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4 Al-Fārābī and the philosophical curriculum

LIFE AND WORKS

The philosophy of al-Fārābī stands in marked distinction to that of al-Kindī but is no less representative of the major trends of thought inherited by the Islamic world. His tradition is consciously constructed as a continuation and refinement of the neo-Aristotelianism of the Alexandrian tradition, adapted to the new cultural matrix of the Near East. The Neoplatonic element of al-Fārābī's thought is most obvious in the emanationist scheme that forms a central part of his cosmology, though that scheme is much more developed than that of earlier Neoplatonists in its inclusion of the Ptolemaic planetary system. His theory of the intellect appears to be based on a close reading of Alexander of Aphrodisias and develops the concept of an Active Intellect standing outside the human intellect. Above all, al-Fārābī's legacy to later thinkers is a highly sophisticated noetics placed within a rigorous curriculum of instruction in Aristotelian logic. Al-Fārābī was above all a systematic and synthesizing philosopher; as such, his system would form the point of departure on all the major issues of philosophy in the Islamic world after him.

The status accorded al-Fārābī's intellectual legacy here stands somewhat at odds with what we can reconstruct of his life with any certainty. With the exception of a few simple facts, virtually nothing is known of the personal circumstances and familial background of al-Fārābī.[1] The great variety of legends and anecdotes about this second major philosopher of the Islamic period is the product of contending biographical traditions produced nearly three centuries after his death. Documentary evidence (in the form of manuscript

notations and incidental biographical information in his works) provide the most solid pieces of evidence we have.

Our most authoritative sources agree that his name was Abū Naṣr Muḥammad b. Muḥammad. His familial origins are recorded as alternately in Fārāb, Khurāsān or Faryāb, Turkistān. Al-Fārābī tells us himself that he studied logic, specifically the Aristotelian *Organon* up to the *Posterior Analytics*, with the Christian cleric Yuḥannā b. Haylān in Baghdad, where al-Fārābī spent the larger part of his life and composed the majority of his works. Al-Fārābī's chief student was the Christian Yaḥyā b. ʿAdī and he wrote a treatise on astrology for the Christian Abū Isḥāq Ibrāhīm al-Baghdādī. This association with Christian scholarly circles in Baghdad links al-Fārābī to the Syriac neo-Aristotelian tradition which in turn was heir to the Alexandrian scholarly world of the centuries preceding Islam. In Baghdad, al-Fārābī must also have had some contact with personalities of the ʿAbbāsid court, since he composed his *Great Book on Music* for Abū Jaʿfar al-Karkhī, the minister of the Caliph al-Rāḍī (reigned 934–40).

From a series of notes detailing the composition of his work *The Principles of the Opinions of the People of the Excellent City*, we know that al-Fārābī left Baghdad in 942 C.E. for Damascus, Syria, where he completed the work. He also spent some time in Aleppo, the seat of the Hamdānid prince Sayf al-Dawla. Around 948–9 al-Fārābī visited Egypt, then under the control of the Fatimids. Shortly after, he must have returned to Damascus, since we know that he died there in 950–1, "under the protection of" Sayf al-Dawla.[2]

These biographical facts are paltry in the extreme but we must resist the urge to embellish them with fanciful stories, as the medieval biographers did, or engage in idle speculation about al-Fārābī's ethnicity or religious affiliation on the basis of contrived interpretations of his works, as many modern scholars have done. Rather, the very paucity of any substantial biographical information about al-Fārābī in the immediate period after his death suggests that any intellectual influence he may have exerted during his life was almost nugatory. However, this does not mean that the program of philosophical education adumbrated in al-Fārābī's works and indeed his very real and often original intellectual contributions are not of paramount importance to understanding the development of philosophy in the Islamic world. Al-Fārābī's status would be rehabilitated a half-century later by Avicenna, the next

great philosopher of the Islamic east, on whom al-Fārābī's interpretation of Aristotle would have a profound effect. Al-Fārābī's particular method of philosophical education would be carried on by the Baghdad school of scholarly interpretation of Aristotle, chiefly through his student Yaḥyā b. 'Adī. Finally, al-Fārābī's works formed the point of departure for numerous later scholars of Andalusia, including Ibn Bājja and, in his youth, Averroes. However, as has been said before, al-Fārābī appears to have gone through life unnoticed;[3] this being the case, we must focus on the legacy of his thought.

Al-Fārābī's works can broadly be divided into three categories.[4]

(1) Introductory works (prolegomena) to the study of philosophy, including "pre-philosophical ethics,"[5] as well as basic introductions to the study of logic, and the works of Plato and Aristotle. This category includes the historical and educational ethics "trilogy" *The Attainment of Happiness – The Philosophy of Plato – The Philosophy of Aristotle* (as well as the supplementary *Harmony of Plato and Aristotle*) and the logical "trilogy" *Directing Attention to the Way to Happiness – Terms used in Logic – Paraphrase of the "Categories."* A number of other works fill out this group of elementary textbooks, including his *Prolegomena to the Study of Aristotle's Philosophy*. This genre has its roots again in the Alexandrian tradition of teaching philosophy. For instance, in the *Prolegomena* we find nine of the ten traditional points enumerated in that tradition for basic instruction before taking up a serious study of philosophy.[6] Also important here is al-Fārābī's *Enumeration of the Sciences*, which would enjoy great popularity in the Muslim and Latin Christian worlds after al-Fārābī.

(2) Commentaries on and paraphrases of the *Nicomachean Ethics* and the entire Aristotelian *Organon*, along with the by-then common introduction (*Isagoge*) of Porphyry, paraphrased in numerous ways by al-Fārābī. An important characteristic of this group of writings is al-Fārābī's extension of the logical curriculum beyond the traditional end in the midst of the *Prior Analytics*, as taught in the later Alexandrian school and continued by Christian logicians writing in Syriac.

(3) Original works in which al-Fārābī's syncretistic approach to philosophy presents a unified presentation of all aspects of philosophy, accompanied again by an idealized approach to its study. The best known of these works are *The Principles of the Opinions*, mentioned above, and *The Principles of Beings* (also known as *Governance of Cities*).

The al-Fārābīan corpus is almost single-mindedly driven by the combined goals of rehabilitating and then reinventing the scholarly study of philosophy as practiced by the Alexandrian school of neo-Aristotelianism. In this regard, he is rightly called the "second master" (after Aristotle) and he is self-proclaimed heir of that tradition. There is also distinct emphasis on situating that curriculum of philosophical study within the new cultural context of the Islamic empire. Al-Fārābī's conscious articulation of his inheritance of the Alexandrian curriculum of philosophy is found in a "mythologizing" account of the transmission of that school to its new cultural setting. In his *Appearance of Philosophy*, al-Fārābī tells us:

> Philosophy as an academic subject became widespread in the days of the [Ptolemaic] kings of the Greeks after the death of Aristotle in Alexandria until the end of the woman's [i.e., Cleopatra's] reign. The teaching [of it] continued unchanged in Alexandria after the death of Aristotle through the reign of thirteen kings . . . Thus it went until the coming of Christianity. Then the teaching came to an end in Rome while it continued in Alexandria until the king of the Christians looked into the matter. The bishops assembled and took counsel together on which [parts] of [Aristotle's] teaching were to be left in place and which were to be discontinued. They formed the opinion that the books on logic were to be taught up to the end of the assertoric figures [*Prior Analytics*, I.7] but not what comes after it, since they thought that would harm Christianity. [Teaching the] rest [of the logical works] remained private until the coming of Islam [when] the teaching was transferred from Alexandria to Antioch. There it remained for a long time [until] only one teacher was left. Two men learned from him, and they left, taking the books with them. One of them was from Ḥarrān, the other from Marw. As for the man from Marw, two men learned from him . . . , Ibrāhīm al-Marwazī and Yuḥannā ibn Ḥaylān. [Al-Fārābī then says he studied with Yuḥannā up to the end of the *Posterior Analytics*.][7]

There are a number of important points to be made about this account, many of which provide the basis for an interesting study of the historiography of philosophy in the early medieval period. For our purposes, we may observe first that al-Fārābī makes absolutely

no reference to his predecessor al-Kindī (d. after 870) or his elder contemporary Abū Bakr al-Rāzī (d. ca. 925–35). Clearly, al-Fārābī did not consider their approach to philosophy a viable or accurate one. Second, there is a conscious stylization of the rebirth of the philosophical curriculum after the restrictions placed on the study of logic by the Christians; in the Islamic period, al-Fārābī studied beyond the *Prior Analytics*, thus learning from his teacher Yuḥannā the demonstrative syllogism of the *Posterior Analytics*. As we will see, the valorization of the demonstrative method for philosophy is a singularly important element in al-Fārābī's view. Finally, al-Fārābī's account is designed to link his own work with a long history of studying philosophy, thus lending pedigree to the "new" curriculum of philosophy he envisioned for its practitioners under Islamic rule.

METAPHYSICS AND COSMOLOGY

To provide a concise and accurate account of al-Fārābī's philosophy remains problematic for a number of reasons. First, it is only in the past three decades or so that his works have received modern critical editions and much evaluation and scholarly discussion remains to be done. Second, al-Fārābī presents his philosophy as a unified treatment of all reality in which ontology, epistemology, and cosmology converge in an idealized historical and above all normative account of the universe. The piecemeal studies of very discrete aspects of his thought to date have not yet accounted for all aspects of this synthesis. Below, I endeavor to account for this whole in a general fashion, with reference to some of the more important studies of the past few decades, and following in the main the outline of his *Principles of Beings*.[8]

Al-Fārābī's cosmology integrates an Aristotelian metaphysics of causation with a highly developed version of Plotinian emanationism situated within a planetary order taken over from Ptolemaic astronomy.[9] The combination of the first two elements is not surprising, given the development of Neoplatonism prior to al-Fārābī. The latter element, drawn from Ptolemy's *Planetary Hypotheses*, is perhaps al-Fārābī's original contribution, although this is surmised only in the absence of any identifiable source prior to him. Al-Fārābī presents six "principles" (*mabādi'*) of being in the system: (1) the First Cause, (2) the Secondary Causes, i.e., incorporeal Intellects, (3) the Active Intellect governing the sublunar world, (4) Soul, (5) Form, and (6) Matter. The emanationist scheme presented by al-Fārābī is a hierarchical descent from the First Cause through "Secondary Causes," or Intellects associated with the nine celestial spheres, to a final tenth Intellect which governs the sublunar world.

In al-Fārābī's presentation, Aristotle's causation of motion, which accounts for the revolutions of the spheres, is developed into a causation of being and intellection, in which each stage in the process imparts reality to the next and is structured according to a descending act of intellection. The First Cause (al-Fārābī says "one should believe that it is God") is the incorporeal First Mover, in that the celestial spheres move out of desire for It. This First Cause, in thinking itself, emanates the incorporeal being of the first intellect. In turn this first intellect thinks of the First Cause and of itself; this "multiplicity" of thought produces, in the first intellection, the second intellect and, in the second intellection, the substantiation of a soul and body for the next stratum. This process of emanating intellect, soul, and body descends through the nine intellects of the spheres. The first intellect is associated with the first heaven, identified as the outer sphere of the universe, rotating in a diurnal motion and moving the other spheres within its confines. The second intellect is associated with the sphere of the fixed stars which, in its own rotation, produces the precession of the equinoxes. Each intellect thereafter is associated with one of the "planets" known in al-Fārābī's time: Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon. The final intellect, which al-Fārābī calls the Active or Agent Intellect (*al-'aql al-fa''āl*), governs the world of generation and corruption, namely, the four elements (earth, air, fire, water), minerals, plants, and both non-rational animals and rational animals (humans).[10]

This may be viewed as a very bizarre system indeed, but in its subtle complexity it accounts for nearly every element of al-Fārābī's philosophy and nicely incorporates the astronomical knowledge of his day. By placing the emanationist scheme within a tidier Ptolemaic astronomy, al-Fārābī's system does away with the philosophically messy fifty-five or more incorporeal movers of Aristotelian metaphysics. By positing an emanation of being and intellection, the system accounts not only for incorporeal and corporeal gradations of being in a manner consistent with logical division, but also for the process of intellection, and thus ultimately noetics. The crucial

element in the scheme in this last regard is the presence of the Active Intellect governing this world, of which we will have more to say below. Other interpretations of al-Fārābī's reasons for adopting an emanationist scheme that he knew was non-Aristotelian have been suggested,[11] but it is clear that without such a system, al-Fārābī felt there was no means by which humans could know, however remotely, the divine, nor account for the diversity presented to humans in their analysis of the universe. Another interesting observation is that al-Fārābī did not hesitate to refer to the various supralunar incorporeal beings in terms recognizable to monotheists. For instance, he says that one ought to call the Intellects the "spirits" and "angels," and the Active Intellect the "Holy Spirit," i.e., the angel of revelation. This is a stroke of rhetorical genius, designed to make palatable to the monotheists of his day (i.e., not exclusively Muslim) the older Greek order of celestial gods.[12]

It is worth concentrating on a few of al-Fārābī's arguments concerning the First Cause (*al-sabab al-awwal*), since they provide us with interesting insights into the manner in which metaphysics and epistemology come to be combined in his thought. In the *Principles of the Opinions*, al-Fārābī tells us that

> The First cannot be divided in speech into the things which would constitute Its substance. For it is impossible that each part of the statement that would explain the meanings of the First could denote each of the parts by which the substance of the First is so constituted. If this were the case, *the parts which constitute Its substance would be causes of Its existence, in the way that meanings denoted by parts of the definition of a thing are causes of the existence of the thing defined*, e.g., in the way that matter and form are causes of the existence of things composed of them. But this is impossible with regard to the First, since It is the First and Its existence has no cause whatsoever.[13]

The negative theology by which al-Fārābī approaches his discussion of the First Cause is designed to demonstrate that It cannot be known through the classical process of dialectical division (*diairesis*) and definition (*horismos*) and hence cannot directly be known by the human intellect. Moreover, we find an additional element here in which logical analysis reflects ontology. The things *said* in defining a being are those things that *actually constitute its substance*. This is a realist trend that can be traced to Porphyry's *Isagoge* and informs

the centuries of debate about the place of the Aristotelian *Categories* in metaphysics. In the above quotation, al-Fārābī gives as examples only the Aristotelian material and formal causes. Elsewhere in the same work, al-Fārābī draws on the Porphyrian "tree" of genera and species:

> [The First Cause] is different in Its substance from everything else, and it is impossible for anything else to have the existence It has. For between the First and whatever were to have the same existence as the First, there could be no difference (*mubayana*, *diaphora*) and no distinction at all. Thus, there would not be two things but one essence only, because, if there were a difference between the two, that in which they differed would not be the same as that which they shared, and thus *that point of difference between the two would be a part of that which substantiates the existence of both*, and that which they have in common the other part. Thus *each of them would be divisible in speech, and each of the two parts would be a cause for the substantiation of its existence*, and then it would not be the First but there would be an existent prior to It and a cause for Its existence – and that is impossible.[14]

Here, al-Fārābī is demonstrating that the components of definition, namely, the genus and the difference of a thing, are of no use in discussing the First Cause, but again (as we see in the italicized statements above), al-Fārābī has a clear conception that these elements not only allow one to talk about things (albeit not the First Cause!) but also to identify their ontological reality. Furthermore, the idea that the genus and difference of a thing *precede* (not temporally but causally) the thing defined is a transferal of the status of the Aristotelian causes (e.g., the example of matter and form in the first quotation) to the predicables of Porphyry's *Isagoge*.

The entire hierarchical edifice of al-Fārābī's emanation of being and intellect can be analyzed in terms of this classification by division into genera and species. Setting aside the First Cause, which alone is one, deficiency and multiplicity serve as the essential properties in the descending levels of substances. The incorporeal substances, i.e., the Intellects of the spheres, do not require a substrate for substantiation but are nonetheless deficient in the sense that their being derives from something "more perfect" (the First Cause). Moreover, they exhibit a multiplicity in the act of intellection: they intellect not only themselves (like the First Cause) but also the

intellect that causally precedes them. However, these Intellects are more perfect than the human intellect in that, first, they are always actually intellecting and second, the object of that act of intellection is what is intelligible in itself, always separate from matter. The souls of the spheres, that is, their forms, thus have only the faculty of intellection which, in the desire to emulate what precedes them, serves to set in motion each of the associated spheres. A disjunction occurs at the level of the Active Intellect governing the sublunar world. Whereas the preceding intellects produce both a following intellect and its soul and celestial sphere, the Active Intellect affects only the human intellect in the world below it. Matter and form in the sublunar world, on the other hand, are produced by the differing motions of the celestial spheres.[15]

At the sublunar level, in the world of generation and corruption, complexity informs every species of being. Form (*ṣūra*) and matter (*mādda*) are the lowest principles of being and together (in need of one another, since neither subsists in itself) constitute corporeal substance. Matter is the pure potentiality to be something. Form causes corporeal substance actually to be that something. Al-Fārābī uses two familiar tropes: in the case of a bed, wood is the potential and form gives it its essential definition as a bed; and in the case of sight, the eye is the matter and vision is the form. At its simplest, the forms of the four elements earth, air, fire, and water constitute one species, since the matter that can be, say, earth, can also be water. The "mixture" of the elements produces a gradation of corporeal substances: mineral, plant, non-rational animal, and rational animal.

PSYCHOLOGY AND THE SOUL

Al-Fārābī's treatment of the corporeal soul and its "faculties" or "powers" (sing. *quwwa*) draws on a basic Aristotelian outline but is also one informed by the commentary tradition (particularly, it seems, pseudo-Alexander of Aphrodisias and Plotinus) that stands between him and the "first master." A number of basic faculties constitute the human soul: the appetitive (the desire for or aversion to an object of sense), the sensitive (perception by the senses of corporeal substances), the imaginative (which retains images of sensible objects after they are perceived and combines and separates them to a variety of ends), and the rational.[16] The graduated level

of souls, from plant to animal to human, reserves the faculty of reasoning, the ability to intellect (*'aqala*),[17] for the human soul, which also exercises the others. This faculty, also called the "rational soul," alone survives the death of the body.

Al-Fārābī's vision of the world around him is fittingly complex, but the various elements are logically structured and the whole is informed by a teleological principle; each level of being is characterized by the quest for the perfection appropriate to it, a perfection which in each case mirrors that of the First Cause, by seeking to be like it. What constitutes human perfection? Since continuous and actual intellection is the goal of rational beings, and since man possesses an intellect, the goal, or "ultimate happiness (*sa'āda*)," of man is that continuous and actual act of intellecting.

The integration of metaphysics and noetics in al-Fārābī's system assures humans that they *can* know the structure of the universe and, ultimately, the principles that inform that structure.[18] However, there are two caveats to this. First, a person is not born with an actual intellect; that intellect must be developed in a very precise manner if it is to achieve the perfection of its being. Second, the inequality of being and intellect observable in the vertical emanationist hierarchy is replicated at the horizontal level: not all humans can develop their intellect in the same manner or to the same degree.

Because the human intellect is associated with corporeal matter, it represents only the potential, in the earliest stages of cognition, to achieve the perfection unique to it. The task of the Active Intellect is to initiate that process leading to perfection. As al-Fārābī says: "The action of the Active Intellect is the providence of the rational animal, to seek its attainment of the highest grade of perfection appropriate to man, which is supreme happiness, that is, that man arrive at the level of the Active Intellect."[19]

Al-Fārābī identifies the incorporeal Active Intellect as the agent that brings the human material intellect (*'aql bi-al-quwwa, in potentia*) into action, in other words, causes humans to think.[20] This is an amplification of standard Aristotelian causality developed in the preceding centuries of commentary on the basis of the recondite comments of Aristotle in his *De Anima* (III.5). In addition to locating that agent outside of the human intellect, al-Fārābī also employs the common metaphor of light to explain this process. He says:

The relation of the Active Intellect to man is like that of the sun to vision. Sun gives to vision light, and by the light acquired from the sun, vision actually sees, when before it had only the potential to see. By that light, vision sees the sun itself, which is the cause for it actually seeing, and furthermore actually sees the colors which previously were [only] potentially the objects of vision. The vision that was potential thereby becomes actual. In the same manner, the Active Intellect provides man with something that it imprints in his rational faculty. The relation of that thing to the rational soul is that of light to vision. Through that thing the rational soul intellects the Active Intellect. Through it, the things that are potentially intelligible become actually intelligible. And through it, man, who is potentially intellect, becomes actually and perfectly an intellect, until it all but reaches the level of the Active Intellect. So [man] becomes an intellect *per se* after he was not, and an intelligible *per se* after he was not, and becomes a divine [substance] after being a material one. This is what the Active Intellect does.[21]

Condensed in this metaphorical presentation is a process of actuating man's reason which al-Fārābī develops in detail. The human intellect is initially "material," that is, humans at first have only the potential to think. But they also possess senses and the ability to retain the objects of sense in the "imaginative" faculty. The initial act of a human is to sense the objects of the world and to store images of those particular things. The process of thinking, however, requires the ability to convert those particular material things to universal "intelligibles" (*ma'qūlāt*), in order for one to develop the connections that form the basis of the logical process of defining and ordering the objects of the world. This conversion is effected by an external agent identified as the Active Intellect governing the sublunar world.

What is the nature of this initial alteration, in which the material intellect becomes an actual intellect (*'aql bi-al-fi'l*)? The metaphor of the effect of the sun's light on vision is, perhaps, the only means of approximating what occurs.[22] The Active Intellect brings about a change in the material intellect of the human in which the particular objects of sense are stripped of their material properties and "converted" into intelligibles that have no connection to matter. Al-Fārābī gives examples of these "primary intelligibles": the principle that the whole is greater than the part; the principle that objects equal in magnitude to another object are equal to one another. By intellecting such primary intelligibles, the intellect becomes an actual intellect.[23] Furthermore, as we see in the above passage, the

human intellect now intellects the Active Intellect. In knowing something, the intellect becomes that thing, according to the Aristotelian dictum.[24] To what degree this systematization of Aristotle's epistemology, through its combination of causality and identity, is al-Fārābī's original contribution or is culled from the commentary tradition remains open to debate.

While the process of actualizing the human intellect would appear mechanistic in its earliest stage, al-Fārābī is committed to a human voluntarism at the next stage of the process, the development of what he calls the "acquired intellect" (*'aql mustafād*). As al-Fārābī states in explaining his understanding of Aristotle's philosophy: "man is one of the beings not given their perfection at the outset. He is rather one of those given only the least of their perfections and, in addition, principles for laboring (either by nature or by will and choice) toward perfection."[25] Indeed, even within his discussion of the act of sensing and imagining (i.e., those actions man shares with animals), volition plays a significant role, albeit at the basest level of desire or aversion. The particular type of will associated with the actual intellect al-Fārābī terms choice (*ikhtiyār*), through which man actually chooses to behave in a manner that is moral or immoral, and it is through his choice that man can seek or not seek happiness.

It is at this juncture that al-Fārābī's "curricular works," especially those concerning "pre-philosophical ethics,"[26] find their place in his program for the development of the philosopher. In them, al-Fārābī, following broadly the outlines of Aristotle's ethical works (particularly the *Nicomachean Ethics*), undertakes the definition of "happiness" through a dialectical discussion of contrasting views: what is thought to constitute happiness and what actually is happiness. The good that leads to happiness is produced either by nature or by will. In the former case, al-Fārābī sees the role of the celestial bodies as contributing, in an involuntary manner, to what leads to good or obstructs the way to good. As he says: "individual human beings are made by nature with unequal powers and different propensities."[27] Voluntarily choosing good and evil, by contrast, is directly the provenance of the human will. That education is necessary is obvious to al-Fārābī:

not everyone is disposed to know happiness on his own, or the things that he ought to do, but needs a teacher and a guide for this purpose. Some men need little guidance, others a great deal of it. In addition, even when a man

is guided by these two [that is, happiness and the actions leading to it], he will not, in the absence of external stimulus and something to rouse him, necessarily do what he has been taught and guided to do. This is how most men are. Therefore they need someone to make all this known to them and rouse them to do it.[28]

It is at this practical level of human commitment to choosing the good that the human actual intellect initiates the process of becoming "like" the Active Intellect. By habituating themselves to virtuous actions (the Aristotelian "mean") and, equally important, to the correct mode of deliberating about what constitutes good action, humans develop what al-Fārābī calls the faculty of the rational intellect directed toward practical things (*quwwa 'aqliyya 'amaliyya*), that is, things humans can do or affect or produce.[29] Another aspect of the rational faculty is that termed the "theoretical" faculty (*quwwa 'aqliyya 'ilmiyya*). This is usually defined negatively, that is, as the faculty concerned with objects of knowledge that humans cannot do or affect or produce.[30] It is clear, however, that al-Fārābī has in mind the faculty of the rational intellect (*quwwa nāṭiqa*) directed not simply to the beneficial, that is, what is virtuous in individual and social behavior and thought, but rather to what constitutes true happiness: philosophy, or knowledge of the existing things that by nature are simply to be known.

The broad division between practical and theoretical philosophy was well established in philosophical curricula by al-Fārābī's time. Practical sciences covered ethics, "governance of the household" (economics), and "governance of cities" ("politics"), all of which lead to happiness in the arenas of individual action and social interaction. Theoretical sciences included mathematics (the quadrivium), what is called "physics" or natural philosophy (the study of the world and its constituent parts, including man's soul, i.e., psychology), and the supreme science containing the principles of investigation of all other sciences: metaphysics. Study of the theoretical sciences leads to the ultimate human happiness: the perfection of the human soul. Again, it is significant that the philosophical curriculum was ordered on the basis of the two different objects of knowledge themselves informed by the very structure of the universe. On the basis of this division in the objects of knowledge, al-Fārābī catalogs the two levels of epistemology (classified by the Aristotelian practical

and theoretical sciences), again consciously links them to his ontology (these sciences comprise what is actually real), and finally orders them in the evolution of human thought, both historically (this was the sequence in the progression of human knowledge) and on an individual level (this is the way humans learn to think).

LOGIC AND THE EDUCATION OF THE PHILOSOPHER

In both classes of the practical and theoretical sciences, al-Fārābī's curriculum emphasizes the necessity of studying logic, the supreme tool of scientific inquiry and the only means by which humans can perfect the ability to deliberate well about different objects of thought, and more significantly, guard the mind against error. The larger bulk of al-Fārābī's extant works concern the various types of logical inquiry and discourse. This is fitting, given the central place occupied by the Aristotelian *Organon* in the commentary tradition of the Alexandrian neo-Aristotelians and indeed in the Baghdad Aristotelian school, founded by al-Fārābī's teachers.[31]

Al-Fārābī's commentaries and paraphrases of logic encompass the entire Aristotelian *Organon* (*Categories*, *De Interpretatione*, *Prior* and *Posterior Analytics*, *Topics*, *Sophistical Refutations*, *Rhetoric*, and *Poetics*) along with Porphyry's *Isagoge*, the customary introduction to the whole, and finally, original works that focus on the relationship between logic and language.[32] This comprehensiveness represents a culminating stage in the process of updating the tradition of studying logic in the Christian Syriac intellectual context. Where before, students stopped midway through the *Prior Analytics*, al-Fārābī's new curriculum emphasized knowledge of the entirety of the syllogistic and non-syllogistic arts with a special emphasis on the demonstrative syllogism as the means to certain truth.

It is only relatively recently that editions of al-Fārābī's logical works have been published, and so comprehensive study of his contributions to the field remain to be undertaken. However, recent scholarship has emphasized two aspects of al-Fārābī's thought in this area: his treatment of logic and grammar; and his conception of what constitutes certainty in human thought and the relation of that view to how he ordered the levels of logical discourse.[33]

Al-Fārābī's attention to the relative valorizations of logic and grammar is a product of his inheritance of the neo-Aristotelian

tradition of teaching philosophy, in which discussions about grammar and logic had already been combined.[34] It has also been suggested that al-Fārābī's concern here was a direct response to a debate in his time over the relative disciplinary merits of logic and Arabic grammar. This debate was presented in idealized form as a rhetorical battle between the logician Abū Bishr Mattā b. Yūnus, who argued for the universal applicability of logic as a type of meta-language, and the grammarian al-Sīrāfī, who scorned the "foreign" science of logic, given that the Arabs had Arabic grammar to aid them in guarding against methodological errors.[35] Modern scholarship on this issue has grown considerably in recent years, and whether or not al-Fārābī is really concerned with developing Aristotelian logic as a type of universal grammar remains itself open to debate. In any case, it would appear at the very least that al-Fārābī was trying to "naturalize" the *Organon* in the Arabic language by explaining its technical terms in the plain language of his day. In all of his introductory works on logic, al-Fārābī provides examples of the transfer of terms from their daily usage to the technical senses they require for logic. Furthermore, he argues that "the relation of grammar to language and expressions is like the relation of logic to the intellect and the intelligibles."[36] An additional example of al-Fārābī's "naturalization" of logic can be seen in his explanation of the analogical reasoning employed by the jurists and theologians of his day in terms of Aristotelian rhetoric.[37]

A much broader, and potentially more fruitful, discussion of al-Fārābī's treatment of logic concerns his theory of certitude (*yaqīn*) and the graded ranks of the different syllogisms in terms of their value for arriving at scientific certitude and explaining such according to people's varying abilities. In most basic form, al-Fārābī identifies two actions of the human mind, "conceptualization" (*taṣawwur*) and "assent" (*taṣdīq*).[38] Conceptualization occurs when the mind conceives simple concepts (terms) with the aim of defining their essential nature. Assent is directed toward complex concepts (premises) and results in the affirmation of their truth or falsity. "Perfect assent" is the mental judgment that produces complete certitude, not only that the object of thought is truly such a thing but also that one's knowledge of it is equally true and cannot be otherwise.[39] Again, we see al-Fārābī's assimilation of epistemology and ontology: in perfect form, al-Fārābī's certitude assures us that the knowledge of a thing is that thing itself. Now, clearly not all conceptualizations and

assents produce this level of certainty, and it is here that al-Fārābī's "context theory" of Aristotelian syllogistic plays a role.[40] Al-Fārābī divides the books of the *Organon* according to their subjects. The *Categories*, *De Interpretatione*, and the *Prior Analytics* are applicable to all modes of discourse. The following books, treating syllogisms in the following sequence, cover the full range of mental assent and verbal explanation: demonstrative (*Posterior Analytics*), dialectical (*Topics*), rhetorical, sophistic, and poetic. With al-Fārābī, the original, descriptive classification of logic, which he inherited from the neo-Aristotelian tradition, is transformed into epistemological fact: these are the five types of syllogisms in which the human mind thinks.[41] This epistemological division is then synthesized with psychology, in which these modes of thinking are associated with the rational and imaginative faculties of the soul. Finally, this epistemology is transformed into an ontological classification: the objects of these modes of thought conform to the hierarchy of beings.

Logic is the sole methodology underpinning the divisions of the sciences, and the demonstrative syllogism (*qiyās burhānī*) is the sole means for arriving at "perfect assent," or complete certitude. The remaining classes of syllogism serve either to train the mind for demonstration or to provide the means to protect against error, in one's own thought processes as well as others'. This valorization of demonstration raises another interesting question: while perfect philosophers are capable of attaining the truth through demonstrative proof, what about the remainder of people, who are either incapable or unwilling to tread the path to happiness? Here al-Fārābī again "naturalizes" Aristotelian logic in his monotheistic environment. Philosophers think in demonstrative syllogisms, the premises of which they receive as "secondary intelligibles" from the Active Intellect in that process which leads to the human "acquired" intellect, the ultimate happiness of the human. For others, the role of prophecy, in both its religious and social function, serves to transform demonstrative truth into a rhetorical form understandable by the remainder of people.

It is within this context of the social function of the syllogistic arts and al-Fārābī's description of the different levels of truth (and thus being) afforded by the different classes of syllogisms that we can understand the presentation of what scholars have called his "political" philosophy. In the most original exposition of al-Fārābī's

syncretism, found in *Principles of Beings* and the *Principles of the Opinions*, al-Fārābī follows up his presentation of cosmology and psychology with a detailed discussion of the different types of society in which humans live. In his presentation of the various social formations and their constituent parts, al-Fārābī presents a gradation of human society, from the most excellent, in which the harmony he depicts in his cosmological hierarchy is reflected, to the worst, in which material chaos has replaced that harmony. Al-Fārābī is not outlining an independent discipline of "political philosophy" in these discussions.[42] Rather, he is attempting to account for the multiple realities produced by "correct" or "incorrect" thinking, that is, the variant worlds as perceived and thus formed by demonstrative, dialectical, rhetorical, sophistic, or poetic modes of thought. In one sense, then, al-Fārābī assesses the apparent variability of the world of humans by means of an ordered philosophical system. In another sense, his presentation of these social orders is also commensurately rhetorical, employed for the sake of those incapable of pursuing philosophy: demonstrative truths concerning the true order of beings are here refashioned for the masses. The systematization inherent in al-Fārābī's philosophy is here masterful: it accounts for human society within the larger presentation of its cosmology; it sets forth an educational curriculum by which the divine order al-Fārābī saw in the universe could be replicated; and it articulates that curriculum of absolute truth in metaphorical terms that could be understood by those not capable, or not willing, to pursue the rigorous path to happiness through the development of "correct thinking."

Al-Fārābī was perhaps the most systematic of all the early philosophers writing in Arabic. His genius lies neither in the radical eclecticism of al-Rāzī nor in the self-proclaimed brilliance of Avicenna, but it is nonetheless present, in his revitalization of the numerous trends of thought that preceded him, in his conscious systematization of those disparate elements into a philosophically consistent whole, and above all, in his thoughtful but insistent articulation of the path to human happiness:

> Man is a part of the world, and if we wish to understand his aim and activity and use and place, then we must first know the purpose of the whole world, so that it will become clear to us what man's aim is, as well as the fact that man is necessarily a part of the world, in that his aim is necessary for realizing the ultimate purpose of the whole world. Therefore, if we wish to know the object toward which we should strive, we must know the aim of man and the human perfection on account of which we should strive.[43]

NOTES

1 The brief biographical treatment presented here, eschewing repetition of the literary legends associated with al-Fārābī, follows D. Gutas, "Biography," in Yarshater [78], 208–13.
2 Ibid., 210b.
3 Ibid., 212b.
4 For English translations of the works of al-Fārābī see A. Hyman, "The Letter Concerning the Intellect," in A. Hyman and James J. Walsh (eds.), *Philosophy in the Middle Ages* (Indianapolis: 1973), 215–21; M. Mahdi, *Alfarabi's Philosophy of Plato and Aristotle* (Ithaca, N.Y.: 1969); F. Najjar, "Alfarabi: The Political Regime," in Lerner and Mahdi [189], 31–57; Walzer [77]; Zimmermann [79]. For translations of some of his short logical works, see below, n. 32.
5 I adapt here P. Moraux's term "vorphilosophische Sittlichkeit" as discussed in Gutas [76].
6 Gutas [76], 115–16.
7 I have modified the translation by Dimitri Gutas in Gutas [57].
8 Thus, what follows is a summary of his *Principles of Beings* (*al-Siyāsa al-madaniyya al-mulaqqab bi-mabādi' al-mawjūdāt*, ed. F. Najjar [Beirut: 1964]), unless otherwise noted.
9 The presence of an emanationist system in al-Fārābī's thought has generated some scholarly contention among earlier generations of interpreters of al-Fārābī; see the corrective analysis in Druart [74], Druart [75], and T.-A. Druart, "Metaphysics," in Yarshater [78], 216–19. I am not entirely convinced by Druart's own explanation (conceived as a question of loyalty or disloyalty to Aristotelianism) for the presence or absence of emanationism in one or another of al-Fārābī's works. A distinction in al-Fārābī's works between those we might call "curricular," designed to present a historical overview of philosophy to students, and those in which he develops his own synthesis of earlier trends of thought, appears to me to be a more fruitful avenue of investigation. Druart's consideration of chronology in the above works, however, does appear equally reasonable.
10 See the account in Davidson [208], 45ff.
11 See Druart's articles in n. 9 above.
12 See the remarks in Walzer [77], notes to part III, 3.
13 Translation from Walzer [77], 67, with modifications and italics.

14 Ibid., 58–61, with modifications and italics.
15 On this topic, see Druart [73].
16 The level of functional complexity, situated within a Galenic anatomy, can increase, depending on al-Fārābī's presentation in a given work; see Alon [72], vol. II, under "Faculty," for other treatments.
17 Hence, the use of the neologism "to intellect" here and in most writings on the theory of the intellect in Arabic philosophy rather than, for example, "to understand intellectually," which does not capture the connotations of the Arabic.
18 I base the following account of human intellection on Davidson [208], ch. 3.
19 *Principles of Beings*, 32. Scholars have devoted some attention to what precisely this means in relation to the question of human immortality and, above all, whether or not al-Fārābī endorsed the notion of conjunction between the Active Intellect and the human intellect. The issue is raised in relation to later philosophers' record of al-Fārābī's views (especially those of Ibn Bājja and Averroes). See S. Pines, "The Limitations of Human Knowledge according to al-Fārābī, Ibn Bajja, and Maimonides," reprinted in *The Collected Works of Shlomo Pines*, vol. V, ed. W. Z. Harvey and M. Idel (Jerusalem: 1997), 404–31; and Davidson [208], 70–3.
20 For the background of this development in the commentaries on Aristotle's *De Anima*, see Davidson [208], ch. 2. A recent study has gone so far as to claim that al-Fārābī did not even read Aristotle's *De Anima*, and took (or developed) his theory of the intellect from the commentary tradition alone: M. Geoffrey, "La tradition arabe du *Peri nou* d'Alexandre d'Aphrodise et les origines de la théorie farabienne des quatre degrés de l'intellect," in *Aristotele e Alessandro di Afrodisia nella tradizione araba*, ed. C. D'Ancona and G. Serra (Padova: 2002), 191–231.
21 *Principles of Beings*, 35–6.
22 Elsewhere al-Fārābī uses the metaphor of the seal and the wax; see Hyman, "Letter Concerning the Intellect," 215.
23 "Primary intelligibles" are indemonstrable, as can be seen from the examples above; "secondary intelligibles" are based on sense data but stripped of their material aspects.
24 *De Anima*, 430a20. See Davidson [208], 19, who further notes that this does not mean that the intellect is thereby affected or altered as a result.
25 "Philosophy of Aristotle," in Mahdi, *Alfarabi's Philosophy of Plato and Aristotle*, 76.
26 I include al-Fārābī's *Directing Attention to the Way to Happiness* here.
27 Najjar, "Alfarabi: The Political Regime," 35.
28 Ibid., 35–6; modified.

29 For the various terms al-Fārābī uses for this faculty, see Alon [72], vol. II, 604f.
30 Alon [72], vol. II, 606.
31 It has also been noted that al-Fārābī's valorization of logic as the instrument of philosophy represents an important development in the history of the study of Aristotelian logic, since previously, in the educational curriculum of Alexandria, logic was closely related to medicine. See Gutas [57], 174.
32 Many of al-Fārābī's short introductory works on logic have been translated by D. M. Dunlop: "Al-Fārābī's Introductory Sections on Logic," *Islamic Quarterly* 2 (1955), 264–82; "Al-Fārābī's *Eisagoge*," *Islamic Quarterly* 3 (1956), 117–38; "Al-Fārābī's Introductory *Risālah* on Logic," *Islamic Quarterly* 3 (1956), 224–35; "Al-Fārābī's Paraphrase of the Categories of Aristotle," *Islamic Quarterly* 4–5 (1957), 168–97, 21–54. Fritz Zimmermann has translated al-Fārābī's texts on Aristotle's *De Interpretatione*, in Zimmermann [79].
33 My account of the broad contours of al-Fārābī's logic follows Deborah Black, "Logic," in Yarshater [78], 213–16.
34 He followed, for instance, Paul the Persian (see Gutas [56], 248) and Sergius of Resh'aynā; see H. Gätje, "Die Gliederung der sprachlichen Zeichen nach al-Fārābī," *Der Islam* 47 (1971), 1–24. Al-Fārābī's treatment and its place in intellectual history is a widely debated topic; P. E. Eskenasy, "Al-Fārābī's Classification of the Parts of Speech," *Jerusalem Studies in Arabic and Islam* 11 (1988), 55–82, summarizes the different views nicely.
35 For a summary of this debate and its relation to al-Fārābī's works, with multiple references, see Street [182], 22ff.
36 *Introductory Treatise on Logic*, translation from Street [182], 23.
37 See Lameer [175].
38 On these terms (derivative of Aristotle, *De Anima*, III.6), see H. A. Wolfson, "The Terms *Taṣawwur* and *Taṣdīq* in Arabic Philosophy and their Greek, Latin and Hebrew Equivalents," *The Moslem World* 33 (1943), 114–28, and "The Internal Senses in Latin, Arabic and Hebrew Philosophic Texts," *Harvard Theological Review* 28 (1935), 69–133.
39 See Black's remarks at Yarshater [78], 214–15.
40 Street [182], 23–4.
41 Gutas [56], 257.
42 For a clear presentation of the history of errors concerning al-Fārābī's so-called "political philosophy," see D. Gutas, "The Study of Arabic Philosophy in the Twentieth Century," *British Journal of Middle Eastern Studies* 29 (2002), 5–25, esp. 19–25.
43 *Philosophy of Aristotle*, ed. M. Mahdi (Beirut: 1961), 68–9.