

Harun Kuşlu. *Nasiruddîn Tûsî'de Önermeler Mantığı* [Logic of Propositions in Naşir al-Dîn al-Ṭûsî]. İstanbul Klasik Yayınları, 2016. 210 pages. ISBN: 9786055245986.

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Harun Kuşlu's book on the great logician and scientist Naşir al-Dîn al-Ṭûsî (d. 672/1274) consists of an introduction, four chapters, and a conclusion. Written in a smooth and impressive style, it examines the topic from a historical perspective. When dealing with the discipline of logic, such a fluent and intelligible text is greatly valued. The author's ability to reveal the series of arguments intelligibly and use clear language simultaneously is one of the signs that prove his mastery of the field. This revised version of his doctoral dissertation, completed at Sakarya University in 2014,¹ contributes to the history of literature composed in such languages as Arabic, Persian, and Ottoman Turkish, which I call "Arabic logic."

We can turn to Kuşlu's explanation when the place of this work, in terms of Western studies on Arabic logic, is questioned: "Studies on the theories of logicians after Avicenna either in Turkish or in other languages are scarce, particularly when logic is concerned" (14). In the introduction and in the first chapter, "The Development of Post-Avicennian Arabic Logic and Naşir al-Dîn al-Ṭûsî," the author develops a perspective with respect to the literature produced in the West on Arabic logic. Kuşlu deals with Fakhr al-Dîn al-Râzî's (d. 606/1210) critique of Avicenna (d. 428/1037) and seeks to read al-Ṭûsî's response to him from the perspective of interpretation developed by Tony Street. In this way of understanding, al-Râzî and al-Ṭûsî are accepted as the ones who revised and carried the Avicennian system further by constricting and enlarging it. The second way of understanding is the interpretation developed by Nicholas Rescher before Street, according to which those logical discussions that center around Avicenna, al-Râzî, and al-Ṭûsî are *two conflicting schools*. Kuşlu sides with Street.

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1 Harun Kuşlu, "Nasiruddîn Tûsî'de Önermeler Mantığı," (PhD diss., Sakarya University, 2014).

Although I accept that Street's justifications and Kuşlu's additions (35-36) to this rationale are powerful arguments, I should indicate my view at this point: Rescher, after a certain period, either did not study Arabic logic or had never been interested in it. He directed me to Street when I corresponded with him via email during my PhD studies. After reading Street's approaches, I realized that his reasoning is built on Rescher's ideas. I add this anecdote because I think it is too early to judge whether Street's method is the best way to understand the history of Arabic logic. Both as a pure logician and as a writer of the history of Arabic logic, Rescher is stronger than Street in doing pure logic. Therefore, seeing divergences from the perspective of pure logic and thus placing al-Rāzī and al-Ṭūsī in conflicting schools might be justified.

The second chapter, "Definition and Types of Proposition," is dedicated to describing proposition and its forms. Almost all of the sources used are in Arabic. Therefore, the question as to whether here one steps out of the Streetian line might come to mind. The answer is that it does not, for, since this chapter constitutes the basis of propositions and their relations, Kuşlu examines the subject in the context of its fundamental texts. Accordingly, for al-Ṭūsī, every sentence that declares a situation, be it positive or negative, is a proposition. Sentences are composed of vocal forms (*lafz*), of which there are two types: singular (*mufrad*) and composite (*murakkab*) ones. Composite vocal forms are called expressions. Composite expressions, which are valid in logic, are restrictive (*taqyīdī*) and declarative (*khābarī*) expressions and are peculiar to the sciences, because scientific definitions consist of limiting words, whereas scientific assents comprise declarative words (propositions) (63-64).

The writer examines propositions in more detail in the Tusian context by dividing them into predicative and conditional propositions and then splitting the latter into conjunctive and disjunctive forms (71-91). By the way, I want to correct a technical mistake that I believe was made erroneously as far as Kuşlu's knowledge of history is concerned. In the text, we read "the Stoic logicians in whom we find conditional propositions for the first time" (71). Here, "propositions" should be replaced by "syllogisms/inferences," for we know that Aristotle (d. 322 BCE), although only partially, speaks of conditional propositions in his *First Analytics*. However, as a proper formal structure, conditional syllogisms/inferences are found for the first time among Stoic logicians.

Kuşlu deals with the third ("Quality, Quantity and Modality in Propositions") and fourth ("Contradiction and Conversion of Propositions") chapters with reference to primary Arabic texts, Street's scholarship, and other secondary sources that adopt Street's ideas, but also adds his original comments. These

chapters analyze the quality, quantity, and modality of propositions, as well as the contradiction and conversion relations among them. Propositions are divided, according to quality, into positive and negative, whereas they are split, with regard to quantity, into universal, particular, singular, and quantitatively uncertain. According to Kuşlu, al-Ṭūsī explains the difference between matter and modality: “Matter is relation in the thing itself (*nafs al-amr*), while modality is something understood and conceived from proposition when the relation of the predicate of the proposition with its subject is taken account, (...) is something expressed by the phrase in the proposition.” In Kuşlu’s words, as can be understood from the last part of al-Ṭūsī’s statement, modality is openly expressed in proposition (i.e., the thing that is pointed by modal processors). Matter expresses the condition of the relation between two things, whereas modality shows the relation that emerges according to the mental conception in a proposition (108).

Modality is one of the most difficult subjects of logic, as indicated by the Latin phrase: *De modalibus non gustabit asinus* (A fool cannot understand modality). The topic that the writer examined so perfectly, “Modality in Propositions,” is discussed under the second subtitle of the third chapter (106-47). Kuşlu proves his ability in logic by scrutinizing a very complicated issue in Arabic with a strong understanding and a clear mind.

In the fourth chapter, by referring to Street’s symbolizations directly and being loyal to his interpretations, Kuşlu examines in detail the issues of contradiction, opposition, and conversion in modal propositions.

I have indicated above where to place this book with regard to the study of Arabic logic in the West. Now, I would like to start with some evaluations to explain where it stands in the study of logic in Turkey. We can examine such studies from 1970 to 2000 in two main lines.

The Necati Öner tradition: This tradition consists of people who focus on the themes of traditional logic in the Islamic world and study logic, history and philosophy of logic by occasionally incorporating the views of Western logicians that developed parallel to them. We can include in this tradition people who did their PhDs in logic before 2000: Abdülkuddüs Bingöl, Naci Bolay (d. 2001), M. Tahir Yaren, İbrahim Emiroğlu, Ahmet Kayacık, and İsmail Köz.

The Teo Grünberg tradition: The list of logicians working within this tradition comprises Grünberg’s colleagues and students, who have been studying symbolic logic and the philosophy of symbolic logic or have taught or have been teaching according to Grünberg’s line of thought. In this category, we can include Hüseyin

Batuhan, Cemal Yıldırım, Suvar Kösearif, Adnan Onart, Ahmet İnam, Erdinç Sayan, Samet Bağçe, David Grünberg, Zekiye Kutlusoy, and İskender Taşdelen (received his PhD in 2005).

Apart from these two traditions, other scholars also studied logic, whether directly or indirectly, between 1980 and 2000. We can mention Ahmet İnam's doctoral dissertation, "The place of logic in Edmund Husserl" which was written in 1980. Though İnam's scholarship had a Grünbergian perspective in general, his dissertation did not follow it.² Şafak Ural, Doğan Özlem, Dursun Murat Çüçen (d. 1997), Abdülkadir Çüçen, Ali Karatay, Kutsi Kahveci, Hasan Bülent Gözkan, and Ahmet Ayhan Çitil can also be listed here.

We can pay attention to İsmail Köz's words regarding this genre in general: "It is possible to categorise works on logic in Turkey in two main groups as the traditional and modern studies." It is understandable that modern logic is seen as new logic. However, what is interesting is that "studies faithful to the tradition can be treated within the new trends in logic Because, after the Tanzimat, traditional logic entered a new period of awakening in parallel to the appearance of modern Western studies on logic in Turkish intellectual life."³ Consequently, this situation led to treating topics in logic in a way that differed from those of the traditional scholars, especially as regards Ahmed Cevdet Paşa's (d. 1895) son Ali Sedad (d. 1900), İzmirli İsmail Hakkı (d. 1946), and Necati Öner.

In Turkey, some people have attempted to interpret traditional discussions of logic via symbolic logic. The first study in this category is the paper presented by Naci Bolay and Teo Grünberg.⁴ The second study is the article published by Dursun Murat Çüçen in 1991,⁵ which he wrote on the basis of Jan Łukasiewicz's (d. 1956) logic. Aytekin Özel's doctoral dissertation is an attempt to interpret Avicenna's theory of combined syllogism via symbolic logic.⁶ The last work in this line of scholarship is Samet Büyükkada's master's thesis.⁷

2 For the annotated and revised version of this dissertation as a book, see Ahmet İnam, *Edmund Husserl'de Mantık* (Ankara: Vadi Yayınları, 1995).

3 İsmail Köz, "Modern Türk Düşüncesinde Mantık Çalışmaları," *AÜİFD* XLIII (2002): 136.

4 Naci Bolay and Teo Grünberg, "İbn Sina'daki Modalitelerin Modern Mantık Açısından İncelenmesi," *Uluslararası İbn Sina Sempozyumu Bildirileri*, 17-20 August, Ankara 1983.

5 Dursun Murat Çüçen, "Tasımsal Mantığın Dört Değerli Mantıkta Değerlendirilmesi Üzerine Bir Deneme," *Araştırma* XIII (1991).

6 Aytekin Özel, "İbn Sina'nın Birleşmeli Kıyas teorisi ve Sembolik Yorumu" (PhD diss., Ankara University, 2009).

7 Samet Büyükkada, "İbn Sina'da Şartlı Kıyaslar" (Master's Thesis, İstanbul Medeniyet University, 2015).

Bolay and Grünberg's paper on Avicenna is based on Rescher, to whom we referred above. Storrs McCall evaluates Rescher with regard to readings of Aristotle in terms of logic: "The most sympathetic treatment of modal syllogisms in recent times is Rescher's. This author discusses the attempts of Becker and Łukasiewicz to reconstrue Aristotle's system using the methods of modern symbolic logic, and describes them all as meeting with 'utter failure'. Though himself a symbolic logician, Rescher implies that any such future attempts must fail also, and offers his own intuitive and non-formal interpretation of the modal moods. I agree with Rescher that previous formal treatments of Aristotle's system have failed..."⁸

I gave all of this information for the following reason: As far as works on the history of logic are concerned, Kuşlu's place in Turkey does not adhere to the lines we mentioned, but rather presents a new approach, one that studies the history of logic on the basis of the Streetian line of interpretation. He is the first Turkish historian of logic who reads the development of the history of Arabic logic within this particular line. Nevertheless, because of this approach, he can still be read in the Necati Öner tradition.

I will now mention what I should have said at the beginning: The author made a sound decision about the title of the book, for it does not have anything excessive or missing. However, in Turkish, "Logic of Propositions" is used for *propositional logic* or *connective logic* in modern symbolic logic. In this context, a more suitable title for the work would be *Naşir al-Din al-Ṭūsī on Propositions and Their Logical Relations*.

8 Storrs McCall, *Aristotle's Modal Syllogisms* (Amsterdam: North-Holland Publishing Company), 4-5.