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AVICENNA VII. PRACTICAL SCIENCES

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vii. Practical Sciences

Avicenna's account of practical science is laconic and dispersed in minor tracts and in the opening and closing passages of his comprehensive encyclopedic works. The hope that he might some day write a comprehensive account of practical science, which he expresses at the beginning of the *Šefāʾ* (Healing), was never fulfilled. This was not because he was incapable of fulfilling it, but because it served his purpose, or so it seems, to remain laconic and to offer his views on the subject in bits and pieces, in a form lacking clarity, order, or completeness, and with intentions that remained inaccessible to many of his contemporaries and readers of his encyclopedic works such as the *Šefāʾ*. Such, for instance, was the case of the person who requested that Avicenna give a comprehensive, clear, and orderly account of the rational sciences, for whom he wrote the short treatise entitled (*Fī aqsām al-ʿolūm al-ʿaqlīya*) (On the division of the rational sciences).

Departing from his usual practice of confining himself to praising God as the bestower of the intellect, Avicenna begins and concludes this treatise with extended professions of faith and prayers for the prophet Moḥammad. The organization of this treatise is curious also in that it does not conform to the

organization of the sciences presented in Avicenna's encyclopedic works. (These normally begin with logic, proceed to natural science and mathematics, and conclude with metaphysics, with a brief account of practical science as an appendage of metaphysics.) After defining wisdom and presenting its primary divisions (secs. 1-2), he presents the tripartite division of theoretical and the tripartite division of practical wisdom (secs. 3-4), concluding what appears to be the first part of the treatise. Then, and without having prepared the reader for what follows, he gives an account of the principal and subsidiary divisions of natural science, mathematics, and metaphysics, devoting two sections to each of these three theoretical sciences (secs. 5-10: the subsidiary divisions of metaphysics are knowledge of revelation and resurrection). One would expect this second part of the treatise to be followed by an account of the principal and subsidiary divisions of the three practical sciences. But Avicenna says nothing about these. Instead, he concludes with the statement that this part dealt with the principal and subsidiary divisions of wisdom, not just of theoretical wisdom, and proceeds to give an account of the instrument, logic, that leads to the acquisition of both theoretical and practical wisdom (sec. 11: this third part concludes with an account of rhetoric and poetry). Thus despite the weight given to the theoretical sciences (it is only in sec. 4 that practical science is treated in any detail) all three parts of the treatise conclude with things that are of primary practical political importance.

Avicenna restates the Aristotelian division of philosophic knowledge or wisdom into theoretical and practical sciences in a seemingly emphatic and positive fashion. This deserves particular attention, in view of the fact that his predecessor Fārābī—praised by Avicenna as "perhaps the most excellent" of his predecessors among the philosophers (*Mobāḥaṯāt*, p. 122.4)—had kept this Aristotelian division largely in the background and hinted at its problematical character. What, then, did Avicenna mean to achieve by reintroducing this perhaps concise and orderly division with the claim that it is clear, complete, and precise as well? And what are we to make of the additional claim, with which he concludes the treatise, that this division of wisdom into theoretical and practical rational sciences has made it apparent that none of them "contains what contradicts the [Islamic divine] Law" and that those who pursue these sciences and "deviate" from the path of the Law "err of their own accord, because of their incompetence and failing, not because the art [of philosophy or wisdom] itself requires it—the art is not responsible for them" (p. 118.9-12)? To see how Avicenna succeeds in removing all contradiction between any of the philosophic rational sciences and the Islamic Law, we need

to take a closer look at his reformulation of the Aristotelian division of the sciences in general and at his new view of practical science and its relation to the religious Law.

At first sight Avicenna seems to contradict himself by presenting two incompatible views of practical science. In the first he holds to the notion that wisdom is one, not many; it may have many parts, but they all participate in and are directed toward the one wisdom, which is a theoretical art of inquiry by which man pursues two things: Knowledge of what all being is in itself and that kind of activity which is necessary, and only as far as it is necessary, to render his soul noble and perfect so as to become an "intelligible world" corresponding to the world of being and ready for the highest or ultimate happiness (pp. 104.13-105.3). The aims is one: Knowledge of the things that are. To pursue this man needs to know and do certain practical things that are indispensable if he is to achieve his aim. These necessary conditions of the pursuit of theoretical knowledge make him noble and perfect, not as such, but as an instrument, one may say, of theoretical inquiry. This practical science and the activity it points to have no independent end or a horizon within which goodness and nobility are ends in themselves; goodness and nobility are defined in terms of what is useful and necessary for the pursuit of theoretical knowledge. Practical life, whether man's life by himself or in association with others, is subordinated to theoretical life. The emphasis is clearly on private rather than public life; and ethics (knowledge of goodness and nobility) is somehow divorced from politics, which is not even mentioned in this context. This is one direction in which Avicenna moves. It emphasizes ethics and subordinates practical life to theoretical life. The code names are "ultimate" and "other-worldly" happiness, which mean the same thing as perfect theoretical knowledge of all the beings as far as this is possible for man.

The second direction emerges in sec. 4 (pp. 107.4-108.10) where Avicenna gives the divisions of practical wisdom. The point of departure is "human governance," which is divided into (1) single individual and (2) in partnership with others, which is subdivided into (a) the household and (b) the city. (1) Ethics now covers man's happiness here (his first perfection) as well as in the hereafter. This is said to be contained in Aristotle's *Ethics*. (2a) The aim of household management is a well-ordered life, which merely "enables man" (that is, places him in a position) to gain happiness (presumably both kinds); it is clearly subordinated to ethics and conceived as a preparatory stage that makes possible the moral habits and activities that make men happy in this

and the other life. (2b) Politics deals with the classes of political regimes, rulerships, and associations, good and bad; how each is preserved, the cause of its disintegration, and how it is transformed. And although as part of practical wisdom political science aims at the "good" (vs. the truth), Avicenna does not say that it aims at "happiness," either directly as in the case of ethics, or indirectly, as in the case of household management.

Then he singles out "rulership" and divides it into "kingship" and "prophecy and the Law," stating that each is contained in two books written by Plato and Aristotle respectively. He insists that what the philosophers (Plato and Aristotle) mean by *nomos* (plur. *nomoi*) in their two books on the subject is precisely the *Šarīʿa* (the religious divine Law) and the coming down of revelation; and he defends this philosophic view of the *nomoi* against a vulgar view, which is that the *nomos* is "nothing but a device and deceit." (In fact, this was not a "vulgar" view, but the view of those philosophers with whom Avicenna disagrees and whom he likes to call "vulgar people," e.g., the physician al-Rāzī.) According to the philosophers (Plato and Aristotle), *nomos* is the way of life (*Sonna*) and the norm (*meṭāl*) established by the coming down of revelation, which seems to be confirmed by the use of the Arabized form of *nomos*, *nāmūs*, as a name for the angel of revelation. The vulgar view assumed that the philosophers considered the *nomoi* (including prophecy and revelation) as "nothing but a device and deceit." Avicenna could have criticized this view by saying that the philosophers (Plato and Aristotle) did not speak about this kind of prophecy, revelation, and divine Laws. Instead, he counters it by assuming that this is exactly what Plato and Aristotle wrote about.

Now while it may be true that Plato and Aristotle did not write about this particular prophet or revelation or divine Law, there seem to be certain things about all prophecy, revelation, and the divine Laws which can be learned, that is, known scientifically, only in political science and nowhere else. The list which follows is important because it presents a program which Avicenna did not elaborate elsewhere in the same context: Political science, and no theoretical or practical philosophic or religious science other than political science, enables one to know the following:

(1) The necessity (*wojūb*) of prophecy and the human species' need of the divine Law (*Šarīʿa*) for its existence, preservation, and final destiny. This ambiguous statement indicates that prophecy and the divine Law are necessary and indispensable for the very existence and preservation of human

life (of the species), which seems absurd, yet it is confirmed by the Persian compendium written for the king ʿAlāʾ-al-dawla, where Avicenna says that within political science, the science of the Law is the root and the science of the regime the branch (*Dāneš-nāma-ye ʿalāʾī* [*Elāhīyāt*], chaps. 1-2). It can also mean that political science shows whether, to what extent, and for what reason prophecy and the divine Law are necessary, which may make better sense. Political science was said to deal with the classes of regimes and rulerships. Two types of rulerships were cited: royal and prophetic. So the question whether and under what conditions prophecy (and the Law) rather than kingship is necessary or needed for man's existence and preservation, properly belongs to political science.

(2) The "wisdom" of the (particular) prescriptions or determinations (*ḥodūd*, cf. *ʿOyūn al-ḥekma*, p. 16.10), both the ones common to all Laws and the ones that pertain to particular Laws, having to do with particular peoples and particular times. That is, why prescriptions in general, and why prescriptions should be different in different Laws, for different peoples, and in different times.

(3) It is through political science that one knows the difference between "divine prophecy and false claims to it." Avicenna does not explain how political science, whose subject matter is good and bad regimes and rulerships, can tell the difference between divine prophecy and false claims to it. After all, "divine" things are not the subject of political science, which is part of practical wisdom. He could have reserved this subject for divine science, but does not even mention it there. Nor does he explain on what basis political science can tell the difference between genuine and false prophecy, or whether all prophecy is "divine" prophecy, all revelation "divine" revelation, or all laws "divine" Laws.

Now political science as political science presumably makes known whether a political regime or rulership is virtuous or bad, how it is preserved, the cause of its disintegration, and how it is transformed. So presumably the only way it can tell the difference between "divine prophecy and false claims to it" is by whether or not the regime and rulership and laws are excellent, well made, and lasting. But surely one can not say that excellent regimes and divine Laws are necessary, required for the very existence and preservation of the human species; for ordinary regimes and laws can preserve it just as well. Is the conclusion, then, that what is necessary is prophecy and laws of any kind, good or bad, divine or false, provided they contain appropriate workable prescriptions? The only thing that is clear is that the answers to such questions

are to be found in political science, in the writings of Plato and Aristotle, who wrote two books each on the kingship and the *nomoi* respectively.

On the surface it appears that Avicenna has concluded the account of practical science; he will now move to give an account of the principal and subsidiary divisions of the three theoretical sciences and an account of logic; unlike the theoretical sciences, practical science has no subsidiary divisions. Yet in fact the account of things practical, as against practical "wisdom" or "philosophy," is far from having been completed. To begin with, there are numerous references to what might be called the theoretical foundations of prophecy, revelation, and the divine Law in the principal divisions of natural science and divine science (secs. 5, 9). These include the "divine art" that underlies the overall order of nature and the immortality of the human soul (sec. 5); and the account of God's unity and attributes, the ranks and functions of the angels, and the overall order of the universe and its essential goodness. These matters, like everything contained in the principal divisions of the theoretical sciences, are all known by demonstration and with certainty.

The subsidiary divisions of the theoretical sciences, in contrast, are not said to be known demonstratively and with certainty; in many cases their method is characterized as proceeding through guesswork (*taḵmīn*), recognition through signs (*estedlāl*, or simply as production or making (*ʿamal*) (pp. 110.10, 15 and 112.6-7). All the subsidiary divisions of the theoretical sciences can in fact be seen as applied or practical arts, and thus can be considered as subsidiary divisions of practical science as well. This is obviously the case in the practical arts that form the subsidiary divisions of natural science (such as medicine or astrology) and of mathematics (such as mechanical devices or musical instruments), but the case is perhaps not so obvious in the subsidiary divisions of divine science, to which we shall now turn.

All five principal divisions of divine science were said to be contained in Aristotle's *Metaphysics* and to be known with certainty by means of demonstration (114.8); neither of the two subsidiary divisions of divine science selected by Avicenna (he does not give an exhaustive account of these but only a selection introduced by *men ḏāleka*, p. 114.10, 16-17) are said to be know by demonstration or with certainty.

The first subsidiary division of divine science deals with revelation, prophecy, miracles, inspiration, and the angles of revelation, all of which are related or made to correspond to what was known demonstratively in the theoretical

divisions of divine science, yet they are not to be found in Aristotle's *Metaphysics*. One can, however, find there certain things with which these matters can be identified or on the basis of which they can be explained. Nothing is said in this connection about the divine Law. This looks like "applied" or "special" metaphysics, where the general view of the universe found in Aristotle's *Metaphysics* (including, of course, Book *Lambda*) is used to show that revelation, miracles, and inspiration are possible. The main theme of this subsidiary division of divine science is not "what" these matters are, but "how" they take place, e.g., how the angel of revelation comes to be seen or heard.

The second subsidiary division of divine science deals with the "science of return" or the afterlife, a subject treated with unusual length in sec. 10 (pp. 114.16-116.2). The reason seems to be this. As a rational science, the "science of return" can make known the immortality of the soul and the rewards and punishments awaiting it after death. But the rewards or punishments that await the soul after death are meted out, not only for holding true or false beliefs in this life, but for whether or not one has performed the good deeds "prescribed by both the divine Law and reason." But the divine Law makes known also the resurrection of the body and promises rewards and punishments in respect of both the soul and the body. Reason and the divine Law thus agree with respect to the immortality of the soul, but the divine Law provides in addition for the resurrection of the body and for bodily rewards and punishment in the hereafter, something that is in God's power to do if and when He wills, but that reason can not prove or show its necessity. Avicenna goes further. He suggests the following formula for whatever reason can not prove: "Whatever reason can not assert that it exists or prove its necessity (as far as reason is concerned, it is only possible), then it is prophecy that settles the question whether it does or does not exist" (pp. 115.l6-116.1).

But this assumes a true prophecy rather than false claims to it, and we recall that the difference between true prophecy and false claims to prophecy is one of the tasks of political science, which is a practical science. Political science must first judge whether the divine Law legislated by the prophet is a true divine Law revealed to a genuine or truthful prophet, after which, it seems, it must admit the validity of whatever is legislated by the prophet, including things that reason can not know, and this seems to apply in particular to the resurrection of the body and to bodily rewards and punishments in the hereafter. It is perhaps not necessary to add that, as a rational science,

practical science must judge the truthfulness of prophecy through the character of the prophet's legislation insofar as it promotes the welfare of the city, of the souls and bodies of the citizens in this world, and their ultimate or higher happiness—the happiness of their souls—in the hereafter, rather than insofar as it promotes the happiness of their bodies in the hereafter. And since what promotes the happiness of the soul in the hereafter (what Avicenna calls the higher or nobler happiness of man) is correct beliefs and good deeds in this world, practical science can only judge the truthfulness of prophecy by whether and to what extent the prophet's Law promotes correct beliefs and good actions in this world.

The non-demonstrative account of the subsidiary or applied divisions of divine science points to the complex relationship between the theoretical and practical rational sciences on the one hand and the beliefs and practices legislated in the divine Law on the other. The beliefs legislated by the divine Law find their counterparts in the theoretical sciences, which can demonstrate some of them, but not all, e.g., it can not know anything about the resurrection of the body and bodily rewards and punishments in the hereafter. The practical prescriptions of the divine Law find their counterpart in practical science (and in the subsidiary divisions of the theoretical sciences). But practical science can not make known the entire wisdom of the prescriptions common to all divine Laws or of those that pertain to a particular divine Law legislated for a particular people at a particular time. The divine Law contains beliefs and practices that are not accessible to reason, largely because they deal with bodily affairs or with particular prescriptions that are not rational or can not be known by reason or with certainty. Nevertheless, they seem to be essential to the welfare of the city and to man's life on earth, where the soul does not exist independently of body and of bodily concerns.

The treatise *On the Divisions of the Rational Sciences* culminates in a third part that gives an account of logic, which tries to explain the method that must be employed in all investigations, both the ones that admit of demonstration and the ones that do not, such as arguments in favor of what is praiseworthy and arguments against what is blameworthy, the useful ways of addressing the multitude, and imaginative representations—that is, dialectic, rhetoric, and poetry. In this way what is not accessible to reason becomes accessible to methods of investigation which, while not fully rational and to some degree even based on exploiting the human passions, are not wholly devoid of rational elements.

All this points to the fact that Avicenna was fully aware of the range of investigations in which practical science can engage following the models presented in the political works of Plato, Aristotle, and Fārābī. Yet he chose not to follow these models but to chart a new path that assumes the validity of these models and applies their conclusions to particular aspects of the Islamic divine Law. To do so, he had to move backwards, as it were, from the beliefs and practices prescribed by the divine Law to the spiritual, moral, and rational purpose and meaning that lay behind them. To perform this task safely and effectively, he found it prudent to abandon the Platonic and Farabian views of political science as the architectonic practical science if not the architectonic science simply, and revive the practical Aristotelian division of wisdom or philosophy into theoretical and practical sciences.

Taking his cue from the concerns of the divine Law with the body and bodily matters, Avicenna revived another ancient (Platonic, Aristotelian, as well as Farabian) view of political science. This view emphasized the usefulness of political science in respect of promoting the welfare of the bodies (*maṣāleḥ al-abdān*) and the preservation of the human species (*ʿOyūn al-ḥekma*, p. 16.14). At first sight, this view seems to distinguish political science from ethics, which is said to be useful in purifying the soul. But purifying the soul means freeing it from bodily concerns, and the virtues and vices with which Avicenna deals in his ethical writings involve the control of the soul's desires, passions, etc., which are occasioned by the soul's connection to the body. Further, purification does not necessarily mean complete detachment from the body, an event that does not occur until the final separation with the death of the body.

Nevertheless, Avicenna's sharp division in practical science between the human governance that pertains to a single individual (ethics) and that which does not pertain to a single individual but takes place through partnership (household management and politics) points to the importance he placed on private perfection and thus to the subordination of practical science as a whole to the pursuit of theoretical knowledge. This, however, was enough to initiate the decline of political philosophy among those who maintained the Islamic philosophic tradition in the East until modern times, with the result that the Muslim community finds itself meeting the practical political challenge of the modern world with only a faint memory of an indigenous political-philosophic tradition.

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