# The Concept of al-AQL (Reason) in Islam

# **Dr. Yusuf Dalhat** Federal College of Education (FCE) Zaria Kaduna State, Nigeria

# Abstract

This paper discusses the concept of al-Aql (reason) in Islam. It focuses on explaining the role and significance of reason in the Islamic legal provisions. The paper also examines various views of Scholars who approach the concept from viewpoints other than that of Islam, where analysis is made in the light of the Quran and Sunnah for resolution. The paper reiterates that sound reason is always consistent with the guidance of the Quran and Sunnah, a good believer therefore needs to examine the facts given by the Scripture to avoid a distorted view in analysis. Quran the Muslim Scripture has emphasized the significance of al-Aql (reason) in matters of religion as well as in humans' life, the reason which receives guidance of the revelation and makes philosophy useful in human life and civilization.

Keywords: al-Aql, Reason, Intellect, Intelligence, Rationality, Philosophy

# 1. Introduction

The religion of Islam delivers the Divine message of the Quran to mankind, teaching man the fundamental pillars of Iman which consist believing in the unity of Allah, His attributes and qualities. It also requires belief in the prophetic mission of Prophet Muhammad (May peace and blessings of Allah be upon him). Man believes in the Divine power and the authority of Allah who has the right over mankind to be worshiped. He alone is entitled to total submission. However, some Muslims tend to accept the distorted ideas against the Divine guidance of the Scripture, considering al-Aql to be the only source of knowledge without guidance from the teachings of the Prophets and Messengers sent by Allah the Exalted. They regard it sufficient to derive, interpret and synthesize evidence and principles of conviction without recourse to the teachings of the Scripture, basing their ideas on Aql (reason) alone and in so many occasions refute the clear text of the Quran and Sunnah on the basis that, it contradicts reason. Indeed the importance of al-Aql is emphasized in Islam, but guidance from the Quran and Sunnah prevents it from illusions, err, perversion and falsity. This is because reason alone without revelation from Allah cannot discover truth of facts beyond ordinary sense perception. The objective of this paper therefore is to contribute with explanation on the role, significance, scope of al-Aql in Islam and its relevance to the intellectual analysis of the Islamic legal provisions, disqualifying the absurd views which have no revelation from Allah the Exalted to confirm its intellectual value.

### 2. The Concept of Al-Aql According to the Arabic and Muslim Scholars

The term al-Aql is derived from the verb عقل بعقل , meaning reason, rationality, intellect or intelligence, the antonym of which is الحماقة (Stupidity or foolishness). Al-Anbari, a famous Arabic language Scholar said (Intelligent, sane or wise person) is the one who fastened upon his ideas and actions after careful excogitation, derived from one's statement عقلت البعير, which means: I bound the camel with the rope called العناق (Iqal) (Ibn Mandhur, n.d). Tha'labi has further elaborated this meaning, stating that the synonym of al-Aql is عقلت الناقة (al-Man'), meaning the act of preventing, with-holding or restraining something, from one's saying: عقلت الناقة when he restrained the she-camel. Al-Aqil therefore is the one who with-holds or retrains himself from doing that which is not suitable and befitting (Ibn al-Jawzi, 2004). The early Muslim Scholars from among the companions of the Prophet (May the blessings and peace of Allah be upon him) and their disciples all gave various but related meanings of al-Aql which are summarized by Ibn Jawzi in his book *al-Azkiya*' to only four. The first meaning is that which is used to describe that innate property of person wherewith, man is prepared to receive, understand and synthesize information as what distinguishes him from other living animals. This is the purport of what Scholars such as Imam Ahmad and al-Muhasibi stated, who respectively described al-Aql as innate property (غريزة) by which one is prepared to perceive things.

The second meaning implies that which is used to designate self-evident things, the axiomatic truth (Ilm al-Daruri) in which both intelligent and dull-witted people are on par with one another. The third meaning of al-Aql cited by him is that which is gained through experience and the newly acquired experience is called Aql. The last meaning implies the inherent principle, by which one restrains his own self from his heart's vain desires (Ibn al-Jawzi, 2004). In view of these meanings, al-Aql generally centers on two things: the knowledge of merit and demerit of things and then acting upon that knowledge. Person who grasped the perfectness and defectiveness of things, but refused to act upon the knowledge acquired by him is not wise, the term al-Aql therefore may not completely suit him. To this end, Al-Aql implies the intellectual ability to comprehend evidence of factual knowledge in an information or message received or discovered. It is used also to distinguish wisdom from folly, which is the ability in man to be guided by the rule of wisdom.

### 3. The Philosophical Meaning of Al-Aql

Al-Aql often dubbed by philosophers "reason" or "Intellect" attracted the attention of philosophers, on which many theories have been recorded. However, their views were rather permutation of hover philosophical observations, the result of which raised more question than the evidence of facts. According to Aristotle, there are two types of al-Aql, the Practical Intellect and theoretical Intellect. The former partakes of decisions and conclusions of what to be done through reflection and reasoning, progressing from lower to a higher stage. The latter on the other hand, deals with philosophical reasoning put forth, to explain facts of knowledge including the area of metaphysics (Sulayman al-Dahir, 2014). It tries to address things in terms of their ontological and cosmological nature. Aristotle on explaining the nature and the evolution of the universe developed a complex theory, advocating the existence of more than one Intellect, which later passed on to such Muslim philosophers as al-Farabi and Ibn Sina. These Muslim philosophers, notably al-Farabi, explained this doctrine more, developing his famous theory of effusion (al-Fayd). Al-Aql according to them is the first existing being, which is purely abstract from the material world, emanating from the Divine Being through effusion (Muslim philosophy). They may also call this Divine Being the ultimate cause of all things (Wajib al-Wujud), who comprehends his essence as the cause of the existence of things, and in consequence, the first intellect is produced. The first intellect also comprehends its origin; as a result, the second intellect is produced. This universal intellect as it is called, comprehends its self as the cause of the other, and in effect, the third intellect is produced. The sequence of these effusions totals up to ten intellects, where each and every one of them is associated with the generation of similar astral phenomena, including the fixed stars, Saturn, Jupiter, Mars, the Sun, Venus, Mercury and the Moon (Ibid).

According to Aristotle, the celestial spheres being eternal are actuated by an immaterial form, dubbed Intellect, which is also eternal. The tenth intellect which is the last in the series is responsible for actualizing the potential thought of man. Al-Farabi regarded this active intellect as what Muslims may call Ruh al-Amin (the trustworthy spirit) or Ruh al-Qudus (the Holy Spirit), whom man get access to, by either philosophical contemplation of thinkers or through revelation to Prophets which he called Imagination (Sulayman al-Dahir, 2014). He classified human intellect into three stages, which are Aql bi al-Quwwa (potential intellect), Aql bi al-Fi'l (actual intellect) and Aql al-Mustafad (the acquired intellect). Aql bi al-Quwwa is the natural disposition of thought, occurring when the mind showed the ability of abstracting intelligible objects. This intellect is hyle by nature, a term used by Aristotle to imply sensible things existing in the material world. A small child belongs to this stage, the ability of whom is likened with a clean slate with potential of grasping the intelligible. Aql bi al-Fi'l stage is progressed as one grows in experience by fully grasping the intelligible objects. Aql al-Mustafad stage is reached when the intelligible objects became actualized in the mind with the aid of the Aql al-Fa'al (the active or agent intellect). The acquired intellect which is closer to the active intellect, gains the ability of drowning deep in inspirational thoughts without necessarily seeking help from the sensible objects. This is a gift according to al-Farabi from the Divine Being through the active intellect, playing the role of an agent, referring to Angel Jibril, who according to them is merely an essence (Jawhar) representing a source from which the disposition of man's thought is actualized, just like colors which become recognized only with the aid of the sun-light. Communication between the Divine Being and man with active intellect as the medium, takes place in two forms, which is either philosophical contemplation passing the aforementioned stages or intuition sent down to man's imaginative faculty as the case in the Divine revelation to Prophets (Ibid). Generally, if one refers to the information given, Angel Jibril is explained in two ways. The first is that of cosmological, making him the tenth intellect and that of ontological in that he is responsible for all existing things in the material world.

The ambiguity of this view is that, Aql according to these philosophers is the essence purely abstract from the material world, and intellection to them is nothing other than the rational ability without necessarily translating that knowledge into action. Similarly, from these views of effusion, some sects as well as some factions of Kalam (i.e. logicians) conceded the idea of pre-existence of the intellect, basing their proof from a fabricated report suggesting it to be the first ever existing being (Ibn Taymiyyah, 2005). Furthermore, it is also from such views did some sects concede the unity of being (al-Hulul), in fact al-Farabi is widely considered to be the father of Neo-Platonism (Muslim philosophy). These views apart from being at variance with the teachings of the Prophets and Messengers of Allah are also in conflict with sound reason in that, the views are unable to prove the existence of God and the impossibility of the existence of more than one God. Believing in successive effusions of intellects leads to infinite circulation and regression, and eternal existence of the ten intellects also leads to the continuous existence of astral phenomena including our planet. What they speak of abstracting human intellects from the material world exists only in their imagination, introduced to support and justify their assertion of the eternity of intellects, due to illusion which overcame them as a result of not seeking the light and guidance of the scripture. In the same vein, their discussion on prophesy, angels and revelation is tantamount to speaking in the religion of Allah without guidance and knowledge, for delving into such matters requires the intelligence not to be mixed up with illusion. Only then can it arrive at reliable fact of knowledge. But such philosophers decide to put aside the teachings of the Scripture when analyzing the fundamentals of belief, and as a result, their discussion on al-Aql, the existence of God and His relationship with the universe drowned them deep into the sea of perversion, uttering such irrational statements, the kinds of which are not expected from a sane person. Far is Allah the Exalted above what they said of Him. It is stated in the Quran:

"And among men is he who disputes about Allah without knowledge or guidance or a Book giving light (from Allah). Bending his neck in pride (far) astray from the path of Allah; for Him there is a disgrace in the world life and on the day of Resurrection. We shall make him taste the torment of Burning (Fire)" (22: 89)

# 4. The Meaning of Al-Aql in the Quran

Al-Aql according to the Quran, Sunnah and the interpretations of early religious Scholars of Islam from among the companions and their disciples, is not an abstract entity from the material world as observed by philosophers, rather, it is a quality, property, power and capacity of reasoning and intellection in particular person. Intellection becomes perfect when person reasons things and then act upon what he reasons. A naïve person, who acted contrary to his knowledge, deserves not to be called al-Aqil (wise or intelligent) (Ibn Taymiyyah, 1988). It is stated in the Quran, referring to such people:

"And they will say: Had we but listened or used our intelligence, we should not have been among dwellers of the blazing fire" 67: 10

Allah the Exalted said also:

"Have they not travelled through the land, and have the hearts wherewith, to understand and ears wherewith to hear? Verily it is not the eyes that grow blind, but it is the hearts which are in the breasts that grow blind" (22: 46)

From the above verses, al-Aql implies an inherent nature and quality in person, given to him by Allah the Exalted, by which he acquires knowledge of perfectness and defectiveness of things. His action in this regard is guided by the rule of wisdom. Al-Aql should not imply what philosophers speak of abstract intellects; it is illusions and conjecture of the peripatetic philosophy, diving without guidance. There are divergent of opinions between Scholars of Islam concerning the anatomical seat of intellect. Imam Abu Hanifah and his school consider brain to be centrally the organ of intellect. This is also one of the narrated opinion of Imam Ahmad b Hanbal, although, many Hanbali school of jurisprudence consider that functions to be centrally in the heart instead. It is also the narrated view of Imam al-Shafi'i, basing their proof from chapter 22, verse 46 quoted earlier and other verses such as: "Verily, therein is indeed a reminder for him who has a heart or gives ear while he is heedful" (50: 37)

According to these Scholars, Qalb (heart) was used to designate intellection simply because it is its seat (Ibn al-Jawzi, 2004). In the same vein, it is worth-mentioning that the debate on this matter is not only an issue between religious scholars, as it can be also traced back to ancient civilizations such as Egypt and Mesopotamia (Crivellato & Ribbatti, 2006), all regarding the heart to be indeed the organ of intellect. The two contradictory ideas again continued to be the matter of debate between Greek philosophers and physicians. Aristotle was among those philosophers who argued that the heart is the centre of sensation and knowledge.

In contrast, Alcmaeon is widely considered to be earliest writer to have championed the brain rather than the heart, as the site of sensation and cognition (Gross, 1995); the view which was later affirmed by modern neuroscientists. Scientific analysis of these theories is not our concern, but due to the existence of such debate between Muslim Scholars, we will attempt to identify which view is supported by the Islamic legal texts, beginning with the meaning of al-Qalb in both Quran and Arabic language. Qalb in Arabic language means changing or turning something upside down. It is used to designate heart in view of its nature of emotional changes, as in this Hadith: "O you who changes the heart, firm my heart in your religion" (al-Tirmidhi related). This meaning can be also extrapolated in the verse below:

#### "And We shall turn (nuqallibu) their hearts and eyes away (from guidance), as they refused to believe therein for the first time, and We shall leave them in their trespass to wander blindly" (6:110)

The term is also used to imply the inner side of something, as a result of which "Well" before enclosing its interior, is called Qalib (Ibn Mandhur, n.d). The inner side of person may be also called Qalb al-Insan (Ibn Taymiyyah, 1988). It is from this last meaning that some Scholars incline to the assumption that brain is the organ of intellect since its place is also inside person, in an attempt to reconcile the two opposing ideas. But this assumption is weak in terms of proofs, for the primary meaning of al-Qalb whenever used to imply man is heart. It is also called al-Fu'ad due to its pulsation and intensity, though there is a slight difference in that the former is more specified than the latter, which signifies esophagus, consisting of the liver, lungs and the heart (Lane, 1980). The interpretation to which Scholars like Zakir inclined, which is intelligence, thereby affirming the brain as its seat has no point. This is because, interpretation of such matters should take the cognizance of what early Arabs from among the period of the Prophet (May the blessings and peace of Allah be upon him) consider primarily to be meaning of al-Qalb when used to imply humans. Furthermore, considering the views of the Scientists, it has not been proven scientifically that the heart's role in the human body is merely pumping blood, nor is it proven that it has nothing to do with cognitive activities. As a matter of fact, there are many scientists who talk about the neurons in the heart which provide the ability of thinking, sensing and maintaining its operation (Rahman & Hassan, 2013). Carl Eislyy (McCraty, n.d) said: "It is not possible to localize memory to a neuron or a section of neurons; certain areas and brain centers are needed for coding and decoding, but memories themselves are distributed throughout the brain and so nervous system. So why would we draw a line to our throat and say memory does only take place in the brain?"

Similarly, according to a research conducted by Dr J Andrew Armour in 1991, heart is said to be containing about 40,000 neurons that create its compound circuitry which enables it for the functionality of sensing, regulating and remembering to suffice qualifying it a sort of brain in its own sphere (Rahman & Hassan, 2013). Indeed, this evidence left to its self cannot completely downplay the significance of the brain, but may be served as the foundation upon which further research will be intensified. This will help the world of intellectuals to understand how these two organs communicate with each other for managing our cognitive activities. On explaining how the two communicate, McCraty (n.d) said: "There is information going from the heart to the brain than the other way, and this information influences regions in the brain, and a major of this information comes from heart". Far from the scientific research, it is now a well established reality that emotions and personalities including one's experience, beliefs, love and ideas are transferred as a result of heart transplant. These transfer of personalities cases have been collected by various researchers. Take for instance Peter Houghton, the earliest receiver of the artificial heart who remained wistful about emotions (Garreau, 2007). In the same vein, a happy married 69 year old man, living in Georgia, committed a suicide upon receiving a transplanted heart from the man who in his end also shot himself in a purely identical circumstance (Daily Mail, 2008). Another similar scenario happened to an 18 year old boy who wrote poetry, played music and composed songs. He died in a car accident, and after his heart was transplanted into an 18 year old girl Daniella by name, some of his music was played in her presence. She was suddenly able to complete the lyrics despite never having heard it before (Penman, 2008). The question now is if brain is solely responsible for our thought and perception, then what is the scientific explanation of this phenomena in which memories and character of the donor are transplanted along with their heart? It is clear from the above proofs that those Scholars who denied the heart's role are just catching the shadow while at the same time loosing the substance. Neither Quran nor Sunnah did deny the possible role of brain in our intellectual activities, but what the two confirmed however is that the central seat of intelligence is indeed heart. Our scientists therefore should contribute with a decisive research on how the two organs communicate in regulating as well as shaping man's intellectual activities.

Some religious Scholars attempted to set a common resolution by combining the two views. Perhaps the best of those is the supposition put forward by Ibn Taymiyyah (1988), explaining that the cognition is related to both heart and brain. He said the foundation of the will and decision making is in the heart, and the foundation of thought is the brain. Intellection comprises knowledge and being consistent with the knowledge, which are centrally controlled by the heart being the seat of will and desire. But the faculty by which one makes decisions which is will, can be only actualized after cogitating upon the intelligible object, the foundation of which starts from the brain. It therefore begins from the head as it visualizes the intelligible, and then sends it to the heart to decide. This is a reasonable combination of the two opposing views from Ibn Taymiyyah, but one cannot fully avouch for it authoritatively, not especially with the emergence of these scientific discoveries, suggesting heart to be containing neurons which provide ability of thinking, sensing and maintaining its operation. But one thing for sure is that these functions according the Quran and Sunnah are centrally controlled by the heart. However, that doesn't necessarily negate the brain's connection and role; it is only the matter of refinement of facts.

# 5. Role and Significance of al-Aql in the Islamic Shari'ah

In Islam, the significance of al-Aql cannot be over-emphasized. It plays a key role in recognizing the prophetic mission of Prophets of Allah the Exalted. Moreover, people who are insane are exempted from religious obligations, the Messenger of Allah is reported to have said: "*The pen has been lifted from writing the deeds of three (individuals): the one who asleep until he awakes, a minor child until he reaches puberty, and the insane until he regains sanity*" (Ahmad related). Meanwhile, al-Aql is the compelling force by which man understands life as a trust as well as a gift, of which man is under obligation to use it as a capital to do righteousness by following the teachings of the Scripture. Those who believe in the oneness of Allah are surely wise and heedful to the *Fitrah* (the inherent nature of Islam) with which Allah created all mankind. The Prophet said: "*Every newborn baby is born on al-Fitrah (inherent nature of Islam), but his parents convert him to Judaism or Christianity or Zoroastrian, as an animal gives birth to a perfect young animal baby, do you find it mutilated?*" (Bukhari related). This is a clear testimony that man is likely to believe in the oneness of Allah, unless his mind was corrupted by the beliefs of his society. This is because; knowledge of the oneness of Allah the Exalted is axiomatic truth which one naturally grasps. But due to the presence of illusions and temptations in this world which get mixed up with the truth, Allah the Exalted sent Prophets and Messengers to keep this Aql away from deviating and perversion.

Consequently, the source of knowledge available to humans in this world is of two types. The first is that knowledge gained through revelation from Allah the Exalted. The second type is that of reasoning of which evidence of knowledge is collected from sense perception and empiricism. In Islam, the former is superior in that it is the scale upon which the intellectual value of the latter is measured, for reasoning as stated earlier, needs the guidance of the teachings of the Scripture to keep it away from illusion about things beyond it like the area of metaphysics. But some sects, specially the factions of Kalam such as Mu'taziltes, Shi'ites, Ash'arites and Maturids, all base their ideas on Aql, seeking to establish the fundamental principles of conviction philosophically without consultation of the legal texts from the Quran and Sunnah. They consider such approach sufficient in its self, relying exclusively on it even when found to be at variance with the legal texts of Islam. As a matter of fact, al-Aql to them is the primary source of knowledge, and thus, should be preferred when revelation contradicts it. Scholars in the course of refuting such pervasive views, like Ibn Taymiyyah in his book Dar'u Ta'arud al-Aal wa al-Nagl, affirmed that there is nothing from the clear legal text which contradicts sound reason. What these factions speak of contradiction was as a result of their insistence to delve into matters that transcends reason. Relying on reason in the area of metaphysics is tantamount to saying things about Allah the Exalted and his religion without guidance from him, for human imagination cannot conceptualize him, nor can they grasp His reality. He the Exalted is One without partner, eternal without beginning, everlasting without finality, neither perishes nor ends, nor does He resemble creation (al-Tahawi). Any explanation other than what has been provided the Ouran and Sunnah concerning Allah's essence and qualities is deviation and perversion and thus, the sense of logic as well as its framework will be lost.

# 6. The Knowledge of Merits and Demerits of Things (Al-Tahsin and al-Taqbih)

Discussion on al-Aql will be deficient without at least highlighting the underlined area, on which divergent of opinions have been recorded between religious groups. The question under scrutiny is whether merits and demerits of things are identifiable through Aql (reasoning) without the aid of revelation.

In other words, does intoxicant became evil only because Allah the Exalted made it forbidden or it is also an evil thing in its self. Asha'arites, are of the opinion that the knowledge of merit and demerit of things as well as their binding reward and punishment are exclusively known through revelation. This is also the recorded view of Dhahiriyyah School of Jurisprudence. The second group is of the view that the merit and demerit of things along with their binding reward or punishment are identifiable through Aql, and thus, immoral acts of fornication, adultery and intoxicants deserve punishment even without revealed warning. This is the view held by Mu'tazilites. The third group stayed in the middle cause, suggesting that the merits and demerits of things are indeed identifiable by al-Aql, but receiving a warning from Allah the Exalted through a delegated authority from Him entails that one cannot plead ignorance in excuse of his actions. This is the correct opinion endorsed by vast majority of Ahl al-Sunnah wa al-Jama'ah, it is also the view of Maturids and Karramis (al-Shahrani, 2008). Allah the Exalted says:

### "...He allows them as lawful al-Tayyibat (all good things) and prohibits them as unlawful al-Khaba'ith (all evil *deeds*)" (7: 157)

The above verse is a testimony that what Prophet (May the blessings and peace of Allah be upon him) made lawful is good in its self even before it was pronounced lawful by him. Likewise, what he prohibited is evil even before it was declared unlawful; otherwise, they wouldn't be called al-Tayyibat and al-Khaba'ith respectively. Moreover, it is not rational and indeed nonsensical to say Shirk (associating partner to Allah the Exalted) or saying things about Allah without knowledge became evil by only revelation. Indeed these sins are evil in themselves and attributing it to Allah the Exalted is transgression. Allah said thus:

"And when they commit a Fahishah (evil deeds and sins), they say: We found our fathers doing it, and Allah has commanded it to us. Say: Nay Allah never commands Fahishah, do you say of Allah what you know not" (7:28)

The view held by the Asharites and Dhahiriyyah Schools lead to invalidating the objectives as well as the causes of the Shariah through which other laws are deduced. That is why leading Asharite scholars drew a line to their throat by accepting Oivas (Analogical deduction) in Islamic law, compromising their denial of the merit and demerit of things. However, the third group also disagreed with Mu'taziltes on whether there is binding reward or punishment on what had been identified by reason. They said receiving a warning from Allah entails bliss or punishment, depending on the degree to which one attains spiritual virtue or condemns himself. Allah the Exalted said thus:

"Messengers as bearers of good news as well as of warning in order that mankind should have no plea against Allah after (the coming of) Messengers, and Allah is Ever-Powerful, All-Wise" (4: 165).

He the Exalted also said:

"... And we never punish until we have sent a Messenger (to give warning)" 17:15

# 7. Conclusion

This paper has been examining the concept of al-Aql according to the legal provision of the Islamic religion, disqualifying the newly-introduced views foreign to Islam on the concept such as following or regarding the footsteps of peripatetic philosophy to be the cornerstone rather than the real teachings of Islam. The paper also identified heart to be centrally the seat of intelligence rather than the brain, basing the proofs from the Quran, Sunnah, Arabic language as well as the evidence of knowledge discovered by researchers. It called on researchers from the field of neuroscience to contribute with their research on the two organs, bringing into lime light how both relate to our cognitive activities. Indeed the perfectness and defectiveness of things are identifiable through reason, but consultation of the Scripture is necessary to keep reason away from err, perversion and falsity. One may realize from what has been discussed thus far that believing in the message of the Quran and confirming the delegated authority of the Prophet (May the blessings and peace of Allah be upon him) help one acquire the wisdom which guides him to success in this life and in the hereafter. Those who act in accordance with what they were informed by the Ouran are surely wise and virtuous in their relationship with Allah the Exalted, and thus are intelligent in their life. But those who acted not upon their knowledge are only incurring Allah's wrath upon their own self and shall have the hellfire as their last abode. Many among the mankind are reluctant to follow the teaching of the religion. Some may be followers of the religion, but their behavior indicates they are doubtful regarding the resurrection of life and therefore pay no heed to what Allah the Exalted declared as law.

Believers should not follow the footsteps of the people of the Book who are familiar with the teachings of the Scripture but refuse to submit to it, for such people will not have access into the kingdom of heaven until a camel passes through the eye of the needle.

# References

- Crivellato, E. Ribbatti, D. (2006). Soul, Mind, Brain: Greek philosophy and the birth of neuroscience. Brain Research Bulletin, 71 (2007), 327-336. Retrieved: August 21 2015, from http://mrtc.mdh.se/.../pdf.../Soul-Mind-
- Al-Farabi, Abu Nasr (c. 870-950). (n.d). Retrieved: August 14 2015, from

http://www.muslimphilosophy.com/ip/rep/H021.htm

- Garreau, J. (2007). His Heart Whirs Anew. The Washington Post. Retrieved: August 10 2015, from http://www.washingtonpost.com/wp-dyn/content/article/2007/08/11/AR2007081101390.htm
- Gross, C. G (1995). Aristotle on the Brain. The Neuroscientist, 1(4), 245-250. Retrieved: August 20 2015, from http://princeton.edu/.../Neuroscientist-95-1.pdf
- Al-Jawzi, A. A. (2004). Akhbar al-Azkiya'. Beirut: Dar Ibn Hazm
- Ibn Mandhur, M. (n.d). Lisan al-Arab al-Muhit. Beirut: Darr al-Lisan al-Arab
- Ibn Taymiyyah, A.A. (1988). Risalah fi al-Aql wa al-Ruh. Beirut: Darr al-Hijrah.
- Ibn Taymiyyah, A. A. (2005). Al-Radd ala al-Mantiqiyyin. Beirut: Mu'assasah al-Rayyan.
- Ibn Taymiyyah, A. A. (n.d)). Dar al-Ta'arud al-Aql wa al-Naql. Retrieved: June 5, from http://www.waqfeya.com/book.php?bid=654
- Lane, E. W. (1980). An Arabic-English Lexicon. Beirut: Librairie Du-Liban
- Man given heart of Suicide victim marries donor's widow and then kill himself in an exactly the same way. (2008, April). Mail Online News. Retrieved: August 10 2015, from http://www.dailymail.co.uk/news/article-557864/Man-given-heart-suicide-victim-marries-donors-widow-kills-exactly-way.htm
- McCraty, R. (n.d). The relationship between heart-brain dynamics, positive emotions, coherence, optimal health and cognitive function. Retrieved: August 23 2015, from http://www.coherenceinhealth.nl/.../Verlsag-
- Naik, Z. (2013). Dr Zakir Naik: Question and Answer. Retrieved: July 23 2015, from http://zakirnaikqa.worldpress.com/2013/05/19/\q-
- Penman, D. (2008). Can we really transplant a human soul? Mail Online. Retrieved: August 10 2015, from http://www.dailymail.co.uk/news/article-558271/Can-transplant-human-soul.html
- Rahman, S. Hassan, M. (2013). Hearts's role in the Human Body: A literature review. ICCSS-2013, 2(2), 1-6. Retrieved: July 28 2015, from http://www.heartmath.org/.../hearts-Role---
- al-Shahrani, A. A. (2008). Al-Tahsin wa al-Taqbih wa atharuhuma fi Masa'il Usul al-Fiqh. Riyadh: Dar al-Kunuz Ishbiliyyah
- Sulayman Al-Dahir, S. (2014). Nazariyyat al-Aql ind al-Farabi. Damascus University Magazine, 30, 439-479. Retrieved: August 12 2015, from http://www.damascusuniversity.edu.sy/.../439
- Al-Tahawi, A. (2014, November). Aqeedah al-Tahawiy. (al-Gazali Centre for Islamic Science & human development trans). Retrieved: November, 15 2014, from http://algazali.org/.../aqeedahNotes.pdf