



## A Neuroscience Review of the Letter of Ali Imran 190-191

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### Abstract

Humans have advantages when compared to other creatures, namely being able to use their minds. Like other creatures, Allah has also given them minds. Mind which comes from the word 'aqala ya'qilu 'aqlan can be called neuroscience. In the review of philosophical science, humans are thinking animals (hayawanun natiq), where by Allah ASWT humans are given a special task as khalifah fil ardh to manage and prosper this earth. This task as a khalifah requires sufficient knowledge, must have a smart brain or really optimize their intellectual abilities as best they can and like to contemplate Allah's creations in this universe. As Allah says in the Qur'an Surah Ali Imran [3]: 190-191, "Indeed, in the creation of the heavens and the earth, the alternation of day and night there are signs of Allah's greatness for people who have reason. Namely, those who remember Allah standing, sitting and lying down, and they think about the creation of the heavens and the earth." In addition to discussing the brain or reason, it also shows its relationship with verses ending in, "afalaa ta'qiluun" and verses ending in, "Afalaa yatadzakkaruun". This article examines the relationship between neuroscience and the Qur'an and efforts to study neuroscience in optimizing humans in using their brains. The research method used is qualitative research with a literature study approach. This study aims to examine the relationship between neuroscience and the Qur'an and the extent to which neuroscience plays a role in optimizing the human brain to be optimal in carrying out its duties as a caliph on earth.

Keywords: *reason; brain; neuroscience; Qur'an*

### Abstract

Manusia memiliki kelebihan bila disbanding makhluk lainnya yakni bisa mefungsikannya akal. Sebagaimana makhluk lainnya juga oleh Allah dianugerahi akal. Akal yang berasal dari kata 'aqala ya'qilu 'aqlan bisa disebut dengan istilah neurosains. Dalam tinjauan ilmu filsafat Manusia merupakan hewan yang berfikir (hayawanun natiq), dimana oleh Allah ASWT manusia diberi tugas khusus sebagai khalifah fil ardh untuk mengelola dan memakmurkan bumi ini. Tugas sebagai khalifah ini membutuhkan ilmu yang cukup, harus berotak cerdas atau benar-benar mengoptimalkankemampuan akalnya sebaik mungkin dan suka merenungkan ciptaan-ciptaan Allah di alam semesta ini. Sebagaimana firman Allah dalam Qur'an Surat ali imran [3]:190-191, "Sesungguhnya dalam penciptaan langit dan bumi, pergantian siang dan malam terdapat tanda-tanda kebesaran Allah bagi orang yang berakal. Yaitu orang-orang yang mengingat Allah dalam keadaan berdiri, duduk dan berbaring, dan mereka memikirkan tentang penciptaan langit dan bumi. " Selain membahas otak atau akal juga ditampilkan hubungannya dengan ayat yang berakhiran, "afalaa ta'qiluun" juga ayat-ayat yang berakhiran, "Afalaa yatadzakkaruun". Dalam tulisan ini dikaji tentang keterkaitan neurosain dengan al qur'an dan upaya kajian neurosain dalam mengoptimalkan manusia dalam mempergunakan otaknya. Metode penelitian yang digunakan adalah penelitian kualitatif dengan pendekatan studi Pustaka. Penelitian ini bertujuan mengkaji keterkaitan neurosains dengan al quran dan sejauh mana peran neurosain dalam mengoptimalkan otak manusia agar optimal dalam menjalankan tugasnya sebagai khalifah di muka bumi.

**Kata Kunci:** akal; otak; neurosains; al-qur'an

## Introduction

When talking about the term neuroscience, we will think of the term neuron or nervous system. When we connect with science, of course the related nerves are brain nerves. Because the brain is one of the organs of the human body that contains billions of nervous systems, because of its existence humans can recognize and perceive the surrounding nature, their God, and develop science (science). This is the true function of reason. The intellect itself is the only biological function of the organ that humans have, namely the brain. It is reason that distinguishes humans from other creatures, with reason humans can actualize themselves and carry out their function as caliph fil ardh. (Suyadi, Hibridization of islamic education of neuroscience : Transdisciplinary studies of aql in the quran and the barin in neuroscience, 2019, pp. 237-249)

Heru Widi Widodo wrote in ; *Interpretation of neorosain verses and verses ending in ta'qilun* Since the beginning of neuroscience, it has been primarily committed to understanding the workings of the brain in its molecular workings and the search for egramsils in brain areas. Briefly, this paper will feature the following points that are considered relevant and important to the needs and recent developments in neuroscience. (Widodo, 2019, p. 235)

## Research Methods

This research uses a qualitative approach with literature studies, namely reviewing books related to neuroscience and relating to Surah Ali Imran verses 190-191. The author conducted an assessment of Surah Ali Imran verses 190-191 about optimizing the use of human reason, based

on the understanding of salaf and kholaf scholars and then correlated with modern neuroscience studies. The author will compare the views of salaf scholars, kholaf and neuroscience experts on the optimization of human reason based on the practice of Surah Ali Imran 190-191, then draw conclusions related to the relationship between the practice of Surah Ali Imran verses 190-191 in the development of neuroscience.

The word aqala as fiil mudhori' is repeated 49 times in various letters in the Qur'an, in addition to using the word aqala there are many verses in the Qur'an that mention the activity of the intellect that can be found in terms that mention brain activity such as tafakkur (thinking), tadabbur (contemplating), tabasyur (understanding) and others. Of the many verses that contain the meaning of reason and thinking, the author uses a sampling of Surah Ali Imran verses 191-192. The reason the author uses this verse as a research sample is because the content of this verse is more specific in inspiring humans to use their intellect to the fullest. (Suyadi, Integrasi Pendidikan Islam dan Neurosains dan implikasinya bagi pendidikan pendidikan dasar ( PGMI ), 2012, pp. 111-130)

## Results and Discussion

### A. Overview of the Qur'an Surah Ali Imran verses 190-191

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ  
لآيَاتٍ لِّأُولِي الْأَلْبَابِ (190) الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا  
وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ  
وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ  
(191)

"Verily, in the creation of the heavens and the earth, and in the alternation of night and day there are signs (of Allah's greatness) for the sensible, (i.e.) those who

remember Allah while standing or sitting or lying down and they think of the creation of the heavens and the earth (saying, "O Our Lord, Thou art not in vain in thy creation, Thou art the Most holy, protect us from the punishment of hell." [4]. (Agama, Al qur'an dan Tafsirnya, 210, p. 95)

In order to set the topic and answer the accusations of those who deny it, the topic discussion is repeated again to show monotheism, divinity, and the majesty of Allah, for which this verse is incorporated. (Shihab, 2002, p. 370)

Term *ulūl-albāb* consists of two words, namely *ulūdan al-albāb*. The first is a meaningful plural form *zawu* (those who have). While the second word "*Al-Albāb*" is the plural form of *lubb* that is, the essence of something. Nuts, for example, have a skin that covers their contents. The filling of the beans is named after *lubb*. *Ulūl-albāb* are people who have pure reason, which is not shrouded in skin, that is, the fog of ideas, which can give birth to confusion in thinking. (Agama, Al qur'an dan Tafsirnya, 2010, p. 96)

People who are willing to use their intellect to contemplate or analyze natural phenomena will be able to come to very real evidence of the Oneness and power of God. (Hayyie, 2008, pp. 148-149)

#### B. Asbabun-Nuzul Al-Qur'an Surah Ali Imran Verses 190-191

Ath-Thabrani and Ibn Abi Hatim narrated from Ibn Abbas, he said: "The Quraish came to the Jews and asked them, "What are the signs that Moses brought to you?" Then the Quraish came to the Christians and asked them, "What are the signs that Jesus has shown?" They replied, "He used to heal the blind, the leper and raise the dead." Then they came to the Prophet PBUH and said to him, "Pray to your Lord to turn the hill of shafa into gold

for us." Then he prayed, and the word of Allah (Q.S. Ali Imran 190) came down. (HAMKA, 2008, pp. 195-196)

Events that occurred in the past are in accordance with their times. The prophet Moses with the miracle of his rod by the will of Allah was able to divide the sea. The Prophet Isa was able to heal lepers to bring to life the dead. Now it is time to think about looking at nature, to see that it is full of divine miracles. This verse invites them to think about the heavens and the earth about what happened. Amazing things in it, such as the stars, the moon and the sun and their circulation, the sea, the mountains, the trees, the fruits, the animals, the mines and so on that are found in this universe. (Agama, Al qur'an dan tafsirnya, 2010, p. 97) (Qurtubi, 2006)

#### C. Mufasssir's Views on the Qur'an Surah Ali Imran Verses 190-191

##### 1. Shaykh Imam al-Qurthubi

Allah SWT commands us to see, reflect, and draw conclusions on the signs of Godhead. Because these signs cannot exist unless they are created by the Most Alive, the Most Holy, the Most Saving, the Most Rich and do not need anything in the universe. By believing that Therefore, their faith is based on the right belief and not just to follow along. In the quote of the verse "*There are signs for sensible people*". This is one of the functions of reason given to all humans, namely so that they can use their intellect to reflect on the signs that have been given by Allah SWT. (Qurtubi I. a., 2006)

In this verse, Allah mentions three situations that are often done by humans at all times. It is said that the Prophet always dhikr to Allah in every situation. Dhikr in a general sense can be done in various circumstances, even when in the bathroom

or in bad places, because the reward will still be written by the angel regardless of the location of the place where the dhikr is performed.

## 2. Ahmad Mustafa Al-Maraghi

Regarding dhikr in the bathroom, according to al-Maraghi this opinion is punished as makruh for reasons because dhikr to Allah in such places reduces politeness towards Allah, for example by reading the Qur'an in the bathroom, isn't our morality to prevent such acts? (Bakar, Terjemah Tafsir al Maraghi, 1993, pp. 289-290)

Indeed, in the order of heaven and earth and the beauty of His estimate and the miracle of His creation in the alternation of day and night regularly throughout the year that we can directly feel its effect on our bodies and our way of thinking because of the influence of the heat of the sun, the cold of the night, and its influence on the world of flora and fauna, and so on are signs and proofs that show the oneness of God, perfection of His knowledge and power.

The Prophet PBUH asked permission to "Aisha when she is going to worship Allah. Then the Prophet took the qirbah (a water jar made of sheepskin) located in the house, then performed ablution from it with not so much water. Then he prayed and recited a verse of the Qur'an that made him cry until his tears wet his cloth. Then he sat down and read hamdalah and praised Allah, he cried while raising his hands (praying) while continuing to cry, until I saw his tears wetting the ground. Then Bilal's friend came to help him to pray dawn and saw him crying. Bilal asked, "O Messenger of Allah, why are you weeping

Has not Allah forgiven your past and future sins?", the Prophet PBUH replied "O Bilal, am I not a grateful

servant?" then he said, "How can I not weep, when Allah has sent down to me tonight verse (*inna fi khalqis samawati wal ard* and so on)." He went on to say, "Woe to those who read it but do not want to think about it. Woe to the one who chews it (reads) but does not want to ponder its meaning." (Bakar, Terjemah Tafsir Al Maraghi, 1993, pp. 290-292)

## 3. Pof. Dr. Teungku Muhammad Hasbi Ash-Shiddieqy

While *Ulūl-albāb* are those who are willing to use their minds, to take advantage of them, to take guidance from them, to illustrate the majesty of Allah and to remember the wisdom of reason and its virtue, in addition to the majesty of His bounty in all their attitudes and deeds, so that they may stand, sit, walk, lie down and so on. They do not neglect to remember God in part of the time, feel calm by remembering God and immerse themselves in the busyness of consciously correcting themselves that God is always watching over them. (Asyidiqie, 2000, p. 160)

Indeed, in the rules of heaven and earth and their beauty, in the alternation of night and day, and continuously accompanying through the best (harmonious) rules, which are evident in their effect on our bodies and intellect, such as heat and cold, as well as on animals and plants, all of these are evidences that show the oneness of Allah, the perfection of knowledge and His nature, for all people with strong intellect.

A sensible person (*Ulūl-albāb*) is a person who pays attention to the creation of the heavens and the earth and their contents and laws, and then remembers its creator, who is Allah, in all circumstances. Victory and luck are only by remembering the greatness of Allah and thinking of all His creatures which points to the existence of

the One Khaliq. In tafakkur activities, they also remember Allah while speaking in praise of His majesty and greatness for His creation. contains wisdom and fame. Each person will get revenge for his deeds in the future, whether it is righteous or bad. (Katani, 2013, p. 545)

#### **D. The relationship between neuroscience and the Qur'an, surah ali Imran verses 190-191**

Based on several interpretations given by the mufassir, it can be understood that humans are given guidance in the form of intellect to be used as well as possible in. Among the tasks or activities of the intellect mentioned in the verse above is to meditate on the creation of Allah (*Ulūl- albāb*), who has a strong intellect to use to remember and think about the creation of the Khaliq in the universe. While thinking, it can be by reading, contemplating and understanding everything in the heavens and earth that contains divine secrets. There are various benefits and wisdom that show the greatness, power, knowledge and grace of the Ruler who should be grateful and maintained. (Nata, 2012, p. 134)

With the provision of intellect, humans can read, know, think, research, study existing phenomena and then produce ~~knowledge or knowledge~~. Discoveries in various sciences and technologies lead sensible people to be grateful and believe that all of Allah's creations are very useful and nothing is in vain. The existence of man is seen and proven by the use of his intellect, because with it man is on a special level and different from other creatures. When humans, especially Muslims, are able to optimize their intellect and remember Allah SWT in all their circumstances, surely the purpose of the creation of the universe can be fully enjoyed and maintained. There will be a social order that

has high intellectual insight and a spiritual spirit that upholds the values and norms of religion and the nation that apply (*have international knowledge and local wisdom*). Have an awareness of the purpose of their creation as servants who seek *the pleasure of Allah and the caliphate of fil ardh*.

The number of verses of the Qur'an that end in ta'qilun, ya'qilun, tatafakkarun, fuadz, qolbu shows that Allah swt gives a lot of space to humans to make the widest possible use of their intellect and mind in carrying out their duties as His servants and caliphs on earth. While in thinking humans need a brain, which contains billions of nervous systems (neurons), the study of neuroscience is very relevant to be one of the tools to understand the verses of the Qur'an related to science and the utilization of the mind.

Neuroscience studies that focus on studying the relationship between the central nervous system and human behavior must be based on the two verses as mentioned above and place them as scientific pillars. So that every theory that is built will never go away or even contradict the Qur'an, like scientific theories built by atheists. For example, in the study of the human brain, it is known that the limbic system is the deepest part of the human brain that functions to regulate human emotions. In the limbic system there is a hippocampus that is in charge of providing detailed memory for emotional meanings such as anger, happiness, love, hate, fear and so on, while in the Qur'an it is known about nafsul muthmainnah, nafsullawamah and nafsul amarah, which of course these three types of nafs are part of the limbic system in the human brain. (Muhammad Nasruddin, 2020, pp. 70-87)

Modern scientists, especially in the field of neuroscience, must be more optimal

in studying the verses of the Quran, especially those related to the intellect, heart and encouragement to think. The author believes that the massive study of scientific verses in the Qur'an will be the foundation for scientific discoveries in this modern era.

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