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Biological Development Mechanisms: Al Jahiz's Teleological Argument on Allah's Miracles

آليات التطور البيولوجي: الحجة الغائية لدى الجاحظ عن آيات الله في خلقه

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Abstract:

Al Jahiz investigates the environmental factors that cause the biological and psychological development of all living creatures, such as the heat. After the destruction of The House of Wisdom by the Mongols and Tatar, Al Jahiz' manuscripts were scattered over different libraries around the world, and have been misunderstood by other thinkers who confused the biological development with Darwin's theory of evolution, as Draper who called it the "Mohammedan theory of evolution". Al Jahiz' biological development is a teleological argument that proves creationism as opposed to Darwinism, which rejects creationism and theorizes evolution. Al Jahiz' teleological argument investigates the miraculous biological development as a scientific miracle that stands to prove the existence of God.

Keywords: Al Jahiz, biological development, teleological argument, scientific miracles.

ملخص:

حقق الجاحظ في العوامل البيئية (كالحرارة) التي تسبب التطور البيولوجي والنفسي عند جميع الكائنات الحية. بعد تخريب بيت الحكمة على يد التتار والمغول، تناثرت مخطوطات الجاحظ عبر مكتبات مختلفة في جميع أنحاء العالم، وقد أساء فهمها المفكرون الآخرون الذين اخلطوا التطور البيولوجي للحاحظ مع نظرية داروين للتطور، مثل درايبر الذي أسماها "نظرية التطور المحمدية". يعتبر التطور البيولوجي عند الجاحظ حجة غائية تثبت الخلق على عكس الداروينية، التي ترفض الخلق وتألّف نظرية التطور. حجة الجاحظ الغائية تبحث في الاعجاز في التطور البيولوجي باعتباره معجزة علمية تثبت وجود الله.

الكلمات المفتاحية: الجاحظ، آليات التطور البيولوجية، الحجة الغائية، الاعجاز العلمي.

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1. INTRODUCTION

The present research is based on a multi-methodological approach. Two research methodologies have been applied: the conceptual research methodology and the analytical research methodology. Based on the analytical research methodology, basic research already exists, including the manuscripts of Al Jahiz to be analysed. The research analyses and evaluates the data and information that is already available in order to offer a new perspective to the research from an interdisciplinary perspective. The second paradigm, the conceptual research methodology, is applied to revise or verify some concepts that have for long appeared in *The Book of Animals* but have been misinterpreted. Al Jahiz's writings have been misread and misunderstood. Many scholars such as John William Draper, another Darwinian, called the Islamic view of biological development the "Mohammedan theory of evolution". Such scholars thought that Al Jahiz was an evolutionist discussing the theory of evolution to reject creationism, but, by investigating and analysing his concepts, the research will explain why Al Jahiz was instead investigating a scientific phenomenon-biological development- as a miracle of the creator and a proof of His existence.

David Tschanz states that, "In several passages of his book, he [Al Jahiz] also described the concept, usually attributed to Charles Darwin, of natural selection". Al Jahiz established his studies on experiments and observations that confirmed that creatures could develop biologically within a limited organized calculated scope of relative development, limited to scientific causes and *controlled* by the Creator while Darwin's evolution is *arbitrary* (from unknown to beast to monkey to man). Al Jahiz affirms that the biological development is under the control of one creator and that it is the scientific miracle that to proves His existence.

The German Orientalist and historian Friedrich Dieterici in his *Der Darwinismus im X und XIX Jahrhundert (Darwinism in the 10th and 19th Century)*, and E. Wiedemann in his *Darwinistisches bei Gahiz (Darwinism by Al Jahiz*) seem to confuse Jahizism with Darwinism as Mehmet Bayrakdar declares that they "found a great similarity between Al Jahiz and Darwin". Jahizism stands on the same principles as natural theology, a field that attempts to prove God's existence through natural phenomena. After each time he discusses a process of biological development, Al Jahiz praises the Creator in either prose or verse, stating that glorified be the Creator who made this miracle develop in this exact way.

Al Jahiz and later Jahizians, such as Al-Farabi, Al-Mas'udi, Ibn Miskawaih, Al Biruni, Ibn Khaldun...etc., believe that the biological development is highly controlled and systematic. They examined this miraculous calculated smart meticulous process and deduced that it develops under the control of a wise mastermind, and the fact that there is *biological development* or *biological*

² Sultan Shah, Muhammad. "Pre-Darwinian Muslim Scholars' Views on Evolution". *Oriental College Magazine*. Vol. 86, n. 2 (2011): 3-20.

³ Tschanz, David W. "Al Jahiz, the First Islamic Zoologist". *Islam Online* Archive. 1 Oct. 2001. Accessed 21 Mar. 2013. http://archive.islamonline.net/?p=18202.

⁴ Bayrakdar, Mehmet. "Al-Jahiz and the Rise of Biological Evolutionism". *The Islamic Quarterly* (1983): 313.

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evolutionism means that there is a causer of causes. Thus, even if the causes are environment, speciation and defence mechanisms, or even if recent medical tests of genetics-control cause the biological development, the creator will still control this development, and scientists can only theorize or expect the development partially. This development can never be arbitrary, which means that God made it develop in this exact manner.

1. Al Jahiz's Biological Development

Al Jahiz's biological evolutionism or biological development is a scientific fact that occurs under three processes that he examined and tested scientifically, including defence mechanisms (struggle for existence), transformation of species (speciation) and environmental determinism. As an early advocate of the zoological and anthropological sciences, Al Jahiz observed and analysed the impact of environmental factors on the life of living creatures in a few respects. He explored the mechanisms of evolution (biological development) and organized them into those three methods that lead to the process of change.

Al Jahiz conducted scientific studies in his laboratory and saw other phenomena in the outside world, which can cause change in all living things. He analysed and gave examples about all these, starting from struggle for existence, transformation of species into one another, and environmental factors leading to change in creatures and their next generation.

Al Jahiz before Lamarck and Darwin analysed the exposure to different environmental factors which can lead to development of species, evolution or speciation. He faced different phenomena and was obliged to face the respective questions such as why would animals of different geographical regions have different colours and shapes? The camel in China is different from the one in Africa. The elephant in India is different from the one in Africa in colour. In Latin America, there is a completely new species of lama exclusively. The puma exists only in America. Polar animals differ from other animals around the world. A mule is a hybrid that comes from a donkey and horse though it remains infertile. So, what other scientific phenomena can be discovered with other kinds of animals? In addition, how far can such scientific miracles prove the existence of a creator who controls such systematic development?

2. Defence Mechanisms (Struggle for Existence)

After many years of dealing with the Darwinian concept of survival for the fittest, many writers and orientalists treated the Jahizian concept of struggle for existence similarly, thinking that Al Jahiz influenced Darwin to develop the theory of evolution. Al Jahiz may well have influenced Darwin, but that influence led the latter towards the opposite direction. Jim Al Khalili also conducted a recent study on this book, stating that it "was a major influence on Arab scholars of the 11th to 14th centuries, and the Latin translations of their work in turn became known to Charles Darwin's predecessors, Linnaeus, Buffon and Lamarck"⁵. Al Khalili focuses on the study of biological evolutionism and goes on to explain how Al Jahiz "speculates on how environmental factors can affect the characteristics of species, forcing them to adapt and then pass on those new

⁵ Al Khalili, Jim. "Islam's Forgotten Geniuses". telegraph.co.uk, 29 Jan 2008. Web. 15 Feb 2013.

traits to future generations⁶."

Al Jahiz might well have influenced Darwin and earlier Darwinians, such as Linnaeus, Buffon and Lamarck⁷, however, the Darwinian concept of survival for the fittest differs. It sparks from Darwinism that disapproves creationism and promotes evolution, whilst the Jahizian concept, struggle for existence, does the contrary: it disapproves evolution and promotes creationism. The Darwinian concept thereby states that survival for the fittest is a form of natural selection and evolution, which stands arbitrarily without creation. Contrarily to that, Al Jahiz always contends that such miracles we observe in biology all confirm the existence of a creator mastermind. He contends that, "Environmental factors influence organisms to develop new characteristics to ensure survival, thus transforming into new species". He keeps assuring that the causer of causes is Allah, as he specifies, "I would have you know that a pebble proves the existence of God just as much as a mountain does, and [that] the human body is evidence [for that] as strong as the universe that contains our world: for this purpose the small and slight carries as much weight as the great and vast "9"

After each example Al Jahiz gives about the biological development, he praises and glorifies Allah in a beautiful stylistic language as an appreciation of His wonders and miracles that only a wise mind can observe while meditating on this life. In the animal world, Al Jahiz explains that there are other interrelationships that do not involve struggle or competition (mutualism, commensalism, amensalism and parasitism), but when competition comes, it does not necessarily lie in between different animals of the food chain, as a lion and a moose, but even within the same species.

For instance, the leader in a group of animals or insects- the one male (lions) or the one female (bees) - is the strongest and sometimes the oldest. The Quran explains that they have nations and they are organized, and scientists observed that they have a rigid hierarchy. Observation and studies of the animal kingdom prove that when a lion is old and weak, a younger stronger fellow can rule instead. This is an example of the struggle within the same species. Some other animals, especially with horns, can engage in a struggle of leadership until one of it breaks its horns, then the strongest fellow would rule instead.

The Book of Animals is Al Jahiz's magnum opus. It does not speak only of animals. It studies the biological/ physical as well as the psychological/ mental development of all living creatures, including, humans, fauna and flora. Its title has been misread and mistranslated. Its original title is

⁶ Jim Al Khalili, "It's Time to Herald the Arabic Science that Prefigured Darwin and Newton", *The Guardian* (2008), accessed Feb 12, 2014. https://www.theguardian.com/commentisfree/2008/jan/30/religion.world.

⁷ Jim Al Khalili, "Science: Islam's Forgotten Geniuses", *Telegraph* (2008), accessed Feb 12, 2014. http://www.telegraph.co.uk/news/science/science-news/3323462/Science-Islams-forgotten-geniuses.html.

⁸ Amr Ibn Bahr, Abu Uthman Al Jahiz. The Book of Animals. (Basra: The House of Wisdom, n. d., ca. 860): p. n. 299, trans. by Paul Lunde, "Science, The Islamic Legacy: The Book of Animals". Saudi Aramco World. (May/ June 1982), vol. 33, n. 3 p. n. 14-19.

⁹ Ibid.

Kitab Al-haywan, which stands for life of all living creatures, while al-hayawan means animals, thus it should be translated The Book of Life, The Book of Living Creatures or The Book of Living as James E. Montgomery translated it.

Al Jahiz's The Book of Living mentions different methods in which the animals avoid struggle or engage in it. In an example of avoiding struggle, Al Jahiz mentions a smart innate natural habit that all rats collectively developed to protect their babies. He states that, "The rat goes out for collecting his food and it searches and seizes them. It eats some other inferior animals, like small animals and small birds,...it hides its babies in disguised underground tunnels for protecting them and himself from the attack of the snakes and of the birds. Snakes like eating rats very much." ¹⁰

Al Jahiz's investigations on the animals' world enabled him to observe that some rats create mazes under the ground as a means to disguise its babies, and such scientific investigations set him a millennium ahead of his time. As for another example of defence, Al Jahiz mentions that, "As for the snakes, they defend themselves from the danger of the beavers and hyenas; which are most powerful than themselves. The hyena can frighten the fox, and the latter frightens all the animals which are inferior to it...This is the law that some existences [beings] are the food for others...small animals eat smaller ones...God makes some bodies' life from some bodies' death and vice versa."11

In this example, Al Jahiz explains some of the strategies of the food chains, a biological concept which he invented for the first time. Clearly, the animal world was different during the 8th century when Al Jahiz was alive to study animals that coexisted during that time while today, they live in different regions. This means that, during his era, Al Jahiz accessed and observed some phenomena of the animal struggle and behaviour that no longer exist today. Al Jahiz goes on to explain that environmental development comes from a theological perspective. He explains that the biological development does not deny creationism; it instead proves it. He explains that, "Animals engage in a struggle for existence [and] for resources, to avoid being eaten and to breed.... Environmental factors influence organisms to develop new characteristics to ensure survival, thus transforming into new species. Animals that survive to breed can pass on their successful characteristics to [their] offspring."12

According to Al Jahiz, God has created and geared nature with reproductive characteristic, establishing rules and organized ways of living and co-existence for all beings so the system would retain its balance or order, otherwise if unbalance or disorder appears in nature, it might lose some of its species, as has been realized after the unnatural interference by humans. This does not mean that humans are unnatural, but as the only living creature distinguished by mind, humans set for a different more sophisticated way of living. By going out of rule, they can cause great damage to nature.

 $^{^{10}}$ Amr Ibn Bahr, Abu Uthman Al Jahiz. *The Book of Animals*. (Basra: The House of Wisdom, n. d., ca. 860): pn: 47.
11 Ibid.

¹² Amr Ibn Bahr, Abu Uthman Al Jahiz. *The Book of Animals*. (Basra: The House of Wisdom, n. d., ca. 860): pn: 372.

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It has been observed that when humans interfere to change something in nature, they might negatively affect its balance. For example, when attacked by snakes, the villagers of a village that exists nearby a forest or river might interfere killing snakes to reduce their number, the fact which could easily cause an unbalance resulting the abundance of frogs. In Roman times, a mere superstition caused the plague. The widespread of the superstition that cats are evil led people to hunt and kill cats massively. Consequently, rats became abundant in towns the fact which caused them to *biologically develop* a certain virus, and thus, the plague.

If nature is not balanced or if humans try to temper with its balance in certain regions, it can cause serious danger to other species firstly and to humans ultimately, and this danger can spread widely as avian flu did because animals know no frontier lines. For that reason, it is ethical in Islam to live in harmony with nature, since it is forbidden to even cut a tree or kill a creature, except for an unavoidable reason, not a mere excuse. According to Islam, nature is given to humans as a means to survive but also as a trust. Humans are in charge of nature. They have to take care of it since it is not theirs. Instead, God intrusted us with it along with our bodies, and we are obliged to take care of it. The decent would protect it, not endanger it.

3. Transformation of Species (Speciation)

Al Jahiz implies that coupling different animals, plants, insects etc. might result in different new species. Some species might have a slight change but others can have a remarkable change. Recently it has been seen that a liger, just like mule, comes from two kinds; that of lions and tigers, but it is different in a more obvious way and carries features from both species. Afterwards, a liger coupled with the kind of lion developed a new animal, which can be still a natural orderly work of the Creature, that these kinds might have existed before, but this leaves us amazed at the stunning rules of nature. Al Jahiz asserts that transformation of species can be into one another in one way controlled by God and was meant and caused to be in a particular unchangeable way.

In this respect Mehmet Bayrakdar asserts that "[Al Jahiz] adds that God's will and power is the main causal factor in the transformation, and God can transform any species into another...So Al Jahiz defends the transformation of species and mutation, due to different factors, including God's will". For Al Jahiz, there are rules established by God in this universe that lead a particular species to develop in the precise manner that it was meant to develop in. This ranges from transformation into one another to developing new characteristics as a result of environmental factors, whatever causes nature is geared with, they were meant to have their specific results unless the conditioning factors are modified to change their nature.

One possible theory or statement put forward by Al Jahiz is that many animal species might have gone extinct because of floods, earthquakes...etc. and that by the will of God, they may come back to life again, and exist today, they can develop again from environmental conditioning or from transformation into one another. He asserts, "People said different things about the existence of

¹³ Bayrakdar, Mehmet. "Al-Jahiz and the Rise of Biological Evolutionism". *The Islamic Quarterly* (1983): 311.

quadrupeds. Some accepted its evolution and said that it gave existence to dog, wolf, fox and their similar. The members of this family came from this form (al-miskh)". 14

According to some opinion of that day, such dog species became extinct sometime earlier and developed again, and they may have developed from environment or transformation into one another. As humans there is so much we ignore about nature. Animals had many species in the past, especially that many, which did not become extinct, lived on one super continent of Pangaea, and transformation into one another, may have been easier, whereas today many animals descending from the same family live in distant regions. One could only wonder what extinct animals can come back to life by transformation into one another, and what new animals can develop from this process of transformation, along with environmental determinism and biological development or evolutionism.

4. Environmental Determinism

Environmental determinism means that the environmental factors can affect the change of all living creatures on the earth decisively, as another form of Pre-determinism. Mehmet Bayrakdar puts forward that, "Al Jahiz believes that the food, climate, shelter and other factors have some biological and psychological effect on species" Al Jahiz asserts that the climate of some regions is different from that of others and as a result, their species are different from those of others. Al Jahiz tackles not only animals on land but also even other animals beneath the sea as the sea pig. This scientific fact implies that different regions have different animals even in oceans, a fact originally mentioned in a Qur'anic verse as a miracle, which states that even within one ocean there are different seas of different depth, temperature, waters and eventually creatures.

This same verse amazed the French scientist and novelist Jacques Cousteau at the miraculous nature of the Quran. He discovered that within salty water there was a place of sweet palatable water, and as the verses say, these springs cannot mix, and he tried to find an explanation for the phenomena but could not. The Quran, although being there since the outpost of the seventh century, talked about this phenomenon, and even about the fact that within same ocean there are different waters and seas of different concentration of salinity, which makes even life of fish in them different. Al Jahiz confirmed that different geographical regions, climate or environment would result in different types of fauna and flora. The Qur'anic scripture, which is the oldest document that mentions this phenomenon at sea, explains, "It is He (Allah) who has let free the two bodies of flowing water: One palatable and sweet, and the other salty and bitter; yet has He (Allah) made a barrier between them, a portion that is forbidden to be passed" Another verse of the same phenomenon states, "He (Allah) let free the two bodies of flowing water, meeting together: between them is a barrier which they do not transgress" The Quran also states, "And He (Allah) made a

¹⁴ Amr Ibn Bahr, Abu Uthman Al Jahiz. *The Book of Animals*. (Basra: The House of Wisdom, n. d., ca. 860): nn. 23

pn. 23. ¹⁵ Bayrakdar, Mehmet. "Al-Jahiz and the Rise of Biological Evolutionism". *The Islamic Quarterly* (1983): 312.

¹⁶ Quran 25: 53.

¹⁷ Quran 55: 19-20.

separating bar between the two bodies of flowing water". Thus, the creatures that live within each of these different waters differ as well.

Environmental factors that form the environmental determinism simply explain that this rule or law of different factors controlling the development of species was established long ago in nature and any new process of development, even if caused by environment and other factors, human...etc. would inevitably happen according to the rules it was meant to follow. Different factors can result in different processes and phenomena, and if changes occur, they would cause a different phenomenon, unless their results were meant to be the same. Nature is full of these rules and factors that humans are still on observation and discovery.

Determinism then contends the mere fact that one factor or cause in nature is inevitably the stimulus of one inevitable result, which cannot change, unless one or more factors are changed, but not that animals are determined to change, except if prone to these factors. The principle of cause and result was tackled long before Al Jahiz by Aristotle and his predecessors in philosophy that for every result there is a cause, and nothing comes from a vacuum or spontaneously, except they made these causes more worldly whilst Al Jahiz gave balance between the matter and abstract.

Today scientists can observe nature in a more obvious way than people could in the past, and they can recognize what Al Jahiz meant by environmental determinism. The difference in Geographical regions and their climate can have a great impact on living creatures. For example, many creatures at sea live longer than those at land as, for instance, the sea turtle, and animals or plants in wet geographical regions were also proved to live longer due to the humid weather. The crocodile of wet and humid regions for example is bigger and can live longer than the crocodile of other regions of dry weather. The Quran also provides that water was used to create all living things in the verse, "And We have made from water every living thing" 19.

Environmental determinism can be shrewdly observed in all living creatures, both as a physical and psychological phenomenon. The impact of heat on plants of the desert, for instance, is obvious. They are drier than plants of humid regions, and their leaves are therefore smaller and of an acanthine or spinal nature, just so as the process of transpiration would not make the plant lose a lot of water and become dry. On the other hand, the psychological impact of the heat can appear especially in people who are not used to it or who do not live in hot areas in that it makes them nervous or tired quickly. One of the signs of physical biological environmental determinism is that nomads who live in the desert have different toes from those who do not live in sandy areas.

Al Jahiz strongly emphasized environmental determinism and its effect on creatures; that animals can evolve into new species, whilst humans can develop new characteristics under different circumstances, like the heat. Al Jahiz asserts that, for instance, lice can be black, white or red, depending on the colour of the hair and/or skin, whilst some people cannot have lice due to some diseases. He moreover contends that, "this is a matter that affects lice, just like greenness effects

¹⁸ Quran 27: 61.

¹⁹ Quran 21: 30.

some worms of vegetables, and its locust...etc." Al Jahiz views that our environment is a determiner of both the psychology and the physiology of living creatures, and this offers a new view to ecology. Our biological and psychological development depends on our environment. Al Jahiz's views on this determinism is Eco-critically ethical since it regards these signs of biological development as signs of the presence of their Creator who made them develop in such a definite determined manner. This theological argument cements Natural Theology as a teleological argument of the miracles of God in His creatures, and cements the fact that there is a causality, which the Creator can and could change whenever He wills.

5. The Causality of Environmental Determinism

God performs the causality in nature, and it is a sign of His existence and His Might. The Creator is the causer of causes and He made every element in nature, as fire, perform a duty under His command. Allah made light luminous and darkness dark. He could have made the sun project or shine darkness instead of light just as He could and can make it cold. He was the one who made fire harmless on Abraham, a statement made by all three heavenly religions, Islam, Christianity and Judaism. The Quran says, "We said, 'O fire, become coolness and safety for Abraham" 21. Indeed, elements in nature cause their effects scientifically, but who was responsible for making them perform in such a definite unchangeable manner? Allah.

In another verse, Allah says, "Surely Our only Saying to a thing when We have willed it, is that We say to it, "Be!" so it is"22. In Ya-Sin Allah said, "Surely His Command, if He wills a thing, is only to say to it, "Be!" and it is"23. Scientists can argue that they can cause the effect of fire to change, but this argument is refutable on the ground that if they do so, they would have changed a few factors using physics or chemistry, and they would have thus invented something new out of fire, other than fire itself. This means that they could not have made fire itself cold.

Allah also said, "[And] the one who created seven heavens in layers. You do not see in the creation of the Most Merciful any inconsistency. So return [your] vision [to the sky]; do you see any breaks? Then return [your] vision twice again. [Your] vision will return to you humbled while it is fatigued",²⁴. This verse explains vividly the keen observation in God's creation, including the heavens, especially the observation that attempts to find flaws. A meditator's vision would return amazed to him, an observer's, humbled and fatigued.

Many Muslim scholars discussed biological development in nature but their belief in God is undeniable because they discussed this development from the perspective of Natural Theology, Occasionalism, Theological Determinism and Pre-determinism, all of which consider scientific, physical and chemical phenomena as determined by their own Creator, God. In this respect, scholars who discuss biological development are not Darwinians or evolutionists, and not all scholars who

²⁰ Amr Ibn Bahr, Abu Uthman Al Jahiz. *The Book of Animals*. (Basra: The House of Wisdom, n. d., ca. 860): pn. 370. ²¹ Quran 21: 69.

²² Quran 16: 40.

²³ Quran 36: 82.

²⁴ Quran 67: 3-4.

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were misunderstood as evolutionists are atheist. Other theologians may argue with predetermination but that argument is also refuted on the ground that predestination defines actions, not how we do them, and especially, not our intentions or informed decisions.

6. Conclusion

Many other scholars followed Al Jahiz's path, long before Darwin, and analysed that scientific phenomena proves the existence of the Creator, including scientists from different religions. This notion is termed Natural Theology. It is based on the teleological argument and the watchmaker analogy. When it comes to the studies excreted by Muslim thinkers and scientists, Darwinians misinterpret the biological development or the biological evolutionism into their new brand of Darwinism from an Islamic perspective, a notion which is entirely incorrect because these Muslim scientists were trying to prove the existence of God and creationism, not reject it.

The Muslim scholar, zoologist, scientist, philosopher and polymath Al Jahiz wrote about 300 books and encyclopaedias, which date back to the onset of the Golden Ages of the Muslim Civilization (8th c. - 14th c.). These have for long enriched The House of Wisdom until most of them were lost during the Mongol and Tatar besiege and destruction of Baghdad (1258). The remaining Manuscripts left by Al Jahiz are scattered over the world today. Some of them exist in famous oriental and Muslim civilization libraries, such as Dar Al Hikma Library of The International Islamic University of Malaysia (digital form), the British Library, La Bibliothèque Nationale de France, the National Library of Cairo, the Topkapi Palace Museum Library in Istanbul and the Ambrosiana Library in Milan.

When Al Jahiz's studies on biological development or biological evolution are read from a different perspective, they are often confused with the theory of evolution. Al Jahiz, before Lamarck and Darwin, scientifically experimented, analysed, and observed that various environmental factors cause animals, plants and humans to develop to acclimatize with the environment. This scientific phenomenon is known as the biological development. Natural theology uses the teleological argument and the watchmaker analogy to prove that such scientific phenomena proves the existence of God, just as William Paley and Al Jahiz did.

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