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"ISAGHUJI" BY ASIRIDDIN AL-ABHARI – A BOOK ON LOGIC

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ABSTRACT

In the work of the French philosopher Alexandre Coyre, "Essays on the History of Philosophical Thought," it is suggested that the development of philosophy, including the science of logic, has stopped in the Islamic world since the 13th century. He wrote that the prosperity of the Arab-Islamic civilization did not last long; The Arab world has lost, or rather abandoned, the classical heritage accumulated by the Latin West. Is this really true? If yes, what are the reasons? These questions determined the topic of our article. In search of answers, we studied the works of some authors who studied the history of Arabic logic, and decided to present the results of our small study using the example of the work of Asiriddin al-Abhari.

KEYWORDS

Al-Abhari, Eisagoge, predicabilia, definition, syllogism.

INTRODUCTION

Nicholas Reshard's book The Development of Arabic Logic contains encyclopedic information on the history of the development of Islamic logic. (We have used the term "Islamic logic" instead of "Arabic logic".) The second part of the book provides information about 166 learned logicians. Of these, 88 scientists lived and worked during the period of the XIII-XVI centuries. [3.196-197.]. The solid work of Khaled El-Ruaiheb "The Development of Arabic Logic (1200-1800)" [2.] also refutes the assumption of Alexandre Koyre [4.54.].

Asiriddin al Mufaddal ibn Umar al-Abhari (1200-1265) was born in the city of Mosul and received his primary education here. He studied mathematics, astronomy, philosophy, and logic from famous scientists of his time. His works on logic were very

popular in the Islamic world. Reshar's book points to three works by al-Abhari [196.]. Khaled El-Rouayheb lists 10 works of the philosopher [2.49-52.]. Seven of these works are three-part. They first examine logic, then natural philosophy (physics) and metaphysics. Here there is a similarity between the order of presentation of al-Abhari and Ibn Sina, who always first considered logic. His two treatises are devoted to the problems of dialectics (jadal): "Al-qawadih-al-djadaliyya" (Dialectical Confutation) and "Tahdhib al-Nukat" (The Emendation of the Impressions).

Al-Abhari's most popular work on logic was Isaghuji (Introduction). It briefly outlined all the problems of logic, including concepts, judgments, inferences, and argumentation. This work was widely used as a textbook on logic in madrassas in subsequent centuries. The preamble of the book states that every student beginning the study of natural sciences must know logic.

Al-Abhari begins his presentation of logic with the definition of a concept (lafz). Lafz denotes both a word and a concept. Lafz as the name of an object designates an object and is associated with it in the mind. The title is a word that indicates the required content, such as "man" (a talking animal). Lafz is divided into general (person) and partial (Zayd, Amr.) [1. 12.]. The general can be substantial (man) or accidental (laughing).

Abhari, as well as all previous logics, points to five types of predicables: genus (jins), species (nav), difference in appearance (fasl), accidental (al-[xossa), separating (al-arazul omm). The first three relate to substantial characteristics, the fourth and fifth to accidental ones. Genus (jins) - a universal that is determined by many things that differ in their types in response to the question "what is it?" [1.14.]. He describes species (nav) as universal, varying in number but not in specific nature. The answer to the question "what is it in itself?" indicates the difference between a species and its common genus (fasl). The answer to the question "what is he?" is an accessory sign (al-xossa). Al-Abhari defines the fifth predicabilia as follows: if each of the necessary and distinctive symptoms is common in many truths (realities) of man and animals, then this is called "al-arazul omm." For example, breathing is a common, potential sign of living beings, including humans. When a person drowns, he cannot breathe, and this sign is separated from him. "Al-arazul omm" can be a permanent or separable sign [1.19.].

Al-Abhari, based on the doctrine of predicabilities, divides the definition of concepts into four types:

1. The definition indicates the closest genus and species characteristic. For example, "Man is a talking animal." (Explicit definition - haddi tom);

2. The definition indicates a distant genus and a close specific character. For example, "Man is a talking body." (Implicit definition - haddi noqis);

3. The definition indicates the closest genus and the required species character. For example, "Man is a laughing animal." (The actual descriptive definition is rasmi tom);

4.. The definition indicates the substantial characteristics of what is being defined. For example, "Man is a biped, with wide nails, laughing." (Descriptive defective definition - rasmi noqis). [1.20-22.].

The definition and classification of Al-Abhari's statement deserves separate analysis. Unlike previous logicians, in the definition of a statement he focuses on the speaker: statements (qaziya) are words based on which the speaker can be called truthful or a liar [1.22.]. He further writes: "A word that makes true and false possible is called a statement" [1.23.]. He divides statements into three types: categorical (hamliya), hypothetical (muttasil shartiya), hypothetically disjunctive (munfasil shartiya) [1.23-24.].

The structure of a categorical statement consists of a subject (mavzu) and a predicate (mahmul). Statements can be affirmative (mujiba) or negative (soliba), general (kulliy musavvara) or partial (juziy musavvara) or indefinite (muhmala) [1.26-27.]. A hypothetical statement consists of two parts: the previous one is the antecedent (muqaddam) and the next one is the consequent (toliy). The connection of an antecedent and a consequent can be either necessary (luzumiy) or incoherent (ittifoqiy). For example: "If the sun has risen, then day has come." hypothetically necessary, "If men are talkers, then donkeys are brayers." hypothetically incoherent statement.

Defining al-Abhari's hypothetically disjunctive statement enables us to answer the question "Why did Islamic logicians not consider conjunctive statements?" Al-Abhari's conjunctive statements are one of the types of hypothetically disjunctive statements. Abhari gives the following examples: "It is either a stone or a tree" and "It is neither a stone nor a tree." He calls the first a positive disjunctive statement, the second a negative disjunctive statement [1.29.]. In modern logic, by the nature of the logical connective, the second is defined as a conjunctive statement.

The analysis of the relationships between al-Abhari's statements is distinct. He considers the opposition between judgments (at-tanaquz) from the point of view of unity 1) in the subject; 2) in a predicate; 3) in time; 4) to the place; 5) in relation to; 6) in potency and action; 7) in the specific and universal; 8) in the condition. [1.31-33.]. His conclusions about the relations of judgments largely coincide with the rules of the logical square in formal logic.

Al-Abhari draws attention to the reversibility of statements (al-aks). "Conversion," he writes, "is when the subject becomes the predicate, and the predicate becomes the subject, while the negative and positive meanings, truth and falsehood, remain the same." [1.35.] He uses examples to explain the reversal of the general-to-general, the general-to-particular and the particular-to-general, and emphasizes the irreversibility of a particular negative statement.

Al-Abhari's doctrine of inference includes all four figures of syllogism (al-qiyas) and two types of hypothetical syllogism. "An inference is a statement consisting of such propositions that when they are presented by themselves, another proposition becomes necessary," he writes. [1.37.]. For example: The world is changing. Everything that changes is created. The world has been created.

Al-Abhari, like previous logicians, defines the terms and premises of a syllogism according to the traditions of the Eastern Peripatetics. He divides syllogisms into connective (iqtironiy) with a positive conclusion and exclusive (istisnoiy) with a negative conclusion. Al-Abhari divides the fugures of a categorical syllogism into four types according to the location of the middle term in the premises. He considers the first figure to be the standard for the sciences, therefore it can be taken as a model (dastur) and as a criterion (mezon) for the remaining figures. [1.43]. Therefore, giving examples, he explains all four modes of the first figure [1.44-45.].

He does not consider the modes of the remaining figures of the syllogism, but explains the methods of bringing them to the first. Al-Abhari analyzes hypothetical syllogisms in detail and defines seven combinations of premises: both premises are conditional, both premises are disjunctive, the first conditional, the second categorical affirmative, the first conditional, the second categorical negative, the first disjunctive, the second categorical affirmative, the first disjunctive, the second categorical negative, the first conditional, the second disjunctive [1.45-48.]. He does not consider induction and analogy.

For Al-Abhari, evidence (hujjat) is words (arguments) consisting of clear premises that produce true knowledge. If Al-Farabi points to four types of such premises [5.203.], and Ibn Sina – thirteen [6.92.], then Al-Abhari has six types of premises:

1. Simple rule (primacy), i.e. axiomatic knowledge. (The whole is greater than the part.)

2. Information provided by the senses. (The sun rises, the fire burns.)

3. Knowledge gained from experience. (Sacmunia bile is easy for humans.)

4. Speculative knowledge. (The light of the moon reflects from the light of the sun.)

5. Reliable, trustworthy messages. (Information from hadiths.)

6. Self-evident statements (Four is an even number, since it is divisible by two.) [1.48-50.]

Al-Abhari concludes his work with a summary of the types of evidence, such as dialectic, rhetoric, poetics and sophistry.

Having studied Al-Abhari's Isaghuji, we can safely say that the Islamic world after the 13th century did not lose or abandon the Greco-Roman classical heritage, which was adopted and developed by the Eastern Peripatetics. Al-Abhari's Isaghuji is proof of this. Al-Abhari's "Isaghuji" is not a repetition of Porphyry's "Eisagoge". This is an independent work by a scientist, which briefly and clearly outlines the main provisions of the science of logic, which has been commented on by many scientists and has been used as a textbook on logic for a long time.

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