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## **ABU NASR AL-FARABA AND EUROPE'S DISCOVERY OF ARISTOTLE**

On September 22, 2001, several days after the terrorist attack on the World Trade Center in New York, Pope (now Saint) John Paul II began a two-day pastoral visit to Kazakhstan. During this event he delivered speeches addressed to various audiences, from the Head of State who at the time was Nursultan Nazarbayev, to young people and university students. Already in the speech delivered on his arrival at Astana Airport, he demonstrated his admiration for the rich intellectual, cultural and religious heritage of the country he would be visiting. Among the great minds who were born in Kazakhstan he mentioned "Abu Nasr al-Farabi, who helped Europe to rediscover Aristotle" (John Paul II, 2001). The purpose of this article is to discuss the Pope's reference to Aristotle's influence on al-Farabi's *Ihsa' al-'Ulum (The Enumeration of the Sciences)*, the latter's interpretation of the Stagirite's classification of the sciences in a Neoplatonic key. After examining Aristotle's influence on al-Farabi, we will consider how the latter's work came to influence academic life in mediaeval western Christendom. I will then cite one case among many of al-Farabi's influence on mediaeval Christian thought, namely the philosophical project of Albert the Great (d. 1280).

**Key words:** al-Farabi, Aristotle, sciences, philosophical system, translation, adoption.

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### **Әбу-Наср әл-Фараби және Аристотелдің Еуропада ашылуы**

22 қыркүйек 2001 жылы Нью-Йорктегі Дүниежүзілік сауда орталығына террористік шабуылдан бірнеше күн өткен соң, Рим Папасы (қазіргі Әулие) Иоанн Павел II Қазақстанға екі күндік пасторлық сапармен келді. Осы шара барысында ол әр түрлі аудиторияға, сол кездегі мемлекет басшысы Нұрсұлтан Назарбаевтан бастап жастар мен университет студенттеріне арнап сөз сөйледі. Астана әуежайына келіп сөйлеген сөзінде ол баратын елдің бай зияткерлік, мәдени және діни мұрасына таң қалатынын көрсетті. Қазақстанда дүниеге келген ұлы зиялылардың ішінде ол «Еуропаға Аристотельді қайта ашуға көмектескен Әбу Насыр әл-Фарабиді» атап өткен (Иоанн Павел II, 2001). Бұл мақаланың мақсаты – Рим папасының Аристотельдің әл-Фарабидің «Ихсакул-Улумға» тигізген әсері туралы, ғылымдардың соңғы классификациясының неоплатониялық түсіндірмесін талқылау. Аристотельдің әл-Фарабиге әсерін зерттегеннен кейін, оның бұл еңбектің ортағасырлық Батыс христиан әлеміндегі академиялық өмірге қалай әсер еткенін қарастырады. Автор әл-Фарабидің ортағасырлық христиан ойына әсер етуінің көптеген жағдайларының бірін, атап айтқанда Альберт Ұлы философиялық жобасын (1280 жж.) дәйектейді.

**Түйін сөздер:** әл-Фараби, Аристотель, ғылым, философиялық жүйе, аударма, қабылдау.

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### **Абу наср аль-Фараби и открытие Аристотеля в Европе**

22 сентября 2001 года, через несколько дней после террористической атаки на Всемирный торговый центр в Нью-Йорке, Папа (ныне Святой) Иоанн Павел II начал двухдневный пастырский визит в Казахстан. Во время этого мероприятия он выступил с речью, обращенной к разным аудиториям – от главы государства, которым в то время был Нурсултан Назарбаев, до молодежи и студентов вузов. Уже в речи, произнесенной по прибытии в аэропорт Астаны, он продемонстрировал свое восхищение богатым интеллектуальным, культурным и религиозным наследием страны, которую он посетит. Среди великих умов, родившихся в Казахстане, он упомянул Абу Насра аль-Фараби, «который помог Европе заново открыть для себя Аристотеля» (Иоанн Павел II, 2001). Цель этой статьи – обсудить упоминание Папой влияния Аристотеля на «Ихса' аль-'Улум» аль-Фараби («Перечисление наук»), интерпретацию последней классификации наук Стагиритом в неоплатоническом ключе. На основе изучения влияния Аристотеля на аль-

Фараби в статье рассматриваются, каким образом работы последнего повлияли на академическую жизнь в средневековом западном христианском мире. Автором цитируется один из многих случаев влияния аль-Фараби на средневековую христианскую мысль, а именно философский проект Альберта Великого (ум. 1280).

**Ключевые слова:** аль-Фараби, Аристотель, науки, философская система, перевод, принятие.

### The reception of Aristotle in early Islamic thought

It is well-known that a major contribution to intellectual life in Islam came about through the establishment of the *Bayt al-Hikma* (House of Wisdom) by the 'Abbāsid caliph al-Ma'mūn in 832. His grand vision was that of making Baghdad, the newly built capital of his empire, the capital of Islamic civilization. He willed it to be the intellectual centre of a cosmopolitan city where the greatest scholars of his realm would translate, study, and comment on the works produced by classical Greek thought and its Neoplatonic heirs. Most of these scholars were Christians who were bi-lingual (and often even tri-lingual) who produced translations from Greek (or from an already existing translation, namely Syriac) into Arabic (Foremost among the first wave of scholars one would find the Arab Nestorian Christian Hunayn b. Ishāq (809-873), who was a physician and a scientist).

This translation movement brought about the gradual formation of schools of thought, including that of philosophy. This in turn necessitated the establishment of a curriculum of philosophical studies. A model syllabus was found by way of an Arabic biography of Aristotle current at the time (Kraemer, 1986:9). In this work of unknown provenance Aristotle is portrayed as having studied poetry, grammar and rhetoric in his youth. These subjects were deemed essential for philosophy inasmuch as they were deemed to be closely related to logic. This biography continues to recount that, having thoroughly mastered these propaedeutic subjects, Aristotle then moved on to the study of ethics, politics, physics, mathematics, and finally metaphysics.

The syllabus is thus based on the method Aristotle himself adopted in order to classify the sciences. In fact, the Stagirite divided philosophy into theoretical and practical, the former was in turn subdivided into physics, mathematics, and metaphysics; whereas the latter was subdivided into politics, economics, and ethics.

It is at this point that Abū Naṣr Muḥammad b. Muḥammad ibn Ṭarḥān ibn Awzalāg al-Fārābī (c. 872-950) enters into the picture. His personality and thought would provoke both acceptance and reaction from his fellow Muslim successors, Ibn Sīnā and Ibn Ruṣd. However, the consequences of his thought

would be far-reaching affecting both the Jewish and Christian traditions. As John Marenbon has rightly observed, "At first sight, Fārābī's thought may seem to be a sort of Neoplatonic system, complete with what will strike modern eyes as a fantastical cosmology. Yet, once the terms within which he worked are understood, Fārābī emerges not merely as a startlingly bold and imaginative philosopher, but as a remarkably tough-minded one" (Marenbon, 2007:91).

Abū Naṣr al-Fārābī was often referred to as "the Second Master", following Aristotle who was known as "the First Master". He was a student of the Syriac Christians Abū Biṣr Mattā b. Yūnus al-Qunnā'ī (c. 870-940), the founder of the Baghdad School of Peripatetic philosophy, and Yūḥannā b. Ḥaylān (860-920) with whom he studied Aristotelian logic, specifically the *Organon* up to the *Posterior Analytics*. His chief student was another Syriac Christian and renowned philosopher in his own right Abū Zakariya Yaḥyā b. 'Adī (893-974), the author of *Tadhīb al-Aḥlāq* (*The Reformation of Morals*), who was also a student of Mattā b. Yūnus.

### The classification of sciences according to al-Fārābī

In the words of David Reisman "al-Fārābī was above all a systematic and synthesizing philosopher; as such, his system would form the point of departure on all major issues of philosophy in the Islamic world after him" (Reisman, 2005:52). He succeeds in linking his own work with a long and illustrious history of doing philosophy, thereby placing the curriculum which he proposes upon the solid foundations of Hellenistic thought, while forging ahead with original creative and innovative scholarship. He casts his philosophical system 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" (Reisman, 2005:56). Here the influence of Plato's *Timaeus* is all too evident, in that the world is conceived as a living being animated by a soul. At the same time, al-Fārābī couched his system in a different manner. He was essentially concerned with providing a metaphysical and ontological explanation of the world (Arnaldez, 2015:211).

Furthermore, one would notice in al-Fārābī's works that constant interplay between the terms

*zāhir* (outer, exoteric) and *bāṭin* (inner, esoteric). These terms are not borrowed from philosophy, but from the Qur'ān:

Everything in the heavens and earth glorifies God – He is the Almighty, the Wise. Control of the heavens and earth belongs to Him; He gives life and death; He has power over all things. He is the First and the Last; the Outer and the Inner; He has knowledge of all things. It was He who created the heavens and earth in six Days and then established Himself on the throne. He knows what enters the earth and what comes out of it; what descends from the sky and what ascends to it. He is with you wherever you are; He sees all that you do; control of the heavens and earth belongs to Him. Everything is brought back to God.

(Q. 57:1-5)

The entire philosophical system created by al-Fārābī and developed by Ibn Sīnā is inscribed within the framework of this verse. God is referred to as the *First* (*al-Awwal*). This term harks back to Plotinus, but al-Fārābī's application of the term 'the *One*' to the *First* implies that in the First lies the foundation of all being and the culmination of all contemplation. God is *First* because God is *One*. Although peripatetic philosophy occupies a substantial place in his writings, al-Fārābī is all too aware that his development of this philosophy requires that it be grounded in the text of the Qur'ān. Everything begins in God and everything returns to God (Arnaldez, 2015:213; Q. 28:85.88; 36:83; 39:44; 89:27-28).

In constructing his educational system within the grand scheme of his philosophy, al-Fārābī takes his cue from Aristotle's syllabus, as presented in his Arabic biography, in order to come up with his own curriculum of higher education. With this new programme he reasserted the ancient position embraced by the Neoplatonists that it is through the study of philosophy, as practised by Plato and Aristotle, that humans can attain the greatest happiness. It is no great surprise, therefore, that one of the works in which he proposes his curriculum is in fact entitled *Taḥṣīl al-Sa'āda* (*The Attainment of Happiness*). His programme also indicates the course of studies that the Islamic philosophers followed, namely:

- linguistic sciences (including grammar, syntax, writing, reading, and poetry);
- logic;
- mathematics (including arithmetic, geometry, optics, astronomy, music, technology, and mechanics);
- physics;
- metaphysics;
- political science (including jurisprudence [*fiqh*] and theology [*kalām*]) (Kraemer, 1986).

As one may observe, the above classification demonstrates that al-Fārābī maintains the Aristotelian division of the sciences into theoretical and practical parts. On the other hand, he is careful to adapt it to the intellectual needs of Islamic scholarship.

Here one notes that the linguistic sciences and mathematics run parallel to those contained in the liberal arts (*trivium* and *quadrivium*) as adopted by the cathedral schools in mediaeval Europe (The *trivium* consisted of grammar, poetry, and rhetoric; the *quadrivium* comprised arithmetic, geometry, astronomy, and music. They formed the standard syllabus in the monasteries and cathedral schools of mediaeval Europe). The linguistic sciences laid the groundwork for further study, beginning with that of the natural sciences. Given that human nature presumes a gradual progression from the imperfect to the perfect, the natural sciences should do the same. Next comes mathematics whose effectiveness lies in training the mind of the young philosopher in his transition from consideration of the sensible to that of the intelligible; it also trains his mind to seek exact demonstrations. This, in turn, leads to the study of Logic, as an instrument to distinguish the true from the false, and is an excellent propaedeutic to the study of philosophy proper.

True to his Neoplatonic principles, al-Fārābī emphasizes the training of one's own character, instincts and tendencies. These must precede the study of philosophy; failure to grasp this necessity would impede the student from fully grasping the higher and more solid truths, because his mind would still be anchored in the realm of the senses.

As 'Ammār al-Ṭalbī rightly observes, al-Fārābī's lays great emphasis on mathematics as the basis of instruction because, to his mind, numbers and magnitudes do not allow for any confusion. They denote precision and clarity, and guide the student's intellect in the path that leads to the establishment of perfect order. The student must proceed in stages to different levels of mathematics, from the immaterial and the immeasurable, then to what requires some matter, and so forth. Geometry follows arithmetic, for it depends on demonstrations which establish certainty and banish all uncertainty'. Geometry in turn comprises two methods of procedure, namely analysis and structure. Then there is optics, astronomy, music, technology, and mechanics. These are followed by physics (that is, the natural sciences) whose subject is matter, be it animal, vegetable, mineral, or otherwise) (Al-Ṭalbī, 1993).

Following the exact sciences comes metaphysics, then the human sciences (political science in

particular), then jurisprudence (*fiqh*), law (*qānūn*) and theology (*kalām*).

The link between physics (the natural sciences) and theology is, in al-Fārābī's opinion, the human soul, which he considers to fall within the realm of the natural sciences, even though it has a metaphysical aspect. One can then move on to the study of the 'One', who is the First Principle of all existing beings; he may then return to human science, beginning with those governing society among other things, and the law which governs trade, and ending with the science which defends the beliefs on which society is founded (Medicine is not included among the sciences, given that al-Fārābī sometimes refers to it as a science, and sometimes as an art. See Ammar al-Talbi, *art. cit.*)

The ultimate objective of studying philosophy is twofold: theoretical and practical. The theoretical part is knowledge of the Creator, the Most-High, the active cause of all things and the governor of this world by His wisdom and justice. The practical and ethical part for the human being consists of imitating the Creator, as far as he is able, by carrying out laudable actions that would ultimately lead to happiness (*sa'āda*) (Al-Talbi, 1993).

Irrespective of whether al-Fārābī is dealing with theoretical or practical sciences, his curriculum lays stress on the necessity of studying logic. To his mind, this branch of philosophy is the principal tool of scientific inquiry and the only means by which one can perfect the ability to deliberate well about different objects of thought, and more significantly, guard the mind against error (Reisman, 2005:65).

Here we are led to refer to al-Fārābī's theory of certitude (*yaqīn*) and the progressive stages of the different syllogisms according to their value for arriving at scientific certitude and explaining such according to people's varying abilities. At the most basic level, al-Fārābī identifies two actions of the human mind, namely "conceptualization" (*taṣawwur*) and "assent" (*taṣdīq*). When moulded to perfection al-Fārābī's certitude leads to the conclusion that the knowledge of a thing is that thing itself. It is of course obvious that not all conceptualizations. Reisman describes these two terms in the following manner:

Conceptualization occurs when the mind conceives simple concepts (terms) with the aim of identifying their essential nature. Assent is directed toward complex concepts (premises) and results in the affirmation of their truth or falsity. What is described as "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 (Reisman, 2005:66).

It is here that al-Fārābī categorizes levels of certainty according to the logical works of Aristotle (Reisman, 2005:66). He classifies the books of Aristotle's *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*), which is applied by philosophers and is the highest mode of syllogism; dialectical (*Topics*), which is applied by theologians (*mutakallimūn*); and rhetorical (*Sophistical Refutations*, *Rhetoric*, and *Poetics*), which is applied when dealing with the masses who have neither grounding nor training in philosophy (Reisman, 2005:67).

One may conclude from the above discussion that, from the perspective of the sciences which al-Fārābī seeks to classify, the most authoritative proofs are the demonstrative and the dialectical. The philosophical sciences are deemed more excellent than the religious sciences (*'ulūm al-dīn*) because the former employ the demonstrative method (*burhān*) and the latter the dialectical (*ḡadal*). There still remains, however, a need to explain al-Fārābī's assertion that the philosophical sciences themselves are distinguished from each other in excellence on the basis of the methods of proof they employ (Bakar, 1998:88).

Bakar explains al-Fārābī's need to draw a distinction within the philosophical sciences in the following manner:

Since the central idea in al-Fārābī's conception of methodology is the hierarchy of premises employed in syllogistic proofs, the explanation may be sought in the nature of the premises in the philosophical sciences. He has distinguished between two kinds of demonstrative premises: (1) sense-knowledge which affords "certainty at times" and (2) the primary, necessary premises which afford complete certainty. Metaphysics and mathematical sciences like geometry and arithmetic employ only premises of the second category. Natural philosophy employs premises which are substantially drawn from sense perceptions (Bakar, 1998:89).

Having trained his mind in this manner, the student can now embark upon the study of philosophy proper. As he sets out his programme, al-Fārābī makes clear that the two fundamental approaches to the truth are philosophy and religion. However, it is important to note that he perceived religion as being an imitation of philosophy. The term used

by al-Fārābī to describe religion is *milla*, and not the traditional *dīn* (Al-Fārābī, Revised Edition, 1969:32). According to Osman Bakar *milla* “is appropriate since it refers to a divinely sanctioned religious community with its body of beliefs and laws or moral-legal injunctions based on revelation. The external dimension of a revealed tradition should be identified with the beliefs and practices of this religious community” (Bakar, 1998:81).

In this perspective, al-Fārābī mentions “two ways of making a thing comprehensible”; these are philosophy and religion. On the one hand, “when one acquires knowledge of the beings or receives instruction in them, if he perceives their ideas themselves with his intellect, and his assent to them is by means of certain demonstration, then the science that comprises these cognitions is *philosophy*”. On the other hand, “if they are known by imagining them through similitudes that imitate them, and assent to what is imagined of them is caused by persuasive methods,” then one may speak of *religion* (Al-Fārābī, Revised Edition, 1969:44).

Al-Fārābī then describes the distinct functions of philosophy and religion:

In everything of which philosophy gives an account based on intellectual perception or conception, religion gives an account based on imagination. In everything demonstrated by philosophy, religion employs persuasion. Philosophy gives an account of the ultimate principles (that is the essence of the first principle and the essences of the incorporeal second principles), as they are perceived by the intellect. Religion sets forth their images by means of similitudes of them taken from corporeal principles and imitates them by their likenesses among political offices...

Also, in everything of which philosophy gives an account that is demonstrative and certain, religion gives an account based on persuasive arguments. Finally, philosophy is prior to religion in time (Al-Fārābī, Revised Edition, 1969:44,45).

This latter statement confirms that the philosophy he is referring to is that wisdom (*al-ḥikma*) which has been handed down throughout the ages by all ancient cultures and traditions (In fact, al-Fārābī states that:

It is said that this science existed anciently among the Chaldeans, who are the people of al-ʿIrāq, subsequently reaching the people of Egypt, from there transmitted to the Greeks, where it remained until it was transmitted to the Syrians and then to the Arabs.

*The Attainment of Happiness*, n. 53, p. 43).

The above distinction between philosophy and religion brings into focus the centrality of the hierarchy of the sciences in his thought. As Bakar notes:

When this distinction is applied to both the theoretical and practical dimensions of revelation ... we will arrive at a result which throws further light on the way al-Fārābī treats the religious sciences in his classification in contrast to the philosophical sciences. *Kalām* and *fiqh*, the only religious sciences to appear in his classification, are for him the external or exoteric sciences of the theoretical and practical dimensions of revelation respectively. Metaphysics (*al-ʿilm al-ilāhī*) and politics (*al-ʿilm al-madani*) are their respective philosophical counterpart (Bakar inserts the following note: “*Religious* as this term is commonly understood and not in the sense of having the monopoly or exclusivity to the knowledge of God and of that related domain which is usually considered as being the concern of religion. For, in the universal sense of the term “religious,” al-Fārābī’s metaphysics and politics are also of a religious character”. BAKAR, *op. cit.*, note 54, p. 93).

Here one must consider al-Fārābī’s application of the term *ʿilm*. It is used in several senses throughout his works, but what concerns us here is his notion of the term as “an organized body of knowledge and as a discipline having distinctive goals, basic premises, and objects and methods of study” (Bakar, 1998:84). He therefore seeks to classify the sciences understood in this sense whether he is discussing the theoretical or the practical.

What remains to be considered now is the manner in which al-Fārābī’s curriculum made its way into mediaeval Europe and the manner in which it was adopted and adapted in the highest academic circles of the day.

### The translation movement in Spain

Although al-Fārābī did not travel, Middle-Eastern region his works, like those of his predecessors and successors, spread throughout the Islamic world. Despite geopolitical issues, such as the gradual fragmentation of the ʿAbbāsīd caliphate and its centuries-old conflict with the Umayyad Caliphate in al-Andalus, the works of Islamic scholars were enthusiastically reproduced and disseminated throughout the Islamic world.

Islamic dynasties prided themselves in possessing the great scientific and philosophical works produced by Islamic civilization. This explains why the works of al-Fārābī, among others, found themselves in the great libraries of al-Andalus, such as those of Cordoba and Toledo. His ideas were disseminated throughout Muslim Spain. The renowned Cordoban rabbi and philosopher Mūsā b. Maymūn (known in the West as Moses Maimonides) himself paid tribute to the profound erudition of al-Fārābī

in a letter addressed to his disciple Samuel b. Tibbon. He describes his works as “faultlessly excellent” and urges his student “to study and understand them; for he was a great man” (Fakhry, 2002:148). In his *magnum opus Dalālāt al-Hā'irīn* (*Guide for the Perplexed*, the Hebrew translation of the original work in Arabic is known as the *Moreh Nebukim*) he vigorously engages with him on various issues, such as his arguments with the *Mutakallimūn* on the admission of possibilities, and the oneness and uniqueness of God; the eternity of the world; design in nature, and divine providence and God's awareness of Man (Mūsā b. Maymūn, Second Edition, revised throughout, 1956). It is well known that Mūsā b. Maymūn served also as a vehicle for spread of Islamic thought throughout Latin Christendom (Wohlman, 1988).

Being initially the heir, depository, and disseminator of Greek science, which it developed into an original system of thought throughout three centuries, the Islamic world was about to pour its riches into Western Christendom, which, though on crusade against Islam, was aware, at least in frontier regions such as Sicily and Spain, of the wealth and teachings possessed by its formidable adversary.

This process was initiated through that series of military campaigns that lasted for just over four centuries and which is known as the *Reconquista*. In 1085, the army of the united kingdoms of León, Castile and Galicia led by Alfonso VI (and aided by Burgundian mercenaries) laid siege to the strategic city of *Ṭulayṭula* (Toledo) and captured it on May 25 of the same year. The conquest of Toledo was considered a significant milestone in the history of mediaeval Spain. Following this military victory, Toledo continued to be a major cultural centre; its libraries were not pillaged, but preserved, thereby becoming a vital resource for study and research.

Initially, the strategy adopted by both military and ecclesiastical authorities was twofold:

To strengthen and fortify the newly conquered territories;

To re-evangelize these territories, first by re-establishing dioceses, and secondly by establishing monasteries in order to revitalize Christian presence.

Following the establishment of Christian rule, the time was now ripe for one of the leading Church personalities of the day, Peter the Venerable (d. 1156), Abbot of Cluny, to join in an extraordinary initiative centring on Toledo. Clunaic monasticism already had a foothold in northern Spain since it followed the Burgundians in their military alliance with Castile and Aragon leading to the capture of Toledo. Monks from Cluny were later dispatched to

the newly conquered territories in order to re-establish the Church and its hierarchy.

Raymond of Sauvetat (d. 1152), Archbishop of Toledo, acted as guarantor and Alfonso VII of Leon-Castile (d. 1157) backed the Abbot of Cluny's proposal. Raymond desired and in fact succeeded in making Toledo the point of intersection between two major cultures.

This initiative brought about the first wave of translations from Arabic into Latin of the works found in the libraries of Toledo. A team was formed which, with advice from Muslims and Jews, delivered the first translation of the Qur'ān; it bears the name of Robert of Ketton in Rutland (d. c. 1160), and appears to have been prepared from a series of earlier translations (from Arabic to Hebrew and Castilian Spanish, and thence into Latin).

The second wave of translations took place through Dominicus Gundisalvi (or Gundissalinus) in this endeavour he was aided by a secretary whose name was initially Ibn Dāwūd or Avendauth, to be known later as John of Seville (fl. 1135-1153). The latter was actually a Jew who converted to Christianity, and was later appointed Archbishop of Seville. The method of translation adopted by this team can be discerned from the latter's prologue to the translation of Ibn Sīnā's *De anima: Me verba vulgariter proferentia et Domino Arcidiacono singula in latinum convertente* (I pronounce in a loud voice the text in common language [i.e., in Romance] and the Archdeacon translates each single phrase as one goes along). One needs to keep in mind that Ibn Dāwūd for his part knew both Arabic and Spanish. He therefore read the Arabic text, translated it mentally into colloquial Castilian, recited the translation, and Gundisalvi re-translated it from Castilian into Latin. Adopting such a strategy carries, of course, certain problems, one of them being that the final result would appear to be more of a translation of the idioms of the intermediary language than that of the original.

Notwithstanding this caveat, Dominicus Gundisalvi contributed immensely towards the encounter between Islamic and Christian philosophical discourse. He was not only instrumental in translating philosophical texts, but he also commented on them.

Al-Fārābī's *Iḥṣā' al-'Ulūm* was first translated by Gundisalvi, together with Ibn Dāwūd around the year 1140 and later by Gerard of Cremona (d. 1187) under the title *Liber Alfarabii de Scientiis* (Fakhry, 2002:149).

There is also a Latin translation of al-Fārābī's *Commentary on the Nichomachean Ethics*, which is mentioned in Arabic sources but, unfortunately

no longer extant in Arabic. One finds references and even quotations from this work in the writings of Albert the Great and Thomas Aquinas (Fakhry, 2002:149).

Gundisalvi was not only a translator; he was also a philosopher in his own right. He believed that by deepening his knowledge of Islamic thought, he would in some way enhance Western religious thought. He sincerely perceived his mission as that of serving as a bridge between Christian and Islamic thought, and worked tirelessly in order to reconcile their ideas.

What struck him most was the fact that al-Fārābī (as well as Ibn Sīnā) had classified human knowledge by establishing a hierarchy of sciences. Following the Islamic philosopher's interpretation of the classification of the sciences, Gundisalvi affirms that philosophy is divided into theoretical and practical. Theoretical philosophy in turn is divided into many sciences according to the degree of abstraction of their respective objects. These concepts are articulated in his *De divisione philosophiæ* (written c. 1150): In this work he expresses all his ideas and it marks a great milestone in the history of philosophical reflection. Here he was in fact adapting al-Fārābī's *Iḥṣā' al-'Ulūm* of which he had earlier produced an abridged translation into Latin under the title *De scientiis*. Not only does he emphasize the importance of philosophy, but also its universal validity. One may safely assert that in this manner Gundisalvi transmitted to the Latin West the primitive Islamic philosophical tradition. It would be received by Albert the Great, who in 1248 would proclaim the excellence of philosophy in terms that have been handed down to posterity (De Libera, 2005:65-66). Michael the Scot (1175c. 1232) would follow suit with his *Divisio Philosophiæ*, as well as Arnoul de Provence with his *Divisio scientiarum* (c. 1250), to be followed by Robert Kilwardby (c. 1215-1279) in his *De ortu scientiarum* (De Libera, 2005:306). Gundisalvi thus introduced the philosophical spirit into the academic world of Western Christendom. His adaptation of al-Fārābī's work laid the foundations for the syllabi of studies in the principal universities of mediaeval Europe, beginning with that of Paris. Although, as stated above, Gerard of Cremona did come up with a more literal translation of this particular work of al-Fārābī's, it was Gundisalvi's endeavour that paved the way for the introduction of the Islamic philosopher's thought in mediaeval Christian intellectual life. Generally speaking, al-Fārābī's works as transmitted by Gundisalvi's were instrumental in disseminating a systematic division of the sciences which integrated the

full range of Aristotle's works and a broad spectrum of sciences, many of which were new to mediaeval Latin Christendom (Burnett, 2011). Dag Nikolaus Hasse is right in affirming that:

Al-Fārābī's influence on Gundisalvi's work is particularly obvious in the enumeration of the seven parts of grammar, the eight parts of natural science (covering the spectrum of Aristotle's *libri naturales*), and the seven parts of mathematics: arithmetic, music, geometry, optics, astrology, astronomy, the science of weights, the science of technical devices (*ingenia*). As to the discipline of logic, Gundisalvi explicitly embraces al-Fārābī's division into eight parts, following the tradition which makes Aristotle's *Rhetoric* and *Poetic* parts of logic. The Farabian division of logic into eight parts reappears, for example, in Roger Bacon and in Arnoul de Provence's *Division of the Sciences* (ca. 1250); Arnoul remarks that neither Aristotle nor common usage includes *Rhetoric* and *Poetic* among the parts of logic. Gundisalvi further distinguishes with al-Fārābī between five kinds of syllogistic reasoning, of which demonstration is the highest. Al-Fārābī's emphasis on demonstration as the pivotal means for the acquisition of certain knowledge is an important innovation of Arabic philosophy, which reached the Latin West via Gundisalvi.

The influence of al-Fārābī's *Enumeration of the Sciences* extends also to specific areas such as music (Stanford Encyclopaedia of Philosophy).

#### **Adoption and adaptation of al-Fārābī's system in the Scholastic world**

Certainly, al-Fārābī's Neoplatonic reading of Aristotle helped create an original system for classifying and interpreting the function of the sciences. Here perhaps the most illustrious example can be found in the relation of philosophy to theology, which would occupy the minds of the Scholastics throughout the late twelfth and the entire thirteenth centuries. His system found fertile ground among those Latin scholastic thinkers who were already acquainted with Neoplatonism through Augustine and Boethius (Alain de Libera draws an interesting itinerary leading to the philosophical acculturation of Islamic thought in Latin Christendom, especially in the realm of metaphysics. He first refers to the Graeco-Latin age characterized by the theological debate initiated by Boethius; this was followed by what he refers to as the Arab-Latin age marked by the introduction of Arab sources such as al-Fārābī, Ibn Sīnā, al-Ġazālī and Ibn Rušd). The newly introduced works of al-Fārābī and, subsequently, of Ibn Sīnā served as priceless source material for their

own studies and works. Alain de Libera would refer to this movement as *alfarabo-avicennisme* (De Libera, 2005:72). As stated above, one of the main characters in this process of adoption and adaptation was Albert the Great (d. 1280). Contrary to his renowned student Thomas Aquinas, Albert was hardly what one would refer to as a systematic author. However, his encyclopaedic mind and thirst for knowledge have made him an excellent candidate for the reception and assimilation of certain elements of al-Fārābī's thought together with those of his predecessors and of his successors. In his *De causis et processu universitatis* Albert classifies the philosophers whose works serve as sources for his writings in the following manner:

The *antiquissimi/primi Peripatetici*, including Apollon, Asclepius, and Hermes Trismegistus.

The *antiqui Peripatetici*, including al-Fārābī, Ibn Sīnā, al-Ġazālī, Ibn Rušd, the *Liber de Causis* (Also, the *Liber de causis* is never mentioned under this name but simply with reference to the *Peripatetici*), Mūsā b. Maymūn, Porphyry, Themistius, and Theophrastus.

The *posteriores Peripatetici*, that is to say, those peripatetics who followed after Porphyry, Theophrastus, and Themistius: al-Fārābī, Ibn Sīnā, al-Ġazālī (all three are mentioned by name), the *Liber de Causis*, and Mūsā b. Maymūn (who is not mentioned, but whose contribution is implied).

The *Peripatetici*, meaning Aristotle, the pseudo-aristotelian work *De principio universi esse*, Porphyry, Alexander of Aphrodisias, al-Fārābī, Ibn Sīnā, al-Ġazālī, Isaac Israeli, the *Liber de causis*, Mūsā b. Maymūn.

The *meliores Peripateticorum*, including al-Fārābī, Ibn Sīnā, al-Ġazālī the *Liber de Causis*, and Mūsā b. Maymūn (This classification follows Alain De Libera's study).

Albert's doctrine of universals was largely linked to the emanationist system of the *Liber de causis* read by way of Ibn Sīnā and particularly al-Fārābī. It is a doctrine of the intelligible thought through the general movement of the influence of the separated intelligences within or upon the human soul (De Libera, 2005:212). He was also greatly indebted to al-Fārābī's *Risālā fi 'l-'aql* (Lat. *De intellectu et intellecto*) in the formulation of the distinction between 'separated' (*separata*) and 'abstract' (*abstracta*) intelligences (De Libera, 2005:306).

Also, one has to recall that the Aristotelianism of Albert the Great was in many ways a synthesis of the teachings of Aristotle, Ibn Rušd and al-Fārābī. This served him to create a framework of discussion on all philosophical issues, thereby making him one

of the most eclectic scholars of his time (De Libera, 2005:335). Just to cite one case, it is known that Albert read the Great Commentary of Ibn Rušd on Aristotle's *De anima* through the filter of al-Fārābī's *Risālā fi 'l-'aql*. This explains why he accepted Ibn Rušd's doctrine of the acquired intellect but refuted his theory of the unicity of the possible intellect (De Libera, 2005:333).

Al-Fārābī also served as the key to the interpretation of certain teachings of Ibn Sīnā. This holds true, for example, in the case where Albert traces the ascetic progress of the soul in its gradual ascent toward the sublunary world to the point of achieving intellectual intuition of the separate realities (De Libera, 2005:337).

In other words, Albert the Great was a pioneer in his effort to absorb and re-cast the teachings of al-Fārābī and applying them as a key to the interpretation of the Aristotelian corpus as commented by Ibn Sīnā and Ibn Rušd. In doing so he succeeded in bringing forward the approach between Aristotelian teaching (which was at that point considered with mistrust) and Christian thought. It was through his insightful adoption of al-Fārābī's framework, together with his ingenious and creative mind, that Albert bequeathed to the philosophical tradition in Western Christendom the doctrine of the sanctification and transcendent destiny of the human intellect. This legacy finds a ringing endorsement in the words of Saint John Paul II in his address to scientists and students at Cologne Cathedral on November 15, 1980, on the occasion of the seventh centenary of the death of Albert the Great:

Albert recognizes the articulation of rational science in a system of different branches of knowledge in which it finds confirmation of its own peculiarity, and at the same time remains geared to the goals of faith. In this way Albert realizes the status of a Christian intellectuality, whose fundamental principles are still to be considered valid today. We do not diminish the importance of this achievement if we affirm at the same time: Albert's work is from the point of view of content bound to be his own time and therefore belongs to history. The "synthesis" he made retains an exemplary character, and we would do well to call to mind its fundamental principles when we turn to the present-day questions about science, faith and the Church (John Paul II, 1980).

### Conclusion

Throughout this article we have had the opportunity to appreciate the immense contribution of one of the finest minds in Islamic civilization and culture. In spite of limitations imposed by time



as well as geopolitics, al-Fārābī has left his mark not only on Islamic thought but especially on the mediaeval Christian mind, a mind that possessed a passion for knowledge, always prepared to initiate an exchange of ideas in order to arrive at the truth, a mind confident of human reason and rational discourse which, enlightened by faith, would lead to divine truth.

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