

[IBN SINA: ABU 'ALI AL-HUSAYN (980-1037) [Routledge

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Ibn Sina (Avicenna) is one of the foremost philosophers in the Medieval Hellenistic Islamic tradition that also includes al-Farabi and Ibn Rushd. His philosophical theory is a comprehensive, detailed and rationalistic account of the nature of God and Being, in which he finds a systematic place for the corporeal world, spirit, insight, and the varieties of logical thought including dialectic, rhetoric and poetry.

Central to Ibn Sina's philosophy is his concept of reality and reasoning. Reason, in his scheme, can allow progress through various levels of understanding and can finally lead to God, the ultimate truth. He stresses the importance of gaining knowledge, and develops a theory of knowledge based on four faculties: sense perception, retention, imagination and estimation. Imagination has the principal role in intellection, as it can compare and construct images which give it access to universals. Again the ultimate object of knowledge is God, the pure intellect. In metaphysics, Ibn Sina makes a distinction between essence and existence; essence considers only the nature of things, and should be considered apart from their mental and physical realization. This distinction applies to all things except God, whom Ibn Sina identifies as the first cause and therefore both essence and existence. He also argued that the soul is incorporeal and cannot be destroyed. The soul, in his view, is an agent with choice in this world between good and evil, which in turn leads to reward or punishment.

Reference has sometimes been made to Ibn Sina's supposed mysticism, but this would appear to be based on a misreading by Western philosophers of parts of his work. As one of the most important practitioners of philosophy, Ibn Sina exercised a strong influence over both other Islamic philosophers and medieval Europe. His work was one of the main targets of al-Ghazali's attack on Hellenistic influences in Islam. In Latin translations, his works influenced many Christian philosophers, most notably Thomas Aquinas.

1-Biography

Ibn Sina was born in AH 370/AD 980 near Bukhara in Central Asia, where his father governed a village in one of the royal estates. At thirteen, Ibn Sina began a study of medicine that resulted in 'distinguished physicians . . . reading the science of medicine under [him]' (Sirat al-shaykh al-ra'is (The Life of Ibn Sina): 27). His medical expertise brought him to the attention of the Sultan of Bukhara, Nuh ibn Mansur, whom he treated successfully; as a result he was given permission to use the sultan's library and its rare manuscripts, allowing him to continue his research into modes of knowledge.

When the sultan died, the heir to the throne, 'Ali ibn Shams al-Dawla, asked Ibn Sina to continue as vizier, but the philosopher was negotiating to join the forces of another son of the late king, Ala al-Dawla, and so went into hiding. During this time he composed his major philosophical treatise, *Kitab al-shifa'* (Book of Healing), a comprehensive account of learning that ranges from logic and mathematics to metaphysics and the afterlife. While he was writing the section on logic Ibn Sina was arrested and imprisoned, but he escaped to Isfahan, disguised as a Sufi, and joined Ala al-Dawla. While in the service of the latter he completed *al-Shifa'* and produced the *Kitab al-najat* (Book of Salvation), an abridgment of *al-Shifa'*. He also produced at least two major works on logic: one, *al-Mantiq*, translated as *The Propositional Logic of Ibn Sina*, was a commentary on Aristotle's *Prior Analytics* and forms part of *al-Shifa'*; the other, *al-Isharat wa-'l-tanbihat* (Remarks and Admonitions), seems to be written in the 'indicative mode', where the reader must participate by working out the steps leading from the stated premises to proposed conclusions. He also produced a treatise on definitions and a summary of the theoretical sciences, together with a number of psychological, religious and other works; the latter include works on astronomy, medicine, philology and zoology, as well as poems and an allegorical work, *Hayy ibn Yaqzan* (The Living Son of the Vigilant). His biographer also mentions numerous short works on logic and metaphysics, and a book on 'Fair Judgment' that was lost when his prince's fortunes suffered a turn. Ibn Sina's philosophical and medical work and his political involvement continued until his death.

2-Reason and reality

Ibn Sina's autobiography parallels his allegorical work, *Hayy ibn Yaqzan*. Both clarify how it is possible for individuals by themselves to arrive at the ultimate truths about reality, being and God. The autobiography shows how Ibn Sina more or less taught himself, although with particular kinds of help at significant moments, and proceeded through various levels of sophistication until he arrived at ultimate truths.

Such progress was possible because of Ibn Sina's conception of reality and reasoning. He maintains that God, the principle of all existence, is pure intellect, from whom other existing things such as minds, bodies and other objects all emanate, and therefore to whom they are all necessarily related. That necessity, once it is fully understood, is rational and allows existents to be inferred from each other and, ultimately, from God. In effect, the totality of intelligibles is structured syllogistically and human knowledge consists of the mind's reception and grasp of intelligible being. Since knowledge consists of grasping syllogistically structured intelligibles, it requires the use of reasoning to follow the relations between intelligibles. Among these intelligibles are first principles that include both concepts such as 'the existent', 'the thing' and

'the necessary', that make up the categories, and the truths of logic, including the first-figure syllogistics, all of which are basic, primitive and obvious. They cannot be explained further since all explanation and thought proceeds only on their basis. The rules of logic are also crucial to human development.

Ibn Sina's stand on the fundamental nature of categorical concepts and logical forms follows central features of Aristotle's thought in the *Prior Analytics* (see ARISTOTLE §§4-7). Borrowing from Aristotle, he also singles out a capacity for a mental act in which the knower spontaneously hits upon the middle term of a syllogism. Since rational arguments proceed syllogistically, the ability to hit upon the middle term is the ability to move an argument forward by seeing how given premises yield appropriate conclusions. It allows the person possessing this ability to develop arguments, to recognize the inferential relations between syllogisms. Moreover, since reality is structured syllogistically, the ability to hit upon the middle term and to develop arguments is crucial to moving knowledge of reality forward.

Ibn Sina holds that it is important to gain knowledge. Grasp of the intelligibles determines the fate of the rational soul in the hereafter, and therefore is crucial to human activity. When the human intellect grasps these intelligibles it comes into contact with the Active Intellect, a level of being that emanates ultimately from God, and receives a 'divine effluence'. People may be ordered according to their capacity for gaining knowledge, and thus by their possession and development of the capacity for hitting on the middle term. At the highest point is the prophet, who knows the intelligibles all at once, or nearly so. He has a pure rational soul and can know the intelligibles in their proper syllogistic order, including their middle terms. At the other end lies the impure person lacking in the capacity for developing arguments. Most people are in between these extremes, but they may improve their capacity for grasping the middle term by developing a balanced temperament and purity of soul (see LOGIC IN ISLAMIC PHILOSOPHY §1).

In relation to the older debate about the respective scopes of grammar and logic, Ibn Sina argues that since logic deals with concepts that can be abstracted from sensible material, it also escapes the contingencies of the latter. Language and grammar govern sensible material and therefore have a different domain; indeed, languages are various and their rules of operation, their grasp of sensible material, are likewise articulated variously (see LANGUAGE, PHILOSOPHY OF). Nevertheless, languages make available the abstracted concepts whose operation is governed by logic; yet if language deals with contingencies, it is not clear how it can grasp or make available the objects of logic. At times, as for example in *al-Isharat*, Ibn Sina suggests that languages generally share a structure.

3- Theory of knowledge

In his theory of knowledge, Ibn Sina identifies the mental faculties of the soul in terms of their epistemological function. As the discussion of logic in §2 has already suggested, knowledge begins with abstraction. Sense perception, being already mental, is the form of the object perceived (see SENSE AND REFERENCE §1). Sense perception responds to the particular with its given form and material accidents. As a mental event, being a perception of an object rather than the object itself, perception occurs in the particular. To analyse this response, classifying its formal features in abstraction from material accidents, we must both retain the images given by sensation and also manipulate them by disconnecting parts and aligning them according to their formal and other properties. However, retention and manipulation are distinct epistemological functions, and cannot depend on the same psychological faculty; therefore Ibn Sina distinguishes faculties of relation and manipulation as appropriate to those diverse epistemological functions (see EPISTEMOLOGY IN ISLAMIC PHILOSOPHY §4).

Ibn Sina identifies the retentive faculty as 'representation' and charges the imagination with the task of reproducing and manipulating images. To conceptualize our experience and to order it according to its qualities, we must have and be able to reinvoke images of what we experienced but is now absent. For this we need sensation and representation at least; in addition, to order and classify the content of representation, we must be able to discriminate, separate out and recombine parts of images, and therefore must possess imagination and reason. To think about a black flag we must be able to analyse its colour, separating this quality from others, or its part in the image from other images, and classify it with other black things, thereby showing that the concept of black applies to all such objects and their images. Imagination carries out this manipulation, allowing us to produce images of objects we have not seen in fact out of the images of things we have experienced, and thereby also generating images for intelligibles and prophecies.

Beyond sense perception, retention and imagination, Ibn Sina locates estimation (wahm). This is a faculty for perceiving non-sensible 'intentions that exist in the individual sensible objects'. A sheep flees a wolf because it estimates that the animal may do it harm; this estimation is more than representation and imagination, since it includes an intention that is additional to the perceived and abstracted form and concept of the animal. Finally, there may be a faculty that retains the content of wahm, the meanings of images. Ibn Sina also relies on a faculty of common sense, involving awareness of the work and products of all the other faculties, which interrelates these features.

Of these faculties, imagination has a principal role in intellection. Its comparison and

construction of images with given meanings gives it access to universals in that it is able to think of the universal by manipulating images (see UNIVERSALS). However, Ibn Sina explains this process of grasping the universal, this emergence of the universal in the human mind, as the result of an action on the mind by the Active Intellect. This intellect is the last of ten cosmic intellects that stand below God. In other words, the manipulation of images does not by itself procure a grasp of universals so much as train the mind to think the universals when they are given to the mind by the Active Intellect. Once achieved, the processes undergone in training inform the mind so that the latter can attend directly to the Active Intellect when required. Such direct access is crucial since the soul lacks any faculty for retaining universals and therefore repeatedly needs fresh access to the Active Intellect.

As the highest point above the Active Intellect, God, the pure intellect, is also the highest object of human knowledge. All sense experience, logic and the faculties of the human soul are therefore directed at grasping the fundamental structure of reality as it emanates from that source and, through various levels of being down to the Active Intellect, becomes available to human thought through reason or, in the case of prophets, intuition. By this conception, then, there is a close relation between logic, thought, experience, the grasp of the ultimate structure of reality and an understanding of God. As the highest and purest intellect, God is the source of all the existent things in the world. The latter emanate from that pure high intellect, and they are ordered according to a necessity that we can grasp by the use of rational conceptual thought (see NEOPLATONISM IN ISLAMIC PHILOSOPHY). These interconnections become clearer in Ibn Sina's metaphysics.

4- Metaphysics

Metaphysics examines existence as such, 'absolute existence' (al-wujud al-matlaq) or existence so far as it exists. Ibn Sina relies on the one hand on the distinction in Aristotle's Prior Analytics between the principles basic to a scientific or mathematical grasp of the world, including the four causes, and on the other hand the subject of metaphysics, the prime or ultimate cause of all things - God. In relation to the first issue, Ibn Sina recognizes that observation of regularities in nature fails to establish their necessity. At best it evinces the existence of a relation of concomitance between events. To establish the necessity implicated in causality, we must recognize that merely accidental regularities would be unlikely to occur always, or even at all, and certainly not with the regularity that events can exhibit (see CAUSALITY AND NECESSITY IN ISLAMIC THOUGHT). Thus, we may expect that such regularities must be the necessary result of the essential properties of the objects in question. In developing this distinction between the principles and subject of metaphysics, Ibn Sina

makes another distinction between essence and existence, one that applies to everything except God. Essence and existence are distinct in that we cannot infer from the essence of something that it must exist (see EXISTENCE). Essence considers only the nature of things, and while this may be realized in particular real circumstances or as an item in the mind with its attendant conditions, nevertheless essence can be considered for itself apart from that mental and physical realization. Essences exist in supra-human intelligences and also in the human mind. Further, if essence is distinct from existence in the way Ibn Sina is proposing, then both the existence and the nonexistence of the essence may occur, and each may call for explanation.

5-The existence of God

The above distinctions enter into the central subject matter of metaphysics, that is, God and the proof of his existence. Scholars propose that the most detailed and comprehensive of Ibn Sina's arguments for God's existence occurs in the 'Metaphysics' section of al-Shifa' (Gutas 1988; Mamura 1962; Morewedge 1972). We know from the Categories of Aristotle that existence is either necessary or possible. If an existence were only possible, then we could argue that it would presuppose a necessary existence, for as a merely possible existence, it need not have existed and would need some additional factor to bring about its existence rather than its non-existence. That is, the possible existence, in order to be existent, must have been necessitated by something else. Yet that something else cannot be another merely possible existence since the latter would itself stand in need of some other necessitation in order to bring it about. or would lead to an infinite regress without explaining why the merely possible existence does exist. From this point, Ibn Sina proposes that an essential cause and its effect will coexist and cannot be part of an infinite chain; the nexus of causes and effects must have a first cause, which exists necessarily for itself: God (see GOD, ARGUMENTS FOR THE EXISTENCE OF § I).

From his proof of God's existence. Ibn Sina goes on to explain how the world and its order emanates from God. Whereas ARISTOTLE (§ 16) himself did not relate the Active Intellect that may be implied in On the Soul III with the first, ever-thinking cause of the universal found in Book XII of his Metaphysics, later commentators on his work (for example, ALEXANDER OF APHRODISIAS) identified the two, making the Active Intellect, the principle that brings about the passage of the human intellect from possibility to actuality, into the first cause of the universe. Together with this is the proof of God's existence that sees him not only as the prime mover but also as the first existent. God's self-knowledge consist in an eternal act that results in or brings about a first intelligence or awareness. This first intelligence conceives or cognizes

the necessity of God's existence, the necessity of its own existence, and its own existence as possible. From these acts of conception, other existents arise: another intelligence, a celestial soul and a celestial body, respectively. The last constitutes the first sphere of the universe, and when the second intelligence engages in its own cognitive act, it constitutes the level of fixed stars as well as another level of intelligence that, in turn, produces another intelligence and another level of body. The last such intelligence that emanates from the successive acts of knowing is the Active Intellect, that produces our world. Such emanation cannot continue indefinitely; although being may proceed from intelligence, not every intelligence containing the same aspects will produce the same effects. Successive intelligences have diminished power. and the active intellect, standing tenth in the hierarchy, no longer possesses the power to emanate eternal beings.

None of these proposals by Ibn Sina give grounds for supposing that he was committed to mysticism (for an opposing view, see MYSTICAL PHILOSOPHY IN ISLAM § I). His so called 'Eastern philosophy', usually understood to contain his mystical doctrines, seems to be an entirely Western invention that over the last two hundred years has been read into Ibn Sina's work (see Gutas 1988). Nevertheless, Ibn Sina combines his Aristotelianism with a religious interest, seeking to explain prophecy as having its basis in a direct openness of the prophet's mind to the Active Intellect, through which the middle terms of syllogisms, the syllogisms themselves and their conclusions become available without the procedure of working out proofs. Sometimes the prophet gains insight through imagination, and expresses his insight in figurative terms. It is also possible for the imagination to gain contact with the souls of the higher spheres, allowing the prophet to envisage the future in some figurative form. There may also be other varieties of prophecy.

6 The soul

In all these dealings with prophecy, knowledge and metaphysics, Ibn Sina takes it that the entity involved is the human soul. In *al-Shifa'*, he proposes that the soul must be an incorporeal substance because intellectual thoughts themselves are indivisible. Presumably he means that a coherent thought, involving concepts in some determinate order, cannot be had in parts by different intellects and still remain a single coherent thought. In order to be a coherent single unity, a coherent thought must be had by a single, unified intellect rather than, for example, one intellect having one part of the thought, another soul a separate part of the thought and yet a third intellect having a third distinct part of the same thought. In other words, a coherent thought is indivisible and can be present as such only to an intellect that is similarly unified or indivisible. However, corporeal matter is divisible; therefore the indivisible intellect that is

necessary for coherent thought cannot be corporeal. It must therefore be incorporeal, since those are the only two available possibilities.

For Ibn Sina, that the soul is incorporeal implies also that it must be immortal: the decay and destruction of the body does not affect the soul. There are basically three relations to the corporeal body that might also threaten the soul but, Ibn Sina proposes, none of these relations holds true of the incorporeal soul, which therefore must be immortal. If the body were a cause of the soul's existence, or if body and soul depended on each other necessarily for their existence, or if the soul logically depended on the body, then the destruction or decay of the body would determine the existence of the soul. However, the body is not a cause of the soul in any of the four senses of cause; both are substances, corporeal and incorporeal, and therefore as substances they must be independent of each other; and the body changes and decays as a result of its independent causes and substances, not because of changes in the soul, and therefore it does not follow that any change in the body, including death, must determine the existence of the soul. Even if the emergence of the human soul implies a role for the body, the role of this corporeal matter is only accidental.

To this explanation that the destruction of the body does not entail or cause the destruction of the soul, Ibn Sina adds an argument that the destruction of the soul cannot be caused by anything. Composite existing objects are subject to destruction; by contrast, the soul as a simple incorporeal being is not subject to destruction. Moreover, since the soul is not a compound of matter and form, it may be generated but it does not suffer the destruction that afflicts all generated things that are composed of form and matter. Similarly, even if we could identify the soul as a compound, for it to have unity that compound must itself be integrated as a unity, and the principle of this unity of the soul must be simple; and, so far as the principle involves an ontological commitment to existence, being simple and incorporeal it must therefore be indestructible (see SOUL IN ISLAMIC PHILOSOPHY).

7- Reward and punishment

From the indestructibility of the soul arise questions about the character of the soul, what the soul may expect in a world emanating from God, and what its position will be in the cosmic system. Since Ibn Sina maintains that souls retain their identity into immortality, we may also ask about their destiny and how this is determined. Finally, since Ibn Sina also wants to ascribe punishment and reward to such souls, he needs to explain how there may be both destiny and punishment.

The need for punishment depends on the possibility of evil, and Ibn Sina's examination maintains that moral and other evils afflict individuals rather than species. Evils are usually an

accidental result of things that otherwise produce good. God produces more good than evil when he produces this sublunary world, and abandoning an overwhelmingly good practice because of a 'rare evil' would be a privation of good. For example, fire is useful and therefore good, even if it harms people on occasion (see EVIL, PROBLEM OF). God might have created a world in another existence that was entirely free of the evil present in this one, but that would preclude all the greater goods available in this world, despite the rare evil it also contains. Thus, God generates a world that contains good and evil and the agent, the soul, acts in this world; the rewards and punishments it gains in its existence beyond this world are the result of its choices in this world, and there can be both destiny and punishment because the world and its order are precisely what give souls a choice between good and evil.

8 Poetry, character and society

Identifying poetic language as imaginative, Ibn Sina relies on the ability of the faculty of imagination to construct images to argue that poetic language can bear a distinction between premises, argument and conclusion, and allows for a conception of poetic syllogism. Aristotle's definition of a syllogism was that if certain statements are accepted, then certain other statements must also necessarily be accepted (see ARISTOTLE §5). To explain this syllogistic structure of poetic language, Ibn Sina first identifies poetic premises as resemblances formed by poets that produce 'an astonishing effect of distress or pleasure' (see POETRY). The resemblances essayed by poets and the comparisons they put forward in poems, when these are striking, original and so on, produce an 'astonishing effect' or 'feeling of wonder' in the listener or reader. 'The evening of life' compares the spans of a day and a life, bringing the connotations of the day to explain some characteristics of a lifespan. To find this use of poetic language meaningful, the suggestion is that we need to see the comparison as the conclusion of a syllogism. A premise of this syllogism would be that days have a span that resembles or is comparable to the progression of a life. This resemblance is striking, novel and insightful, and understanding its juxtaposition of days and lives leads subjects to feel wonder or astonishment. Next, pleasure occurs in this consideration of the poetic syllogism as the basis of our imaginative assent, paralleling assent in, for example, the demonstrative syllogism: once we have accepted the premise, we are led to accept the associations and imaginative constructions that result; once we accept the comparison between days and lives, we can understand and appreciate the comparison between old age and evening. Ibn Sina also finds other parallels between poetic language and meaningful arguments, showing that pleasure in imaginative assent can be expected of other subjects; assent is therefore more than an expression of personal preferences. This validity of poetic language makes it possible for Ibn

Sina to argue that beauty in poetic language has a moral value that sustains and depends on relations of justice between autonomous members of a community. In his commentary on Aristotle's Poetics, however, he combines this with a claim that different kinds of poetic language will suit different kinds of characters. Comedy suits people who are base and uncouth. while tragedy attracts an audience of noble characters (see AESTHETICS IN ISLAMIC PHILOSOPHY).

9 Links to the West

Latin versions of some of Ibn Sina's works began to appear in the early thirteenth century. The best known philosophical work to be translated was his Kitab al-shifa', although the translation did not include the sections on mathematics or large sections of the logic. Translations made at Toledo include the Kitab al-najat and the Kitab al-ilahiyat (Metaphysics) in its entirety. Other sections on natural science were translated at Burgos and for the King of Sicily. GERARD OF CREMONA translated Ibn Sina's al-Qanun f'1-tibb (Canon on Medicine). At Barcelona, another philosophical work, part of the Kitab al-nafts (Book of the Soul), was translated early in the fourteenth century. His late work on logic, al-Isharat wa-'l-tanbihat, seems to have been translated in part and is cited in other works. His commentaries on On the Soul were known to Thomas AQUINAS and ALBERT THE GREAT, who cite them extensively in their own discussions.

These and other translations of Ibn Sina's works made up the core of a body of literature that was available for study. By the early thirteenth century, his works were studied not only in relation to Neoplatonists such as AUGUSTINE and DUNS SCOTUS, but were used also in study of ARISTOTLE. Consequently, they were banned in 1210 when the synod at Paris prohibited the reading of Aristotle and of 'summae' and 'commenta' of his work. The force of the ban was local and only covered the teaching of this subject: the texts were read and taught at Toulouse in 1229. As late as the sixteenth century there were other translations of short works by Ibn Sina into Latin, for example by Andrea Alpago of Belluno (see ARISTOTELIANISM, MEDIEVAL §3; ISLAMIC PHILOSOPHY: TRANSMISSION INTO WESTERN EUROPE; TRANSLATORS).

List of works

Ibn Sina (980-1037) Sirat al-shaykh al-ra'is (The Life of Ibn Sina), ed. and trans. WE. Gohlman, Albany, NY: State University of New York Press, 1974. (The only critical edition of Ibn Sina's autobiography, supplemented with material from a biography by his student Abu 'Ubayd al-Juzjani. A more recent translation of the Autobiography appears in D. Gutas, Avicenna and the Aristotelian Tradition: Introduction to Reading Avicenna's Philosophical

Works, Leiden: Brill, 1988.)

- (980-1037) *al-Isharat wa-'l-tanbihat (Remarks and Admonitions)*, ed. S. Dunya, Cairo, 1960; parts translated by S.C. Inati, *Remarks and Admonitions, Part One: Logic*, Toronto, Ont.: Pontifical Institute for Mediaeval Studies, 1984, and *Ibn Sina and Mysticism, Remarks and Admonitions: Part 4*, London: Kegan Paul International, 1996. (The English translation is very useful for what it shows of the philosopher's conception of logic, the varieties of syllogism, premises and so on.)

- (980-1037) *al-Qanun fi'l-tibb (Canon on Medicine)*, ed. I. a-Qashsh, Cairo, 1987. (Ibn Sina's work on medicine.)

(980-1037) *Risalah fi sirr al-qadar (Essay on the Secret of Destiny)*, trans. G. Hourani in *Reason and Tradition in Islamic Ethics*, Cambridge: Cambridge University Press, 1985. (Provides insights into a neglected area of Ibn Sina's thought.)

(980-1037) *Danishnama-i 'ala'i (The Book of Scientific Knowledge)*, ed. and trans. P. Morewedge, *The Metaphysics of Avicenna*, London: Routledge and Kegan Paul, 1973. (This is a translation of a metaphysical work in Persian.)

- (c 1014-20) *al-Shifa' (Healing)*. (Ibn Sina's major work on philosophy. He probably began to compose *al-Shifa'* in 1014, and completed it in 1020. Critical editions of the Arabic text have been published in Cairo, 1952-83, originally under the supervision of I. Madkour; some of these editions are given below.)

- (c.1014-20) *al-Mantiq (Logic), Part 1, alMadkhal (Isag6ge)*, ed. G. Anawati, M. El-Khodeiri and F. al-Ahwani, Cairo: al-Matba'ah al-Amiriyah, 1952; trans. N. Shehaby, *The Propositional Logic of Ibn Sina*, Dordrecht: Reidel, 1973. (Volume I, Part 1 of *al-Shifa'*.)

- (c 1014-20) *al-'Ibarah (Interpretation)*, ed. M. El-Khodeiri, Cairo: Dar al-Katib al-Arabi, 1970. (Volume 1, Part 3 of *al-Shifa'*.)

- (c 1014-20) *al-Qiyas (Syllogism)*, ed. S. Zayed and I. Madkour, Cairo: Organisme General des Imprimeries Gouvernementales, 1964. (Volume I, Part 4 of *al-Shifa'*.)

- (c 1014-20) *al-Burhan (Demonstration)*, ed. A.E. Affifi, Cairo: Organisme General des Imprimeries Gouvernementales, 1956. (Volume I, Part 5 of *al-Shifa'*.)

(c 1014-20) *al-Jadal (Dialectic)*, ed. A.F Al-Ehwany, Cairo: Organisme General des Imprimeries Gouvernementales, 1965. (Volume I, Part 7 of *al-Shifa'*.)

- (c 1014-20) *al-Khatabah (Rhetoric)*, ed. S. Salim, Cairo: Imprimerie Nationale, 1954. (Volume I, Part 8 of *al-Shifa'*.)

- (c.1014-20) *al-Ilahiyat (Theology)*, ed. M.Y. Moussa, S. Dunya and S. Zayed, Cairo: Organisme General des Imprimeries Gouvernementales, 1960; ed. and trans. R.M. Savory and

D. A. Agius, *'Ibn Sina on Primary Concepts in the Metaphysics of al-Shifa'*, in *Logikos Islamikos*, Toronto, Ont.: Pontifical Institute for Mediaeval Studies, 1984; trans. G.C. Anawati, *La metaphysique du Shifa'*, *Etudes Musulmanes* 21, 27, Paris: Vrin, 1978, 1985. (This is the metaphysics of al-Shifa', Volume I, Book 5.)

- (c 1014-20) *al-Nafs (The Soul)*, ed. G.C. Anawati and S. Zayed, Cairo: Organisme General des Imprimeries Gouvernementales, 1975; ed. F. Rahman, *Avicenna's De Anima, Being the Psychological Part of Kitab al-Shifa'*, London: Oxford University Press, 1959. (Volume 1, part 6 of al-Shifa'.)

- (c 1014-20) *Kitab al-najat (The Book of Salvation)*, trans. F. Rahman, *Avicenna's Psychology: An English Translation of Kitab al-Najat, Book II, Chapter VI with Historical-philosophical Notes and Textual Improvements on the Cairo Edition*, Oxford: Oxford University Press, 1952. (The psychology of al-Shifa'.)

References and further reading

* Alexander of Aphrodisias (c 200) *De anima (On the Soul)*, in *Scripta minora* 2.1, ed. I. Bruns, Berlin, 1887; ed. A.P. Fontinis, *The De Anima of Alexander of Aphrodisias*, Washington, DC: University Press of America, 1979. (Important later commentary on Aristotle.)

Davidson, H.A. (1992) *Alfarabi, Avicenna and Averroes on Intellect: Their Cosmologies, Theories of the Active Intellect, and Theories of the Human Intellect*, New York: Oxford University Press (A thorough consideration of Ibn Sina's theory of the intellects in relation to Hellenistic and Arabic philosophers.)

Fakhry, M. (1993) *Ethical Theories in Islam*, 2nd edn, Leiden: Brill. (Contains material on Ibn Sina's ethical thought.)

Goodman, L. (1992) *Avicenna*, London: Routledge. (A useful introduction to central features of Ibn Sina's philosophical theories.)

* Gutas, D. (1988) *Avicenna and the Aristotelian Tradition, Introduction to Reading Avicenna's Philosophical Works*, Leiden: Brill. (An excellent account of the considerations that entered into the construction of Ibn Sina's corpus, the book contains translations of a number of smaller texts, a careful consideration of method and sharp criticisms of, among other things, ascriptions of mysticism to Ibn Sina. This is probably the most useful guide to an engagement with the philosopher's work currently available in English.)

Inati, S. (1996) 'Ibn Sina', in S.H. Nasr and O. Leaman (eds) *History of Islamic Philosophy*, London: Routledge, ch. 16, 231-L6. (Comprehensive guide to his analytical thought.)

Janssens, J.L. (1991) *An Annotated Bibliography on Ibn Sina (1970-1989), Including Arabic and Persian Publications and Turkish and Russian references*, Leuven: University of Leuven

Press. (An indispensable tool for study of Ibn Sina and recent work on the philosopher, though it will soon need to be updated.)

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