

11 Al-Fārābī on What Is Known Prior to the Syllogistic Arts in His Introductory Letter, the *Five Aphorisms*, and the *Book of Dialectic*

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Abū Naṣr Muḥammad ibn Muḥammad ibn Tarkhān ibn Awzalagh al-Fārābī, a ninth- to tenth-century CE Arabic philosopher (AH 256/870 CE–AH 339/950 CE), wrote a series of twelve logical treatises that have been preserved in two manuscripts from the early seventeenth century, MS Bratislava 231 TE 41 and MS Süleymaniye Kütüphanesi Hamidiye 812. In these twelve treatises, al-Fārābī presents his account of the syllogistic arts and of their uses in all the sciences. He enumerates five syllogistic arts: rhetoric, dialectic, sophistry, demonstration, and poetry. The introductory treatises to this collection not only introduce these five syllogistic arts, but give an account of the starting points or beginnings for the selection of terms, for the composition of premises, and for the formulation of syllogisms of the arts.

In examining these starting points, al-Fārābī identifies the ways in which we know the things that can be known. Pertaining to the things that can be known, he says some are known by syllogistic art and demonstration and some are known without syllogistic art and demonstration—that is, this second group of things known are known prior to the learning and use of the syllogistic arts. According to al-Fārābī, knowledge that is prior to the syllogistic arts exists and is known prior to human will, effort, and intellection, whereas knowledge that is gained through the syllogistic arts requires human will, effort, and intellection. The syllogistic arts, even the one possessing the highest degree of certainty, the art of demonstration, derive from this knowledge that is known prior to its use in the syllogistic arts. To say that the arts “derive from” this knowledge does not mean that this knowledge constitutes a permanently definable set of terms and premises. It consists, rather, in starting points and beginnings that may themselves need to be reformulated or refined in the course of an inquiry. The purpose of this chapter is to show how al-Fārābī introduces and distinguishes types of knowledge, what he calls *ma'lūmāt*, which are prior to the syllogistic arts, and how these types of knowledge are used in at least one of the syllogistic arts, the art of dialectic.

My inquiry entails a study of selected passages from three of al-Fārābī's logical treatises from this collection of twelve treatises. In the first treatise, the *Letter with which the Book Begins*, al-Fārābī initially distinguishes the syllogistic arts from the manual or practical arts, whose actions and ends are the performance of a work, whereas for the logical arts, the end is exclusively the attainment of knowledge. Once he has made this distinction between the practical and the syllogistic arts and it is evident what the syllogistic arts are, he proceeds in the second introductory treatise, the *Five Aphorisms*, to identify the types of knowledge that are known prior to the learning of the syllogistic arts. Following a study of passages in these two introductory treatises, we will examine one passage in a later treatise in the collection, the *Book of Dialectic*, which provides an example of how the various types of presyllogistic or prescientific knowledge function in the inquiries pertinent to the syllogistic art of dialectic. The conclusions of our examination of the selected passages from these three treatises are necessarily protreptic because this study does not engage in an exposition of the entirety of the three treatises nor of the entire logical corpus of twelve books of which they are a part. Nonetheless, these passages introduce al-Fārābī's account of knowledge—especially knowledge that exists and is known prior to art—in his understanding of logic, and these texts raise central questions for further inquiry regarding al-Fārābī's account of philosophy.

The significance of the three treatises is best appreciated if we are aware of their context in the collection to which they belong. This collection of twelve of al-Fārābī's logical treatises is found together in two seventeenth-century manuscripts, MS Bratislava 231 TE 41 and MS Süleymaniye Kütüphanesi Hamidiye 812.¹ The treatises in these collections form a sequence and constitute one of his most extensive accounts of logic. The list of the treatises is as follows:

- 1 *Letter with which the Book Begins*
- 2 *Five Aphorisms*
- 3 *Book of the Eisagoge or The Introduction*
- 4 *Book of the Qāṭāghūriyās or The Categories*
- 5 *Book Concerning Irminias or The Interpretation*
- 6 *Book of Syllogism*
- 7 *Book of Resolution*
- 8 *Book of Sophistical Places*
- 9 *Book of Demonstration*
- 10 *Book of Dialectic*
- 11 *Book of Rhetoric*
- 12 *Book of Poetry*

We recognize from the names of the treatises that many are commentaries on the books of Aristotle's *Organon*. Yet they are not line-by-line nor

passage-by-passage commentaries. Al-Fārābī refers to Aristotle occasionally in his treatises, but seldom quotes him by introducing a passage with “he said” (*qāla*) or “he says” (*yaqūlu*); also, al-Fārābī often adds material that is absent from Aristotle’s treatises or passes over material that is present in them. The divergences of al-Fārābī from Aristotle’s presentation of logic are also evident in that he adds other treatises to this sequence which have no obvious Aristotelian equivalent. For example, the two introductory treatises in the sequence, which we will examine here, have no parallels in Aristotle’s oeuvre, even if it is apparent that the content is gleaned from various treatises of Aristotle. Al-Fārābī includes the *Book of the Eisagoge*, whose presence near the beginning of logic is not unusual in Syriac- and Arabic-speaking philosophy. But there are also other insertions and changes to Aristotle’s collection. Two books are inserted after the *Book of Syllogism*. The first, the *Book of Resolution*, has no immediate parallel to Aristotle’s treatises, and the second, the *Book of Sophistical Places*, is a study of the subject of Aristotle’s *Sophistical Refutations*, but in contrast to Aristotle’s placement of the book after the *Posterior Analytics*, al-Fārābī inserts his treatise on it before his treatise the *Book of Demonstration*.² The reasons for these changes would require a lengthier account of the entire collection of al-Fārābī’s logic than is possible here. Nonetheless, on the basis of this sketch, we can begin to explore his account of the syllogistic arts.³

Finally, the themes that emerge in the passages I examine here reveal a ubiquitous emphasis on language in al-Fārābī’s logic. He is concerned in particular with the opinions and judgments present in the common language of a people. The logical arts, including demonstrative science, will depend upon, and need to examine and refine, our sense of language. They must investigate how words, expressions, and judgments shape the arguments used in all of the arts.

The Letter on Logic

Al-Fārābī begins the first treatise by explaining that logic is an art.⁴ It is, however, a particular kind of art—a syllogistic or rational one. There are five species of such syllogistic arts: dialectic, sophistry, demonstration, rhetoric, and poetry. They are characterized primarily by their use of syllogisms,⁵ and they are distinguished from practical arts, such as medicine, farming, or the construction of buildings, because as syllogistic arts their action and end is exclusively the use of a syllogism rather than the performing of a particular action and work. The aim of medicine is health; the aim of agriculture is the growth of crops; the aim of carpentry is the construction of furniture or buildings. The practical arts may use the syllogistic arts but, in contrast to the syllogistic arts, their purpose is not solely the discovery and use of a syllogism.

In his delineation of the five logical arts, al-Fārābī distinguishes them by the types of syllogisms they use. Since these syllogisms are made with language, he calls each of the arts by the term that is used for “rhetoric” (*mukhāṭaba*), which he employs as a genus for the five species of arts. Philosophical rhetoric (*al-mukhāṭaba al-falsafīyya*) seeks knowledge of what is true about things that are certain. It is the standard and even an ideal for all science, even if it is not achieved as often as supposed; its premises must be certain if the syllogism is to produce certain knowledge. Dialectical rhetoric (*al-mukhāṭaba al-jadaliyya*) seeks victory in argument through things that are known and generally accepted (*al-ma’rūfa al-mashhūra*); its premises are taken from generally accepted opinion. Sophistical rhetoric (*al-mukhāṭaba al-sūfisā’īyya*) seeks a supposed victory over the speaker through things that are opined to be apparent and generally accepted (*ghalabatan maẓnūnatan bi-l-’ashyā’ allatī yuẓannu bihā fī-l-ẓāhir ’annahā mashhūra*); this art uses premises in syllogisms that are false but that might be supposed to be true. Rhetorical rhetoric (*al-mukhāṭaba al-khiṭābiyya*) seeks to please the listener with a particular type of pleasure even though the speaker does not produce certainty in the listener; this art uses a premise or premises that please the hearers but leaves out a premise that would not be pleasing even if the premise may be necessary if a more certain conclusion is sought. Poetical rhetoric (*al-mukhāṭaba al-shi’riyya*) uses the imagination to represent things in speech; through the imagination, this art in fact uses things that are false, but that illustrate through comparison the meaning of one thing with the meaning of another.

In summary, according to these five arts, logic is the study of the terms—initially two terms, a subject and a predicate—which are combined to make a statement or judgment. Then a second statement is added and, provided it repeats one of the terms in the first statement, is called a middle term. It adds a third term. Then the combination of three terms in two statements or judgments makes it possible to discover knowledge. This dynamic will be present in any argument, whether this syllogistic form is recognized or not. In any given argument about a certain problem, logic identifies the types of syllogism present and through this identification is able to apprehend the measure of certainty or knowledge contained in the syllogism. The remaining eleven treatises in the collection focus on the rules of these five syllogistic arts. The aim of the group of treatises is to delineate both the common and specific rules of these arts.

Logic, for al-Fārābī, is a study of the use of words and their meanings as they are composed into judgments, which in turn have a connection with other judgments, some of which lead to the discovery of knowledge. Despite the differences in the degree of certainty of knowledge of the syllogisms, they are all syllogistic arts, and not one of them, not even demonstration, is set off as independent from the others and capable of

functioning without the others. These five arts constitute five types of argument, and with respect to any problem, it is necessary to determine which art is most appropriate. In al-Fārābī's first introduction of the five arts, he says: "There are five syllogistic [arts]: philosophy, the art of dialectic, the art of sophistry, the art of rhetoric, and the art of poetry." He individually calls each one of them an art, with the exception of philosophy, *falsafa*. In this instance, the omission of the term "art" as the first member of the construct state before the word "philosophy" ought to cause us to wonder whether philosophy is an art like the other arts. Is it the only true science, and, therefore, not an art?

Yet, although this omission may hint at just such a question, al-Fārābī does not continue to assert the distinction. Not only, as we have just noted, does he show the continuity between the arts by indicating that all five of them are species of "rhetoric"; several lines later, he also speaks of "the art of philosophy" (*ṣinā'a al-falsafa*). The logical art, which is composed of five species of arts, is the art necessary for all science—it is the scientific art, manifested variously but always an art whose purpose and end is scientific knowledge. In order for knowledge to be obtained and recognized, it will be necessary to learn the rules of each of the syllogistic arts and to be able to recognize different types of premises and syllogisms and the degree of certainty belonging to each.

In al-Fārābī's formulation, we do not find the widespread modern distinction between arts and sciences because all logic is an art leading to *scientia* (*'ilm*) or knowledge. Science is not possible without the logical arts. "Art" rather constitutes all that needs to be learned through human will and endeavor and that is not known prior to this endeavor. In the first paragraph, al-Fārābī states that logic directs the intellect toward what is right only in the things in which it is possible to err, thus indicating that there exists knowledge that is not subject to human will. Yet, in respect to knowledge obtained from the arts, he says in this treatise that "logic" is both a "standard" (*'ayār*) and an "instrument" (*'āla*) for the discovery of knowledge by the intellect. As such, logic is necessary for all knowledge in any of the species of natural science. Knowledge is not obtained by learning only a particular art, or even several arts, but in learning to recognize each kind of syllogistic art and the arguments each one produces and to know which one is useful for what end.

Al-Fārābī concludes this first treatise by explaining that the terms in sentences are called by logicians "subjects" and "predicates." There are five types of such predicates—genus, differentia, species, property, and accident—as each has a different relation to the thing in question. Three of them, species, genus, and differentia, go into the making of a definition of a thing; a definition is what entails a recognition of the resemblance of one thing with another, and the same predicates can be attributed to the two things. Two predicates, property and accident, can be said to be a description of a thing but do not contribute to the definition of it. These five

he calls the simple universal predicates. When they are combined, they make statements or judgments.

In introducing these five arts in the *Letter*, al-Fārābī presents the subject of the rest of the logical treatises. What matters in these five arts are the terms and their combinations, which will be used to make premises and, in turn, will be combined with other premises to make syllogisms—some useful in the discovery of knowledge, some not.

But who are the practitioners of art of logic, and what is al-Fārābī's relation to his predecessors and to his contemporary practitioners of other arts, such as the art of grammar? Although the treatise takes its starting point for logic in the presentation of Aristotle's notion of syllogism, Aristotle's name is not mentioned in this first treatise. At one point, al-Fārābī refers to "the people of the art of logic" (*'ahl ṣinā' a al-manṭiq*), among whom he appears to include himself. At another point, he says "according to the ancients" (*'inda al-qudamā*). These "ancients," he says, use the word "reason" (*nuṭq*), from which "logic," *manṭiq*, is derived, according to three meanings: (1) the faculty by which man intellects the intelligibles, acquires the arts and sciences, and distinguishes between good and bad in actions; (2) the intelligibles in the soul, called "interior speech"; and (3) expressions in language of what is in the mind, called "external speech." He appears to agree with the ancients, despite their antiquity, that these three senses are all appropriate to "logic."

Al-Fārābī refers twice in this treatise to the art of the grammarian (*ṣinā' a al-naḥw*), but asserts that grammar is for the language of a particular people and is not universal as logic is. He also regularly uses the first-person plural verbal subject pronoun, "we," and the first person plural possessive pronoun, "our," especially in the context of the examples of the uses of the five predicates and their combinations. He says: "for example, our expression [*qawl nā*] 'Zaid is a rational animal' is a combination of genus and difference"; and "our expression [*qawl nā*] 'a laughing animal and an animal capable of buying and selling' is a combination of genus and property." And so on. He also says: "we see" (*ra'aynā*) and "we say" (*qalnā*) and "we perceive it" (*naḥassahu*), and so on, and also uses at least once the passive "it is said" (*qīl*). We are left to ask: Who are the subjects, or, in the case of the passive verb, the hidden subject of these personal and possessive pronouns? Is it a stylistic feature of al-Fārābī's rhetoric, a *pluralis modestiae* or *maiestatis*?

In fact, it appears that it is not al-Fārābī's own judgment to which he is referring, but rather the observation that in common usage the expressions are shared by the people who use the language. Are the subjects the logicians, then? Perhaps, since these pronominal prefixes and suffixes occur primarily in sections after he has introduced the phrase "the people of the art of logic." He does not insist on this connection, however, and at the very least, these personal pronouns are ambiguous. The ambiguity suggests that it may not simply be "we logicians" who use language in certain ways, but that logicians discover language already in use and seek to give

an account of distinctions already in existence in the language that they share with others.

By introducing this ambiguity at this point, al-Fārābī requires us to consider alternate explanations, and we will need to continue our examination to see whether and when he resolves the ambiguity. As we read through the treatises, we will need to keep asking who constitutes this common group to which he refers. If we have not already wondered what the starting points of these arts are—that is, where, for example, we obtain the terms and the premises for syllogisms, especially those leading to certainty—we have hints already in this introductory treatise that, although the arts require learning by human will and endeavor, we will have to reflect further on whether all distinctions are created by the syllogistic arts or whether at least some of the distinctions used in logic are already present in the language shared among the community. At the very least, al-Fārābī makes us ponder where these distinctions come from; we do not know exactly the answer to this inquiry from his exposition here, but he does say “we” speak this way.

The learned art of logic will proceed to name the five universal predicates, use them to identify and distinguish predicates with precision, and show their respective significance for the understanding of things. However, it is not at all definite that al-Fārābī teaches that logic creates from nothing these various relations of predicates to things. The arts, and the sciences that are discovered from the predicates established in the arts, may be not simply abstractions from the community but intrinsically linked to it through language. We will need to see whether al-Fārābī resolves this impasse, what he has presented here as an *aporia*, in other treatises in the collection.⁶

The Five Aphorisms

The title of the second treatise, *Five Aphorisms*, is rightly translated with the term “aphorism” because of the density of its style.⁷ “Aphorism” is a translation of *faṣl*, which can also mean more generally “section” or “chapter” (similar to *bāb*), but the chapters here are like aphorisms because of the brevity of their discourse. Al-Fārābī introduces five subjects with minimal reference to previous authors or treatises and without explicit mention of the significance these subjects have to the remainder of the treatises. These subjects are (1) the use of terms in the art of logic, some of which are in common usage, others not; (2) the four ways in which we know things prior to deliberation, thought, and demonstration; (3) when we can speak of things as being either “in” or “of” a thing; (4) five meanings of the term “prior”; and (5) the use of the terms “verb,” “noun,” and “instrument” pertaining to logic. The first two aphorisms, in particular, continue the themes that have already been introduced in the first treatise. Here, I will focus on only the first two aphorisms.

The First Aphorism addresses the use of words in the arts, both the logical and practical arts, and their relation to the common usage by the public. Al-Fārābī says there are three ways in which utterances are used in the arts. First, the art may use words that are not generally known (*mash-hūrāt*) by the public. He uses an example of two words, *al-'andhīdhaj*,⁸ “record,” and *al-'awāraj*, “account-book,” which are used in the art of the clerk, probably in the context of accounting. Both are unusually formed Arabic words and are likely loan-words from Persian or one of the Altaic languages. They can be used by the practitioners of the art even though the public does not understand their meaning. Second, words can be used by the practitioners of an art in which the public uses one meaning of the term, and the artisans use another meaning. Al-Fārābī says the meanings that these terms have for the public are transferred to the art due to some connection or similarity of the generally known meaning to the meaning in the art. The example he uses is *zimām*, “bridle,” which is used by the public for a horse or camel but by the scribe as indicating a type of restraint, specifically in the auditing of books. The recognition of a second usage leads to what is usually known as an “equivocal” term, although al-Fārābī does not use that designation here. Third, words can be used in the same way in the art as they are commonly understood by the public.

Al-Fārābī is particularly concerned with the second type of usage. He asserts that the practitioners of the art do not err in using the term in a way that is necessary for right understanding in the art. The art needs precision in its use of terms for it even to exist. If the only and correct usage were the one used by the public, there could be no art. Along with the use of *zimām* in bookkeeping, he offers an example from grammar. The Arab grammarians (*naḥawiyyūw al-'arab*) use *raf'*, “raising,” to indicate the use of *ḍamma* for the nominative case, the term *naṣb*, “elevation,” to indicate the use of *fatha* for the accusative case, and the term *khafḍ*, “depression,” to indicate the *kasra* for the genitive case. Although *raf'*, *naṣb*, and *khafḍ* are used by the public in a variety of ways, the grammarians are not mistaken to use them to describe aspects of grammar. The syllogistic arts, and all of the sciences derived from them, need to be aware of how the terms that are needed for the art both rely upon and distinguish themselves from meanings generally accepted by the public. As we saw in the first treatise, the relation of art to generally accepted meaning will be essential to the selection of terms in the premises of a syllogism; this aphorism is more precise in the exposition of the theme than the *Letter* was. A confusion of meaning of the same term would prevent the use of the art to discover what is unknown. It is no happenstance that Aristotle placed the chapter on equivocal, univocal, and derivative terms as the first of his chapters in the *Categories*. Al-Fārābī, too, places this topic as the first of the aphorisms in this treatise for the one who is beginning the study of logic.

The Second Aphorism addresses more directly the question of the starting points of the syllogistic arts.⁹ The aphorism begins as follows:

الأشياء التي تُعلم منها ما تُعلم لا بإستدلال ولا بفكر ولا بروية ولا بإستنباط، منها ما يُعلم بفكر وروية وإستنباط، والتي تُعلم أو توجد لا بفكر ولا بإستدلال أصلاً أربعة أصناف: مقبولات، ومشورات، ومحسوسات، ومعقولات أول

Of the things that are known, some of them are known without argumentation or thought or deliberation or induction, and some of them are known by thought and deliberation and induction. Of the things which are known and exist without thought or argumentation in any way, there are four types: received tradition, generally accepted opinions, perceptions, and first intelligibles.

Al-Fārābī begins the first sentence of the aphorism by referring to “things” and divides the knowledge we have of these things into two types. There is knowledge that is prior to the intellectual arts and knowledge that results because of the intellectual arts. He does not say that the knowledge prior to the intellectual arts is either superior or inferior to the intellectual arts; he simply describes both these sources are causes of our knowledge. In a phrase in a subsequent line, he reinforces the reality of these “things” which are known prior to art by adding the verb “exist” (توجد, *tawjidu*). In the first treatise, the *Letter with which the Book Begins*, al-Fārābī introduced us to the arts; now he is introducing us to knowledge that exists prior to the arts. This knowledge is necessary for our understanding of the rules and practices of the arts.

In the rest of the aphorism, he explains each of these four types of knowledge that exist and are known prior to the arts. The first type is “received tradition” (مقبولات, *maqbulāt*). Such knowledge is received from one who is a *murtaḍayan*,¹⁰ “a delightful one,” or the word may refer to the knowledge, that is, the tradition that confirms one who is a *murtaḍayan*. The word *murtaḍayan* is from the verb *raḍiya*, used here as a passive participle to make a substantive. This usage alludes to the Qurʾān in 101:7, in reference to one whose life is “delightful” or “pleasant” because his good deeds are heavy on the scale.¹¹ To be precise, in this Qurʾānic passage there is an active participle of the verb used, *rāḍiyatin*, where we might expect a passive participle as we have it in al-Fārābī’s text. In regard to this active participle in the Qurʾān, Devin J. Stewart cites Michael Sells’ explanation that in this *sūra*, the active participle is chosen because of the rhyme and rhythm of the *sūra* even if the passive participle is more to be expected.¹² The Qurʾānic passage is a reference to the Prophet or to those who follow closely in the Prophet’s tradition. In Qurʾān 5:119 and 9:100, the perfect form of the verb *raḍiya* is used in the same way to affirm of the truthful that “God delights in them and they delight in him” and that God “has prepared gardens under which rivers flow” for them to dwell in. Al-Fārābī’s

reliance on the Qur'ānic allusion links this type of knowledge to those who are the blessed of God because of their right actions. Moreover, the imperfect verb used here, *taqirru*,¹³ means “to determine a thing” or “to install someone.” The term has a legal sense, which is used here.¹⁴ Thus, the translation of al-Fārābī's statement is: “The received tradition is what is received from the delightful one or that which approves a delightful one.” The phrase alludes to the Prophet, but also to those who follow in the tradition of the Prophet and at once both confirm and are confirmed by the tradition. The Prophet and the best followers of the Prophet are a delight to God. Al-Fārābī presents this type of knowledge, “the received opinions,” as real and commendable—and they are religious.

The second type of knowledge is “generally accepted opinions” (مشهورات, *mashhūrāt*). They are the “widespread opinions” (*al-'ārā' al-dhā'i'a*) which are known, as al-Fārābī says, by “all of the people or by many of them or by the learned and intellectuals or most of them without any of them, not even one of them, opposing them.” The manner of description is sufficiently similar to Aristotle's that we know these opinions are the *endoxa* of Aristotle's *Topics*.¹⁵ The examples al-Fārābī gives here are that kindness to parents is a duty, that gratitude to a benefactor is good and ingratitude an evil, and what is known (*al-mashhūrīna*) as skillful among the practitioners of the arts or at least of those who are “generally accepted” (*al-mashhūra*) as skillful in them. These generally accepted opinions, forceful yet often unacknowledged, are used in the syllogisms of the art of dialectic.

The third type of knowledge is that which is apprehended through “sense perception” (المحسوسات, *al-mahsūsāt*), that is, the five senses. At this point, al-Fārābī simply gives two examples of this type of knowledge: we apprehend through the senses that “Zaid is this one sitting and this time is daylight.”

The fourth type of knowledge is the “first intelligibles” (المعقولات الأول, *al-mā'qūlāt al-'awwalu*). Of these, he says:

These are what we find ourselves created to be cognizant of from the beginning and formed to be certain of, and to know that it may not and cannot be otherwise than it is, and we do not know how they came to us and from where they came.

The examples he gives are from mathematics: every three is an odd number and every four is an even number; a part is always smaller than a whole; and two quantities which are equal to a third are also equal to one another. He ends this aphorism by saying that apart from these four types of knowledge (المعلومات, *al-mā'lūmāt*), what we know is by way of syllogism and induction, that is, by way of the intellectual arts. Thus, these four types of knowledge are prior to the arts. Although we will not examine the Fourth Aphorism here, in it al-Fārābī identifies five meanings of

the word “prior”; the four types of knowledge are prior, perhaps in time or in rank or in excellence, to knowledge derived from syllogistic art. This Second Aphorism is therefore the introduction to the monumental question in philosophy of the origin of the first principles of all of the logical arts and the sciences. Al-Fārābī provides his first enumeration of them here, albeit aphoristically. It will not be his last reference to these types of knowledge.

Al-Fārābī does not evaluate or rank the four types of knowledge in this Second Aphorism, nor does he say that some types of knowledge are more appropriate to some people than others. Moreover, it is possible that in any problem which arises, knowledge from one of the four is more germane than knowledge from the others or that some combination may be necessary and appropriate. As we will see in the examination of a passage from the *Book of Dialectic*, perception is essential in the study of entities in nature, but our perceptions may be shaped by generally accepted opinions passed on to us by an authoritative person, perhaps the perception of a renowned biologist, so that we see only what we have been formed to see.

An Example of the Use of Prior Knowledge in the Art of Dialectic

These initial themes we have identified are necessary for the exposition of the five syllogistic arts in the remaining logical treatises. A complete inquiry would need to study those themes in all of the treatises, but for now, let us look at only one example, from the *Book of Dialectic*, in which al-Fārābī gives an account of perception.¹⁶

وكما أنّ في المحسوسات أشياء نحسّها نحن كما يحسّها غيرنا، وأشياء نتكلّ فيها على ما أحسّه غيرنا منها ونجتزئ بما أخبروا به من غير أنّ نكون قد شاهدنا نحن ذلك وأحسساناه، فنستعملها على مثال ما نستعمل ما نحسّه ونشاهده نحن. كذلك يُشبهه أن يكون في المعقولات أشياء نعلمها نحن بأنفسنا ونقبلها ببصائرنا ونصدّق بها من جهة علمنا [ب 190 ظ] بأنفسنا، وأشياء نتكلّ فيها على ما علمه غيرنا منها ورآه فيها ونجتزئ بذلك ونستعملها على مثال ما نستعمل الأشياء التي علمناها نحن، ونعمل على أنّ الحال فيها هو على ما أخبرنا أنّه رآه فيها وعلمه منها من غير أن نعلم منها نحن شيئاً أكثر من ذلك. والرأي الذي نتكلّ عليه في المعقولات ربّما كان رأي إنسان واحد فقط أو طائفة فقط وهو الرأي المقبول وربّما كان رأي جميع الناس وهو الرأي المشهور. وبالجملة فإنّ المقدّمات المشهورة التي هي مبادئ صناعة الجدل هي التي موضوعاتها معان كلّية مهملة، وهي كلّية يُوثّق بها وتُقبّل وتُعتقد فيها أنّها كذلك وتُستعمل من غير أن يُعلم منها شيء آخر أكثر من ذلك.

And similarly in regard to perceptions, there are things we ourselves perceive in the same way as someone other than us perceives them, and things we rely upon what someone other than us perceives of them, and we are content with what others report of them without ourselves having witnessed and sensed them; thus, we use them in

the manner in which we use what we ourselves perceive and witness. Likewise, it is similar in regard to the intelligibles: there are things that we know in ourselves, and receive by our own discernment, and assent to in respect to our knowledge in ourselves, and things for which we rely upon what someone other than us knows of them and what he opines about them, and we are content with this; and we use them in the same manner we use things which we ourselves know, and we use them according to the condition of what he informs us and what he opines about them and knows of them without ourselves knowing them in any way other than this. And the opinion we rely on regarding the intelligibles is perhaps the opinion of one person only or a group only, and it is received opinion. Perhaps it is the opinion of all the people, and it is generally accepted opinion. In general, the generally accepted premises which are the principles of the art of dialectic are those whose subjects are universal, unspecified meanings; and they are universals that are trusted and received and believed that it is like this, and they are used without one's knowing anything more about them other than this.¹⁷

In this exposition, both perception and first intelligibles may be derived from someone else even if we receive and assent to them as if we had individually perceived or intellected them directly. Thus, the kinds of knowledge that are prior to logical argumentation can be confused with each other, and premises thought to be derived from one type of prior knowledge may, in fact, be from another type. Nonetheless, we use this knowledge as if we have perceived the premises directly or intellected them in ourselves. Toward the end of the passage, al-Fārābī calls these types of knowledge “opinions” and says that these opinions will either be “received opinion,” if it is received from an individual or one group only, or “generally accepted opinion,” if it is the opinion of a whole people. The fact that these are recognized or treated as opinions does not make them wrong—they may be accurate perceptions or true beliefs or first intelligibles. But he says “we assent” (نُصَدِّقُ, *nuṣaddiḡu*) to them and do not have knowledge, at least not full knowledge, of them. The word that he does not use, but that is implied in the use of *nuṣaddiḡu*, is *taṣawwur*, “conception”; we do not have a conception of them.

Thus, one of the purposes of the logical arts is to identify the type of prior knowledge that is being used for each particular problem, and from this to discern what types of premises emerge from each of the types of knowledge which are pertinent to that problem. It will be the particular task of the syllogistic art of dialectic to evaluate universal, though indefinite, opinions that are, in the description near the end of the passage, “trusted and received and believed.” A fuller study of all the five syllogistic arts in all the twelve treatises of the collection would be needed in order to determine the types of prior knowledge that are utilized in each term

and each premise that make up the argument of a syllogism. Yet we can begin to apprehend the consequences of these types of knowledge and how they will be important to the syllogistic arts. The art of dialectic is what discovers and evaluates the knowledge that is known before the syllogistic arts are used, and dialectic is needed to discover the terms used in all syllogisms.

Finally, just as there are indications in the *Letter* and in the *Five Aphorisms* that the study of language and rhetoric is essential to the exposition of the rules for the five syllogistic arts, there is further evidence for that account in this quotation from the *Book of Dialectic*. For example, the generally accepted opinions may be transmitted to us by a recognized authority or by reports about an authority or authorities, or we may consent to these opinions even without necessarily knowing their initial source or the type and degree of their certainty. We may have learned these opinions unawares through our learning of the language of a people, that is, through the standards of judgment embedded in language. The terms and premises in the syllogistic arts will be taken from language, even if the logical arts will need to make distinctions between common usage and the usage needed for the syllogisms of science.

Conclusions

The passages examined here provide an introduction to al-Fārābī's account of the nature of logic and its five syllogistic species. Because these passages were selected from the contexts of longer treatises and from a collection of twelve treatises, our inquiry is necessarily protreptic and tentative (*peirastikē*),¹⁸ and it will need to be supplemented by sustained study of all the treatises in relation to each other. We have already seen that the first two treatises introduce themes which are also present in another treatise, the *Book of Dialectic*. With an awareness of the essential question of the origin and nature of the starting points and beginnings of the syllogistic arts, al-Fārābī identifies in the *Five Aphorisms* the four types of knowledge that are prior to and necessary for the discovery of the terms and the formulation of the premises for each of the syllogisms to be used in each of the five arts. In doing so, he identifies the primary premises for each species of science.

Even in the passages from the treatises we have examined, it is apparent that al-Fārābī's account of philosophy avoids, on the one hand, the dogmatism of both conventionalism and skepticism inasmuch as he recognizes types of knowledge that are prior to human will and art. On the other hand, this account of philosophy also avoids the dogmatism of premature certainty inasmuch as he recognizes that these types of knowledge do not exist as once-for-all definitions. In the Second Aphorism of the *Five Aphorisms*, he gives examples of and allusions to this knowledge, but does not provide definitions that require genera and species. Al-Fārābī ends the passage from the *Book of Dialectic* with the statement that the subjects have

“universal” and “unspecified” (*muhmala*) meanings, and thus, when made particular, each universal will not lead to a one, single definition. In this way, he also avoids the dogmatism of a science that claims completeness, certainty, and finality of definition where these do not exist, or at least do not exist yet, and he allows true and certain knowledge to be a goal even if he recognizes that we do not possess the perfected ideal. Nevertheless, as knowledge prior to art, these types of knowledge provide starting points either to knowledge we perceive or know in ourselves or to knowledge gained from the generally accepted opinions we receive from political, social, and religious life.

In the selected passage from the treatise on the art of dialectic, al-Fārābī explains how the four types of knowledge which are known prior to the syllogistic arts can be used in that art. He elucidates how both perception and intelligibles may be generally accepted opinions even if we assent to them as if they are direct sources of knowledge of terms and premises to be used in valid syllogisms. It is the task of the art of dialectic, as it will be the task of each of the arts, to evaluate the origin and measure of certainty in these four sources of knowledge in relation to each problem being addressed. Science will always need to return to beginnings, to starting points, and evaluate the measure of their certainty. Premature and unfounded certainties are irrational, or at least only partially rational, and true philosophic science needs to be able to identify, acknowledge, and inquire into what it does not know. The example from the art of dialectic shows that in recognition of the link between the philosophic arts and the community, especially the opinions from authoritative sources embedded in and transmitted through the language of the community, philosophy or science is not achieved simply and primarily through separation and abstraction from the human and the political things. The syllogistic arts need to recognize and evaluate prescientific kinds of knowledge which are prior in some way—perhaps prior in time and perhaps prior in excellence—to knowledge that is produced by the syllogistic arts.

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Notes

- 1 MS Bratislava 231 TE 41 has a colophon on its final page (fol. 274^{r1-8}) which says that this copy was completed in Constantinople in AH 1116/1704 CE by a scribe named Afqar al-Urī (his full name is illegible). MS Süleymaniye Kütüphanesi Hamidiye 812 has a colophon on its penultimate page (fol. 123^{r20-27}) which says that it was completed in Constantinople in AH 1133/1721 CE by a scribe named Muḥammad bin Aḥmad al-Uškübī for his teacher Asʿad ibn ʿAli ibn ʿUthmān al-Yanyawī. MS Bratislava appears to be known to the scribe who copied Hamidiye 812, because the table of contents on fol. 1^r of Bratislava and all the *marginalia* throughout the manuscript seem to be by the same scribe who copied Hamidiye 812, that is, by al-Uškübī. Also, the names of the books in the table of contents of Bratislava and Hamidiye are sufficiently similar to confirm that they are written by the same scribe even though the titles introducing each treatise in the manuscripts are not identical to the titles in the tables of contents. The book titles in both of al-Uškübī's lists speak of eight treatises in the collection, besides the two introductory treatises. The number eight is consistent with the number of books typically understood to constitute Aristotle's *Organon* in the Syriac and Arabic traditions. I have taken the titles of the treatises from MSS Bratislava and Hamidiye themselves rather than from the appended tables of contents. For research on the scribal school of Asʿad al-Yanyawī and his student Aḥmad al-Uškübī, see Di Vincenzo, "Reading Avicenna's *Kitāb al-Šifāʾ*"; Aslan, "Asʿad [sic] Afandi of Yanya"; Küçük, "Natural Philosophy"; Morel, "Asʿad al-Yanyawī."
- 2 On the consequences of these differences, see Mallet, "Le *Kitāb al-Taḥlīl* d'Alfarabi."
- 3 Al-Fārābī's influence on the delineation of the books needed for logic is attested in later writers. See, for example, Ibn Ṭumlūs, *Le Livre de la Rhétorique*.
- 4 Al-Fārābī, "Al-Fārābī's Introductory *Risālah* on Logic," ed. Dunlop. In the following analysis, I quote primarily from Dunlop's edition and English translation.
- 5 I say "primarily" because induction is included as a legitimate argument for a syllogistic art, but induction alone is not adequate to make any of the arts syllogistic.
- 6 See Sachs' comments in Aristotle, *Metaphysics*, trans. Sachs, lv.
- 7 Apart from the copies of this treatise in MSS Bratislava and Hamidiye, there is a copy of the *Five Aphorisms* in the Bibliothèque nationale de France, MS Heb 1008. This manuscript is in Judeo-Arabic script and is a collection of Ibn Rushd's short treatises on logic as well as two of Al-Fārābī's logical treatises, including the *Five Aphorisms*. For a description of the manuscript, see Butterworth, "Introduction," 15–17. The manuscript is dated to AH 621/1356 CE, which is earlier than the two eighteenth-century manuscripts from Istanbul. The treatise was edited and translated by D. M. Dunlop as "Al-Fārābī's Introductory Sections on Logic." Dunlop uses Hamidiye and MS Heb. 1008 but makes no reference to MS Bratislava. He also uses the *lemmata* from Ibn Bājjā's *Comments (Taʿālīq)* on al-Fārābī's logic, MS Derenbourg Escorial 612.
- 8 الأندیدج—thus the reading of MS Bratislava, MS Heb 1008, and the *lemma* in MS Escorial 612, but MS Hamidiye has الأندیدج.
- 9 See Kleven, "Alfarabi's Introduction."
- 10 MS Bratislava adds *tanwīn* to both participles used in the passage.
- 11 Lane, *English-Arabic Lexicon*. The first volume of Lane's multivolume lexicon was first published by Williams and Norgate in 1863. *Ibid.*, 1099–1100.
- 12 Stewart, "Pit," 103a–b.

- 13 There is ambiguity in the manuscripts as to what letters are present: Bratislava has بفر, without further marks, but probably it is تفر in parallel with تقبل. Hamidiye has يقر, which is likely incorrect, and Heb 1008 has the unusual بقد. This reading in Heb 1008 is an indication that even though the manuscript is older than Bratislava and Hamidiye, it does not necessarily preserve better readings. I have chosen Bratislava's reading because it makes sense and requires the least amount of alteration to the script.
- 14 See Mahdi, "Averroës on Divine Law," esp. 130 n. 26; Averroës, *Decisive Treatise & Epistle Dedicatory*, trans. Butterworth, esp. xix.
- 15 Aristotle, *Top.* 100b22–24, trans. Forster. See also 101a11–16, 104a8–15.
- 16 Bratislava fols. 190^{r14–19}–190^{v1–10} (see also Hamidiye fol. 85^{v19–28}). The entire treatise has been published twice. The passage quoted here can be found in al-Fārābī, *Al-Jadal*, ed. Rafīq al-'Ajām, 17–18, and al-Fārābī, *Al-Jadal*, ed. Dānishpazūh, 362.
- 17 Hamidiye rightly corrects Bratislava in the first غير in the line because it is not necessarily plural; the subject of the second verb is not "we." Dānishpazūh makes five errors in the transcription of this passage. In each case MSS Bratislava and Hamidiye agree with each other and I have preserved their readings. Dānishpazūh transcribes the last word in the first line as فيها instead of منها; he has أخبروها به for أخبروا به; he omits نحن following شاهدنا; and he has وأحسسناه for وأحسسناه. There is also a printer's error, with فيها ونجترئ instead of فيها ونجترئ. My translation differs only slightly from the commendable recent English translation of the *Book of Dialectic* by DiPasquale, *Alfarabi's Book of Dialectic*, 16–17.
- 18 Aristotle says dialectic is *peirastikē* in *Metaphysics* 1004b 25, trans. Sachs, 56–57. In *Top.* 101b 3, Aristotle also says dialectic is *exetastikē*, "probative."

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