ARISTOTLE AND AVICENNA (IBN SINA) IN TERMS OF THE
THEORY OF INTELLECTS

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ABSTRACT

In this paper, I aim to illustrate the theory or the understanding of intellects, which Aristotle and Avicenna (Ibn Sina) spelled out in their works, and to compare Aristotel’s opinions akin to the intellects with those of Avicenna so that I can set forth how Islamic thinkers were influenced by Aristotle in terms of their theory or the understanding of intellects among the some other things. In order to do so, first I am going to analyze Aristotle’s book called De Anima so as to explain his point of view about intellects. Secondly I will shed light to Avicenna’s ideas regarding with intellects by examining his book called Psychology of Avicenna. Finally, I am going to try to display the similarities and the differences between Aristotle’s ideas about the intellects and Avicenna’s thoughts akin to the intellects.

Key Words: intellect, Islamic thinkers, opinions, ideas, thoughts, theory or understanding.

ÖZET

Akıllar Görüşü Bakımından Aristoteles ve İbni Sina

Bu çalışma, başka konular yanında akıllar anlayışı bakımından Aristoteles’in İslam düşünürlerini nasıl etkilediğini açığa çıkarp, gösterebilmek için, Aristoteles ve İbni Sina’nın eserlerinde işledikleri akıllar

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görüşünü etraftıca ele almak ve akıllar konusunda Aristoteles'in öne sürdüğü görüşlerle İbni Sina'nın aynı konudaki fikirlerini karşılaştırmayı amaçlamaktadır. Bu amaci gerçekleştirmede ilkin Aristoteles'in De Anima adlı yapıtı çözümleyerek, onun akıllar konusundaki fikirlerini vermeye çalışacağım. İkincileyn İbni Sina'nın Psychology of Avicenna adlı eserini inceleyerek onun akıllarla ilgili fikirlerine ışık tutmaya çalışacağım. Son olarak da Aristoteles ve İbni Sina'nın akıllar konusundaki görüşleri arasındaki benzerlikleri ve farklılıklar göstermeye çalışacağım.

Anahtar Kelimeler: Akıl, İslam düşünürleri, kanılar, fikirler, düşünceler, anlayış.

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Introduction

Aristotle, if I am not mistaken, studied reality by dividing it into several spheres of physics, biology, ethics, politics and psychology with which we are concerned in this study. The reality which Aristotle studied in these spheres was constituted by the observable facts of actual and concrete individual substances. The object of his study was to discover some general theory of permanent character. Aristotle held that philosophy and science must begin by considering things (substances). All things are composed of matter and form. In all things, we may differ potentiality from actuality. To define a thing we should place it as species into its larger class or natural kind (genus), then seek the differentiating property that marks off the species from the other members of the genus. According to W.T. Jones, just as Aristotle laid the basis for his political theory by collecting and studying all available constitutions, so in biology he began by recording everything he could observe and discover about such natural processes as reproduction, nutrition and growth, local movement and so on. Accordingly, his psychological theories were based on empirical evidence about nutrition and growth, local motion and sensation, perception and so on. Aristotle’s interpretation of these phenomena naturally involved his fundamental concepts, matter and form. At each level of life there is, he held, a certain structure, or organized pattern, that yields the activity in question, and each of these structures is the basis for the next successively higher structure. His

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term for these structures was “soul” (psyche); hence his work on this subject was called psychology – the study of soul.  

Now let us briefly touch upon Avicenna’s areas of interest as a philosopher. He was a versatile genius and soon mastered logic, mathematics, physics, metaphysics and medicine. His philosophy though based on Aristotelian principles is not without the tinge of neo-Platonism. He wrote a large number of treatises on metaphysics, psychology, cosmology and logic. Besides his philosophical works, there are several books on medicine. His philosophy includes among other subjects, the relation of cause and effect, universals and particulars, matter and force. In his study of Being, he makes a distinction between the essence and existence. Despite the fact that the existence is added to the essence of a thing yet it is first in importance, essence being dependent on it. When a person thinks about something he distinguishes between its essence and existence, which gives reality to essence. 

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ARISTOTLE ON INTELECTS

In order to show and set forth what Aristotle said about intellects, I am going to examine particularly his book which is called De Anima. Since it is aimed at looking into only his theory of intellects, I will not investigate every section of De Anima, however I will give some information about the first two sections of De Anima. Later on, I am going to try to give his whole theory of intellects which he explained in the third section of De Anima. Aristotle starts in Book I by a review of past opinions on the soul. According to him, the science of the soul is a very honorable job. Again in Book I, he refutes the doctrine which posits the soul as that which causes locomotion; then he rejects the doctrine that the soul is a harmony, again he refutes the doctrine that the soul can be moved essentially; then he rejects the doctrine that the soul is a self-moving number; finally he refutes the doctrine that the soul consists of elements and he rejects the theory that the soul is present in all things.

In Book two, Aristotle says that the soul is the principle of life which makes living things alive and in some sense, is responsible for the different living functions. The possible powers of the soul, ordered according to

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priority in existence, are the nutritive, the appetitive, the sentient, that which causes locomotion and the thinking. In addition to this, the sense of touch is first and prior to all the other senses. According to Aristotle, as a rule, there are three kinds of sensibles which are proper sensibles, common sensibles and accidental sensibles. As a matter of fact, his approach to this subject-matter is that of one concerned with general forms of life such as the general capacities and potentialities which living things possess. I think for that reason, Aristotle starts in Book II by saying that the soul is the first actuality of a natural and organic body which has life. The first actuality is actual in comparison with the potentialities of non-living things. I do think that what Aristotle does is to distinguish living things from inanimate things and to give a descriptive account of forms of life. For him, the manifestations of life are the actualization of various potentialities. These potentialities constitute the various faculties such as nutrition, reproduction, perception and thought. These are all things which a living thing of one kind or another can do or has the potentiality for doing.6

Taylor argues that since the mind grows and develops, it comes under the class of things having a source of motion internal to themselves. Psyche or soul means in Greek more, and less, than consciousness does to us. In common language the word psyche is constantly employed in which one is supposed to say life rather than soul, and in Greek philosophy, for Taylor, a work on the Psyche means what we should call one on the principle of life.7 It is a result of this way of thinking of the soul that Aristotle holds the process of bodily and mental development as one single continuous process. This follows from the definition sounded out by Aristotle that the soul is the first actual realisation or entelechy of a natural organic body. According to Taylor this means that the soul is the form of the body. He states that Aristotle displays the relation by stating that if the whole body was one vast eye, sight would be its soul. As the eye is a tool for seeing with, but a living tool that is part of ourselves, therefore the body is a like tool for living with.8

As we have seen, according to Aristotle, the soul is what makes a thing alive and it is the principle of life. So plants and nonhuman animals as well as human beings have souls. However, there is a difference of degree between the souls of plants, nonhuman animals and human beings for a soul can have several different parts or faculties. And the lower grade souls lack some of these parts and faculties. Specifically the souls of plants have only the nutritive faculty which is the part of the soul that allows a thing to take in

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6 Ibid. p. 555.
8 Ibid. p.76.
nourishment. The souls of animals, in addition to the nutritive faculty, also possess the sensory, appetitive and locomotive faculties which allow the animal to detect, desire and move toward food. Finally human souls, in addition to having all of the faculties just mentioned, have the faculty of rational thought which is the power of thinking. Taylor argues that we may arrange vital activities as a rule in an ontogenetic order, the order where they make their appearance in the individual’s development. Aristotle states three such stages, namely, the nutritive, the sensitive and the intelligent. The lowest form where life displays itself at all, the level of minimum distinction between the living and the lifeless, is the power to take in nutriment, assimilate it, and grow. In vegetables the development is arrested at this point. With the animals we arrive at the next highest level, that of sensitive life, because all animals have at least the sense of touch. Thus they all exhibit sense-perception, and it is a consequence of this that they show appetition. The third level, that of intelligence, that is, the power to compare, calculate, reflect and to order one’s life by conscious rule, is exhibited by man. What distinguishes life at this level from mere sensitive life is, on the intellectual side, the ability to cognize universal truths, on the conative, the power to live by rule instead of being directed by momentary appetition. The former gives us the possibility of science, the latter of moral excellence.

Let us here cite Bowyer’s schematization of Aristotelian soul so as to figure it out clearly. The soul is made up of material substance, form substance, and a combination of the two. The vegetative soul is found in plants, animals and men; the sensitive soul is found in animals and men; but only men have all three aspects, i.e., the vegetative, the sensitive and the rational. To Bowyer’s mind, Aristotelian soul can be classified as follows:

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<th>Scientific Faculty – Truth as Truth (invariable)</th>
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<td>Sense Perception</td>
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<td>Local Motion</td>
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| Vegetative soul → |

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9 Ibid. pp.77-78.
When we have a look at Aristotle’s *Nicomachaen Ethics*, we realize also that he makes two main divisions of the rational soul. The scientific is related to the invariable and the calculative is akin to the variable. The scientific faculty investigating truth *qua* truth is characterized by three states of the soul: (A) scientific knowledge; (B) intuitive reason; and (C) philosophic wisdom. The calculative faculty investigating practical truth is characterized by two states of the soul: (A) art; and (B) practical wisdom. These five kinds of activity constitute the intellectual virtues. If we look into each of these different kinds of virtues, we figure out that scientific knowledge concerns demonstration and prof and limits itself to the observable. The object of scientific knowledge is of necessity. Hence it is eternal; for things which are of necessity in the unqualified sense are all eternal; and things which are eternal are ungenerated and imperishable. Aristotle says that scientific knowledge follows from first principles or the apprehension of the rational ground.\(^\text{11}\)

The function of the intuitive reason, hence, is to search the foundations of the scientific knowledge. Philosophic wisdom also concerned with the variable must be intuitive reason combined with scientific knowledge, scientific knowledge of the highest objects which has received as it were its proper completion. Wisdom becomes the knowledge of many remarkable and divine things that are removed from practical quest for human goods. The calculative faculty, characterized by two states of the soul, i.e., art and practical wisdom, includes the activities of making and doing. Making things involves art; doing things involves practical wisdom.\(^\text{12}\)

In chapter 4 of Book III, Aristotle illustrates his theory of intellects. Throughout the chapter he uses with respect to it formulae parallel to those which he employs of the senses, despite the fact that the intellect does not have the same physical conditions and in particular does not have an organ. He also vacillates on the question whether all things or only pure forms or essences are the objects of the intellect. According to Aristotle, the intellect must be unmixed with anything since it thinks everything, and is thus, accordance with the formula potentially like all things without being actually such. It must therefore be solely potential, if it is to think all things. In other words, intellect is a part of soul which is a form, therefore it is not a body and has no organ. For that reason, it cannot be blended with a body. So the intellect is different from a body in terms of being a potentiality and of having no organ.

In chapter 5, Aristotle introduces his famous distinction between the active and passive intellects so as to spell out the nature of the active

\(^{11}\) Aristotle. Ibid. pp. 1024-1025.  
\(^{12}\) Ibid. pp. 1027-1028.
intellect. The intellect which was discussed in chapter 4 was said to become all things; it is potentially what its objects are actually and becomes them; *qua* forms, in its actualization. The other intellect which is here postulated by Aristotle must therefore be entirely actual and thus absolutely distinct from anything material which could provide potentiality. In this respect its status in the soul is like that of the prime mover in the universe. Aristotle gives an analogy between the active intellect and light. Light must be something actual; its presence is also a condition for the perception of colors. It makes colors actual by making possible their actualization as objects of perception; and is thus a necessary condition of the perception of color. In the same way, the activity of the active intellect is a necessary condition of the actualization of the potentialities of the soul, especially the thinking of objects. According to Aristotle, the active intellect must always think because it is actual, not merely potential like the intellect discussed in chapter 4 of his book; on the contrary, passive intellect does not always think. Hence, like God, the active intellect can have separate existence and is eternal, just because of its lack of potentiality. Aristotle goes on to say that although there is an active intellect in us which is always thinking and which therefore always knows things, why we forget things. His answer is that the active intellect is unaffected, but the passive intellect, the intellect responsible for ordinary intellectual functions like memory, can perish. He adds that the passive intellect is dependent on the active intellect for thinking of any kind. As we have seen, the status of the active intellect in the soul is somewhat like that of God, on Aristotle’s view, in the universe at large; they are both purely actual and their existence is, in their different ways, a condition of the actualization of the particular potentialities with which they are concerned. It is not therefore surprising that the two have sometimes been erroneously identified. However, the active intellect may be divine, but it is not itself God.13

In a few words, Aristotle tells us that there is another sense of the word thought where thought actually creates the truths it understands, just as light may be said to make the colors that we see by its help. And this intellect is separable from matter, and impassive and unmixed, being in its essential nature an activity. It has no intermission in its thinking. It is only in separation from matter that it is fully itself, and it alone is immortal and everlasting while the passive intellect is perishable and does not think at all apart from this. However the active intellect is neither God nor the same for all men, but is the highest and most rational part of the individual human soul having no bodily organ.

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13 Ibid. p.592.
AVICENNA (IBN SINA) ON INTELLECTS

Since I finished setting forth Aristotle’s ideas related to intellects, I can start to focus on Avicenna’s theory of intellects. Avicenna’s definition of the soul does not differ from that of Aristotle. Like Aristotle, he conceives of psychology in terms of faculties. The soul as a single genus may be divided into three species.

1. There is the vegetable that is the first *entelechy* (perfection or actuality) of a natural body possessing organs in so far as it reproduces and grows and is nourished.

2. There is the animal that is the first *entelechy* of a natural body possessing organs in so far as it perceives individual things and moves by volition.

3. There is the human that is the first *entelechy* of a natural body possessing organs in so far as it commits acts of rational choice and deduction through opinion and it perceives universal matters.  

The animal soul has two faculties called the motive and the perceptive:

The motive is again of two kinds, either it gives an impulse or it is active. Impulse may be subdivided into desire and anger. And active provides the power of movement.

The perceptive faculty may also be divided into two. One perceives externally and the other internally.

The external are the five or eight senses. Because if the sense of touch is only one, they are five; if it is supposed to cover the four pairs of contraries hot and cold, dry and moist, hard and soft, smooth and rough, they can be counted as eight.

Sight is a faculty located in the concave nerve which perceives the image of the forms of colored bodies. Avicenna refutes at length the Platonic theory of sight as proposed in the *Timaeus* and accepts the Aristotelian explanation.

Hearing a faculty located in the nerves distributed over the surface of the ear-hole, perceives through the vibration of the air that produces the sound. The waves touch the nerve and hearing takes places.

Smell located in the two prominences of the front part of the brain, perceives odor conveyed by inhaled air.

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Taste located in the nerves distributed over the tongue, perceives the
taste dissolved from bodies and mingling with the saliva, thus producing a
qualitative change on the tongue.

Touch distributed over the entire skin and flesh of the body,
perceives what touches the nerves and what affects them, thus causing
change in their structure.

In that case what exactly is sensation? Aristotle’s predecessors had
treated it as essentially a passive process in which the sense organs are
qualitatively changed by the object. Aristotle himself had thought of it as the
realization of potentiality without holding to the notion as a purely mental
activity. Avicenna may be said to agree at least as far as the mechanism as
concerned, with the belief in the passive process. He says that all the
sensibles convey their images to the organs of sensation and are imprinted
on them, and then they are perceived by the sensory faculty.15

The other branch of the perceptive faculty is internal senses. Some
are faculties which perceive the form of sensed objects and others perceive
their meaning or purpose. Some of these faculties can both perceive and act,
others only perceive; some possess primary perception and others secondary
perception. What is first perceived by the sense and then by the internal
faculties is the form of the sensed object and what is perceived by the
internal faculties only is the meaning or intended purpose of the object.
According to Avicenna, one of the animal internal senses is the faculty of
fantasy; next comes the faculty of representation which preserves what the
faculty of fantasy has received from the five senses. Other faculties in the
animal are the sensitive imagination called rational imagination in relation to
the human soul. For Avicenna’s part, the human or the rational soul has a
practical and a theoretical faculty; both of which are equivocally
intelligence. The practical is the principle of movement of the body urging to
action; that is to say deliberate and purposive. It has a certain
 correspondence with the animal faculties of imagination and estimation. It is
the source of human behaviour and closely connected with moral
considerations. The practical intelligence must control the irrational
tendencies in man and by not allowing them to get the upper hand dispose
him to the consideration of knowledge from above by the theoretical
intelligence. Its function includes also attention to everyday matters and to
human arts.16

The theoretical faculty serves the purpose of receiving the
impressions of the universal forms abstracted from matter. If the forms be

15 Ibid. p.137.
16 Ibid. p.138.
already separate in themselves, it simply receives them; if not, it makes them immaterial by abstraction. The theoretical intelligence performs these functions in stages. First is the stage of absolute, or material potentiality as in an infant. Second is the stage of relative or possible potentiality when only the instrument for the reception of actuality has been achieved; after that comes the stage of the perfection of the original potentiality or habitus. Avicenna sometimes says the second stage is termed habitus and the third the perfection of potentiality. It may be said that the relation of the theoretical faculty to the abstract immaterial forms is sometimes in the nature of absolute potentiality, which belongs to the soul that has not yet realized any portion of the perfection due to its potentiality. At this stage it is called the material intelligence, present in every individual of the human species; or it is in the nature of possible potentiality when only the primary intelligibles which are the source and instrument of secondary intelligibles have been acquired by the material potentiality. When only this amount of actualization has been achieved, it is called the actual intelligence; because it thinks whenever it wills without any further process of perception. In the final analysis, its relation to the forms may be in the nature of absolute actuality when they are present to it and it actually and knowingly contemplates them. At this stage, it becomes the acquired intelligence.  

According to Khan, Ibn Sina treats soul as a collection of faculties or forces which act on the body. Every kind of activity, in animal or vegetable bodies, proceeds either from such forces added to the body, or from the mixture of elements of which the body is formed. Then Ibn Sina continues by describing the gradual development of the soul, from the vegetable soul to human soul.  The faculties present in the human soul are divided into faculties of action and of cognition. The faculties of cognition are of two kinds, that is, internal and external. The faculties of external cognition get in connection with the bodily organs. For Khan, there are eight classes of these external sensations: sight, audition, taste, smell, perception of heat and cold, perception of dry and moist, perception of hard and soft and perception of rough and smooth. These senses reproduce the external objects in the soul of the percipient.  On the other hand, the inner senses are four: Perception by which the soul perceives an object without the help of the external senses, as by an act of imagination; Cognition by which the soul abstracts one or more qualities which it perceives associated together, or associates them in new groups and relates them in new connections, this being the faculty of

17 Ibid. p.139-140.  
19 Ibid. p.76.
abstraction employed in the formation of general ideas and universal concepts; Imagination by means of which a general conclusion is drawn on the basis of a number of ideas which are grouped together; Memory and Recollection which preserve, record and recall to the mind the judgments that have been formed.\textsuperscript{20}

For Khan’s part, Ibn Sina argues that human beings and animals perceive particulars by means of sense and human beings gets at the knowledge of universals through reason. The rational soul of human beings is conscious of its own faculty, not with the help of an external bodily sense, but immediately by the exercise of its own reasoning power. It is in the exercise of its own reasoning power that the soul achieves perfection of knowledge and attains a knowledge of itself. Soul is not a dependent entity, despite the fact that it is connected with body and receives sensations by means of it.\textsuperscript{21}

Hence the possibility of direct knowledge without sense perception displays that the soul does not essentially depend on body, and the possibility of its existence without the body, which follows logically from its independence, is the proof of its immortality. Every living creature perceives that it has a soul within itself. However, this soul, says Khan, accordance with Avicenna, did not exist prior to the body, but proceeded by emanation from the \textit{Agent Intellect} at the time when the body was generated. The immortality of the soul does not seem to indicate its separate independent existence after being separated from the body. It rather implies the reabsorption of the individual soul in the source.\textsuperscript{22}

I think that it will be very fruitfull to touch upon the theory of emanationism in Avicenna because he speaks of a number of intelligences and the souls of planetary spheres emanating from God in a hierarchical order. According to Sheik, the theory of emanationism, as thought by Muslim philosophers as a rule, works under two governing principles. First, from God, who is a pure unity it is not thinkable that anything should proceed from Him except that which is itself a unity; from one only one can follow. Secondly, being has two aspects- it is either necessary or possible, it is either essence or existence. In the case of God alone essence and existence are found together; in all other beings essence is separate from existence. From this it follows that all real beings are possible by their essence, and they become necessary by the existence given to them by God.\textsuperscript{23}

\textsuperscript{20} Ibid. p.76.
\textsuperscript{21} Ibid. p.77.
\textsuperscript{22} Ibid. p.77.
For Ibn Sina, says Sheikh, the first emanation from necessary Being is numerically one; it is the first intelligence. In one aspect its existence is possible in itself and in another necessary through the First Being; it knows its own essence as well as the essence of the First Being. It has a twofold existence, possible and necessary, and is the spring of multiplicity, for it has three kinds of knowledge: of the First Being, of its own essence in so far as it is necessary, and of its being as possible. Thus from the first intelligence emanate three beings: the second intelligence, the first soul and the first sphere of the fixed stars. From the second intelligence emanates another intelligence, a second heavenly sphere and its soul. Seikh goes on by saying that, for Ibn Sina’s part, starting from the First Being the emanations continue until the last or the tenth intelligence appears and with it the ninth sphere of the moon and its soul. This tenth intelligence is also called the active intelligence, which is in the lowest sphere acts in our world. It produces the first matter which is passive and formless, but which is the basis of the four elements from which all creatures are made. The tenth intelligence, as it is the producer of matter, is the dispenser of forms. It gives to each matter its proper form and it also gives each body a soul, which as a matter of fact is its form, when that body is ready to receive it. Thus the last intelligence is the cause of the existence of the human soul as well. As is seen, I tried to explain Avicenna’s theory of intellects by examining the powers and faculties of the vegetable, animal and human souls as well as their differences and relations to each other.

In conclusion, when we look at these philosophers’ theory of intellects, we can easily realize that both of them first talk about perceptions related to intellects. For that reason, I can make a conclusion that perceptions and intellects are very close to each other. When we take into consideration Avicenna’s doctrine of intellects, we realize that he first copies with perceptions for explaining his own doctrine about intellects. Where Aristotle says intellect in potentiality, Avicenna says material intellect which is similar to potential intellect in Aristotle. Furthermore, Avicenna talks about acquired intellect which is very close to actual intelligence. It is because actual intellect thinks whenever it wants to do so and it contemplates the forms; at this stage it becomes the acquired intellect in terms of Avicenna.

In the final analysis, it can be argued that the Muslim thinkers were influenced by Aristotle in terms of their theory of intellects as well as the some other things. In particular, like Aristotle, Avicenna proposes two intellects that Aristotle distinguishes in his work called De Anima. I mean the intellect that becomes all things and the intellect that produces all things.

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In fact as I sounded out earlier, Avicenna employs the term material intellect to describe the Aristotelian potential intellect. The term is not meant to describe this intellect as corporeal, but merely as a passive substratum of the ideas, as capacity for thought. This material intellect is a cognitive faculty peculiar to human nature, with which intelligible forms are apprehended. In addition to this, the material intellect knows only potentially. In order for it to know actually, ideas have to be imparted to it from some other substance, which is purely intellectual and separate from human nature. For Avicenna, the active intellect gives natural things their forms. Hence, the material intellect is illuminated by the light of the active intellect and recognizes the general only if it looks upon the particular representations which are in the imagination.

REFERENCES