

THE SCIENCE OF LINGUISTIC AND PHILOSOPHICAL LOGIC IN *RASÂILU İKHWÂN AL-SAFÂ*

Aytekin ÖZEL*

Abstract: This study presents the contents of 'the science of philosophical logic' and 'the science of linguistic logic' which are found in *Eisagoge* text in the Ikhwân al-Safâ's *Rasâilu Ikhwân al-Safâ*. This study also assesses these contents in terms of the history of logic. 'Philosophical logic' is a term, also used in the modern era and also it is possible to talk about the "present-day" a discipline of linguistic logic. It seems to me that these were seen in the tractates of Ikhwan al-Safâ (10th century) for the first time although their usage was somehow different than their contemporary usage.

Keywords: Ikhwân al-Safâ, history of logic, Eisagoge, philosophical logic, linguistic logic

Resâilü İhvânî's-Safâ'da Felsefi Mantık Bilimi ve Dil(bilim)sel Mantık Bilimi

Özet: Bu çalışma İhvânü's-Safâ'nın (10. yüzyıl) *Resâil-u İhvânî's-Safâ* adlı eserinde yer alan *İsâgüci* risalesindeki 'felsefi mantık bilimi' ile 'dil(bilim)sel mantık bilimi' ifadelerinin içeriklerini sunar ve bu içeriklere mantık tarihi bakımından da bir değer biçer. Esasen 'felsefi mantık', modern dönemde de kullanılan bir ifadedir. Bununla birlikte günümüzde de bir 'dil(bilim)sel mantık' disiplininin söz etmek mümkündür. Bana öyle geliyor ki bu ifadeler, modern dönemdeki kullanımlarından farklı bir anlama sahip olmasına rağmen, ilk kez İhvânü's-Safâ Risalelerinde geçmektedir.

Anahtar kelimeler: İhvânü's-Safâ, mantık tarihi, İsâgüci, felsefi mantık, dil(bilim)sel mantık.

Introduction

This study aims to re-assess a part of my master thesis called "İhvanu's-Safa'nın Mantık Anlayışı"¹ which is related to the science of logic seen in the tractates of The Ikhwân al-Safâ (namely the brethren of purity).² Our major focus is the contents of the science of linguistic logic and the science of philo-

* Doç. Dr., Uludağ Üniversitesi İlahiyat Fakültesi

1 I have published it; see Aytekin Özel, *İhvanü's-Safa'nın Mantık Anlayışı*, Bursa 2009.

2 Ikhwân al-Safâ, *Rasâilu Ikhwân al-Safâ*, edited by B. Bustânî, vol. I-IV, Beirut dateless.

sophical logic, which are important in terms of the history of logic and also seen in the above mentioned tractates.

The traditional logic in Muslim World has been started via discussing the many aspects of Porphyrios' explanations on universals. The "wordings" (alfâz) which were discussed prior to the universals, were even analyzed for the sake of being able to reach the linguistic expressions of the universals. The name of the book of Porphyrios is *Eisagoge*.³ It is also known as *tractote*. Until the modern era, many of the logicians have written other *Eisogage* texts, which included different content than Porphyrios'. According to many logicians, *Eisogages* are accepted as the first book of Organon.

Ikhwân al-Safâ has also written an *Eisogage* in *Rasâilu Ikhwân al-Safâ*. Their *Eisogage* content is different than many other *Eisogage* contents. We believe that the most original side of them side from the standpoint of the history of logic lies in their perspectives which were written in *Eisagoge*. On the other hand, these philosophers did not pay too much attention to the subjects of traditional logic, except the above mentioned tractote.

The Speech at the Level of Word and the speech at the Level of Reasoning According to Ikhwân

According to dictionaries of philosophy, the meaning of "Logic", which actually was derived from *logos*, is both related to word and reason.⁴ *Logikhos* means to belong to *logos*, i.e. to word and reason or reasoning. Here "word" is used in the place of "speech". M. Fakhri states that the Arabic word "nutk" is equivalent of "logos" in Greek; and just as like "logos", it includes double meaning.⁵ According to Ikhwan, *logos/nutk* is also related both reason and word. They differentiate them as "the speech at the level of word" (al-nutku'l-lafzî) and "the speech at the level of reasoning" (al-nutku'l-fikrî). They state:

"Logic is derived from "spoke", "speaking", "to speak". To speak is an action of human mind. This action has dual meaning. One is at the level of word and the other one is at the level of reasoning. The speech at the level of word is un-

3 Porphyrios, *İsagoci*, trans. Hamdi Ragıp Atademir, Konya 1948.

4 Necati Öner, *Klâsik Mantık*, Bilim Yay., Ankara 1996, p. 13, quoted, Paul Foulquie, "logique", *Dictionarie de la Lanque Philosophique*, PUF, Paris 1885.

5 M. Fakhri, *İslam Felsefesi Tarihi*, trans. to Turkish: Kasım Turhan, İstanbul 1998, p. 128, the footnote 24. Logos is ambiguous.

derstood via senses and it is something material. The speech at the level of reasoning, on the other hand, is something spiritual and intelligible (ma'kûl)."⁶

According to Ikhwân al-Safâ, speech is the most valuable human art. This feature of human (fasl) *differentiates* it from other living creatures. Therefore, the full definition of human is made as "mortal animal who can speak".⁷

As Reason is one of the skills and actions of human spirit, then the impact of the *speech* at the level of reasoning would be *spiritual*. Speech does not affect the body of human, but it affects the spirit of human. This can sometimes be beneficial or destructive for humans, just as like the impact of the bad and good words on human spirit.⁸

The Science of Linguistic Logic and The Science of Philosophical Logic According to Ikhwân

Nowadays some logicians prefer to use the term "philosophy of logic" instead of "philosophical logic";⁹ and some differentiate them from each other neatly.¹⁰ Even some of them prefers to use the term "philosophical" in order to express the logics which aren't symbolic (mathematical) and use it as a medium to keep it outside the borders of logistics.¹¹

There are various languages of logic however if we assess in present time, we believe that a logic of language can also be talked about, considering the relation of logical form and grammar form.¹²

The group of philosophers who differentiate the philosophical logic and linguistic logic in the traditional era is Ikhwân al-Safâ. In their *Eisogage* in *Rasâilu Ikhwân al-Safâ* they explained the science of linguistic logic and the science of philosophical logic as follows:

"Speech at the level of word is composed of the sounds which have syllables

6 Ikhwân al-Safâ, *ibid*, p. 390.

7 Ikhwân al-Safâ, *ibid*, pp. 390, 391.

8 Ikhwân al-Safâ, *ibid*, p. 391.

9 Suzan Haack, *Philosophy of Logics*, Cambridge University Press, Cambridge 1991, p. 2.

10 A.C. Grayling, *An Introduction to Philosophical Logic*, USA 2001, pp. 1, 2.

11 Doğan Özlem, *Mantık*, İstanbul 1999, Giriş/Introduction.

12 P. T. Strawson, *Introduction to Logical Theory*, Jarrold and Sons Ltd, Norwich Catalogue No 2/5401/41 1.4, 1964 Great Britain, pp. 230-232.

and can only be heard by ears. These sounds come from the tongue that is an organ of body and are heard by the ears of another body. Investigating and researching in this type of logic and forming arguments on the conjugations of this logic and also on the meanings that these conjugations denote is called the science of linguistic logic (ilmu'l-mantki'l-luğaviyyi). On the other hand, on speaking at the level of reasoning which is both intelligible and spiritual, it is the fact that mind comprehends the essential meanings of the things and their "can be sensed" descriptions (rusûm) in their substances (cavhar), and also differentiates these descriptions in the reasoning... , Investigating and researching in this kind of speech, investigating how to be the fact that mind comprehends meanings in the existings' essences via senses, how these meanings place in the reasoning in terms of the reason called revelation and inspiration and also how these meanings are expressed in any language is called "the science of philosophical logic (ilmu'l-mantki'l-falsafiyi)."13

According to Ikhwân, the science of philosophical logic is the fundamental subject of science of logic. Science of linguistic logic is seen as the introduction to the science of philosophical logic, as it makes easy to comprehend and teach the science of philosophical logic. Therefore, it is important that science of linguistic logic place in subjects of the science of logic.14 According to them, the subject of the philosophical logic, which investigates the ideas which are occurred in the spirit, consists of denotation, six universals,15 categories, proposition, relations in-between propositions, and syllogistic theory.

As it is understood, every single word coming out of human mouth is relating to the science of linguistic logic in one way and relating to the science of philosophical logic in another way.16

A Comparison in Terms of History of Logic

Al-Farabi (870-950), lived approximately in the same century as Ikhwân. In Arabic logic the differentiation of inner and outer speech in the content of logic is seen in Al-Farabi for the first time. This is also different than the Ikhwân's

13 Ikhwân al-Safâ, ibid, p. 392.

14 Ikhwân al-Safâ, ibid, p. 392.

15 They are genus (cins), species (nev'), difference (fasl), property (hâssa), accident (araz) and individual (shahis); see Ikhwân al-Safâ, ibid, p. 395; Abdülkuddüs Bingöl, "İhvanu's-Safâ Risalelerinde Mantık Konuları", Türkiye I. Felsefe-Mantık-Bilim Tarihi Sempozyumu Bildirileri, prepared by Kenan Gürsoy, Alparslan Açıkgenç, Ankara 1991, p. 107.

16 Bingöl, ibid, p. 106.

differentiation of *linguistic logic* and *philosophical logic*. In order to demonstrate this, we would like to make below comparison.

Al-Farabi has explained the nature of logic in his below study as following:

“The name of this art is derived from the word *nutq*. This word indicates three things according to the ancients (*qudamâ*): The mental substances of the human indicate the power it can comprehend. Sciences and arts are attained with this power, the good and the evil of the deeds are distinguished with it. The second of these is the mental substances derived through apprehension in human’s mind, these are called “internal speech”. The third is to express what is inside lingually and it is called “external speech”. Art of logic, given the laws for internal speech consisting only of mental substances and given the laws common in all languages for external speech consisting only of words, for the power of speech (*nâtıqa*), this power of speech, in both phases, is directed to the right way, and in both of them, is protected against the wrong.”¹⁷

Regarding the resources of traditional Arabic logic, such a generalization could be made: The mind that belongs to the human (*an-nafsu al-insâniyyi*), which is called the speaking mind (*an-nafsu an-nâtıqu*), has two meanings/functions. One of them is internal speech and the other is external speech. The reason for the derivation of the name *Mantiq* (logic) is that it is implemented both on the level of external speech, meaning speech itself, and on that of internal speech, being the apprehension of mental substances. From this aspect, logic strengthens the first and leads the second in the right direction.¹⁸

As it is also seen here, *Ikhwân*’s the organization of linguistic logic and philosophical logic has a different content than the Al-Farabi’s classification of logic above mentioned and it cannot be reduced to Al-Farabi’s approach.

Conclusion

We can state that generally *Ikhwan*’s concept of logic comprises both linguistic and philosophical logic. Their approaches which we mentioned above are the most original approaches of them from the standpoint of

17 Al-Fârâbî, “et-Tavtetü fi’l-Mantik”, Mübahat Türker Küyel, *Fârâbî’nin Bazı Mantık Eserleri*, Atatürk Kültür, Dil ve Tarih Yüksek Kurumu Atatürk Kültür Merkezi yay. Sayı: 31, Fârâbî Külliyyatı-sayı:1, Ankara 1990, Arabic Text, s. 23 Turkish Text, p. 29.

18 See for an evaluation in this matter, Necati Öner, *Klasik Mantık*, 1996, pp. 1-2. Aytekin Özel, *Aristoteles’in Analitikler Kuramının Çağdaş Yorumları Işığında Bir Arapça Mantık İncelemesi*, Bursa 2012, p. 72.

the history of logic. On the other hand, their expressions *linguistic logic* and *philosophical logic* in the their *Eisogage* are same as contemporary logic, despite the fact that they were used differently in terms of their meaning and this usage has been for the first time in Islamic World. Even it could also be possible to conclude that they are the pioneers for this usage in terms of the history of general logic.

We also have to add that Ikhwan categorizes the science of logic within the mathematical sciences¹⁹ and this is particularly important to highlight in terms of the history of logic.

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19 Ikhwân al-Safâ, *ibid*, pp. 390-452.