

Ibn Kammūna's Understanding of Propositions*

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Abstract

The subject of this article is to examine and analyze the understanding of propositions held by Ibn Kammūna, who lived in the 13th century, from the perspective of the discipline of logic. Ibn Kammūna is a profound thinker who left significant works in the fields of philosophy and logic by thoroughly examining the works of figures such as Ibn Maymūn, Ibn Sīnā, al-Ghazālī, Abū al-Barakāt al-Baghdādī, Fakhr al-Dīn al-Rāzī, and al-Suhrawardī. The primary aim of the article is to analyze in detail the manner in which Ibn Kammūna approaches propositions, drawing upon the works he authored on matters of logic. The scope of the article is confined to *al-Jadīd fī'l-ḥikma*, *Sharḥ al-uşūl wa'l-jumal*, and *Sharḥ at-talwīḥāt*, which are among Ibn Kammūna's works containing data on the subject of propositions, and within the context of these works, the definition of the proposition, categorical propositions, conditional propositions, modal propositions, the contradiction and conversion of propositions are comprehensively addressed. The literature review conducted revealed that the philosopher has been examined to a considerably limited extent in our country from the standpoint of logic, and this study is considered to make a significant contribution to remedying the aforementioned deficiency. A qualitative research methodology was adopted in the article, and techniques of analysis and comparison were employed. It is known that Ibn Kammūna, unlike authors such as Aristotle, al-Fārābī, and Ibn Sīnā, did not compose an independent work on propositions. For this reason, approximately sixteen works that have survived to the present day were meticulously examined through an individual scanning method, passages related to the subject of propositions within the context of the three identified works were recorded, and the data obtained were systematically classified and analyzed. As a result, it has been demonstrated that Ibn Kammūna's treatment of propositions draws substantially from the Peripatetic tradition through Ibn Sīnā. Ibn Kammūna shares a common view with Ibn Sīnā on the matter of indefinite propositions and explicitly states that such propositions ought to be understood as particular. Furthermore, he addresses propositions holistically on the subject of modality without making a distinction between simple and composite; and emphasizes that there is no limitation with respect to the number of modal propositions and that modal propositions can theoretically be unlimited.

Keywords: Logic, Propositions, Ibn Kammūna, al-Jadīd fī'l-ḥikma, Commentary, Modality.

* This article is dedicated to the people who have been subjected to oppression for years in free Palestine. We thank Assoc. Prof. Dr. Muhammet Yurtseven for his contributions.

İbn Kemmûne'nin Önerme Anlayışı*

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Öz

Bu makalenin konusunu, 13. yüzyılda yaşamış olan İbn Kemmûne'nin önerme anlayışını mantık disiplini açısından ele alıp incelemek oluşturmaktadır. İbn Kemmûne, İbn Meymûn, İbn Sînâ, Gazzâlî, Ebü'l-Berekât el-Bağdâdî, Fahreddin er-Râzî ile Sühreverdi gibi isimlerin eserlerini derinlemesine inceleyerek felsefe ve mantık konularında önemli kitaplar bırakmış köklü bir düşünürdür. Makalenin temel amacı, mantık konularına dair kaleme aldığı eserlerden hareketle İbn Kemmûne'nin önermeleri ele alış biçimini ayrıntılı biçimde analiz etmektir. Makalenin kapsamı, İbn Kemmûne'nin eserleri arasında önerme konusunda veriler içeren *el-Cedîd fi'l-hikme*, *Şerhu'l-usûl ve'l-cümel* ve *Şerhu't-telvîhât* adlı kitaplarla sınırlandırılmış olup bu eserler bağlamında önermenin tanımı, yüklemli önermeler, şartlı önermeler, modal önermeler, önermelerin çelişigi ve döndürülmesi meseleleri kapsamlı şekilde ele alınmaktadır. Yapılan literatür taramasında filozofun ülkemizde mantık açısından oldukça kısıtlı biçimde incelendiği görülmüştür; bu çalışmanın söz konusu eksikliğin giderilmesine önemli katkılar sağlayacağı değerlendirilmektedir. Makalede nitel araştırma metodu benimsenmiş, analiz ve karşılaştırma tekniklerinden yararlanılmıştır. İbn Kemmûne'nin Aristoteles, Fârâbî ve İbn Sînâ gibi müelliflerin aksine müstakil bir önerme kitabı kaleme almadığı bilinmektedir. Bu nedenle kendisinden günümüze ulaşan on altı civarındaki eser tekil tarama yöntemiyle titizlikle incelenmiş, tespit edilen üç eser bağlamında önermeler konusuna ilişkin pasajlar fişlenmiş ve elde edilen veriler sistematik biçimde tasnif edilerek analiz edilmiştir. Sonuç olarak İbn Kemmûne'nin önermeler konusunda büyük ölçüde İbn Sînâ üzerinden Meşşâî gelenekten beslendiği ortaya konulmuştur. İbn Kemmûne, belirsiz önermeler meselesinde İbn Sînâ ile ortak görüşü paylaşmakta ve bu tür önermelerin tikel anlaşılması gerektiğini açıkça ifade etmektedir. Bunun yanı sıra o, modalite konusunda basit ve bileşik ayrımına yer vermeksizin önermeleri bütüncül olarak ele almakta; modal önermelerin sayısı bakımından herhangi bir sınırlamanın bulunmadığını ve modal önermelerin teorik olarak sınırsız olabileceğini vurgulamaktadır.

Anahtar Kelimeler: Mantık, Önermeler, İbn Kemmûne, el-Cedîd fi'l-hikme, Şerh, Modalite.

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Introduction

Ibn Kammūna, whose life and education are little known, has the *kunya*/nickname Izz al-Dawla Sa'd b. Manṣūr b. Sa'd b. al-Ḥasan b. Hibat Allāh b. Kammūna al-Isrā'īlī al-Baġdādī.¹ Born in 612/1215, Ibn Kammūna was of Jewish origin and spent much of his life in Baghdad.² It is stated that his ancestor Hibat Allāh Ibn Kammūna al-Isrā'īlī was a Jewish philosopher contemporary with Ibn Sīnā (d. 428/1037) and al-Bīrūnī (d. 453/1061?).³ Different views have been put forward regarding whether Ibn Kammūna abandoned Judaism and chose Islām. Contemporary thinkers such as Moritz Steinschneider and Carl Brockelmann state that Ibn Kammūna became a Muslim due to his praises of the Prophet Muhammad.⁴ Some other researchers, such as M. Perlmann, think that he did not become a Muslim.⁵ Pourjavady and Schmidtke, noting that it cannot be definitively decided whether Ibn Kammūna became a Muslim, state that the evidence for his acceptance of Islām is weaker than that against it. This is because the matters Ibn Kammūna expressed at the end of the section on Islām in his work titled *Tanqīḥ al-abḥāth* are not considered to indicate that he was a Muslim. Another indicator is that Ibn Kammūna was referred to as 'Izz al-Dawla by almost all scholars and scribes. Those who raise this point argue that if Ibn Kammūna had been a Muslim, his *kunya* "Izz al-Dawla" should have been changed to "Izz al-Dīn" or "Izz al-Dawla wa'd-Dīn", as was the case with Rashīd al-Dawla Faḍl Allāh. Furthermore, according to those holding this view, if Ibn Kammūna had been a Muslim, this situation should have been recorded in Ibn al-Fuwaṭī or in the anonymous *Kitāb al-ḥawādīt*.⁶ Ibn Kammūna, who holds an essential place in the philosophical tradition after Ibn Sīnā, is a philosopher who authored original works on philosophical disciplines such as logic, physics, metaphysics, astronomy, and medicine, as well as on religions. He was deeply influenced by many sources, such as the texts of Ibn Sīnā, al-Ghazālī (d. 505/1111), Ibn Maymūn (d. 601/1204), Judah Halavī (d. 536/1141), Shihāb al-Dīn al-Suhrawardī al-Maqtūl (d. 587/1191), and Faḥr al-Dīn al-Rāzī (d. 606/1210).⁷ Moreover, it is known that Ibn Kammūna corresponded with his contemporaries such as Naṣīr al-Dīn al-Ṭūsī (d. 672/1274), Faḥr al-Dīn al-Kāshī, Ibn al-Fuwaṭī (d. 723/1323), and 'Alī b. 'Umar al-Kātībī (d. 675/1277) on various philosophical topics.⁸

Although various studies on Ibn Kammūna have been conducted in other fields, his contributions to the field of logic appear to have been addressed directly only through limited studies. The subject of this article consists of the investigation of the nature of Ibn Kammūna's understanding of propositions. Ibn Kammūna has many works that have reached the present day. The works from which we have particularly benefited regarding the subject of propositions are as follows: The first one is *al-Jadīd fi'l-ḥikma (al-Jadīd, al-Ḥikma wa'l-ilāhiyyāt, al-Ḥikma al-Jadīda)*. The work, which consists of seven sections on logic, philosophical concepts, nature, soul, intellect, and God, was edited and published by Ḥāmid Mar'īd al-Kubaysī. The second one is *Sharḥ al-Ishārāt (Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal)*: A commentary on Ibn Sīnā's *al-Ishārāt wa't-tanbīhāt*.⁹ The third is *Sharḥ at-Talwīḥāt*, a commentary on al-Suhrawardī al-Maqtūl's *at-Talwīḥāt*.¹⁰ Studies focusing on how logicians, particularly those after Ibn Sīnā, approached and examined logical topics are of considerable importance for the history of logic in Türkiye. In this study, revealing how a thinker such as Ibn Kammūna, who has left his mark in numerous fields, approached and examined logical topics, specifically propositions, will help fill a significant gap in the field.

1. Literature Review

When the academic literature on Ibn Kammūna's philosophy is considered, it becomes clear that no studies have been conducted specifically on propositions. On the other hand, there are some other studies related to the philosopher's philosophy. These studies are valuable works that help in understanding the

¹ Reza Pourjavady-Sabine Schmidtke, *A Jewish Philosopher of Baghdad: Izz al-Dawla Ibn Kammūna (d. 683/1284) and His Writings* (Leiden-Boston: Brill, 2006), 8; Ömer Mahir Alper, *Akılın Hazzi: İbn Kemmūne'de Bilgi Teorisi* (İstanbul: Ayışığı Kitapları, 2004), 17; Fatma Zehra Pattabanoğlu, *İbn Kemmūne ve Felsefesi* (Ankara: Elis Yayınları, 2014), 15.

² Pourjavady-Schmidtke, *A Jewish Philosopher of Baghdad: Izz al-Dawla Ibn Kammūna (d. 683/1284) and His Writings*, 8.

³ Alper, *Akılın Hazzi: İbn Kemmūne'de Bilgi Teorisi*, 17.

⁴ Pourjavady-Schmidtke, *A Jewish Philosopher of Baghdad: Izz al-Dawla Ibn Kammūna (d. 683/1284) and His Writings*, 19.

⁵ Alper, *Akılın Hazzi: İbn Kemmūne'de Bilgi Teorisi*, 18; Pattabanoğlu, *İbn Kemmūne ve Felsefesi*, 17.

⁶ Pourjavady-Schmidtke, *A Jewish Philosopher of Baghdad: Izz al-Dawla Ibn Kammūna (d. 683/1284) and His Writings*, 22-23.

⁷ Y. Tzvi Langermann, "İbn Kemmūne'nin el-Kelimātü'l-Vecīze'sinde Nefs", trans. Mehmet Zahit Tiryaki, *Nazariyat İslam Felsefe ve Bilim Tarihi Araştırmaları Dergisi* 3/1 (2016), 24; Alper, *Akılın Hazzi: İbn Kemmūne'de Bilgi Teorisi*, 20; Aydın Topaloğlu, "İbn Kemmūne", *Türkiye Diyanet Vakfı İslâm Ansiklopedisi* (İstanbul: TDV Yayınları, 1999), 20/127.

⁸ Mehmet Vural, *İslam Felsefesi Tarihi* (İstanbul: Elis Yayınları, 2016), 129; Alper, *Akılın Hazzi: İbn Kemmūne'de Bilgi Teorisi*, 20; Pattabanoğlu, *İbn Kemmūne ve Felsefesi*, 27-28.

⁹ 'Izz al-Dawla Sa'd b. Manṣūr b. Sa'd al-Isrā'īlī al-Baġdādī Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, ed. Muḥammad Malakī-Mirzā Nūrī Şafā (Tehran: Daftār-i Naṣr-i Mirāt-i Maktūb, 1299).

¹⁰ 'Izz al-Dawla Sa'd b. Manṣūr b. Sa'd al-Isrā'īlī al-Baġdādī Ibn Kammūna, *Sharḥ at-Talwīḥāt*, ed. Najafqulī Ḥabībī (Tehran: Markaz al-Buḥūth wa'l-Dirāsāt li't-Turāth al-Makhtūṭ, 2009).

philosopher's philosophy. In this regard, Ömer Mahir Alper's book titled *Aklın Hazzi, İbn Kemmûne'de Bilgi Teorisi*¹¹ and Fatma Zehra Pattabanoğlu's book titled *İbn Kemmûne ve Felsefesi*¹² attract attention. Apart from these two books, Müfit Selim Saruhan's article titled "İbn Kemmûne ve Nefs Hakkındaki Görüşleri"¹³ and Ersan Türkmen's article titled "İbn Kemmûne'nin Nefsin Ezelî ve Ebedî Olduğunu İspatlamada Kullandığı Deliller"¹⁴ are worth mentioning. There are many works in foreign languages on Ibn Kammûna's philosophy. Among these works, the comprehensive one is the book by Reza Pourjavady and Sabine Schmidtke titled *A Jewish Philosopher of Baghdad: Izz al-Dawla Ibn Kammûna (d. 683/1284) and His Writings*.¹⁵ However, although the aforementioned studies examine various issues concerning the philosopher's philosophy, Ibn Kammûna's understanding of propositions, which constitutes the subject of our research, has not been addressed in any of them. In this article, however, Ibn Kammûna's understanding of propositions is analysed from the perspective of how the subject is addressed in logic.

2. Methodology

Based on this, the article aims to present a comprehensive analysis of the section on propositions, one of the fundamental subjects of logic, in Ibn Kammûna's work, within the context of the relevant sections of the three works we have mentioned. During the preliminary examination, it was determined that the three relevant works contain data relevant to the subject of the propositions. Since the philosopher's other works contain limited data related to the subject of propositions, those works outside of the aforementioned ones have been excluded from the scope. In the article, by utilising the singular survey method, Ibn Kammûna's works have been surveyed in the context of propositions; the relevant works and sections have been identified, and, subsequently, the sections containing the discussion of propositions have been classified using the genus-species set. Finally, the data obtained have been examined in a manner consistent with the method for addressing propositions in classical logic. This article was first written in Turkish, then translated into English using the Claude.ai large language model, strictly sticking to the original text. Subsequently, the English version was revised based on expert opinions.

3. Findings

3.1. Logic and the Definition of Proposition in Ibn Kammûna

Ibn Kammûna defines logic as "the canon by which correct and incorrect thought (*fikr*) is learned." Thought (*fikr*) is the mind's turning from known knowledge to unknown knowledge. The knowledge mentioned in the definition of thought is either conceptual (*taşawwuri*) or assentential (*taşdiqî*). Taşawwur is the presence (*hudûr*) of something in the mind. In contrast, *taşdiq* expresses the assent regarding the existence (*taşdiq*) or non-existence (*takdhîb*) of the relation existing between two *taşawwurs*. Since what is known is either conception or assent, what is unknown must also be either conception or assent. The thought that leads to conceptual unknowns is called "explanatory discourse (*al-qawl al-shârih*)"; the thought that leads to assentential unknowns is called "proof" (*hujjat-dalîl*).¹⁶

When the philosopher's works, in which he addresses the subjects of logic, are examined, it is seen that he examines the subject of propositions in three of his works. Ibn Kammûna addresses propositions (i) in the third and fourth *faşls* of *al-Jadîd fî'l-hikma*, (ii) in the third section (*marşad*) of *Sharh at-Talwîhât* under the heading "*habarî tarkîb*", and (iii) in the third section of the work titled *Sharh al-uşûl wa'l-jumal min muhimmât al-ilm wa'l-amal*, which is a commentary on Ibn Sînâ's *al-Ishârât wa't-tanbihât*¹⁷ under the heading "*habarî tarkîb*".¹⁸ The philosopher begins the third *faşl* of *al-Jadîd fî'l-hikma* with the section in which he divides discourse (*qawl*) into its classes. Although the subject of propositions belongs to the *taşdiqât* section of logic, the reason Ibn Kammûna begins with the subject of discourse, which belongs to the *taşawwurat* section, is that discourses are composed of utterances. Utterances are divided into two types: Simple (*mufrad*) and compound (*murakkab*). Compound utterances are named "discourse (*qawl*)." Here Ibn Kammûna mentions the restrictive (*taqyîdî*) and predicative (*habarî*) discourses that are valid in terms of logic. This is because "explanatory discourses (*aqwâl al-shâriha*)" that lead to knowledge based

¹¹ Alper, *Aklın Hazzi: İbn Kemmûne'de Bilgi Teorisi*, 1-197.

¹² Pattabanoğlu, *İbn Kemmûne ve Felsefesi*, 1-300.

¹³ Müfit Selim Saruhan, "İbn Kemmûne ve Nefs Hakkındaki Görüşleri", *Tasavvuf İlimi ve Akademik Araştırma Dergisi* 15/1 (2005), 289-300.

¹⁴ Ersan Türkmen, "İbn Kemmûne'nin Nefsin Ezelî ve Ebedî Olduğunu İspatlamada Kullandığı Deliller", *Eskişehir Osmangazi Üniversitesi İlahiyat Fakültesi Dergisi* 11/1 (2024), 258-282.

¹⁵ Pourjavady-Schmidtke, *A Jewish Philosopher of Baghdad: Izz al-Dawla Ibn Kammûna (d. 683/1284) and His Writings*, 1-273.

¹⁶ 'Izz al-Dawla Sa'd b. Mansûr b. Sa'd al-Isrâ'îlî al-Baghdâdî Ibn Kammûna, *al-Kâshif (al-Jadîd fî'l-hikma)*, ed. Hâmid Nâjî İsfahânî (Tehran: Mu'assasa-yi Pizhûhish-i Hikmat wa Falsafa-yi İrân, 2017), 9-10; Yusuf Daşdemir, *İbn Sînâ Mantiğında Modalite* (İstanbul: Endülüs Yayınları, 2021), 13.

¹⁷ Ebû Ali İbn Sînâ, *İşaretler ve Tembihler*, trans. Ali Durusoy vd. (İstanbul: Litera Yayıncılık, 2013), 21-50.

¹⁸ Ibn Kammûna, *Sharh al-uşûl wa'l-jumal min muhimmât al-ilm wa'l-amal*, 52.

on *taṣawwur* are counted among restrictive discourses. In contrast, “definitive discourses” that lead to knowledge based on *taṣdīq* are counted among predicative discourses.¹⁹ While Ibn Kammūna includes similar explanations in the relevant section of *Sharḥ at-Talwīḥāt*, in *Sharḥ al-uṣūl wa'l-jumal*, he does not include the subject of “discourse” among the propositions.²⁰

Ibn Kammūna states that although restrictive discourses are compound utterances (discourse), they have the status of simple utterances. For example, the discourse “*thinking living being*” is an explanatory discourse that is among restrictive discourses. Therefore, it cannot convey a judgment; on the contrary, the expression “*thinking living being*” is used in place of the expression “human”, which is a simple utterance. Apart from restrictive and predicative discourses, Ibn Kammūna mentions discourses such as wish, command, prohibition, oath, exclamation, astonishment, and question, which are not used in the sciences but are used in mutual dialogues, rhetoric, and the art of poetry. Since the discourses mentioned by Ibn Kammūna do not inherently possess the characteristic of being verified (*ṣādiq*) and falsified (*kādhīb*), they have no value in terms of propositions.²¹

As Ibn Sīnā also states, predicative sentences are discourses about which it is possible to say of the one who utters them, “*he is truthful in his discourse*” or “*he is false in his discourse*”.²² Ibn Kammūna similarly characterises the predicative sentence as a discourse to which the characteristics of truthfulness (*ṣādiq*) and falsity (*kādhīb*) inherently attach. Due to these characteristics, predicative sentences are called “propositions”. Ibn Kammūna mentions that for a sentence to be a proposition, it must contain the elements of *maḥkūm 'alayh* (that about which assent is made), *maḥkūm bih* (that by which assent is made), *ijāb* (affirmation), and *salb* (negation).²³ As can be seen, Ibn Kammūna, adopting an Avicennan attitude, formulated the definition of a proposition in a similar manner.

3.2. The Classes of Propositions

Ibn Kammūna, as in the logical tradition, examines propositions in two divisions: Categorical and conditional. Categorical propositions are propositions in which, when the bond between subject and predicate is removed, two simple utterances remain. Examples of categorical propositions are the expressions “*The human is walking.*” and “*The human is not walking.*” Conditional propositions are propositions in which, when the bond between antecedent and consequent is removed, two predicative sentences remain. Examples of conditional propositions are “*If it has rained, the ground is wet.*” and “*A number is either even or odd.*” Conditional propositions are examined in two ways: “conjunctive” and “disjunctive” conditional, depending on the relationship between their elements.²⁴

3.2.1. Categorical Propositions

Categorical propositions must be composed of at least two elements, one being the subject and the other the predicate. Briefly, categorical propositions can be expressed as “*The subject is the predicate.*” or “*The subject is not the predicate.*” Ibn Kammūna states that in categorical propositions, the subject can be a single entity or an attribute. For example, the propositions “*The human is a scribe.*” or “*The laughing one is a scribe.*” are categorical propositions. The term “scribe” is made the predicate of the terms “human” and “laughing one.” In categorical propositions, the subject and predicate constitute the matter of the proposition, while the bond between them constitutes the form of the proposition. As in Arabic, the “copula”, which expresses the relationship between the elements of the proposition, may not be mentioned if an indicator indicates the meaning. For example, in the proposition “*Zaydun māshin.*” (*Zayd is walking*), the copula has not been explicitly mentioned. Nevertheless, the copula may also be explicitly mentioned. In the proposition “*Zaydun huwa māshin.*” (*Zayd is walking*), the copula, which comes as a noun, has been explicitly mentioned.²⁵

Propositions are divided into two categories, affirmative and negative, in terms of quality. Ibn Kammūna examines the affirmative and negative nature of categorical and conditional propositions. For example, the proposition “*The human is a living being.*” is a categorical affirmative. In this proposition, the subject “human” possesses the characteristic of the predicate “living being”. The proposition “*The human is not a body.*” is an example of a categorical negative proposition. Conjunctive conditional affirmative

¹⁹ Harun Kuşlu, *Nasīrudīn Tūsī'de Önermeler Mantiği* (İstanbul: Klasik Yayınları, 2017), 63.

²⁰ Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, 52.

²¹ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 21; Ibn Kammūna, *Sharḥ at-Talwīḥāt*, 1/81; Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, 52.

²² İbn Sīnā, *İşaretler ve Tembihler*, 21.

²³ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 21.

²⁴ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 22; Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, 52-53; Ibn Kammūna, *Sharḥ at-Talwīḥāt*, 1/82-83.

²⁵ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 22; for predication see Alaattin Tekin, *Ebü'l-Ferec İbnü't-Tayyib'in Eisagoge ve Categorias Şerhi* (İstanbul: Endülüs Yayınları, 2023), 77-80; Turgut Akyüz, *Mantık* (İstanbul: Ravza Yayınları, 2021), 177-208.

propositions are those in which the consequent, which is the second proposition to which the response particle is attached, necessarily follows or accompanies the antecedent, which is the first proposition to which the conditional particle is attached, without the addition of anything else. Conjunctive conditional negative propositions are those in which necessity and accompaniment are negated. The proposition “*If the sun has risen, it is daytime.*” is an example of a conjunctive conditional affirmative; the proposition “*If the sun has risen, it is not nighttime.*” is an example of a conjunctive conditional negative. Disjunctive conditional affirmative propositions, which are the other class of conditional propositions, are those that require separation and conflict in the truth values of the component propositions. Disjunctive conditional negative propositions are those in which separation and conflict are negated. “*This number is either even or odd.*” is an example of a disjunctive conditional affirmative; the proposition “*This number is either not even or not divisible into two equal parts.*” is an example of a disjunctive conditional negative.²⁶

Ibn Kammūna addresses propositions in terms of quantity as singular (*maḥṣūṣa*), particular, universal, and propositions with indefinite quantity (*muhmala*). In logic, the quantity of categorical propositions is related to whether the term that is the subject of the proposition is universal or particular. Propositions whose subject indicates a single individual are called singular. “*Zayd is a scribe.*” and “*Zayd is not a scribe.*” are affirmative and negative singular propositions, respectively. When universal and particular propositions are taken together with their qualities, four types of propositions emerge: “universal affirmative”, “universal negative”, “particular affirmative” and “particular negative”. As is the case with Islamic logicians, Ibn Kammūna gives these four types of propositions the name the four propositions with definite quantity (*maḥṣūrāt arbaʿa*). If the judgment in the proposition covers all the individuals of the term that is the subject and is affirmative, the proposition is “universal affirmative”; if the judgment is negative, the proposition is “universal negative”. An example of a universal affirmative is the proposition “*Every human is a living being.*”; an example of a universal negative is the proposition “*No human is a stone.*” If the assent in the proposition covers some of the individuals of the term that is the subject and is affirmative, the proposition is “particular affirmative”; if the assent is negative, the proposition is “particular negative”. An example of a particular affirmative is the proposition “*Some humans are scribes.*”; an example of a particular negative is the proposition “*Some humans are not scribes.*”²⁷

If the quantity of the term that is the subject of a proposition is not determined in any way, this proposition is called “*a proposition with an indefinite quantity*” (*muhmala*). For example, the propositions “*The human is in loss.*” and “*The human is not in loss.*” are of this kind. Ibn Kammūna, following Ibn Sīnā’s view in *al-Ishārāt*, accepts the view that propositions with indefinite quantity should be taken as particular.²⁸

Propositions are classified as *muḥaṣṣala* and *maʿdūla* depending on whether the component terms, namely the subject and predicate, are affirmative or negative terms.²⁹ According to Ibn Sīnā, a proposition whose predicate is an indefinite name or an indefinite word is called *maʿdūla* and *mutagayyira* (altered).³⁰ According to Ibn Kammūna, if the predicate in a proposition expresses non-existence, such propositions are named *maʿdūla*. For example, the proposition “*The human is a non-horse.*” (*al-insānu huwa lā farasun*) is *maʿdūla*. Ibn Kammūna states that affirmative *maʿdūla* propositions resemble negative *muḥaṣṣala* propositions. Finally, Ibn Kammūna addresses the difference between affirmative *maʿdūla* and negative *muḥaṣṣala* propositions based on the copula. If the said copula comes before the negation particle, it is *affirmative maʿdūla*; if it comes after the negation particle, it is *negative muḥaṣṣala*.³¹

3.2.2. Conditional Propositions

According to Ibn Kammūna, conditional propositions are divided into two: Conjunctive and disjunctive. Conjunctive conditional propositions are propositions in which there is a relationship of accompaniment (*muṣāḥaba*) or entailment (*luzūm*) between the antecedent and the consequent. Disjunctive conditional propositions are those in which there is a relationship of conflict (*ʿinād*) between

²⁶ Ibn Kammūna, *Sharḥ al-uṣūl waʾl-jumal min muhimmāt al-ʿilm waʾl-ʿamal*, 53-54; Ibn Kammūna, *Sharḥ at-Talwihāt*, 1/85-87; Ibn Sīnā, *İşaretler ve Tembihler*, 22.

²⁷ Ibn Kammūna, *al-Kāshif (al-Jadīd fīʾl-ḥikma)*, 22; Ibn Kammūna, *Sharḥ al-uṣūl waʾl-jumal min muhimmāt al-ʿilm waʾl-ʿamal*, 55-57; Ibn Kammūna, *Sharḥ at-Talwihāt*, 1/92-94; see also Alaattin Tekin, “Ahmet Hilmi el-Koğî’nin Risâletü’l-Mantık Eseri”, *Şehir ve Din Diyarbakır’da İnanç Mozaiği* (İstanbul: Ensar Yayınları, 2024), 177.

²⁸ Ibn Kammūna, *al-Kāshif (al-Jadīd fīʾl-ḥikma)*, 23; Ibn Kammūna, *Sharḥ at-Talwihāt*, 1/93-94; Ibn Kammūna, *Sharḥ al-uṣūl waʾl-jumal min muhimmāt al-ʿilm waʾl-ʿamal*, 57.

²⁹ İbn Sīnā, *İşaretler ve Tembihler*, 25-26; Kamil Kömürcü, *Esiruddin el-Ebherî’nin Mantık Anlayışı* (Ankara: Yayınevi Yayınları, 2010), 108.

³⁰ Ebû Alî İbn Sīnâ, *Yorum Üzerine*, trans. Ömer Türker (İstanbul: Litera Yayıncılık, 2006), 72.

³¹ Ibn Kammūna, *al-Kāshif (al-Jadīd fīʾl-ḥikma)*, 23-24; Ibn Kammūna, *Sharḥ at-Talwihāt*, 1/110-111; Ibn Kammūna, *Sharḥ al-uṣūl waʾl-jumal min muhimmāt al-ʿilm waʾl-ʿamal*, 60-62.

their elements. The first element of a conditional proposition is called the antecedent (*muqaddam*), and the second element is called the consequent (*tālī*). In terms of quality, conjunctive conditional propositions are addressed as affirmative and negative.

Ibn Kammūna, just like his predecessors, divides conjunctive conditional propositions into two: *Luzūmiyya* and *ittifāqiyya*. If the connection relationship between the elements of the proposition arises as a result of necessity (*luzūm*), it is called *luzūmiyya*. For example, the propositions "If Zayd is writing, then he is moving his hand." and "If Zayd is writing, then he is not walking." are of this kind. If the connection relationship between the elements of the proposition in question arises as a result of coincidence (*tawāfuq*), it is called *ittifāqiyya*. For example, the propositions "If the human is speaking, then the donkey is braying." and "If the human is speaking, then the donkey is not neighing." are of this kind.³² The quantification (*ṣūr*) particles of universal affirmative conjunctive conditional propositions are "always" and "whenever", while the quantification particles of universal negative propositions are "never" (*laysa albatta*) and "not always" (*laysa dā'iman*). On the other hand, the particle of particular affirmative propositions is "sometimes" (*qad yakūnu*), while the particles of particular negative propositions are "sometimes not" (*qad lā yakūnu*) and "not always" (*laysa dā'iman*).³³

Ibn Kammūna notes that in conjunctive conditional propositions, when the relationship between the antecedent and the consequent is necessary (*luzūmī*), conjunctive conditional *luzūmiyya* propositions can be formulated in three ways. It is possible to list the formulation patterns of conjunctive conditional *luzūmiyya* propositions as follows:

Table 1. Conjunctive Conditional *Luzūmiyya* Propositions

Antecedent (Muqaddam)	Consequent (Tālī)	Examples
T	T	"If Zayd is writing, then he is moving his hand."
F	F	"If the donkey is flying, then it has wings."
F	T	"If the donkey is flying, then it is a living being."

The example, namely "If the donkey is flying, then it is a living being." was considered *luzūmiyya* because it was written during a period when inanimate flying objects did not exist, as it assumes that flying requires life. Ibn Kammūna states that when a conjunctive conditional proposition is *ittifāqiyya*, the proposition will only be formed in such a way that the antecedent and consequent are true:

Table 2. Conjunctive Conditional *Ittifāqiyya* Propositions

Antecedent (Muqaddam)	Consequent (Tālī)
T	T

According to Ibn Kammūna, since conjunctive conditional propositions are composed of other propositions, they can be formulated in nine ways depending on whether the categorical, conjunctive, or disjunctive conditional propositions that constitute them. It is possible to list the formulation patterns of conjunctive conditional propositions as follows:³⁴

Table 3. The Formation Patterns of Conjunctive Conditional Propositions

Pattern	Antecedent (Muqaddam)	Consequent (Tālī)	Examples
1	Categorical	Categorical	"If Zayd is writing, then he is moving his hand."
2	Conjunctive Conditional	Conjunctive Conditional	"If whenever the sun rises it is daytime, then when it is daytime, the sun has risen."
3	Disjunctive Conditional	Disjunctive Conditional	"If a number is either even or odd, then a number is even or odd."

³² Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 26.

³³ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 27; Ibn Kammūna, *Sharḥ at-Talwīḥāt*, 1/97-110.

³⁴ Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, 62-63; Ibn Kammūna, *Sharḥ at-Talwīḥāt*, 1/97-100.

Pattern	Antecedent (Muqaddam)	Consequent (Tālī)	Examples
4	Categorical	Conjunctive Conditional	"If every human is a living being, then whenever a body is human, the body is a living being."
5	Conjunctive Conditional	Disjunctive Conditional	"If whenever the sun rises it becomes daytime, then the rising of the sun necessitates the existence of daytime."
6	Categorical	Disjunctive Conditional	"If every human is a living being, then this thing is either human or not a living being."
7	Disjunctive Conditional	Categorical	"If a number is even or odd, then every even number is not odd."
8	Conjunctive Conditional	Disjunctive Conditional	"If whenever the sun rises, daytime exists, then either the sun has risen, or daytime does not exist."
9	Disjunctive Conditional	Conjunctive Conditional	"If this number is even or odd, then if the number is odd, it is not even."

The second class of conditional propositions is disjunctive conditional propositions. Disjunctive conditional propositions are propositions in which there is a relationship of conflict (*inād*) between their elements. Ibn Kammūna addresses disjunctive conditional propositions in three divisions as *ḥaqīqiyya*, *māni'at al-jam'*, and *māni'at al-ḥulūw* according to the state of conflict between them. If in the proposition the conflict and incompatibility (*lā muwāfatun*) between the antecedent and the consequent occur in terms of both truth and falsity, it takes the name "*ḥaqīqiyya*". Disjunctive conditional *ḥaqīqiyya* propositions are either *inādiyya* or *ittifāqiyya*. For example, the proposition "*A number is either even or odd.*" is a disjunctive conditional *ḥaqīqiyya*, namely *inādiyya*. The proposition "*When Zayd is a white scribe, he is either a scribe or black.*" is disjunctive conditional *ḥaqīqiyya* that is *ittifāqiyya*. In disjunctive conditional propositions, if there is conflict between the antecedent and the consequent only in terms of truth, the proposition becomes *māni'at al-jam'*. For example, the propositions "*This thing is either a stone or a tree.*" and "*This thing is either a stone or not a tree.*" are of this kind. In *māni'at al-ḥulūw* propositions, there is conflict between the antecedent and the consequent only in terms of falsity. For example, the propositions "*Either Zayd is in the water, or he is not drowning in the water.*" and "*Either this thing is an animal, or it is not a plant.*" become *māni'at al-ḥulūw*.³⁵ The quantification (*ṣūr*) particle of the universal affirmative disjunctive conditional proposition is "always"; the quantification particles of universal negative propositions are "never" (*laysa albatta*) and "not always" (*laysa dā'iman*); the particle of particular affirmative is "sometimes" (*qad yakūnu*); and the particles of particular negative propositions are "sometimes ... not" (*qad lā yakūnu*) and "not always" (*laysa dā'iman*).³⁶ The four quantification particles can sometimes be used to clarify the quantity of the parts of the proposition. The propositions "*Some of our organs are hands, some are legs, some are heads.*" or "*All of the parts of the human body.*" are examples given for this usage. Sometimes they are used to clarify the quantity of the particulars of that about which judgment is made (*maḥkūm 'alayh*). What the logicians intend consists of this second meaning. Therefore, what is correct in the proposition is for the quantification particle to be attached to the subject, not the predicate.³⁷ Ibn Kammūna says that if it is attached to the predicate, the proposition will have deviated from its natural state. For this reason, the proposition is named "*munḥarifa*", which means proposition with a quantified predicate.³⁸

Ibn Kammūna states that since disjunctive conditional propositions are composed of other propositions, they can be formulated in six ways depending on whether the categorical, conjunctive, or disjunctive conditional propositions that constitute them. It is possible to list the formulation patterns of disjunctive conditional propositions as follows:

³⁵ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 28-29; Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, 63-65.

³⁶ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 29.

³⁷ 'Alī b. 'Umar al-Kātibī, *Jāmi' al-daqa'iq fī kashf al-ḥaqā'iq*, trans. by Selman Sucu et al. (İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı, 2022), 146.

³⁸ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 30.

Table 4. The Formation Patterns of Disjunctive Conditional Propositions

Pattern	Antecedent (Muqaddam)	Consequent (Tāli)	Examples
1	Categorical	Categorical	"Either the sun has risen or night exists."
2	Conjunctive Conditional	Conjunctive Conditional	"Either whenever the sun rises, daytime exists, or if the sun rises, daytime may not exist."
3	Disjunctive Conditional	Disjunctive Conditional	"Either fever is related to blood or to bile, or it is related to black bile or to phlegm."
4	Categorical	Conjunctive Conditional	"Either every human is a living being, or if this thing is human, it may not be a living being."
5	Categorical	Conjunctive Conditional	"Either every human is a living being, or this thing may be human or not a living being."
6	Conjunctive Conditional	Disjunctive Conditional	"Either whenever the sun rises, daytime exists, or either the sun has risen, or daytime exists."

4. Modality in Propositions

Ibn Sīnā states in *al-Ishārāt* that in propositions and their like, whether affirmative or negative, the relation of the predicate to the subject in reality (*naḥs al-amr*) is "the matter of the proposition". The relation between subject and predicate occurs in three ways: Its existence is necessary, or its non-existence is necessary, or neither its existence nor its non-existence is necessary. Accordingly, the matter of propositions becomes necessary, impossible, and possible.³⁹ Ibn Kammūna similarly expresses that in reality (*naḥs al-amr*), there are three types of relations between subject and predicate: Necessary, impossible, and possible. Thus, necessary, impossible, and possible matters emerge. The mind's judgment regarding this relation is expressed as the modality (*jiḥa*) of the proposition. An example of necessary matter is "Zayd is human." and "Zayd is not human."; an example of impossible matter is "Zayd is a stone." and "Zayd is not a stone."; and an example of possible matter is "Zayd is a scribe." and "Zayd is not a scribe."⁴⁰

Ibn Kammūna addresses modal propositions without distinguishing between simple and compound propositions. The modal propositions examined by Ibn Kammūna can be listed as follows: (i) Absolute necessity (*al-ḍarūriyya al-muṭlaqa*): These are propositions in which the predicate is necessarily predicated of the subject as long as the essence of the subject exists. For example, the statements "The human is necessarily a living being." and "The human is necessarily not a stone." are absolute necessary propositions. (ii) Absolute perpetual (*al-dā'ima al-muṭlaqa*): These are propositions in which the predicate is predicated of the subject due to the continuity of the essence of the subject. For example, the statements "Zayd is perpetually a white human." and "Zayd is perpetually not a white human." are perpetual propositions. (iii) General conditional (*mashrūṭa āmma*): These are propositions in which the subject is necessarily predicated of the predicate depending on a qualifying condition. A universal affirmative general conditional proposition means "All those who write, as long as they are writing, necessarily move their fingers." In contrast, a universal negative general conditional proposition means "All those who write, as long as they are writing, their fingers are necessarily not motionless." (iv) General customary (*al-urfiyya al-āmma*): These are propositions in which judgment is made with the continuity of the quality belonging to the subject of the proposition. (v) Temporal (*waqtiyya*): These are propositions in which it is judged that the predicate is necessarily affirmative or negative for the subject at a specific time from among the times when the subject exists, with the stipulation that it is not perpetual in terms of essence. (vi) General absolute (*al-muṭlaqa al-āmma*): These are simple propositions in which the judgment emerges dependent on the essence of the subject and the judgment is realised at least once. (vii) General possible (*al-mumkina al-āmma*): These are propositions in which it is not impossible for the predicate to be predicated of the subject unilaterally in the essential sense. (viii) Special possible (*al-mumkina al-hāṣṣa*): These are propositions in which necessity in terms of essence (*bi-ḥasab al-dhāt*) has been removed bilaterally, in

³⁹ Ibn Kammūna, *Sharḥ al-uṣūl wa'l-jumal min muhimmāt al-'ilm wa'l-'amal*, 69; Ibn Sīnā, *İşaretler ve Tembihler*, 30.

⁴⁰ Ibn Kammūna, *al-Kāshif (al-Jadid fi'l-ḥikma)*, 30; Ibn Kammūna, *Sharḥ at-Talwihāt*, 1/122-123; Shams al-Dīn al-Shahrazūrī, *Rasā'il al-Shajara al-ilāhiyya fi 'ulūm al-ḥaqā'iq al-rabbāniyya*, ed. Najafqulī Ḥabībī (Tehran: Mu'assasa-yi Pizhūhish-i Ḥikmat wa Falsafa-yi Irān, 1994), 1/131; Shams al-Dīn al-Shahrazūrī, *Sharḥ Ḥikmat al-ishrāq*, ed. Aḥmad 'Abd al-Raḥīm al-Sāyih-Tawfiq 'Alī Wahba (Cairo: Maktabat al-Thaqāfa al-Dīniyya, 2012), 1/307-308.

terms of both existence and non-existence. Universal affirmative and negative special possible propositions are composed of two general possible propositions, one affirmative and the other negative.⁴¹

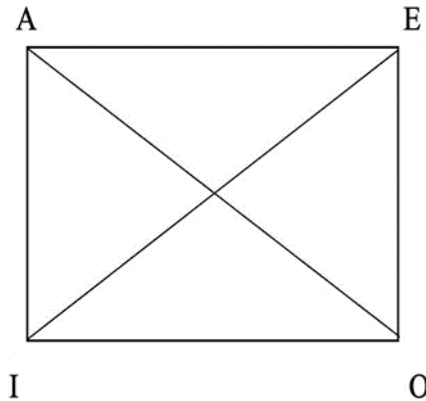
Ibn Kammūna also includes the class of propositions that later logicians such as Kātibī, the student of Tūsī, addressed under the name *hīniyya muṭlaqa* (temporal necessary propositions).⁴² Ibn Kammūna states that *hīniyya muṭlaqa* arises through the occurrence of the quality belonging to the subject of the proposition at certain times. If the propositions in question that are *hīniyya muṭlaqa* are qualified with “necessity”, they take the name *hīniyya qarūriyya*. Finally, Ibn Kammūna concludes his examination of modal propositions by stating that they have no limit.⁴³

5. The Contradiction and Conversion of Propositions

Ibn Kammūna, contrary to the well-known definition, defines a contradiction as two propositions differing in terms of affirmation and negation. According to the well-known definition, however, a contradiction is two propositions that differ in affirmation and negation in such a way that, by their essence, one must be true and the other false. The expression “due to their essence” excludes from the definition situations in which they differ in terms of affirmation and negation, but the truth of one necessitates the falsity of the other through an intermediary.⁴⁴ According to Ibn Kammūna, for two propositions to be contradictory, they must be unified in terms of modality (*jiha*), relativity, condition, time, place, part, potency, act, etc.⁴⁵

Ibn Kammūna states that for contradiction to occur between modal propositions, in addition to the conditions requiring unity, the two propositions must be different from each other in terms of quality and quantity. Accordingly, the contradiction of an absolute necessary proposition is a general possible proposition. For the negation of necessity by necessity produces contradiction. The contradiction of an absolute perpetual proposition is a general absolute proposition. The contradiction of a general conditional proposition is *hīniyya mumkina* (temporal possible proposition). Because *hīniyya mumkina* is a proposition in which necessity has been removed from the opposite side in terms of quality. General customary propositions are contradictory with *hīniyya muṭlaqa*. The contradiction of necessary temporal propositions is a general possible proposition.⁴⁶

Figure 1. Square of Opposition



(Labels: A-E (Top): Contraries, A-I (Left): Subalternation, E-O (Right): Subalternation, I-O (Bottom): Subcontraries, A-O and E-I (Diagonals): Contradictories.)

To use Ibn Kammūna’s expressions in *al-Jadīd fī’l-ḥikma*, two universal propositions that differ in quality but are the same in quantity are contrary (*mutaḍādd*). Contrary propositions can both be false together, but cannot both be true together. Two particular propositions that differ in quality but are the same in quantity are subcontrary (*taḥt mutaḍādd*). Subcontrary propositions can both be true together, but cannot both be false together. Propositions that are the same in quality but differ in quantity are

⁴¹ Ibn Kammūna, *al-Kāshif (al-Jadīd fī’l-ḥikma)*, 25-26; Ibn Kammūna, *Sharḥ al-uṣūl wa’l-jumal min muhimmāt al-‘ilm wa’l-‘amal*, 74-80; Ibn Kammūna, *Sharḥ at-Talwīḥāt*, 1/125-137.

⁴² Kuşlu, *Nasīruddin Tūsī’de Önermeler Mantığı*, 114.

⁴³ Ibn Kammūna, *al-Kāshif (al-Jadīd fī’l-ḥikma)*, 25-26.

⁴⁴ Ibn Kammūna, *al-Kāshif (al-Jadīd fī’l-ḥikma)*, 31-32.

⁴⁵ Ibn Kammūna, *al-Kāshif (al-Jadīd fī’l-ḥikma)*, 31.

⁴⁶ Ibn Kammūna, *al-Kāshif (al-Jadīd fī’l-ḥikma)*, 32-34.

subaltern (*mutadāhil*) propositions. Propositions that differ in both quantity and quality are contradictory.⁴⁷

Before introducing the subject of conversion in propositions, we must state that conversion is divided into two: Simple conversion (*'aks al-mustawī*) and contrapositive conversion (*'aks al-naqīd*). Simple conversion is the substitution of the elements of a proposition for each other without changing the truth value of the proposition.⁴⁸ Accordingly, universal and particular affirmative propositions are converted into particular. If the originals of particular *hīniyya muṭlaqa* propositions are true, they are converted into *hīniyya muṭlaqa*. If absolute propositions are true, they are converted as absolute; if general possible propositions are true, they are converted with general possibility. Universal affirmative propositions, however, are not converted to universal, for the predicate may be more general in terms of matter. For example, the proposition "Every human is a living being." is not converted as a universal affirmative in the form "Every living being is human." Moreover, according to Ibn Kammūna, there is no need to preserve quality in the conversion of universal and particular modal propositions in the affirmative. For example, if it is accepted that "The human is necessarily one who writes." the proposition "It is necessarily not one who writes." is also considered.⁴⁹ Ibn Kammūna states that among negative propositions, only necessary, perpetual, conditional, and customary propositions are converted like themselves in terms of modality and quantity. Those other than these propositions are not converted, whether universal or particular, because they also differ in matter.⁵⁰

Ibn Kammūna holds the view that conditional propositions can be converted. Whether the affirmative conjunctive conditional proposition in question is universal or particular, it is converted into a particular affirmative conjunctive conditional proposition. A universal negative conjunctive conditional proposition is converted like itself. A particular negative conjunctive conditional proposition, however, is not converted. In disjunctive conditionals, conversion cannot be conceived in any way. That is, when the positions of the elements of a disjunctive conditional proposition are changed, a new proposition with a different meaning from the two propositions is not obtained. In the conversion operation, a proposition different from the original proposition must be obtained.⁵¹

Ibn Sīnā defines contrapositive conversion as "making the contradictory of the subject of the proposition the predicate, and the contradictory of the predicate the subject."⁵² Ibn Kammūna defines contrapositive conversion as the substitution of the opposites (*muqābil*) of the elements of a proposition for each other, without changing the proposition's truth value.⁵³ According to this explanation, the rules of contrapositive conversion for affirmatives are the rules of simple conversion for negatives in demonstration, which we have mentioned here.⁵⁴

For Ibn Kammūna, necessary, perpetual, customary, two simple conditional, or two compound conditional negative propositions are converted like themselves in terms of quantity and modality. However, in two compound propositions, they must also be qualified with "not being perpetual" in some individuals of the subject. Particular and universal negative propositions are converted into particular ones.⁵⁵

6. Discussion and Conclusion

Ibn Kammūna, who holds an important place in the philosophical tradition after Ibn Sīnā, is a philosopher who authored original works on philosophical disciplines such as logic, physics, metaphysics, astronomy, and medicine, as well as on religions. In this article, Ibn Kammūna's understanding of propositions, about which there is no study in the secondary literature on the subject of logic and propositions, has been addressed and examined from the perspective of the discipline of logic. In this regard, it can be said that the study is important for addressing this gap. As a result of the examinations conducted, it has been seen that the philosopher examined the subject of propositions comprehensively in his works *al-Jadīd fī'l-ḥikma*, *Sharḥ al-uṣūl wa'l-jumal*, and *Sharḥ at-Talwīḥāt*. Ibn Kammūna includes the subject of discourse (*qawl*), which is examined in the *taṣawwūrāt* section, in the introduction to propositions in his works *al-Jadīd fī'l-ḥikma* and *Sharḥ at-Talwīḥāt*. In the article, the subjects of the definition of propositions, categorical propositions, conditional propositions, modal propositions, and the

⁴⁷ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 34.

⁴⁸ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 35.

⁴⁹ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 35.

⁵⁰ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 36.

⁵¹ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 37; al-Kātibī, *Jāmi' al-daqa'iq fī kashf al-ḥaqā'iq*, 294.

⁵² Abū 'Alī Ibn Sīnā, *Kitāb al-Shifā': al-Qiyās*, ed. Ibrāhīm Madkūr-Sa'īd Zāyid (Cairo: Wizārat al-Thaqāfa, 1964), 93.

⁵³ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 37.

⁵⁴ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 37.

⁵⁵ Ibn Kammūna, *al-Kāshif (al-Jadīd fī'l-ḥikma)*, 38.

contradiction and conversion of propositions have been addressed from Ibn Kammūna's perspective. The scope of the article has been limited to the works *al-Jadīd fī l-ḥikma*, *Sharḥ al-uṣūl wa-l-Jumal*, and *Sharḥ at-Talwīḥāt*, which contain data on the subject of propositions among Ibn Kammūna's works. It has been understood that Ibn Kammūna defines logic as "the canon by which correct and incorrect thought (*fikr*) is learned." and expresses predicative sentences as discourses to which the characteristics of truthfulness (*ṣādiq*) and falsity (*kādhīb*) attach inherently. Due to these characteristics, he calls predicative sentences "propositions". It has been seen that Ibn Kammūna, as is the case in the logical tradition, examines propositions in two divisions: Categorical and conditional. Categorical propositions must be composed of at least two elements, one being the subject and the other the predicate.

According to Ibn Kammūna, conditional propositions are divided into two: Conjunctive and disjunctive. Conjunctive conditional propositions are propositions in which there is a relationship of accompaniment (*muṣāḥaba*) or entailment (*luzūm*) between the antecedent and the consequent. On the other hand, disjunctive conditional propositions are those in which there is a relationship of conflict (*inād*) between their elements. Regarding the modality of propositions, Ibn Kammūna states that in reality (*naḥs al-amr*), there are three types of relations between subject and predicate: Necessary, impossible, and possible. From this, he presents three types of modality: Necessary, impossible, and possible. He expresses the mind's assent regarding this relation as the modality (*jiha*) of the proposition. Ibn Kammūna addresses modal propositions without distinguishing between simple and compound propositions. Ibn Kammūna also includes the class of propositions that later logicians such as Kātībī, the student of Ṭūsī, addressed under the name *ḥīniyya muṭlaqa*.

Contrary to the well-known definition, Ibn Kammūna defines contradiction as two propositions differing in their affirmation and negation. According to Ibn Kammūna, for two propositions to be contradictory, they must be unified in terms of modality (*jiha*), relativity, condition, time, place, part, potency, act, etc. Simple conversion is the substitution of the elements of a proposition for each other without changing the truth value of the proposition. Accordingly, universal and particular affirmative propositions are converted into particular ones. If the originals of particular *ḥīniyya muṭlaqa* propositions are true, they are converted into *ḥīniyya muṭlaqa*. If absolute propositions are true, they are converted as absolute; if general possible propositions are true, they are converted with general possibility. Universal affirmative propositions, however, are not converted to universal, for the predicate may be more general in terms of matter. Ibn Kammūna states that among negative propositions, only necessary, perpetual, conditional, and customary propositions are converted like themselves in terms of modality and quantity. Those other than these propositions are not converted, whether universal or particular, because they also differ in matter. Ibn Kammūna holds the view that conditional propositions can be converted.

Whether the affirmative conjunctive conditional proposition in question is universal or particular, it is converted into a particular affirmative conjunctive conditional proposition. A universal negative conjunctive conditional proposition is converted like itself. A particular negative conjunctive conditional proposition, however, is not converted. In disjunctive conditionals, conversion cannot be conceived in any way. Ibn Kammūna defines contrapositive conversion as the substitution of the opposites (*muqābil*) of the elements of a proposition for each other, without changing the proposition's truth value. Moreover, he states that necessary, perpetual, customary, two simple conditional, or two compound conditional negative propositions will be converted like themselves in terms of quantity and modality. However, in two compound propositions, they must also be qualified with "not being perpetual" in some individuals of the subject. Particular and universal negative propositions are converted into particular ones.

In conclusion, it is understood that the Peripatetic tradition generally influenced Ibn Kammūna through Ibn Sīnā regarding propositions. Ibn Kammūna shares the same view as Ibn Sīnā on the subject of indefinite propositions and states that indefinite propositions should be understood as particular. Moreover, he addresses propositions on the subject of modality without including a distinction between simple and compound. Finally, Ibn Kammūna states that there will be no limitation on the number of modal propositions, which modal propositions can be unlimited in number. Considering this data, it is evident that studies focusing on the philosopher's logical topics need to be increased. Although Ibn Kammūna appears uninfluenced by the Ishrāqī tradition with respect to propositions, the presence of Ishrāqī influences in the sections on definition, syllogism, and the five arts warrants further investigation.

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