized the Supreme Lord with three characteristics and attributes: creativity, creational lordship, and legislative lordship, and it became clear that the world exists in which there are three unseen, visible realities, and the link between these two, which are the messengers. Therefore, in this cultural layer, our knowledge and understanding are that we must be God's servants obey him seek his satisfaction and get close to him. Therefore, all three realities are considered in the second layer, which is the Professional cultural layer of Islamic sciences. In Islam, access to the unseen reality creates superiority, and the holy book of the Qur'an is available to humans without any distortions, according to the verse of Tahadi in the Qur'an, no one can quote a verse like the Qur'an.

In Islamic culture, the correct criterion for Islamic knowledge is to pay attention to divine revelation, intellect, and experience. Therefore, in the production of science, all three criteria of correctness must be observed.

Table 2- Based on the mentioned topics, the model matrix of Islamic culture can be drawn as follows:

Dimensions of culture layers	Orientation	Intuition	Knowledge
Fundamental	Creativity	Ontology-based on invisible and visible reality	Worship Proximity

	Developmental lordship Legislative lordship		To please God
Professional	Knowledge-based on Professional Knowledge-based on reason Knowledge-based on revelation	Islamic theoretical knowledge	Islamic practical knowledge
General	Tendency to judgments (evaluative, descriptive, obligatory) divine	Enjoining good and forbidding evil in religion	Islamic lifestyle (new Islamic civilization)

In this article, it was stated that science is formed and grows in the culture of societies. Culture means "acceptances reached by collective agreement". These findings are the result of knowing the people of that society. Cognition has three tools: sense to gather information, intellect to categorize, draw conclusions, and summarize, and heart to confirm the result. Humans are born with these three tools of cognition. Every existence that is known has sensory, intellectual, and heart dimensions. What is observed from that matter is a feeling. What is analyzed and comes to mind is intellectual and the type and degree of acknowledgment that is formed in the human being is heart. If we liken the existence of these three types of perceptions to three spheres, the sphere of confirmations that make up human belief is placed in the center, the sphere of intellectual perceptions is based on it, and the sensory perceptions form the outer sphere. If these three spheres are concentric, man is at peace. When a piece of information enters each of these spheres, the unity of their center is disturbed, and a feeling of need arises. Man strives to return to balance, and in this way, the mechanism of human perceptions progresses, and the volume of information, or in other words, the volume of these spheres, increases and becomes perfect.

In this study, it was stated that we call the collectively agreed receipts culture. People who live in the same place are bound to interact with each other. If they want to cooperate in any field, they need consensus. To reach the same thought, it is necessary to sympathize. So, in a society where people are in social interaction, there

is both heart, mind, and work. That is, they reach a point of agreement in their beliefs to become one heart. Based on that, they think together and achieve commonalities in intellectual perceptions, and when this common thought is achieved, they cooperate in feelings. Here, too, we can compare culture to the three spheres of universally agreed-upon beliefs or affirmations, collectively agreed-upon thoughts, and collectively agreed-upon sensations. Collectively agreed-upon beliefs form social "values and morals" which we call the "fundamental culture" layer. Commonly agreed-upon perceptions constitute the "science and knowledge" of society, which we call "Professional culture", and collectively agreed-upon common sense perceptions constitute the "skills and technology" of society, which we call the "general culture" layer. Commonly agreed-upon perceptions form society's "science and knowledge" which we call "specialized culture" and collectively agreed-upon common sense perceptions constitute society's "skills and technology" which is called "general culture". we say Based on the above discussion, we find that science and knowledge in every society are formed and created based on the beliefs and acknowledgments reached by the collective agreement. In Islamic culture, the criterion of health in Islamic knowledge is attention to divine revelation, reason, and experience. Therefore, in the production and knowledge of science in Islam, attention is paid to three tools of knowledge, i.e. sense, intellect, and heart.

In Islamic culture, the correct criterion for Islamic knowledge is to pay attention to divine revelation, reason, and experience. Therefore, in the production and knowledge of science in Islam, the attention of the three tools of knowledge is sense, reason, and heart. In the eyes of Muslims and the religion of Islam, the world is considered the farm of the hereafter, and due to the belief in monotheism, following the instructions of the Prophet (PBUH) The basis of every function is placed, wisdom is organized based on religion and divine revelation and corrects its crookedness, and pragmatism has turned into the world-hereafter and seeking God's pleasure. The central right, in contrast to the pure rationalism of common sense or wisdom under the command of revelation, and action based on piety and attention to the world and the hereafter, in contrast to pragmatism and the originality of utility, form the three fundamental foundations of Islamic culture. He placed the Holy Qur'an at the center of religious knowledge and placed the religious values and morals of Islamic experts under the teachings of the Qur'an and narration. At the general level, Islamism and its nature of justice and anti-tyranny are common values, and the minds of Muslims Normality has placed worldly interests in the second level of importance. In Islamic culture, based on the religion of Islam, growth, and development lead to greater worship of God, which brings us to worldly and hereafter happiness.

CONCLUSION

Based on the above discussion, we find that science and knowledge in every society are formed and created based on the beliefs and acknowledgments reached by the collective agreement. In Islamic culture, the criterion of health in Islamic knowledge is attention to divine revelation, reason, and experience. Therefore, in the production and knowledge of science in Islam, attention is paid to three tools of knowledge, i.e. sense, intellect, and heart. Culture can prevent the presence of science and can open its arms to it. The resistance or acceptance of culture towards science is due to the inherent characteristics of culture. So, the presence and absence of science or the existence of science is directly related to the identity of culture. Since Islam emphasizes and advises a lot about science, perhaps there is no such recommendation and emphasis in Islam. Therefore, it is intertwined with the culture of Islamic societies, and also Islam itself has a rich culture and is the creator of great human civilizations, all of which are in the shadow of attention to science and knowledge, understanding its value, hard work and efforts to acquire. It has been achieved by following the orders of Islam and religious leaders, which can be observed during the flourishing period of Islamic civilization.

Suggestions for Future Research

One of the suggestions that can be made for future research is to examine the cultural contexts of the formation of science in the social-historical context of Western countries and then compare it with Islamic countries.

REFERENSI

- Allameh Hali, H. (1992). *Al-Jawhar al-Nazid*, Qom: Bidar
- Bahrani, S.H. (1955). *al-Burhan fi Tafsir al-Qur'an*, publisher of Ba'ath Institute
- Bergson, H. (1935). *The two sources of morality and Religion*, By, R.Ashley Audra, andcloudesiey Brerton, Macmillan and cloudesiey Brerton, Macmillan and co., limited st.martin street, London.
- Bucchi, M. (2004). *Science in Society: An Introduction to Social Studies of Science*, London & New York: Routledge.
- Chalmers, Alan F., (2013). *What Is This Thing Called Science?* University of Queensland Press, 2013
- Dampier, W.C. (2017). *A history of science and its relations with philosophy*, Diamond Publisher
- Epstein, S. (2008) "Culture and Science/Technology: Rethinking Knowledge, Culture,

- Materiality, and Nature", *The Annals of American Academy of Political and Social Science*.
- Glover, D. & Strawbridge & Sh., Tavakol, M. (2014). *The Sociology of Knowledge & Science*, Tehran: SAMT.
- Golshani, M. (2009). *From Secular Science to Religious Science*, Tehran: Institute for Humanities and Cultural Studies.
- Hasanzadeh Amoli, H. (2021). *Ayoun-e Masael Al-Nafs va Surah al-Ayoun Fe Sharh al-Ayoun*, Manzomeh Shamsi publisher
- Hosseini Al-Hashemi, S. M. (1992). *Sociology of Science (first session)*, Qom, Islamic Sciences Academy.
- Hossein Nejad Mohammad Abadi, H. (2008). The relationship between science and Islamic culture and civilization from the point of view of Martyr Motahari, *Andisheh Hozha Magazine*, No. 60.
- Jahanbakhsh, A. & Sheikh Al-Iraqinzadeh, H. (2019). The relationship between science and culture, the theoretical infrastructure of Islamic civilization, *Scientific Journal of New Islamic Civilization Fundamental Studies*, 2(1), 37-64, <https://doi.org/10.22070/NIC.2019.908>
- James, W. (1980). *The Varieties of Religious Experience*, London: Longmans, Green and Co. 1980.op.cit.
- Khosro Panah, A.H. (2015). *Philosophy of Knowledge*, Maarif Publishing House
- Misbah, M. & Mohammadi, A. (2017). *Epistemology*, Qom: Publications of Imam Khomeini Educational and Research Institute.
- Mohseni, M. (1993). *Basics of Sociology of Science: Society, Science and Technology*, Tehran: Tahori.
- Motahari, M. (2017). *issue of recognition*, Sadra Publications.
- Naraghi, M. M. (2004). *Jame Al-Saadat*, Najaf, Dar al-Nu'man Lal-Tabaa' and Al-Nashar.
- Parsania, H. (2013). *Science and Philosophy*, Tehran: Islamic Culture and Thought Research Institute Publishing Organization
- Pirouzmand, A.R. (2012). *the fundamental theory in the relationship between religion and culture*, Qom, Maarif Publishing House.
- Pirouzmand, A. (2019). *Foundations and Model of Cultural Engineering*, Qom: Academy of Islamic Sciences, 54.

- Roche, G. (1988). *Social Action*, translated by Homa Zanjanzadeh, Mashhad, Ferdowsi University.
- Rooh El Amini, M. (1995). *Basics of Anthropology*, Tehran: Attar.125-136.
- Roshd Electronic Encyclopedia (www.daneshnameh.roshd.ir)
- Salomão, A. (2023), *How Does Culture Influence Science*, <https://mindthegraph.com/blog/how-does-culture-influence-science>
- Shapin, S. (1995). *Cordelia's Love: Credibility and the Social Studies of Science*, *Perspectives on Science*, 3(3), 255-275
- Shirazi, S.D. (1989). *Al-Asfar Arbaa*, Beirut: Darahiya al-Trath al-Arabi
- Siah Posh, S.A.T. (2013). *The position of science in Islamic culture: a review of two theories*, *Cultural Research Society, Research Institute of Humanities and Cultural Studies*, 5(2), 111-132
- Sohrwardi, Y. (1993). *the collection of the works of Sheikh Ashraq*, compiled by Korban, H. Habibi, N. Q. & Nasr, S. H. Tehran: Institute of Cultural Studies and Research
- Tawakkul, M. (2017). *Sociology of Knowledge and Culture*, *Journal of Social Sciences*, (33), 1-22
- Tabatabai, S.M.H. (1990). *Quran in Islam*, Qom: Hijra
- Velayati, A. A. (2014). *Islamic Culture and Civilization*, Qom: Ma'arif Publishing House.
- Vatsyayan, K. (2010), *Science And Culture , World Affairs: The Journal of International Issues* , Published By: Kapur Surya Foundation, 14(4), 146-171
- Zahid, S. S. (2004). *About cultural development in Iran*, *Yas Strategy*, (3), 81-92
- Zahid, S. S., Zahid, S. H. (2013). *The epistemological foundations of the new Islamic civilization from the perspective of Allameh Seyed Muniruddin Hosseini Al-Hashemi and his role in the evolution of human sciences*, Qom: Kitab Farda.
- Zarin Koob, A.H., (2006). *Karnameh Ya Islam*, Tehran: Amir Kabir Publishing House

