

COMPARING AND CONTRASTING THE CONCEPT OF THE INTELLECT BETWEEN CLASSICAL MUSLIM PHILOSOPHERS WITH MODERN COGNITIVE PSYCHOLOGISTS: A DEFINITIONAL REFLECTION

Ssuna Salim¹ --- Syahrul Faizaz Abdullah²

¹Senior Visiting Lecturer

²Lecturer, Center for General Studies, College of Arts and Sciences, Universiti Utara Malaysia, Malaysia

ABSTRACT

The concept of the intellect greatly attracted Classical Muslim Philosophers and still attracts the attention of the Modern Cognitive Psychologists as well. A lot of scientific as well as non-scientific studies and researches have been carried out; unfortunately, this concept is still one of the most misunderstood concepts of human nature. The study presented and analyzed the opinions of the two groups, emphasizing their definition and understanding of what the intellect is, and what it entails, this culminated into a critical analysis of its relationship to knowledge production and acquisition. This is a qualitative study and it utilized textual analysis methodology. The study noted sharp differences in the definition and understanding of the intellect between Classical Muslim Philosophers whose understanding was mainly based on the Quran and the Sunnah of the Prophet, (pbuh) while Modern Cognitive Psychologists understanding was mainly based on personal opinions, observations and reasoning. The study views that this concept will continue to be misunderstood and vaguely defined since it is abstract in nature, a better and a sound understanding can be reached through authentic revealed knowledge.

Keywords: Intellect, Classical muslim philosophers, Modern cognitive psychologists, Authentic revealed knowledge, Knowledge production, Quran and the Sunnah.

Contribution/ Originality

The intellect being an integral central part of a human being attracts the attention of everybody from scholars and philosophers to laymen. Actually, the intellect according to the Islamic teachings distinguishes a human from other creatures thus, human will be held responsible for their actions in view of the intellect granted to them by Allah the Almighty. Consequently, Muslim's understanding of this concept was based on this fact, whereby, this concept is related to human relation to their creator and their responsibly towards Him. Other philosophies too and more so the West has invested a lot and tireless efforts for centuries have been directed towards the study of the intellect in spite the fact that they are yet to come to an

agreement as to what it is. This study exposes differences and weaknesses in understanding of this concept which will act as an eye opener to further critical analytical studies that will produce reasonable understanding of the concept of the intellect.

1. INTRODUCTION

The Cognitive Faculty is still one of the most misunderstood aspects of human nature in – spite of numerous and vigorous studies carried out for more than a century. According to the Islamic thought man is unique and different from other animals simply because he was gifted by God with the power of reason which assists him to distinguish between good from bad. This therefore explains why throughout history of human race the study of the intellect has occupied a central position.

Due to this, Classical Muslim Philosophers left a body of knowledge in relation to the intellect, this was so, because of its importance and the position it occupies in giving man a lofty position as compared to other creatures. Indeed man and animals share some natural traits, like eating, drinking, sex, rest to mention but a few, had it not been the intellect granted to man by God there would be no difference. Modern Psychology too, though with varying and in most cases contradicting opinions, has had great interest in studying the cognitive faculty, but it is yet to come to satisfying conclusions. In spite of the immense interest shown by both and numerous studies carried out, there exist differences in opinion on what the intellect is, how it functions and its role in knowledge production and acquisition, although traces of similarities can be noticed too. In view of that, the task of this study is to present and analyze the opinions of the two groups, emphasizing their understanding of what the intellect is, and what it entails, this will culminate briefly into the discussion of its relationship to knowledge production and acquisition.

It is crucial to point out at this point that the sharp differences in the comprehension of the cognitive faculty between Classical Muslim Philosophers with Modern Cognitive Psychologists was mainly due to the fact that Classical Muslim Philosopher's understanding of the intellect was guided by the revelation; Quran and Sunnah as we shall see in the course of our discussion, which acted as eye opener and a basis in their better understanding of this grossly misunderstood concept, thus, they acquired a gigantic comprehensible body of knowledge as compared to the Modern Cognitive Psychologists whose foundation was based on personal opinions, observations and reasoning. This therefore mainly accounts for the existence of contradicting ideas and theories about the concept.

2. THE INTELLECT IN THE QURAN AND SUNNAH

The term intellect appears in various verse in the Quran in form of expressions like those who understand, don't you understand extra. Al Baqarah 2: 269 states, He granteth wisdom to

whom He pleaseth; and he to whom wisdom is granted receiveth indeed a benefit over-flowing; But none will receive admonition but men of understanding.¹

Al –Barqarah 164 again articulates, behold! In the creation of the heavens and the earth; In the alternation of the Night and Day; In the sailing of ships through the Ocean for the profit of mankind; In the rain which Allah sends down from the skies, and the life which he gives therewith to an earth that is dead; In the beasts of all kinds that He scatters through the earth; In the change of winds, and the clouds which they trail like their slaves between the sky and the earth; - (Here) indeed are signs for people that are wise.

The above verse is multi-faceted; in the sense that it depicts a bigger cosmological scenario, which was displayed by Allah in form of common daily occurrences, which in most cases do not appeal to most people's minds, except the wise ones. The apparent use of the term (*aqf*) is evident that these natural recurring events are not a waste of time but Sings to the wise endowed with intellect that contemplates upon them.

The above verse can be further elaborated by al Baqarah 2:242, which states. Thus does Allah make clear His Signs to you: in order that ye may understand. God's signs are simple and comprehensible. Another verse in al-Imran: 190-191 also shades light on symbols that designate Allah's creation as signals to men of ponder. It states: Behold! In the creation of the heavens and the earth, and the alteration of Night and Day, there are indeed Signs for men of understanding. Men who remember Allah standing, sitting, and lying down on their sides, and contemplate the (wonders of) creation in the heavens and earth, (with the saying): "Our Lord not for naught hast Thou created (all) this! Glory to Thee! Give us Salvation from the Chastisement of the fire.

It is important to note that the greatest understanding is reflected in grasping and following the teachings in Allah's revelation. Azzumar 18 articulates: Those who listen to the Word and follow the best of it, those are the ones who Allah has guided, and those with understanding.²

The intellect is a God given endowment to human beings and as such they must show gratitude to their Lord. *An-Nahl*, 78 confirms this when it states, It is He who brought you forth from wombs of your own mothers when ye knew nothing; and He gave you hearing and sight and intelligence and affections; that you may give thanks to Allah. Allah did not only grant the intellect to a human being, in addition He as well gave the senses of hearing, sight and affection to perfect the balanced functioning of the intellect. For that reason therefore any misuse of the intellect and its associates is condemned and consequently will lead to a total loss in this life and

¹ In this verse the terms wisdom (*Hikmat*) and understanding (*Lubb* or its plural *Albab*) were both utilized but implying the same thing, although *Albab* or *Lubb* is a higher state of understanding. The wisdom and understanding is a God given gift to whoever Allah has chosen, whose benefits will be over-flowing; by the virtue of wisdom given that they will be able to understand their Lord.

² See also Azzumar 42, where the Arabic word *yatafakkarun* (such that you may understand) was used to mean understanding. Also al-Imra 7, the term *ulul albab* (Men of understanding) was employed.

life hereafter. And such people are likened to beasts. *Al-Anfal*, 22, states: For the worst of the beasts in the sight of Allah are the deaf and dumb, those who understand not.

The Prophet said, "O people acquire knowledge from your Lord and advise one another with intellect. Know what you have been enjoined and what you have been prohibited. Know that intellect will rank you to your learning. Know that an intelligent man is he who obeys God although his face is ugly, his body dwarf, his rank low and appearance shabby. An ignorant man is he who disobeys God though his appearance is beautiful, his body long, his conduct good and his speech fluent. Who he disobeys God is not more intelligent than an ape or a pig"(Al Ghazali, 1982).³

In another *Hadith* the Prophet is reported to have said that the first thing God created is the intellect. He said to intellect: Come near and it came near. Then He said to it: Go back and it went back. Then God said "By My honour and glory: I have created nothing in my sight more honourable than you. Through you I take, through you I give, through you I give reward and through you I punish" The Prophet said again, that everything has a root and the root of a believer is intellect and his divine service will be in proportion to his intellect (Al Ghazali, 1982).

'A'ishah (r.a) asked: O apostle of God, for what thing do people in the world get excellence over one another? He said: For intellect. I asked: In the next world? He said: For intellect. I asked him: Will they not get their rewards in proportion to their action? The Prophet said: O 'A'ishah, do they act except in proportion to their intellect and they will get reward in proportion to their actions (Al Ghazali, 1982). In another *Hadith* the Prophet said that: Everything has got a weapon and the weapon of a believer is intellect. Everything has got a ministry and the ministry of a man is his intellect. Everything has got a support and the support of religion is intellect. Every people have got a goal and the goal of the people is intellect. Every people have got a missionary and the missionary of worshipers is intellect. Everything has got a basis and the basis of the next world is intellect. Every journey has got a tent for shelter and the tent of a believer is intellect (Al Ghazali, 1982).

The sayings of the Prophet quoted above clearly indicate the importance and central position of the intellect, even in matters of worship people will act according to the proportion of their intellect. It should be brought to our attention that Allah did not create anything greater than the intellect. This stands out clearly in a *Hadith*. Narrated by Abdullah b Salam that at the end of a long sermon the Prophet described the Throne and stated that the angels asked God: O God, Has Thou created anything greater than the Throne? He said: Yes, intellect. They asked how great it is?. He said: Alas, your intellect cannot grasp it. Can you count the number of sands: They said no: God said: I have created intellect in different minds as numerous as sands. Some men have

³ The intellect in this *Hadith* is central to knowledge acquisition and wise advice to one another. Man is regarded as being intelligent only when he fears his Lord; otherwise, he is no better than an ape or a pig, thus this *Hadith* further elucidates *al-Anfal* 22.

been given one grain, some two, some three, some four, some over one Farq, someone *Wasq* and some more (Al Ghazali, 1982).

3. CLASSICAL MUSLIM PHILOSOPHER'S UNDERSTANDING OF THE INTELLECT

Before we examine the divisions of the intellect according to the Classical Muslim Philosophers, it is necessary to look at their understanding of the term intellect. Ibn Khaldun (1980) in his *Muqaddimah* defines intellect as Man's ability to think, which distinguishes him from animals, which enables man to obtain his livelihood, to co-operate to this end with their fellow men, and to study the Master whom they worship and the revelations that the messengers transmitted from Him, and this caused all animals to obey man and to be in the grasp of his power.⁴

Al Ghazali (1982) agrees with Ibn Khaldun's definition of the intellect and confirms that it is an attribute, which distinguishes man from other animals by which he acquires natural sciences. It is also a wisdom that appears even in childhood. It is as well a type of knowledge acquired through experience, and a natural power of man by which he recognizes the result of actions for which his present passion of sexual pleasure is controlled.⁵

Hossein (1982) on the other hand defines intellect by expounding that it comes from an Arabic word *al aql*, which is related to the root word *aql*, which means basically to bind. Hence, intellect is a faculty that binds man to God, to his origin. By the virtue of being endowed with *al-aql*, man becomes man and shares in the attribute of knowledge, *al-ilm*, which ultimately belongs to God alone.

This brings us to a point of apprehension that all animals share with man his animalistic sensual perception, which includes motion, food, shelter and the like. But man's quality of his ability distinguished him from other living beings. Consequently, the degree to which a human being is able to establish an orderly causal chain determines his degree of humanity (Ibn Khaldun, 1980).

According to Al Ghazali (1982), the intellect can be looked at in four dimensions. It is an attribute for which man can be distinguished from other animals. This view indicates the path of theoretical learning or mastering the abstract disciplines. This culminated into Hares Bin Asad's

⁴ This is a comprehensive definition, but the reasons for him to having placed man's ability to think at the forefront of man's understanding of his Master and revelation transmitted by messengers -the major objective of man's creation- are not obvious. May be one can suggest that it is because, for man to understand his God must poses the power to make a distinction, otherwise, beginning with Master's recognition would depict the role of the intellect in a superior fashion.

⁵ Al Ghazali (1982). defined the intellect in four different ways; each definition represents a different understanding of the intellect, although, in the final analysis, he actually advanced two major opinions regarding this concept, as we shall see the details later on.

assertion that intellect is a natural attribute by which theoretical sciences are grasped and understood. According to this observation, everybody has got this instinct even the none-learned. Further still [Al Ghazali \(1982\)](#) termed intellect as wisdom. This, he observes, appears even in childhood. He elaborates this by explicating that a child knows by instinct that two is greater than one or that an individual cannot remain in two different places at the same time.

This brings us to another aspect which [Al Ghazali \(1982\)](#) viewed as knowledge acquired through experience. He declares that one who is taught by experience and schooled by time is called a man of intellect and he who lacks these qualifications is called ignorant. And finally, when a natural power of man; illuminates, reaches such a point by which he can know the results of actions and for which the present pleasure of sexual passion is controlled, it is deduced that he has the intellect. Consequently, such a man is termed as intelligent, because he does not act by the dictates of infatuation but by the ultimate result of an action.

It should be made clear that al-Ghazali's first meaning of the intellect is the base and foundation, where by the second meaning is its branch, well as the third, a branch of the first and the second and the fourth, the ultimate result of the intellect and distant goal. [Al Ghazali \(1982\)](#) accordingly concludes that, the first two arise as natural causes while the latter two are acquired. Thus in the final analysis, there are two aspects of an intellect; an attribute that differentiate man from animals, where by wisdom and knowledge acquired through experience are traits as well unique with humans. The second aspect is the situation when the intellect is capable of knowing the results of actions and will be in control of sexual obsession.

[Ibn Khaldun \(1980\)](#) divided the intellect in three aspects. Actually these three features contain all the four facets given by [Al Ghazali \(1982\)](#). Ibn Khaldun termed them as degrees, since he is of the opinion that, the ability to think has several degrees. For that reason, Ibn Khaldun's first degree is man's intellectual understanding of the things that exist in the outside world, in a natural or arbitrary order, so that man will arrange them with the help of his supremacy. This kind of thinking mostly consists of perception, which he labeled as the discerning intellect, which enables man to obtain things that are useful for him and his livelihood and repels the harmful things. This degree corresponds to al-Ghazali's attribute distinctive to humans by which they acquire natural sciences and the wisdom that is even found in children.

The second degree constitutes the ability to think which affords man the ideas and the behavior needed in dealing with his fellow men and in leading them. On the other hand, Ibn Khaldun identified this as the experiential intellect, since, it mostly conveys apperception, one gains through experience, unlike the discerning intellect, which mainly consists of sensitivities. This matches with al-Ghazali's knowledge acquired through experience, although it is part of al-Ghazali's first aspect. Ibn Khaldun's third and last degrees are the aptitude to think which provides hypothetical knowledge of an object beyond sense perception without any practical activity; this is known as the speculative intellect. This is unique in the sense that it includes both perceptions and apperceptions, arranged according to a special order, monitored by special

conditions, which again combine with something else to provide some other knowledge, which is ultimately the perception of existence with its various general differences, reasons, and causes. Thus by thinking about these things, affirms Ibn Khaldun, man achieves perfection in his reality and becomes pure intellect and perceptive soul. This degree corresponds to the fourth meaning of al-Ghazali, whereby man recognizes the results of his actions and he possesses power to control them.

Besides al-Ghazali and Ibn Khaldun's contribution to the understanding of the intellect, al-Farabi too immensely contributed, this enormous contribution was essentially due to a combination of Aristotelian, Neoplatonic as well as Islamic ideas, more especially in relation to the intellect. This is why he described human creature as a rational animal that enjoys domination over other species by virtue of having intelligence (*aql*) and a will (*iradah*) both of which are functions of the rational faculty following Aristotle's view (Osman, 1992).

Al-Farabi declares that there are five faculties of the human soul (*al-nafs al-insaniyah*), whose order of generation he illustrates accordingly. According to him, when man comes into being, the vegetative faculty (*al-quwwat al-ghadhiyah*) by which he nourishes appears first. The faculty with which he recognizes tangible objects like; heat, cold and the rest follow. With the same faculty, he tastes, smells, hears sounds and sees colours and other objects like right rays. Subsequently, develops the faculty with which he yearns for sensible, which he either likes or dislike. Then the imaginative faculty (*al-quwwah al-mutakhayyilah*) appears, with this he retains the impressions of the sensible upon his soul after the sensible objects have disappeared from his senses. This faculty is characterized by combining with and separating some of the impressions of the sensibles from others, producing unique combinations and separations, which may or may not be true. This faculty is associated with the power of desire towards objects as well. Finally, the rational faculty (*al-quwwat al-natiqah*) emerges. By this man is able to perceive the intelligible by which he differentiates between good and bad and he gains possession of the arts and the sciences. This is associated with the desire towards that which has been perceived by the intellect (Osman, 1992).

Al-Farabi further explicates that the order of the development of the human soul is hierarchical in nature, he also clarified that each faculty exists for the sake of the one above it, being ruled by the rational, the highest in the hierarchy. Al-Farabi continue to observe that the humans gain knowledge of a thing either through the rational faculty, the imaginative faculty or sensation, this lead to the division of the cognitive faculties into body (*corpus*), soul (*psyche*) and spirit (*spiritus*), with which the sensitive, the imaginative and rational are correspondingly identified (Osman, 1992).

Al-Farabi enlightens that the sensitive faculty is the lowest of the cognitive faculties since it exists for the sake of imaginative and rational. Like Ibn Khaldun and al-Ghazali, al-Farabi too believed that the cognitive power of a human soul is first developed through the imaginative senses, which possesses a higher grade than the sensitive. The two faculties are related, al-Farabi give details that; the sensitive faculty is a form (*surah*) while the imaginative faculty is matter

(*maddah*). This implies that the lower faculty serves as matter for the higher. It is upon this premise that al-Farabi constructed his system of the hierarchy of cognitive faculties of the soul. In that case, the common sense is matter for the imaginative, which denotes that the appearance of the sensitive faculty prepares the ground for the imaginative faculty, which later on will attain its perfection through the common sense; the ruling component of the sensitive faculty, (*al-hasah al-mushtarakah*), which al-Farabi labeled as power or faculty, whose work is to receive all the impressions of the five external senses (Osman, 1992).

Since the imaginative faculty is form for the sensitive faculty, it imposes a limit to its capacity to know things. According to al-Farabi, the sensitive faculty can only know the external material world. This suggests that, man's intellectual realization will be limited, since the sensitive faculty is limited by nature as a mode of knowing. Hence, the need for sensation in arts and sciences acquisition that stems from the perceived forms of sensible things first by the external senses and then by the imaginative faculty, which constitutes potential intelligible, which will become actual intelligible after being illuminated by the active intellect (Osman, 1992).

It is interesting to note that, al-Farabi, explains the imaginative faculty in terms of the five external senses (*al-hawas al-hamsah*), which he divided into five faculties. The faculty of representation preserves forms of sensible objects perceived by the external senses. Besides however, there are none -sensible forms connected with the individual sensible object, which, cannot be perceived by the external senses. Such forms, clarifies Al-Farabi, can be perceived by the faculty of estimation (*wahm*). The none- material entities perceived by the faculty of estimation are retained in the faculty of memory. The compositive faculty on the other hand, is creative in nature, whereby it produces new composite images out of the images stored in the representative faculty through a process of combination and separation; this takes place by combining certain images with others and separating some from others as it chooses. Al-Farabi further examines that the animal with this faculty executes this task both in its waking or sleeping states. Some of the newly produced images are true while others are false. In case of humans, al-Farabi refers to this the compositive faculty as rational imagination (*al-mufakkirah*) well as in case of animals he termed it as sensitive imagination (*al-mutakhayyilah*) (Osman Bakar).

It is therefore apparent that al-Farabi plainly identified the fundamental role of the imaginative faculty, which is none other than, retention, composition and estimation of images, in service of the rational faculty. According to al-Farabi, the rational faculty is that by which man understands, deliberates on things he wishes to do, whether it is possible to do it or not and how to perform the function, acquires sciences (*ulum*), and arts (*sina'at*), distinguishes between the fair and ugly. This faculty is partly practical in terms of skills and theoretical for things whose condition can be changed from one condition to another. Basing on al-Farabi's understanding of rational faculty, Osman (1992) elaborates that the rational faculty is partly theoretical and partly practical. The rational faculty also gives rise to the four elements that constitute human

perfection or happiness, which is exhibited in form of theoretical, deliberative, moral virtues and practical arts.

4. MODERN WESTERN PSYCHOLOGISTS UNDERSTANDING OF THE INTELLECT

The modern western psychologists understanding of the cognitive psychology on the other hand, is mostly rationally based besides the influence of the prevailing circumstances, which may be social, economic, political, philosophical and at times religious. This therefore accounts for variations in the understanding of the concept, which at times contradictory and at some other times ambiguous. Richardson (1991) expressed his dissatisfaction by observing that the usual offering to psychology students on the subject of intelligence seemed rarely satisfactory. A bit of the history of IQ is usually taught, followed by some review of the pros and cons of the text. A brief review of the diverse structures of intelligence proposed by a few famous names and some account of the nature-nurture would be given. Besides that a little about approaches like information processing has often been included and other special aspects such as biological aspects or something to do with the brain and intelligence is given.

Richardson further asserts that a midst of these bits and pieces students do not get to grips with real issues and are left with a fragmented impression. The so many books written on intelligence by specialists promoting a particular line, alongside daunting technical language, compound the problem.

Kline (1991) agrees with Richardson (1991) and emphasizes that the psychology of intelligence is one of the greatest achievement yet it is poorly understood. As early as 1947, Piaget (1947) realized that in spite of the abundance and the value of well-known studies, the psychological theory of intellectual mechanisms in only in its infancy, and it was barely beginning to glimpse the sort of precision of which it might be capable.⁶

Piaget's examination can be elaborated by a recent work of Sternberg *et al.* (2003) who explicate that although all fields of psychology are subject to scholarly controversy, few fields have proven to be as continuous as the field of intelligence. They again argue that a century of vigorous debate has yielded little consensus on such key topics as the role of genetics play in intelligence, the varying forms intelligence can take and whether it is concrete and fixed or changeable and emerging. Sternberg *et al.* (2003), consequently express the need for new models of intelligence for a new millennium. They do not deny the fact that traditional approaches have contributed towards understanding intelligence, only that no approach, past or present is perfect.

⁶ One may agree and say that since the time Piaget (1947), published this work a lot of studies have been carried out which is true to a certain extent, but on the other hand what about Richardson (1991) and Kline (1991), whose works were done during 1996 and 1991 respectively, who also made the same observation.

Eysenck (1979) agrees with Sternberg *et al.* (2003) and reveals that, psychology has a long past, but a short history. People have puzzled over psychological problems for thousands of years, yet the development of a science of psychology is scarcely a hundred years old. According to Eysenck, Plato and Aristotle already discussed the notion of intelligence, but it is only this century that attempts have been made successfully to measure this important variable. However many misunderstandings have attended this venture.

Ceci (1990) also remarks that there is something amiss in the way people view intelligence, particularly in the way they imagine it to develop. Ceci further asserts that, a variety of findings that call into question static view of intelligence, suggest that an empirically adequate account of the development of intelligence must go beyond present psychometric, information processing and genetic presentation. It is worthy at this point to turn our attention to the fact that, lack of a lucid understanding of the intellect is reflected in the way psychologists of different periods have defined it. Richardson (1991) on this spells out that intelligence is a flexible concept with many meanings. By universal acknowledgement among psychologists is also one of the most elusive and slippery of ideas.

Before we examine a few definitions of intelligence, it is of paramount importance to observe that, the literal and technical definitions seem to be overlapping. This is another manifestation that the concept is yet to be properly understood by Modern Western Psychologist. On this Gregory (1994), enlightens that intelligence is hard to define, therefore descriptions are generally beset with paradoxes. Thus, intelligence is attributed to those who have to think because they do not know a lot, and to those who know a lot and do not have to think.

This has an implication that the meaning of the term intellect has been having different meanings over time depending on the prevailing circumstances and the position of who want to define it. On this Richardson (1991), clarifies that a great many ideas in modern psychology stem from ancient Greek, and this is also true of ideas about intelligence. Plato lived a time of political reaction to a long liberal time, which resulted in a series of disastrous military defeats. Plato with all his own intellectual resources supported the regime. He wrote in support of rigid class divisions, claiming that they simply reflected differences in innate intellectual strength among the populace. In the Republic he wrote the pre-requisites of the perfect State, the structure of which would exactly reflect the intellectual attributes of its citizens.

Although Plato had little to offer by way of characterization of the intellect, he connected it to the faculty of thought or conception in particular, a power to apprehend relations and make abstractions (concepts, principles, rules, etc.). But above all he reasoned that it must be a practical power, because it was needed in the running of the State, for governing, planning, making decisions and so on. Thus the good state was seen as a natural expression of the intelligence of its citizens, with a natural and convenient division of rank and duty according to inborn strength.

Richardson (1991) went on to elucidate that Aristotle who lived a generation later under changed political situations of a much more liberal regime in control, for this reason, he come up

with different answers. He looked at intelligence in terms of social policy, and more in terms of its evolution among living things generally. As a result, he saw intelligence as a common property of citizens, excluding slaves. This culminated into a system whereby the mind thinks and reasons; present only in humans. Aristotle further argued that intellectual virtue in the main owes its birth and its growth to teaching, where time and experience are required.⁷

With the rise of feudalism coped with the strength of the church during the middle ages, the main virtue was for people to know their place, to be obedient to the established authority. As a result, the idea of intelligence tied up with ethical, political and social questions, which eventually permeated the institution and education. In reaction to the increase in scholarship during the eight to tenth centuries learning was brought under institutional control under the watchful eye of the Church. Instructions were given in the psalms, musical notation, and chant, the computational of years and seasons and grammar. The response to such instructions became an important criterion of intelligence. Over the next three or four centuries speculation begun to grow about the forms and functions of intelligence. Attempts to characterize intelligence led to a variety of formulations; a hierarchy of separate intelligences, each level emanating from the other, the passive (sensory) active (cognitive) intelligences, potential and acquired intelligences, intuitive, used in apprehending immediate reality, and abstractive, used in working out what the words mean. Consequently, Richardson clarifies that; attempts during the twentieth century echo these formulations.

This can be noticed through Spencer's work, in which he tried to characterize intelligence by relating to both organic functions of living things generally to the evolution of living things, from organic life to psych life. This therefore introduced a new dimension as compared to the previous biological characterization, although the interpretation was rather mechanical (Richardson, 1991).

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Richardson (1991) went on to define intelligence as the ability to understand, reason, and perceive quickness in learning, mental alertness; ability to grasp relationships; information, news, especially military. Further still, Richardson defines intelligence as wisdom. He went on to describe it as a thinking power, intellectualism, intellect; brains, grey-matter, head, head pieces; nous, wit, commonsense; lights, understanding, sense, esprit, capacity, caliber, IQ, forwardness, brightness, cleverness, brilliance, talent genius.⁹

⁷ It is apparent that Plato and Aristotle's understanding was geared towards finding solutions to their political whims, thus the intellect had to be understood in that narrow sense.

⁸ This historical development, clearly depicts how the term intelligence has had varying definitions over time via avis prevailing circumstances and yet the claim to be studying the same object.

⁹ It is obvious that Richardson's two definitions are overlapping, where the reader understands intelligence and wisdom as synonyms. It not also clear whether these two definitions are technical or literal. The matter becomes more confusing by looking at the words used to describe wisdom and intellect where by similar words were used.

Kline (1991) claims that intelligence is popularly linguistically defined as the ability to learn, understand and deal with novel situations. According to him, the intelligence person is seen as quick-witted, acute, keen, sharp, canny, astute, bright and brilliant. On the other hand, an un-intelligent person is described as dim, dull, half-witted, or stupid. Well as, psychologists define it as the ability to perform certain types of tasks, or what intelligence tests measure, or the power to think abstractly, to be self-critical and to be adaptive, or the capacity of a person to understand the word and meet its demands, or a repertoire of intellectual skills.¹⁰

It is necessary at this juncture to clarify that intelligence is one of the fields in which modern western psychology claim to have scored a high success in its measurement. However, some one wonders as to how effective measurements could be, without a corresponding universally accepted definition of the subject. In one-way or another, these measurements must have had weaknesses stemming from the understanding of the object to be measured.

Ceci (1990) affirms that studies demonstrate that even within a given cognitive domain; there are substantial mismatches between performances in one set versus another. And across cognitive domain, there appears to be less correlation between one measure of cognitive complexity and another that previously has been measured to exist. Besides that, none of these studies provide incontrovertible evidence for the textual nature of intellectual behavior, but together they call into question a prior era's unrivaled assumption regarding the generality of intelligence and the mere adjunctive status of context.

Sternberg *et al.* (2003) and others agree with Ceci (1990) and give details that although all fields of psychology are subject to being perceived through ideological lenses, few fields seem to have lenses with so many colours. Sternberg *et al.* (2003) and others add that visions of intelligence have often been distorted because of the imperfect lenses that researchers have used. The different views are not only from ideological bases affecting what is said but also from what defines the concept of intelligence. In spite of all traditional approaches contribution towards understanding intelligence, emphasizes Richardson (1991) and others, no approach, past or present, is perfect.

Therefore, the examination of the traditional approaches provides motivation for the new approaches in the new millennium.

Modern western psychology has been to a greater extent influenced by Piaget's profound contribution to the study of intelligence. Piaget (1947) viewed intelligence as arising from the construction of cognitive structures that mature as a function of the interaction of the organism with the environment. Like many others theorists of intelligence, Piaget (1947) did not only recognize the importance of adaptation to intelligence, but he believed in it as its most important

¹⁰ A critical look at the linguistic and technical Kline's definitions of intelligence, notes that in the final analysis different words were used but they point at the same meaning. This may be partly due to the confusion between the intellect and what it does.

principle. Piaget (1947) urged that individuals learn from the environment and discover how to address the changes in it, and then the processes of assimilation and accommodation take place; the assimilation process observes new information and fit it into the already existing structures about what the world is like, while accommodation involves forming a new cognitive structure to understand information. These two processes take place in an interaction manner, which Piaget (1947) termed as equilibrium, and it is through this balance that people either add to old schemes or form new ones.

Piaget (1947) viewed a scheme as what remains invariant in an action, which is essentially a way of organizing sensory information through action. For example, children have schemes for adding or subtracting objects. The construction of operational structures underlying the logic of classes is achieved through the coordination of these two opposite schemes. According to Piaget (1947), the intelligence of children matures through four separate stages. But each of these stages builds on the preceding one so that development is essentially cumulative.

The first period Piaget (1947) calls it the sensorimotor period. This begins with birth to until two years. By the end of this period, the infant will have started to acquire object permanence, and the child knows that a search leads to finding objects. The second period is the preoperational period, which emerges roughly between two years to seven. Here the child begins to represent the world through symbols and images, which are directly dependent on his immediate perception, and the child is still essentially egocentric, then comes the concrete-operational period, which occurs around seven years. In this case, the child is able to perform concrete mental operations. The child now can reverse the direction of thought; the child can as well recognize that objects or quantities remain the same, despite changes in their physical appearance. Finally, the period of formal operations begins to evolve at around eleven years and will usually be fully developed by the age of sixteen years, although some adults never completely develop formal operations. During this stage, adolescents can think abstractly and hypothetically and not just correctly. The individual can view a problem from multiple points of view and can think much more systematically than before (Piaget, 1947).

5. CONCLUSION

The differences that exist between Classical Muslim Philosophers and Western Modern Psychologists stem from the fact that, their understanding is based on different sources. Much as the Classical Muslim Philosophers do not deny the rational function of the intellect, they are in total disagreement with the modern Western Psychologists, who considered it the major and only sources of understanding the intellect. This is reflected in the way they defined the intellect, whereby they equated the intellect to reasoning, thereby forgetting the fundamental distinction between the two. Well as the Classical Muslim Philosophers, kept this in mind and they did not lose sense of their inter-relation and the dependence of reason upon the intellect, in fact, they believed that the noble nature of knowledge has been revealed through intellect. Hence, intellect

is the source and fountain -head of knowledge and its foundation, but without belief in the Supreme Divine knowledge it becomes useless.

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