

**AVICENNA'S  
PSYCHOLOGY**

# AVICENNA'S PSYCHOLOGY

AN ENGLISH TRANSLATION OF  
*KITĀB AL-NAJĀT*, BOOK II, CHAPTER VI  
WITH HISTORICO-PHILOSOPHICAL NOTES  
AND TEXTUAL IMPROVEMENTS ON  
THE CAIRO EDITION

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*To*

**DR. S. VAN DEN BERGH**

*and*

**PROFESSOR H. A. R. GIBB**

## PREFACE

THIS little book is the substance of a thesis prepared under the supervision of Dr. S. Van den Bergh and approved by the University of Oxford for the Degree of D.Phil. in 1949. A few additions have been made to it since, notably to the Introduction. There is one point about the arrangement of the book which may call for some explanation, namely, the Textual Notes. The full Arabic text, originally included in the thesis, has been omitted here, and, instead, the suggested improvements on the Cairo edition have been printed as Textual Notes in the Appendix. The numbers appearing chapter-wise throughout the translation refer to these Textual Notes. For a final edition of the text of the *Najāt* it would be useful to establish first the text of the *Shifā'* (now under preparation) on which it is largely based.

In order to express, in some measure, my deep indebtedness to the able and effective guidance of Dr. S. Van den Bergh and the constant encouragement and concern of Professor H. A. R. Gibb who, indeed, created the very conditions for my work, I have dedicated the book to them.

It is also my pleasant duty to record my gratitude to the Committee for Advanced Studies, University of Oxford, for their generous grant which made publication possible.

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F. R.

UNIVERSITY OF DURHAM

11 August 1951

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# INTRODUCTION

## I. THE SUBJECT

THE psychological text of Avicenna<sup>1</sup> treated in this thesis forms the sixth section (*Maqāla*) of the second book (devoted to Physics) of his work *Kitāb al-najāt* (the Book of Salvation), which is an abridgement by the author himself of his large philosophical encyclopaedia called *Kitāb al-shifā'*. For the greater part the *Najāt* follows very closely the text of the *Shifā'*. The abridgement is not here to be understood in the sense that the *Najāt* gives in concise language all or even most of what is contained in the *Shifā'*. What the author seems to have done for the most part is to omit long chapters of the *Shifā'* and to reproduce, very often literally, the introductory or general remarks on these chapters. This constitutes the text of the *Najāt*.

This is not the occasion to give a detailed account of Avicenna's style as a philosophical writer, but it may be noted in passing that although his writings are marked by greater fluency than those of his predecessors—Al-Fārābī and Al-Kindī, they suffer from the unfortunate defect of lack of exact formulation of expression. Quite often they contain needless repetitions, while not infrequently the author leaves much to be desired concerning elucidation or detail.

Avicenna wrote another work on psychology which was published by S. Landauer in *Zeitschrift der Deutschen Morgenlandischen Gesellschaft*, 1875 (vol. 29), with a translation and a short commentary. This text is earlier in date and much smaller in scope than the one treated in the present thesis. The following are the main points which were not dealt with in Landauer's text but are discussed here:

1. The account of the practical intellect.
2. The fivefold classification of intellects.

<sup>1</sup> Avicenna (Ibn Sīnā), b. 980 (370 A.H.), d. 1037 (428 A.H.). For his life and works accessible to non-Arabists reference should be made to C. Brockelmann, *Geschichte der Arabischen Litteratur*, second edition, i, p. 589, Supplement, vol. i, pp. 812 ff.; *Encyclopaedia of Islam*, vol. ii, p. 419.

3. The doctrine of prophecy.
4. The theory of the grades of abstraction.
5. The doctrine of the temporal origin of the soul.
6. The denial of transmigration.
7. The idea of the soul as a self-conscious unifying principle of experience.
8. The arguments for the immortality of the soul.

### *Definition of the Soul and Faculties of Plants*

After accepting the Aristotelian definition of the soul as the entelechy of a natural body possessing organs, and after stating that the soul is not a mere mixture or harmony of the elements but something over and above it, Avicenna proceeds to describe briefly the faculties of the vegetable soul: nutrition, growth, and reproduction. Nutrition assimilates another body to the body in which it resides and replaces what is dissolved from the latter with the former. Growth brings about a proportional increase in the organs of the nourished body. The reproductive faculty separates from the parent body a part which is potentially similar to it and, if certain conditions are fulfilled, acts on that part so as to make it actually similar to the parent body.

### *Perception*

The animal distinguishes itself from the plant by locomotion and perception. Perception consists in the passive reception of the form of the sensible object and is divisible into external and internal perception. External perception has five senses, but if we assume that each sense is concerned only with one pair of contraries, then touch would fall into four senses: one for perceiving hot and cold, a second for perceiving dry and moist, a third for perceiving smooth and rough, and a fourth for perceiving hard and soft. Avicenna, however, does not finally decide whether the external senses are five or eight, and leaves the question open.

### *Internal Perception*

Avicenna's classification of the internal senses in *Kitāb al-najāt* and *al-shifā'* is somewhat different from that given

in the work published by S. Landauer in the *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 1875. In *Kitāb al-najāt* and *al-shifā'* common sense and memory are sharply distinguished, while in the work published by S. Landauer both are treated as one faculty.<sup>1</sup> It appears from a study of that earlier work of Avicenna that in the beginning the philosopher attributed recollection to animals,<sup>2</sup> but that later on he changed his view on this point and in fact denied them recollection as distinct from memory.<sup>3</sup>

All the faculties included under the generic term 'internal sensation' seem to me to be differentiations of Aristotle's *φαντασία*. I think that each of the several functions which Aristotle attributed to *φαντασία* became, in course of time, a separate faculty, and that the evidence which I have produced in the commentary on Chapter III is sufficient to prove this. My theory also adequately explains the historical significance of the words 'internal sense' as applied to these faculties. Aristotle himself had described imagination as a 'weaker sensation',<sup>4</sup> and Alexander of Aphrodisias designated images 'internal sensibles' as opposed to physical objects which he called 'external sensibles'.<sup>5</sup>

### *The Human Soul*

The human soul, as distinguished from the animal and vegetable souls, is an immaterial substance, independent of the body.

Aristotle's definition of the soul in the second book of the *De Anima* implies that the soul is not a separate substance capable of existing independently of the body: it is the entelechy of a natural organized body. This formula must not be understood in the sense that there exists an organized body and then a soul comes and enters it. It is indeed the soul itself

<sup>1</sup> *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 1875, p. 359. 4-5.

<sup>2</sup> p. 352. 15-16. The word *يستعمل*, to my mind, does not give any sense, and seems grammatically impossible; the context requires *يستفيد*.

<sup>3</sup> *Al-shifā'*, Bodl. MS. Pococke 125, fol. 185b, 19-20. 'Memory may be found in all animals, but recollection, i.e. a conscious effort to reproduce what has gone out of memory, belongs I think only to man.'

<sup>4</sup> *Rhetorics* i. 2. 1370<sup>a</sup>28.

<sup>5</sup> See general note on the internal senses, Commentary, Chapter III.

which, as an immanent principle, organizes the body, gives it its specific characteristics, and makes it what it is. Aristotle says (*De An.* ii. 4. 415<sup>b</sup>8): ἔστι δὲ ἡ ψυχὴ τοῦ ζῶντος σώματος αἰτία, καὶ ἀρχή. ταῦτα δὲ πολλαχῶς λέγεται. ὁμοίως δ' ἡ ψυχὴ κατὰ τοὺς διωρισμένους τρόπους τρεῖς αἰτία· καὶ γὰρ ὅθεν ἡ κίνησις αὐτῇ, καὶ οὗ ἕνεκα, καὶ ὡς ἡ οὐσία τῶν ἐμφύχων σωμάτων ἡ ψυχὴ αἰτία. It is by virtue of this that the soul is called by Aristotle the εἶδος, the λόγος, and the τὸ τί ἦν εἶναι of the body. In keeping with this view Aristotle held that the soul does not have any activity independent of the body, but that all its actions are shared by the body.<sup>1</sup> And in *De An.* ii. 2. 414<sup>a</sup>19 we are explicitly told that the soul cannot exist independently of the body: καὶ διὰ τοῦτο καλῶς ὑπολαμβάνουσιν οἷς δοκεῖ μὴτ' ἄνευ σώματος εἶναι μῆτε σῶμά τι ἡ ψυχὴ. σῶμα μὲν γὰρ οὐκ ἔστι, σώματος δέ τι . . . .

That the soul is an internal principle of the organism and not something 'apart' from the body which it animates is also shown when the epistemological question is asked: What is the subject of experience? Arguing against the view of his predecessors, including Plato, that the soul is moved, Aristotle says (*De An.* i. 4. 408<sup>a</sup>34–<sup>b</sup>18) that it is absurd to say that the soul is moved in such experiences as pitying, fearing, thinking, &c., because it is not the soul which pities, fears, or thinks but that the man does so through the soul. To say, he holds, that the soul pities or thinks, is like saying that the soul weaves or builds. We must, however, guard against stretching the importance of the passage too far. To be sure, Aristotle does not maintain this view, and throughout his *De Anima* the soul alone frequently appears as the subject to which knowledge is attributed. For example, i. 5. 411<sup>a</sup>23 ff., where knowledge,

<sup>1</sup> *De An.* i. 1. 403<sup>a</sup>8 ff. In this passage Aristotle records his hesitation, verging on scepticism, regarding the intellect: εἰ δ' ἐστὶ καὶ τοῦτο (i.e. τὸ νοεῖν) φαντασία τις ἢ μὴ ἄνευ φαντασίας, οὐκ ἐνδέχεται· ἂν οὐδὲ τοῦτ' ἄνευ σώματος εἶναι. This hesitation is repeated and is expressed in the third book where Aristotle starts his discussion of the intellect (4. 429<sup>a</sup>10): περὶ δὲ τοῦ μορίου τοῦ τῆς ψυχῆς ᾧ γινώσκει τε ἡ ψυχὴ καὶ φρονεῖ, εἴτε χωριστοῦ ὄντος εἴτε καὶ μὴ χωριστοῦ κατὰ μέγεθος ἀλλὰ κατὰ λόγον . . . . When, however, he speaks of the distinction between the active and the passive intellect (*De An.* iii. 5. 430<sup>a</sup>10 ff.), Aristotle explicitly regards only the active intellect as separable and eternal. But the relation of the active intellect with the passive intellect and with the rest of the soul is notoriously obscure.

perception, &c., are attributed to the soul. Again, iii. 4. 429<sup>a</sup>10: *περὶ δὲ τοῦ μορίου τοῦ τῆς ψυχῆς ᾧ γινώσκει τε ἡ ψυχὴ καὶ φρονεῖ, κτλ.*

As opposed to what has just been said about the inseparability of soul from the body, there are, however, strong counter-currents in Aristotle. Inconsistently with the view of the soul-body relation outlined above, he holds, with Plato, that the body is a mere instrument employed by the soul: *πάντα γὰρ τὰ φυσικὰ σώματα τῆς ψυχῆς ὄργανα, καὶ καθάπερ τὰ τῶν ζώων, οὕτω καὶ τὰ τῶν φυτῶν, ὡς ἔνεκα τῆς ψυχῆς ὄντα* (*De An.* ii. 4. 415<sup>b</sup>18 ff.). Aristotle, in fact, never got quite free from the Platonic view of the soul, and his analogy of the pilot and the ship is reminiscent of the Platonic way of thinking (*De An.* ii. 1. 413<sup>a</sup>9): *ἔτι δὲ ἀδηλον εἰ οὕτως ἐντελέχεια τοῦ σώματος ἢ ψυχῆ ὥσπερ πλωτὴρ πλοίου.* This, as we shall see, gave occasion to the Neoplatonic commentators of the *De Anima* to platonize Aristotle more and more and eventually gave rise to a tendency in philosophers like Avicenna to try to harmonize the two divergent views of the soul.

Alexander of Aphrodisias, in his presentation of the Aristotelian doctrine of the nature of the soul, adheres fast to the view that the soul is the form of the body. Of the various possible modes of the soul-body relationship this seems to him to be the only acceptable one. In order to keep this theory to its correct sense Alexander describes the soul as *ἑνυλον εἶδος* and as being completely inseparable from the body. In accordance with his general policy to systematize Aristotle and to remove the inner discords of his theory, Alexander decidedly rejects the Platonic strains of thought and so refuses to admit the analogy of the pilot and the ship in which he sees several difficulties. He is prepared to conceive the soul not as pilot but as the art of the pilot, but this would only mean that the soul is the form of the body (*De An.* ed. Bruns, p. 15. 22 ff.).

The soul, nevertheless, according to Alexander, is not a mere accident inherent in the body but is a substance (*οὐσία*) without which the organized body would not be what it is. That the soul is a substance, and not an accident, he proves by arguing that the soul accepts contrary qualities, which is a



characteristic of substances (*De An.*, p. 15. 1). So far as I know, this is the first appearance of a proof of the substantiality of the soul which was thenceforth repeated by ancient philosophers as well as scholastics. The two ideas of the soul, however, namely that of an inseparable 'enmattered' form and that of a subject which accepts different qualities and attributes, do not seem to me to be reconcilable.

The conviction that the soul is not only immaterial but also separate and immortal is the central point of Plotinus' psychological teaching. That the soul is not a kind of matter is concluded after a detailed criticism of Stoical materialism. And the belief that the soul is a separate substance leads Plotinus also to fight against the Pythagorean doctrine of the harmony and the Aristotelian doctrine of the entelechy. Against Aristotelianism he urges that if the soul were an entelechy or an *ἐνυλον εἶδος* (as Alexander of Aphrodisias had called it) it would be partitioned with the partitioning of the body. Also on such a view of the soul contrariety of desires (a Platonic argument) would be unintelligible, which is, indeed, a fact about life. Again, intellection would be impossible by an entelechy of the body and hence the Peripatetics themselves were forced to introduce another soul to explain intellection.

But while holding such a transcendental view of the soul, the crucial point for Plotinus is to define the soul-body relationship. On this subject Plotinus' reflections are, for the main part, merely negative. The soul is not in the body as in space, it is not related to the body as form to matter, as a whole to a part or a part to a whole. The analogy of the pilot and the ship is also insufficient as it does not explain the omnipresence of the soul in the body. On the positive side he could only give the obviously unsatisfactory analogy of the penetration of light in the air. This difficulty becomes more prominent when the question is asked: What is the subject of experience? Here Plotinus was forced to a dualistic view of the soul. There is a higher soul which is the subject of cognition; passivity and affection do not belong to this soul, but only knowledge. Even in perception, he held, the soul is not passive but active. But emotions like fear, passion, and anger are

obviously affections and yet the body alone is incapable of having them. Plotinus admitted, therefore, a lower soul which is essentially connected with the body, which shares its affections, movements, and changes and which is, therefore, not separable from it.

The tendency to divide the soul into a principle transcending body and into an immanent principle of the organism characterizes Simplicius' *De Anima*. To do this it is necessary for Simplicius to interpret Aristotle's doctrine itself in a dualistic way. In doing so Simplicius also gives a twofold meaning to the word *ἐντελέχεια*. In the introduction to his commentary on the *De Anima* he adopts the following line of argument:<sup>1</sup> The soul as a mover of the body must be distinguished from the body which it moves, for the mover and the moved are two different things. But the body which the soul moves is not a natural body but an organized body. Now a natural body is that which has received its form from 'nature', while an organized body is one which has received its form from the soul. Thus the organized body which the soul moves is already 'ensouled', i.e. it has already its entelechy in the soul. Now if the soul which moves this organized body be regarded as identical with this entelechy which has made it an organized body, the same soul will be both mover and moved, which is, indeed, contrary to Aristotle's view. Therefore, the soul as mover is a second entelechy. This is borne out by the fact that the user of an instrument is different from the instrument itself. Thus a ship has also two entelechies—the one by

<sup>1</sup> *De Anima*, p. 4. 15 Hayduck: φύσις . . . ἡ ὡς σωμάτων εἰδητική αἰτία, οὐ ψυχὴ. ἡ δὲ ὡς ὄργανον ζωτικὸν εἰδοποιούσα ἡ ψυχὴ ἢ μέρος ψυχῆς ἢ οὐκ ἄνευ ψυχῆς. καὶ αὕτη μὲν αἰτία εἰδητικὴ καθ' ἣν τὸ εἰδοποιηθὲν ζωτικῶς οἷόν τε κινεῖσθαι. ἑτέρα δὲ ἡ ὥς τῆς κινεῖται· ὑπὸ γὰρ τῆς ψυχῆς τὸ ζῶον κινεῖται ὡς ὑπὸ τοῦ κυβερνήτου τὸ πλοῖον· ἐντελέχεια δὲ καὶ ὁ πλωτὴρ λέγεται. ἑτέρα δὲ πως ἦδε ὡς εἰσόμεθα ἡ κινούσα ζωτικῶς τῆς καθ' ἣν τὸ οὕτω κινούμενον ὀρίζεται, ἐπειδὴ οὐ ταῦτον τῷ κινουμένῳ τὸ κινῶν, ἀλλὰ διήρηται κατ' αὐτόν. κινεῖται δὲ τὰς ζωτικὰς κινήσεις, οἷον βάδιαι καὶ πτήσαι καὶ ἀναπνοήν, οὐ τὸ σῶμα ἀπλῶς, ἀλλὰ τὸ ζῶν σῶμα. ζῶν δὲ ἐστὶ κατὰ τὴν ἐν αὐτῷ ζωὴν· ὥστε καὶ ζωτικῶς κινούμενον κατὰ ταύτην ἐπεὶ οὐ καὶ τὸ κινῶν ἐν τῷ ζῶν ἢ ψυχῇ, πότερον ἢ αὐτῇ τῇ καθ' ἣν κινεῖται, ἢ ἀδύνατον; ἦν γὰρ ἂν καὶ τὸ ὅλον ζῶον κατ' αὐτὴν εἰδοποιούμενον, κινούμενον τε καὶ κινῶν, καὶ οὐχ, ὡς τῷ Ἀριστοτέλει δοκεῖ, κινεῖ μὲν ἡ ψυχὴ, κινεῖται δὲ τὸ ζῶον. ἀλλὰ καὶ τὸ ὄργανον ἕτερον τοῦ χρωμένου, καὶ τὸ ὡς ὄργανον ἄρα χαρακτηριστικὸν εἶδος ἕτερον τοῦ χρωμένου. καὶ ἐντελέχεια καὶ τὸ χρώμενον ὡς ὁ πλωτὴρ τῆς νεῶς· διττὴ γὰρ ἡ ἐντελέχεια, ἡ μὲν καθ' ἣν ἐστὶ ναῦς, ἡ δὲ ὡς πλωτὴρ.

which it is a ship, the second by which it is moved—namely, a pilot.<sup>1</sup>

It is sufficient for our present purpose to notice that Simplicius, in thus interpreting *ἐντελέχεια* and distinguishing a 'transcendental' aspect of the soul from an immanent principle of the organism, has departed from orthodox Aristotelianism and has reintroduced into it the Platonic doctrine. Is this aspect of the soul which uses the organism as an instrument also separate? Commenting on Aristotle, *De An.* i. 1. 403<sup>a</sup>10, where Aristotle asks whether the soul has any activity peculiar to itself by virtue of which it will be separable from the body, Simplicius says that although those of the soul's actions which are related to the body cannot be separated, yet the soul in its substance is separable, just as the pilot is in his substance separable from the ship although his action *qua* pilot cannot be separated.<sup>2</sup>

Philoponus, according to whom the Platonic and the Aristotelian teachings about the separability of the soul are the same,<sup>3</sup> interprets the above passage of Aristotle in more or less the same way as Simplicius: The soul is to the body as a pilot is to the ship. Although those of the soul's actions which are related to the body are not separable from it, the soul, as regards its entire substance, is completely separable, for in order that a substance be separate, it is not necessary that all its actions should be separate also. Even if some one of its actions is apart from the body, it suffices for the independence of the whole soul (Philoponus, *De Anima*, p. 48. 2 ff. Hayduck).

Avicenna starts his psychological treatise in the *Shifā'* by proving that the soul is not something material but is of the

<sup>1</sup> Simplicius' use of the word *ἐντελέχεια* in this transcendental sense is, of course, not altogether without Aristotelian precedent. But Aristotle had used it only once in *De An.* ii. 1. 413<sup>a</sup>9, and even there only tentatively, while Simplicius has formulated a definite doctrine of it.

<sup>2</sup> *De An.*, p. 17. 35 ff. H.: ὁ δὲ κυβερνήτης ἀνάπαλιν δοκεῖ ἀχωρίστους ἔχων τῆς νεὺς ἐνεργείας χωριστὸς εἶναι κατ' οὐσίαν ὅτι ὡς ἄνθρωπος ἦν χωριστός, ἔχων καὶ ἐνεργείας ἄλλας χωριστάς. ἀνθρώπειαι μὲν γὰρ καὶ αἱ κυβερνητικαί, ἀλλὰ κατὰ τὴν πρὸς ἕτερον γινόμεναι συμπλοκὴν οὐ κωλύεται δὲ τὸ χωριστόν ποτε κατὰ τινα ἐνέργειαν συμπλέκεσθαι τῷ οὐ κεχώρισται.

<sup>3</sup> John Philoponus, *De An.*, p. 12. 10 Hayd.: ὅτι μὲν οὖν καὶ Πλάτωνι καὶ Ἀριστοτέλει δοκεῖ . . . τὴν μὲν λογικὴν χωριστὴν, ἀχώριστον δὲ τὴν λοιπὴν, δηλον. Cf. p. 10. 8.: ἥπερ ἐστὶ καὶ ἀληθὴς δόξα . . . ἥν καὶ Πλάτων καὶ Ἀριστοτέλης ἐπέσβεσαν.

order of form. The first section of the first *maqāla* deals at length with the meaning of three concepts which are fundamental to our definition of the soul: form, entelechy (perfection), and substance. Now, Avicenna continues, to say that the soul is 'form' is to say that the soul is an entelechy, for it is the soul which perfects the several species of living beings, i.e. makes a particular living being a member of a particular species. Nevertheless, the concept of entelechy is wider than that of form. Certain things are perfections of certain other things without being inherent in them as forms, but being substances separate from them, just as a pilot is the perfection of a ship or as a king is the perfection of a state. Now since, as we shall see, some souls are not forms subsisting in matter, but are separable from it, it is better to define the soul as entelechy (perfection) of the body rather than as form. This being so, the word 'entelechy' (perfection) has two different senses.<sup>1</sup> Therefore when we define the soul as the entelechy of the body it is not yet saying anything of whether the soul is a substance or not. In fact, to describe the soul as entelechy is not to say anything about the nature of the soul taken in itself. It is merely a term which describes the soul's relationship with the body, just as if we describe a man as a builder the building will be included in his definition, but this definition does not describe the nature of the man taken in himself as man, i.e. whether he is a substance or not.

Now that we have defined the soul in its relation to the body as being its perfection, we must inquire whether the soul, taken in itself, is a substance or not. But before answering this question we must settle the meaning of substance itself. In order that something be a substance it must fulfil two conditions, a negative one and a positive one: (a) it must not inhere in a subject as an accident, and (b) it must be capable of subsisting by itself independently of anything else. Let us now apply this criterion to the human soul. Let us suppose that a man has been created all at once in a void and that, ever since the point of his creation, he possesses the perfect and developed state of an adult. Such a man, posited in a complete void, will have no sense-perception whatever—since there is nothing to

<sup>1</sup> Cf. Simplicius' distinction of the two meanings of *ἐντελέχεια* above, p. 7.

offer him resistance. He will have no knowledge of the 'external world'. Let us also suppose that his bodily organs, e.g. hands and feet, have been so separated from one another that he cannot have a sensation of them either. Such a person would not admit the existence of any external object, nor yet of his own body, but he would still affirm his own existence as something unextended, without length, breadth, or depth. Even if, in such a condition, he could imagine a hand or some other bodily member, he would not affirm it as a part of himself. Now since that which is known and affirmed apart from something else must also exist apart from that something, the human soul is independent of the body in its existence. Thus everyone of us can affirm the existence of his soul as such from direct consciousness. The human soul is therefore a substance.<sup>1</sup>

That this passage is intended by Avicenna to prove not only the incorporeality but also, and indeed primarily, the substantiality of the human soul seems to me to be clear not only from the obvious meaning of the passage itself but from the entire context of this section. That the soul is not something corporeal Avicenna claims to have proved in the very beginning when he sets himself the task of showing that the soul is not matter but form. In this section he has been emphasizing that to say that the soul is an entelechy is only to describe the soul's relation to the body and does not therefore say whether the soul, taken in itself, is a substance or not. Then he says that a thing is a substance if, considered in itself, it is found not to exist in a subject as an accident but can be conceived as existing independently, and this is the very point Avicenna claims to have proved in the present passage. This is also clear from the words with which this passage starts: 'Now that we

<sup>1</sup> This argument of the 'man in the void' which was famous in medieval scholasticism (for its influence on medieval philosophy, see Prof. Gilson, *Arch. d'hist. doctr. et litt. du Moyen Âge*, iv (1930), p. 41 n. 1) and the resemblance of which to certain passages in Descartes's *Meditations* has been remarked, is Neoplatonic in source. The following passage of Plotinus, for example (*Enn.* iv. 8. 1), which exists also in the Arabic translation of the so-called *Aristotelian Theology* (a work on which Avicenna wrote a commentary), strongly suggests the same thought: πολλάκις ἐγειρόμενος εἰς ἑμᾶντὸν ἐκ τοῦ σώματος καὶ γινόμενος τῶν μὲν ἄλλων ἔξω, ἑμᾶντοῦ δὲ εἰσω, θαυμαστὸν ἡλικὸν ὄρων κάλλος, καὶ τῆς κρείττονος μοίρας πιστεύσας τότε μάλιστα εἶναι. Avicenna has, however, couched in poetical imagery what was for Plotinus a personal experience.

have learnt the meaning of this name which is applied to the thing called "soul" in so far as it is related to the body, we should inquire into the nature of this thing (taken in itself), the relative name of which is soul.' These words clearly mean that, having defined the soul in its relation to the body, Avicenna wants to inquire whether, considered in itself, the soul is a substance or not. Professor Gilson is, therefore, not quite exact when he takes the passage to prove only the incorporeality of the human soul and not its substantiality.<sup>1</sup>

Next, after discussing the views of the nature of the soul held by the 'ancients'—mainly the materialistic concept of the soul and the concept of the soul as number—and refuting them, Avicenna starts to prove the substantiality of the soul in general. But one can easily see the confusion which pervades this discussion. As we have seen above, Avicenna defines substance as something which does not inhere in a subject as an accident and which is capable of subsisting separately and independently. And, indeed, he declares at the beginning of this section, which is devoted to the substantiality of the soul in general: 'You know from the foregoing that the soul is not a body. Now if it can be proved to you that some soul can subsist independently and by itself, you will have no doubt as to its substantiality. This can, however, be proved only concerning certain souls (i.e. human souls) and not as regards other souls, e.g. the vegetable and the animal souls.'

It is evident from these words that the substance is something capable of subsisting independently, and that of the three souls—the vegetative, the animal, and the human soul—only the last one is a substance. What emerges, however, at the end of the discussion is that all the three souls turn out to be substances. How does this happen? Avicenna's argument for the substantiality of the soul here, concisely, is this: The bodies which are the substrata of vegetable, animal, and human souls do not exist as such independently of the soul. It is the soul itself which creates its own substratum, bestows form upon it, and makes it a member of a particular species, e.g. man, horse, &c. Now since the substratum as such cannot exist apart from the soul but is itself dependent upon it, the soul is,

<sup>1</sup> Gilson, *op. cit.* p. 40, l. 32.

therefore, the very essence of such a substratum, conferring upon it its specific characteristics and cannot, therefore, be regarded as merely inhering in it as an accident. It is obvious that Avicenna has here confused the two meanings of substance: (i) substance as something having an individual and independent existence and being the subject of attributes, i.e. the Aristotelian primary substance; and (ii) substance as species which is the essence of the individual but which is incapable of independent existence, i.e. the Aristotelian secondary substance. And this confusion indeed runs through the discussion of substance in Aristotle himself, cf. Aristotle, *Metaphysics*, Book Z.

The human soul is also immortal. To prove this Avicenna has two arguments. The first examines the soul-body relation. The soul is not related to the body as an effect to its cause in any sense of the term. The existence of the body merely provides an occasion for that of the soul. Again, as we have seen, the soul is not a form of the body. Now, because it is not essentially attached to the body, it is not necessary that the soul should perish with the death of the body, and since it is an independent immaterial substance, it is eternal. The second argument proceeds on the assumption of the simplicity of the soul and shows that only composite things are liable to corruption; the soul, being simple, is immortal.

Used thus, the words 'human soul', or simply 'soul', are ambiguous in Avicenna. Thus when he proves that the soul is an immaterial substance, the soul means nothing but intellect (*voûs*) in the strict Peripatetic sense.

### *The Soul as Substance and as Ego*

The soul is a unitary substance. Spiritual faculties are not like watertight compartments, so to speak, functioning independently, but come under one principle which is the soul as a whole. In every act of every faculty it is really the whole soul which operates. The soul is thus the substratum of all experience. It is also self-conscious. Whenever an event occurs in the human mind, this centralizing principle pronounces 'I perceived, I became angry, &c.'. In thus constructing the idea of an ego Avicenna goes beyond Aristotle.<sup>1</sup>

<sup>1</sup> See Commentary on Chapters X and XV.

According to Aristotle self-consciousness is an activity attendant upon some other original mental act. Thus when senses perceive their objects, they also perceive that they perceive these objects. And in this case the reflexive activity also, according to him, is a sensuous activity like the primal act of sense-perception (Arist. *De An.* iii. 2. 425<sup>b</sup>12: αἰσθανόμεθα ὅτι δρώμεν καὶ ἀκούομεν).

I think that this formula, viz. that the act of self-consciousness presupposes and follows upon some other primal act, is equally valid, according to him, for intellection as for sensation. Thus even regarding the Divine Thought he says that It perceives itself only by thinking an intelligible: *Met. A.* 7. 1072<sup>b</sup>20: αὐτὸν δὲ νοεῖ ὁ νοῦς κατὰ μετάληψιν τοῦ νοητοῦ. It is generally believed that Aristotle attributed nothing but pure consciousness of the 'self' to the Deity,<sup>1</sup> and that therefore the only mental operation his God performs is to think His own 'self'. The passage invoked in support of this view is *Met. A.* 9. 1074<sup>b</sup>15 ff., where Aristotle says that since it would detract from the perfection of the Supreme Being to think anything but Himself, He thinks nothing but Himself. The last sentence in which Aristotle concludes his argument is (1074<sup>b</sup>33): αὐτὸν ἄρα νοεῖ, εἵπερ ἐστὶ τὸ κράτιστον, καὶ ἔστιν ἡ νόησις νοήσεως νόησις. I do not think that Aristotle has here formulated the idea of a pure (Divine) self as distinct from its operations. He has indeed described God's self-knowledge not as νόησις αὐτοῦ but as νόησις νοήσεως. The word αὐτόν above must therefore be interpreted as meaning not His Self in a philosophical sense, but merely His 'nature', i.e. his being a pure ἐνέργεια. The question, however, arises: What is His primary thinking a thinking of? to which no satisfactory answer seems possible. The truth is that in the passage in question Aristotle is very obscure; he has evidently not pursued the analysis of the divine knowledge far enough; and, as is apparent from the whole passage, purely theological considerations and religious values have weighed with him more than real epistemological difficulties. But we can, on the whole, assume that also in the intellectual sphere self-consciousness is an act supervening on another primary mental act. So Alexander too, following

<sup>1</sup> For instance Zeller, *Philosophie der Griechen* ii. 2 (1921), pp. 366-7.



Aristotle (*De Anima*, p. 86. 20 ff. Bruns: ὁ γὰρ δύναται νοεῖν, τοῦτο αὐτὸ αὐτὸς νοῶν γίνεται, καὶ ἔστιν ὅταν νοῇ προηγουμένως μὲν καὶ καθ' αὐτὸν νοῶν τὸ νοητὸν εἶδος, κατὰ συμβεβηκὸς δὲ ἑαυτὸν τῷ συμβεβηκέναι αὐτῷ, ὅταν νοῇ, γίνεσθαι ἐκείνο, ὃ νοεῖ.

Since Aristotle did not philosophically formulate the idea of an ultimate persisting self but was content with self-conscious particular mental acts, we cannot properly speak, in his doctrine, of consciousness (as something more fundamental than its acts or states) and its contents as Siebeck does (*Geschichte der Psychologie* i. 2 (1885), p. 65), but only of mental acts and their objects.<sup>1</sup> For the distinction between the self as a substrate of experience, and its contents or states, together with a relation of 'ownership' of the latter by the former, we have to await Plotinus.

Nor did Aristotle conceive of self-conscious mental life as a unity. Instead of referring reflexive activity to a central principle, he attributed it to separate faculties, as is apparent from the account given above.<sup>2</sup> It is in Strato, the 'natural' philosopher of Lampsacus and a pupil of Theophrastus, that we meet, for the first time, the idea of the unity of consciousness. As the first step towards this idea Strato removed the Aristotelian distinction between νοῦς and αἴσθησις and declared the soul to be completely homogeneous. Simplicius tells us (in Arist. *Phys.*, p. 965. 7 D.): καὶ Στράτων δὲ ὁ Λαμψακηνὸς ὁ Θεοφράστου γεγωνὺς ἀκουστῆς καὶ ἐν τοῖς ἀρίστοις Περιπατητικοῖς ἀριθμοῦμενος τὴν ψυχὴν ὁμολογεῖ κινεῖσθαι οὐ μόνον τὴν ἄλογον ἀλλὰ καὶ τὴν λογικὴν, κινήσεις λέγων εἶναι τὰς ἐνεργείας τῆς ψυχῆς (see Zeller, *op. cit.* ii. 2, p. 916). Secondly, he made the νοῦς the centralizing principle of experience, rational as well as sensual. Plutarch, *De solert. an.* iii. 6 (p. 261): καίτοι Στράτωνός γε τοῦ φυσικοῦ λόγος ἐστὶν ἀποδεικνύων, ὡς οὐδ' αἰσθάνεσθαι τὸ παράπαν ἄνευ τοῦ νοεῖν ὑπάρχει . . . ἢ καὶ λελέκται· νοῦς ὁρῇ καὶ νοῦς ἀκούει τὰλλα κωφὰ καὶ τυφλά· ὡς τοῦ περὶ τὰ ὄμματα καὶ

<sup>1</sup> See the following note where Aristotle says that the being of the self consists of its operations only: τὸ γὰρ εἶναι ἦν αἰσθάνεσθαι ἢ νοεῖν.

<sup>2</sup> Cf. also *Nic. Eth.* ix. 9. 1170<sup>a</sup>29 ff.: ὁ δ' ὁρῶν ὅτι ὀρᾷ αἰσθάνεται καὶ ὁ ἀκούων ὅτι ἀκούει· καὶ ὁ βαδίζων ὅτι βαδίζει, καὶ ἐπὶ τῶν ἄλλων ὁμοίως ἐστὶ τι τὸ αἰσθανόμενον ὅτι ἐνεργοῦμεν, ὥστε αἰσθανόμεθ' ἂν ὅτι αἰσθανόμεθα, καὶ νοοῦμεν ὅτι νοοῦμεν, τὸ δ' ὅτι αἰσθανόμεθα ἢ νοοῦμεν, ὅτι ἐσμέν (τὸ γὰρ εἶναι ἦν αἰσθάνεσθαι ἢ νοεῖν), . . .

ᾧτα πάθους, ἂν μὴ παρῇ τὸ φρονεῖν, αἰσθησιν οὐ ποιούντος (Zeller, op. cit. ii. 2, p. 917). This central principle of sensation and intellection Strato called the ἡγεμονικόν. We must, it seems, suppose a definite Stoical influence on Strato. The Stoics were the first to use the word 'ego' in a technical sense, and Chrysippus has attributed the function of the 'ego' to the rational soul (*Stoic. Vet. Fragm.* ii, pp. 237. 34; 245. 20).

But although Strato made a real contribution in this direction, he was still far from having a proper conception of the ego-activity. Whereas he did make a clear distinction between 'conscious' and 'unconscious' perception, he did not similarly distinguish between perception as a primary mental operation and 'apperception' as a self-conscious activity supervening on the former. All sensation, according to him, is a non-cognitive purely physico-physiological process and the recognition of this process, i.e. the cognition, occurs in the νοῦς. But, so far as we know from his surviving fragments, he did not invest his νοῦς with reflexive activity.

In Alexander of Aphrodisias we meet what may be called a distinction between external perception, which is a function of the five external senses, and apperception, i.e. the perception of our own perceptual acts, which is an internal operation of the soul and is vested in *sensus communis* and not in the organs of external perception themselves as in Aristotle.<sup>1</sup> Alexander, *De An.*, p. 65. 2 ff. Bruns: τῇ κοινῇ δὲ αἰσθήσει ταύτῃ καὶ ὁρῶντων αὐτῶν αἰσθανόμεθα καὶ ἀκούοντων . . . ὁ γὰρ ὁρῶν αἰσθάνεται αὐτοῦ ὁρῶντος καὶ ἀκούων ἀκούοντος. οὐ γὰρ δὴ ἄλλη τινὶ δυνάμει παρὰ τὴν <κοινήν> αἰσθησιν αὐτῶν αἰσθανομένων αἰσθανόμεθα. οὐ γὰρ ὁρῶμεν ὅτι ὁρῶμεν οὐδὲ ἀκούομεν ὅτι ἀκούομεν. Beyond this point, however, Alexander remained faithful to the Master, and regarded self-knowledge as a departmental affair divided between sense-perception and intellection. His perceptual self-consciousness still remained, to some extent, a sensual function, as his employment of the term συναίσθησις shows.

<sup>1</sup> Yet it was Aristotle himself who, indeed, to some extent, inconsistently with his passage in the *De An.*, had suggested the idea formulated by Alexander: ἔστι δὲ τις καὶ κοινὴ δύναμις ἀκολουθοῦσα πάσαις, ἥ καὶ ὅτι ὁρᾷ καὶ ἀκούει αἰσθάνεται· οὐ γὰρ δὴ τῇ γε ὅψει ὁρᾷ ὅτι ὁρᾷ (*De Somno*, 2. 455<sup>a</sup>15).

Plotinus appeals to the unity of the soul in striving to establish its immortality as against the materialists (iv. 7. 3, vol. iv and p. 191 Bréhier): *εἰ δὲ τις μὴ οὕτως, ἀλλ' ἀτόμους ἢ ἀμερῇ συνελθόντα ψυχὴν ποιεῖν λέγοι, τῇ ἐνώσει καὶ ὁμοπαθείᾳ ἐλέγχουτ' ἂν [καὶ τῇ παραθέσει], μηδενὸς διόλου γινομένου ἐνὸς οὐδὲ συμπαθοῦς ἐξ ἀπαθῶν καὶ μὴ ἐνοῦσθαι δυναμένων σωμάτων.* Again, arguing against the Stoics' materialistic concept of the parts of the soul, Plotinus points to the unity of the soul in experience. He contends that if awareness be invested only in the *ἡγεμονικόν* as specially prominent among the parts of the soul, then none of these other parts will have sensation (iv. 2. 2). As we have seen above, Strato, who held the stoical theory of the *ἡγεμονικόν*, accepted this conclusion. Thus, according to Plotinus, the soul, as the subject of experience, is a unity, and even perception would be impossible if the whole soul did not operate.

But the proper 'self', according to Plotinus, is the intellect, and therefore self-consciousness in the strict sense is the reflexive activity of the intellectual principle (v. 3. 3; iii. 9. 3, c, &c.). In treating of the self-contemplation of the intellect Plotinus shows an acute insight into some of the aspects of the ego-problem. He clearly saw that the subject of intellection, as such, being the ultimate referent of experience, must transcend self-objectification and can, therefore, never, in its totality, be given as an object. This point has been insisted upon in modern philosophy in view of the fact that self-consciousness is a relation, and if this relation is to be possible, its two terms, the subject and the object, must never be totally identical, although they are in some sense a unity.<sup>1</sup> Plot. iii. 9. 6: *εἰ οὖν νοοῦμεν καὶ ἑαυτοὺς νοοῦμεν, νοερὰν οὖσαν φύσιν νοοῦμεν· πρὸ ἅρα τῆς νοήσεως ταύτης ἄλλη ἐστὶ νόσις οἷον*

<sup>1</sup> '... In that (self-)reflection once more there is an actual subject; and that actual subject is a mass of feeling much fuller than the object; and it is a subject which in no sense is an object for the reflection. The feature, of being not-self and self in one self, can indeed be brought before the present subject, and can be felt to be its own. . . . But . . . the actual subject is never, in any state of mind, brought before itself as an object. It has that before it which it feels to be itself, so far at least to fall within its own area, and to be one thing with its felt unity. But the actual subject never feels that it is all out there in its object, that there is nothing more left within, and that the difference has disappeared.' (Bradley, *Appearance and Reality*, p. 111.)

ἡσυχος. Plotinus was also the first, so far as I know, clearly to envisage contents of consciousness, as distinguished from, and as belonging to, the self as their owning subject (v. 3. 3):  
 . . . ἢ ὅτι ἔδομεν αὐτῷ τὰ ἔξω σκοπεῖσθαι καὶ πολυπραγμονεῖν,  
 νῷ δὲ ἀξιοῦμεν ὑπάρχειν τὰ αὐτοῦ καὶ τὰ ἐν αὐτῷ σκοπεῖσθαι.

One may, however, very well ask why, despite the fact that he made valuable fragmentary contributions to the problem of self-consciousness, Plotinus failed to work his doctrine out into a proper psychologico-epistemological concept of the self. Nor is the answer far to seek. For, in spite of the fact that he insisted on the unity of the soul in experience, and held that even in sense-perception the intellect was somehow operative, the metaphysical gulf which separated his νοῦς from the rest of mental life prevented the existence of an inner unity between the two spheres. Sense-perception is utterly useless for a man who delves in purely intellectual operations, and it constitutes knowledge only for him who has fallen from the intellectual sphere and is steeped entirely in the corporeal. The word αὐτός which frequently occurs in Plotinus often has no reference to the ego at all, but simply means the 'real', i.e. the eternal part as opposed to the perishable.

The later Peripatetic commentators of Aristotle seem to have been influenced by Neoplatonic thinkers in their development of the idea of self-consciousness. Simplicius does not, like Alexander, regard apperception as a function of common sense but attributes it to reason. Whereas all animals possess *sensus communis*, man alone is endowed with reason, and his sense-perception is also in some sense 'rational', and is therefore to be sharply distinguished from animal perception.<sup>1</sup> Thus Simplicius, apparently under the influence of Iamblichus,<sup>2</sup> endows the human soul with a closer inner unity than Plotinus did. Thanks to the λογικὴ αἴσθησις, the human soul is a single subject which is the centre of our experience.

<sup>1</sup> τὸ δὲ αἰσθάνεσθαι ὅτι αἰσθανόμεθα ἀνθρώπου μοι μόνον ἰδίον εἶναι δοκεῖ. λογικῆς γὰρ ζωῆς ἔργον τὸ πρὸς ἑαυτὴν ἐπιστρεπτικόν, καὶ δείκνυται διὰ τοῦ δε καὶ μέχρι τῆς αἰσθήσεως ἡμῶν τὸ λογικὸν διῆκον, εἰ γε καὶ αἴσθησις ἡ ἀνθρωπεία ἑαυτῆς ἀντιληπτική. γινώσκει γάρ πως ἑαυτὸ τὸ αἰσθανόμενον, ὅτε αἰσθανόμενον ἑαυτὸ γινώριζει (Dean, p. 187. 27 ff.).

<sup>2</sup> ἐστίν, ὃ φησιν ὁ Ἰάμβελιχος, ὁμώνυμος ἡ ἡμετέρα αἴσθησις τῇ ἀλόγῳ (op. cit., p. 187 37).

Significant for the problem under discussion is Simplicius' employment of the phrase *ἐπιστρέφον πρὸς ἑαυτό*, describing the internal perception of our mental states. It marks the distinction between external perception and 'introspection' proper.

In direct opposition to the view of Aristotle and Alexander expounded above, viz. that the self-knowledge of the intellect is preconditioned by some mental operation having a reference to some object external to the knowing mind itself, Simplicius insists that self-knowledge is an independent and primary activity of intellect (*Simpl. De An.*, p. 230. 12): οὐ κατὰ συμβεβηκὸς τῷ τὰ νοητὰ ἔχειν καὶ εἶναι, πως ὁ αὐτὸς τοῖς νοουμένοις εἶδεν, ὡς προηγουμένως τὰ εἶδη ἀλλ' οὐχ ἑαυτὸν νοῶν, ὡς ὁ Ἀλέξανδρος βούλεται, καὶ ἑαυτὸν δὲ νοῶν προηγουμένως. This passage at once shows the influence of Neoplatonism on Simplicius and confirms my interpretation of Aristotle's and Alexander's doctrine of the self-knowledge of the νοῦς.

In the passage from Philoponus' commentary on the *De Anima* translated in this book<sup>1</sup> reflexive activity is very decidedly attributed to the rational soul. The rational soul is endowed with a special new faculty called the *προσεκτικόν* which pervades all other faculties and superintends their activities, rational, irrational, and even vegetative. This faculty of attention reports the events occurring in our minds in the form, 'I saw, I reasoned, I desired', &c., and thus constitutes our proper ego. But unfortunately this statement of the ego substantizes attention, which is a pure activity, into a faculty and counts it as one among several other faculties, thus arresting the growth of the proper idea of the self as an ultimate and enduring particular serving as referent of experience. It also confuses the unity of conscious life with the unity of organic life, a confusion which also exists in Simplicius<sup>2</sup> and which, I

<sup>1</sup> Cf. below, p. 111 ff.

<sup>2</sup> *Simpl. op. cit.*, p. 187. 36 ff.: καὶ γὰρ αὐτὸ τὸ σῶμα (i.e. ἀνθρώπειον) λογικῶς διωργάνωται. Cf. p. 8, n. 1, where self-consciousness is said to be a function of λογικὴ ζωή. Plotinus had very clearly distinguished between conscious life and purely organic vegetative life (i. 4. 9): οἶον καὶ τῆς φυτικῆς ἐνεργείας ἐνεργούσης οὐκ ἔρχεται εἰς τὸν ἄλλον ἄνθρωπον ἢ τῆς τοιαύτης ἐνεργείας ἀντίληψις τῷ αἰσθητικῷ, καὶ εἴπερ ἡμεν τὸ φυτικὸν ἡμεῖς, ἡμεῖς ἂν ἐνεργοῦντες ἡμεν.

suspect, had its source in Iamblichus who had so sharply distinguished between human and animal organisms (Zeller, *op. cit.* iii. 2, p. 768).

### *Intellect: Grades of Abstraction*

Intellect is the recipient of universal forms, just as sensation is the recipient of individual forms present in matter. The gap between the absolutely material forms of sensibles and the absolutely abstract forms of intelligibles is bridged, according to Avicenna, by imagination in the strict sense (i.e. the faculty in which images are formed) and estimation. Sensation has to deal with forms immersed in matter: the presence of matter is necessary if sensation is to be possible. Imagination does not need the presence of the physical object, and its objects are therefore not material, although they are after the pattern of material objects.

The next stage of abstraction is reached in estimation which perceives the ideas of pleasure and pain, of good and bad, in the individual objects of sensation and imagination. However crude this theory may be, it is an attempt to explain the difference between the act of knowledge on the part of sensation and that on the part of intellect, and to explain our knowledge of the matter itself—difficulties with which the Aristotelian theory of knowledge is faced. For if, as Aristotle says, sensation receives forms without matter,<sup>1</sup> in what do these forms differ from the intelligibles, and, in fact, how do we know that they are in matter at all? The beginnings of this theory may be traced back to Alexander of Aphrodisias, who tried to distinguish between sensation, imagination, and intellect on similar lines.<sup>2</sup>

### *The Active and the Passive Intellect*

Before the reception of the intelligible form, human intellect exists only potentially: Avicenna calls it *intellectus materialis* and identifies it with imagination. In order that the actualization of the potential intellect may be possible there must be, outside us, an intelligence which is itself always an actual intellect and through whose agency our potential

<sup>1</sup> *De An.* ii. 12. 424<sup>a</sup>17; iii. 2. 425<sup>a</sup>30, &c.

<sup>2</sup> Cf. below, p. 96 ff..

intellect becomes actual. Avicenna distinguishes three stages of this actualization: *intellectus in effectu*, *intellectus in habitu*, and *intellectus adeptus*. The sources for this classification of Avicenna are Alexander and Al-Fārābī, although there is nothing either in Alexander or in Al-Fārābī to correspond to the first stage in Avicenna's classification.

Taking up Aristotle's concise remark<sup>1</sup> that some people possess quick wit by which they are able to discover middle terms in the minimum possible time, Avicenna identifies this faculty of quick wit with a very strong kind of potential intellect which does not need external instruction to become actual. He thus develops a theory of a prophetic genius which, through intuition from the active intelligence, comes to possess a knowledge of everything instantaneously. Later on Zabarella, commenting on the same passage of Aristotle, explains this faculty of quick wit as *inventio principiorum*.<sup>2</sup>

### *The Practical Intellect*

Whereas theoretical intellect is concerned with contemplation of the intelligible forms, the function of the practical intellect is to deliberate about action, to deduce the principles of morality and art. Moral character may be either purely 'natural' or rational. But it is only in the second case that it is strictly speaking moral.<sup>3</sup>

The soul has an intermediate position between the intelligible and the material. Towards the intelligible plane the soul's attitude is that of contemplation, but towards the lower material plane its behaviour is that of a governor: it must control the bodily appetites and lower faculties through the practical intellect. In his doctrine of the intermediary position of the soul Avicenna follows Plotinus.

The treatise in its main teaching is basically Aristotelian and incorporates the later Peripatetic developments of the doctrines of Aristotle. Besides Aristotelianism, however, there are strong Neo-platonic currents which are most evident in Avicenna's conception of the soul-body relation.

<sup>1</sup> *Analytica Posteriora* i. 34. 89<sup>b</sup>10 ff.

<sup>2</sup> Zabarella's Commentary on Arist. *Anal. Post.* (1604), p. 528<sup>b</sup>16.

<sup>3</sup> Cf. below, p. 86.

But although Avicenna's main ideas are no doubt taken from his predecessors, it would be incorrect to suppose that there is nothing new in his work. The formulation of many of the arguments of the treatise is the work of Avicenna: the fine and sometimes complicated differentiations by which these arguments are worked out are genuine Avicennian characteristics. The development of the doctrine of the grades of abstraction emanates from Avicenna himself. The theory of prophecy built upon the few words of Aristotle is also his original contribution and is, indeed, a proof of his highly intelligent mind, responsive to every suggestion. Avicennian also for the most part are the arguments for the immortality and the immateriality of the soul.

Avicenna, it must be remembered, is no commentator of Aristotle. He is essentially the constructor of a system, a man of encyclopaedic learning who tried to combine threads of various kinds, sometimes mutually inconsistent, and to weave them into one vast fabric. Its various elements can be clearly perceived and their sources traced, but as a whole it certainly bears the stamp of the philosopher's personality.

## 2. MANUSCRIPTS

There exists no critically edited text of any part of Avicenna's *Kitāb al-najāt*. The present translation of the psychological part is based on a comparative study of the editions of Cairo (second impression, 1938) and Rome (1593) and six manuscripts. I have used the Cairo edition as the basis of my work, and have then compared the other manuscripts with it. My aim has been to provide the student with as correct a translation as possible, and such variants as I have adopted or as I considered interesting have been recorded as 'Textual Notes' in the Appendix. No attempt has therefore been made to record all the different readings.

The following are the manuscripts which I have used:

1. The Bodleian manuscript (Hunt. 534) is the oldest one. It is written in a clear and fairly legible hand. The colophon runs:

تمت الالهيات من كتاب النجاة من كلام الامام الأوحى ابى على



الحسين بن عبد الله بن سينا رضى الله عنه وفرغ من نسخها نصر  
بن منصور عليان (؟) العينزرى<sup>١</sup> عشية ليلة الثلاثاء لليلتين بقيتا من  
مستهل ذي الحجة سنة ست وستين واربع مائة

Thus it was written in 466 A.H., i.e. about thirty-seven years after Avicenna's death. After the colophon come the words: 'It has been compared with the original and corrected so far as possible, this first day of Muharram, 466 (467?); God be praised.' It is not clear whether by the original is meant the original of Avicenna or some other manuscript from which ours was copied.

2. Another good manuscript is the Cambridge (No. 921). It has no colophon and no date, but it has been described in the Cambridge catalogue of Arabic manuscripts as having been written not later than the thirteenth century A.D.

3. An interesting manuscript is that of the John Rylands Library, Manchester (No. 379a). Its text is frequently much fuller than that of the other manuscripts. The interpolations are sometimes from the *Shifā'*, but often they seem to be glosses by some later scholar which were incorporated in the text. It is of a much later date. The colophon, which is in Persian, runs:

تم كتاب النجات . . . من تصنيف ابو على حسين ابن عبد الله  
بن سينا روز شنبه تاريخ هشتم رجب سنه هجرى يكهزار و يك صد  
وسه و سنه جلوس أحمد شاه سنه ٣ (= ١١٠٣ ؟) تمام شد بخت  
درويش هيچ ياد از همه دلشاد سيد شاه على آزاد تحرير يافت

4. The Paris manuscript (no. 5104) is the source of certain readings in the present text. It is a well-written manuscript, but unfortunately is not dated. The colophon runs:

قد فرغت من اسوداد كتاب النجاة للشيخ الرئيسى يعون الله  
وحسن توفيقه —

<sup>1</sup> On the margin: خيز زرى. Probably this man is identical with Muwaffaq al-Dīn Abū Naṣr 'Adnān ibn Naṣr ibn Maṣṣūr called Ibn al-'Ainzarbi whom Ibn Abi 'Uṣaibi'a (vol. ii, pp. 107-8) describes as a doctor and also as a good scribe who copied many works.

5. The British Museum manuscript (No. 978. 5) bears the same note at the close as we find at the end of the Rome edition, saying that certain things in Avicenna's metaphysics are against the Catholic faith and that they are therefore marked on the margins. It is probably a copy of the Rome edition and has been of little value to me. It has no date, but seems to belong to the seventeenth or eighteenth century.

6. Another manuscript in the British Museum is No. 979. It is written in a rather bad Maghribi hand and is probably recent. It omits long passages of the text very frequently and is practically useless.

Of two of these manuscripts I have seen only photographic copies: those of Manchester and Cambridge. My general observations are based on a study of the psychological part only.

Finally, I have made use of a manuscript of *Al-shifā'* (Bodl. Pococke 125).

# CONCERNING THE SOUL

## CHAPTER I

### *The Vegetative Soul*

WHEN the elements are mixed together in a more harmonious way, i.e. in a more balanced proportion than in the cases previously mentioned, other beings also come into existence out of them due to the powers of the heavenly bodies. The first of these are plants. Now some plants are grown from seed and set aside a part of the body bearing the reproductive faculty, 10 while others grow from spontaneous generation without seeds.

Since plants nourish themselves they have the faculty of nutrition. And because it is of the nature of plants to grow, it follows that they have the faculty of growth. Again, since it is the nature of certain plants to reproduce their like and to be reproduced by their like, they have a reproductive faculty. The reproductive faculty is different from the faculty of nutrition, for unripe fruits possess the nutritive but not the reproductive faculty; just as they possess<sup>1</sup> the faculty of growth, but not that of reproduction. Similarly, the faculty 20 of nutrition differs from that of growth. Do you not see that decrepit animals have the nutritive faculty but lack that of growth?

The nutritive faculty transmits<sup>2</sup> food and replaces what has been dissolved with it; the faculty of growth increases the substance of the main structural organs in length, breadth, and depth, not haphazard but in such a way that they can reach the utmost perfection of growth. The reproductive faculty gives the matter the form of the thing; it separates from the parent body a part in which a faculty derived from 30 its origin inheres and which, when the matter and the place which are prepared<sup>3</sup> to receive its activity are present, performs its functions.<sup>4</sup>

It will be evident from the foregoing that all vegetable, animal, and human functions are due to faculties over and above bodily functions, and even over and above the nature of the mixture itself.

After the plant comes the animal, which emerges from<sup>5</sup> a compound of elements whose organic nature is much nearer to the mean than the previous two and is therefore prepared to receive the animal soul, having passed through the stage of the vegetable soul. And so the nearer it approaches the mean the greater is its capacity for receiving yet another psychical faculty more refined than the previous one.

The soul is like a single genus divisible in some way into three parts. The first is the vegetable soul, which is the first entelechy<sup>6</sup> of a natural body possessing organs in so far as it <sup>10</sup> is reproduced, grows, and assimilates nourishment. Food is a body whose function it is to become similar to the nature of the body whose food it is said to be, and adds to that body either in exact proportion or more or less what is dissolved.

The second is the animal soul, which is the first entelechy<sup>6</sup> of a natural body possessing organs in so far as it perceives individuals and moves by volition.

The third is the human soul, which is the first entelechy<sup>6</sup> of a natural body possessing organs in so far as it acts by rational choice and rational deduction, and in so far as it <sup>20</sup> perceives universals.

The vegetable soul has three faculties. First, the nutritive faculty which transforms another body into a body similar to that in which it is itself present, and replaces what has been dissolved. Secondly, the faculty of growth which increases every aspect of the body in which it resides, by length, breadth, and depth in proportion to the quantity necessary to make it attain its perfection in growth. Thirdly, the reproductive faculty which takes from the body in which it resides a part which is potentially similar to it and acts <sup>30</sup> upon it with the help of other similar bodies, generating and mixing them so as to render<sup>7</sup> that part actually similar to the body (to which it had been only potentially similar).

## CHAPTER II

### *The Animal Soul*

THE animal soul, according to the primary division, has two faculties—the motive and the perceptive. The motive faculty

again is of two kinds: either it is motive in so far as it gives an impulse, or in so far as it is active. Now the motive faculty, in so far as it provides the impulse, is the faculty of appetite<sup>1</sup>. When a desirable or repugnant image is imprinted on the imagination of which we shall speak before long, it rouses this faculty to movement. It has two subdivisions: one is called the faculty of desire which provokes a movement (of the organs) that brings one near to things imagined to be necessary or useful in the search for pleasure. The second is  
10 called the faculty of anger, which impels the subject to a movement of the limbs in order to repulse things imagined to be harmful or destructive, and thus to overcome them. As for the motive faculty in its active capacity, it is a power which is distributed through the nerves and muscles, and its function is to contract the muscles and to pull the tendons and ligaments towards the starting-point of the movement, or to relax them or stretch them so that they move away from the starting-point.

The perceptive faculty can be divided into two parts, the  
20 external sense and the internal sense. The external senses are the five or eight senses. One of them is sight, which is a faculty located in the concave nerve; it perceives the image of the forms of coloured bodies imprinted on the vitreous humour. These forms are transmitted through actually transparent media to polished surfaces. The second is the sense of hearing, which is a faculty located in the nerves distributed over the surface of the ear-hole; it perceives the form of what is transmitted to it by the vibration of the air which is compressed between two objects, one striking and  
30 the other being struck, the latter offering it resistance so as to set up vibrations in the air which produce the sound. This vibration of the air outside reaches the air which lies motionless and compressed in the cavity of the ear, moving it in a way similar to that in which it is itself moved. Its waves touch that nerve, and so it is heard.

The third sense is that of smell, a faculty located in the two protuberances of the front part of the brain which resemble the two nipples of the breasts. It perceives the odour conveyed to it by inhaled air, which is either mixed with the

vapour in the air or is imprinted on it through qualitative change in the air produced by an odorous body.

The fourth sense is that of taste, a faculty located in the nerves distributed<sup>2</sup> over the tongue, which perceives the taste dissolved from bodies touching it and mingling with the saliva<sup>3</sup> it contains, thus 'producing a qualitative change' in the tongue itself.

The fifth sense is that of touch, which is a faculty distributed over the entire skin and flesh of the body. The nerves perceive what touches them and are affected when it is opposed to them in quality, and changes are then wrought in their constitution or structure. 10

Probably this faculty is not one species but a genus including four faculties which are all distributed throughout the skin. The first of them judges the opposition between hot and cold; the second that between dry and moist; the third that between hard and soft; and the fourth that between rough and smooth. But their coexistence in the same organ gives the false impression that they are essentially one.

The forms of all the sensibles reach the organs of sense and are imprinted on them, and then the faculty of sensation perceives them. This is almost evident in touch, taste, smell, and hearing. But concerning sight, a different view has been maintained, for some people have thought that something issues from the eye, meets the object of sight, takes its form from without—and that this constitutes the act of seeing. They often call the thing which according to them issues from the eye, light. 20

But true philosophers hold the view that when an actually transparent body, i.e. a body<sup>4</sup> which has no colour, intervenes between the eye and the object of sight, the exterior form of the coloured body on which light is falling is transmitted to the pupil of the eye and so the eye perceives it.<sup>5</sup>

This transmission is similar to the transmission of colours by means of light being refracted from a coloured thing and giving its colour to another body. The resemblance is not complete, however, for the former is more like an image in a mirror.

The absurdity of the view that light issues from the eye is

shown by the following consideration. What emanates is either a body or a non-body. If it is not a body it is absurd to attribute motion and change of place to it, except figuratively in that there may be a power in the eye which transforms the air and other things it encounters into some sort of quality, so that it may be said that this quality 'came out of the eye'. Likewise, it is absurd to hold the view that it is a body, because if so then either—

(1) it will remain intact, issuing from the eye and reaching  
10 to the sphere of the fixed stars. In this case there will have emerged from the eye, despite its smallness, a conical body of immense size, which will have compressed the air and repulsed all the heavenly bodies, or it will have traversed an empty space. Both these views are manifestly absurd. Or—

(2) it will be dispersed, diffused and split up. In that case the percipient animal will of necessity feel something being detached from him and then dispersed and diffused; also, he will perceive the spots where that ray falls to the exclusion of the spots where it does not fall, so that he will only partially  
20 perceive the body, sensing some points here and there but missing the major part. Or—

(3) this emanating body is united with the air and the heavens and becomes one with them, so that the uniform whole is like one organ of the animal. In this case the uniform whole in its entirety will possess sensation. This is a most peculiar change indeed! It follows necessarily that if many eyes co-operate, it will be more powerful. Thus a man when in the company of others would have keener sight than when alone, for many people can effect a more powerful change  
30 than a single person. Again, this emanating body will necessarily be either simple or composite, and its composite nature will also be of a particular kind. Its motion then must be either voluntary or natural. But we know that this movement is not voluntary and by choice, although the opening and closing of the eyelids are voluntary. The only remaining alternative is that the movement is natural. But the simple natural movement will be only in one direction, not in many; and so the composite movement will also be, according to the dominant element, only in one direction, not in many.

But it is not so with this movement according to those who support the theory of the 'issuing body'.

Again, if the sensed object is seen through the base of the conical emanating body which touches it, and not through the angle, it will necessarily follow that the shape and magnitude of the object perceived at a distance will also be perceptible as well as its colour. This is because the percipient subject comes in contact with it and encompasses it. But if it is perceived through the angle, I mean the section between the vitrium and the hypothetical cone, then the remoter the object the smaller will be the angle and also the common section, and consequently the form imprinted on it will also be smaller and will be so perceived. Sometimes the angle will be so small that the object will fail to be perceived and so the form will not be seen at all.

As for the second part, namely that the emanating something is not a body but an accident or a quality, this 'changing' or 'being changed' will inevitably be more powerful with the increase of the percipient subjects. In that case the same absurdity which we mentioned before will arise. Again, the air will either be merely a medium of transmission or percipient in itself. If it is only a medium of transmission and not percipient, then, as we maintain, perception takes place *in* the pupil of the eye and not outside it. But if the percipient is the air, then the same absurdity which we have already mentioned will be repeated; and it will necessarily follow that whenever there is commotion or disturbance in the air, sight will be distorted with the renewal of 'change' and the renewed action of the percipient in perceiving one thing after another, just as when a man runs in calm air his perception of minute things is confused. All this shows that sight is not due to something issuing from us towards the sensed object. It must therefore be due to something coming towards us from the sensed object; since this is not the body of the object, it must be its form. If this view were not correct, the creation of the eye with all its strata and humours and their respective shape and structure would be useless.



## CHAPTER III

*Internal Senses*

THERE are some faculties of internal perception which perceive the form of the sensed things, and others which perceive the 'intention' thereof. Some faculties, again, can both perceive and act while others only perceive and do not act. Some possess primary perception, others secondary perception. The distinction between the perception of the form and that of the intention is that the form is what is perceived both  
 10 by the inner soul and the external sense; but the external sense perceives it first and then transmits it to the soul, as, for example, when the sheep perceives the form of the wolf, i.e. its shape, form, and colour. This form is certainly perceived by the inner soul of the sheep, but it is first perceived by its external sense. As for the intention, it is a thing which the soul perceives from the sensed object without its previously having been perceived by the external sense, just as the sheep perceives the intention of harm<sup>1</sup> in the wolf, which causes it to fear the wolf and to flee from it, without harm having  
 20 been perceived at all by the external sense. Now what is first perceived by the sense and then by the internal faculties is the form, while what only the internal faculties perceive without the external sense is the intention.

The distinction between perception accompanied or unaccompanied by action is this: it is the function of certain internal faculties to combine certain perceived forms and intentions with others and to separate some of them from others, so that they perceive and also act on what they have perceived. Perception unaccompanied by action takes place  
 30 when the form or the intention is merely imprinted on the sense organ without the percipient <sup>2</sup>having any power to act upon it at all.<sup>2</sup>

The distinction between primary and secondary perception is that in the former the percipient faculty somehow directly acquires the form, while in the latter the form is acquired through another agent which transmits it to the percipient faculty.

One of the animal internal faculties of perception is the faculty of fantasy, i.e. *sensus communis*, located in the forepart of the front ventricle of the brain. It receives all the forms which are imprinted on the five senses and transmitted to it from them. Next is the faculty of representation located in the rear part of the front ventricle of the brain, which preserves what the *sensus communis* has received from the individual five senses even in the absence of the sensed objects.

It should be remembered that receptivity and preservation are functions of different faculties. For instance, water <sup>10</sup> has the power of receiving an imprint, but lacks that of retaining it. Next is the faculty which is called 'sensitive imagination' in relation to the animal soul, and 'rational imagination' in relation to the human soul. This faculty is located in the middle ventricle of the brain near the vermiform process, and its function is to combine certain things with others in the faculty of representation, and to separate some things from others as it chooses. Then there is the estimative faculty located in the far end of the middle ventricle of the brain, which perceives the non-sensible <sup>20</sup> intentions that exist in the individual sensible objects, like the faculty which judges that the wolf is to be avoided and the child is to be loved. Next there is the retentive and recollective faculty located in the rear ventricle of the brain, which retains what the estimative faculty perceives of non-sensible intentions existing in individual sensible objects. The relation of the retentive to the estimative faculty is the same as that of the faculty called representation to the *sensus communis*. And its relation to the intentions is the same as that of representation to sensed forms. <sup>30</sup>

These, then, are the faculties of the animal soul. Some animals possess all five senses, while others only some of them. Taste and touch must necessarily be created in all animals, <sup>3</sup>and every animal must especially have the sense of touch;<sup>3</sup> but there are animals which lack the sense of smell, hearing, or sight.

## CHAPTER IV

*The Rational Soul*

THE human rational soul is also divisible into a practical and a theoretical faculty, both of which are equivocally called intelligence. The practical faculty is the principle of movement of the human body, which urges it to individual actions characterized by deliberation and in accordance with purposive<sup>1</sup> considerations. This faculty has a certain correspondence with the animal faculties of appetite, imagination,  
10 and estimation, and a certain dual character in itself. Its relationship to the animal faculty of appetite is that certain states arise in it peculiar to man by which it is disposed to quick actions and passions such as shame, laughter, weeping, &c. Its relationship to the animal faculty of imagination and estimation is that it uses that faculty to deduce plans concerning transitory things and to deduce human arts. Finally, its own dual character is that with the help of the theoretical intelligence it forms the ordinary and commonly accepted opinions concerning actions, as, for instance,  
20 that lies and tyranny are evil and other similar premisses which, in books of logic, have been clearly distinguished<sup>2</sup> from the purely rational ones. This faculty must govern all the other faculties of the body in accordance with the laws of another faculty which we shall mention, so that it should not submit to them but that they should be subordinated to it, lest passive dispositions arising from the body and derived from material things should develop<sup>3</sup> in it. These passive dispositions are called bad morals. But far from being passive and submissive this faculty must govern the other bodily  
30 faculties so that it may have excellent morals.

It is also possible to attribute morals to the bodily faculties. But if the latter predominate they are in an active state, while the practical intelligence is in a passive one. Thus the same thing produces morals in both. But if the practical intelligence predominates, it is in an active state while the bodily faculties are in a passive one, and this is morals in the strict sense (even so there would be two dispositions or moral

characters); or character is only one with two different relationships. If we examine them more closely the reason why morals are attributed to this faculty is that the human soul, as will be shown later, is a single substance which is related to two planes—the one higher and the other lower than itself. It has special faculties which establish the relationship between itself and each plane: the practical faculty which the human soul possesses in relation to the lower plane, which is the body, and its control and management; and the theoretical faculty in relation to the higher plane, 10 from which it passively receives and acquires intelligibles. It is as if our soul has two faces: one turned towards the body, and it must not be influenced by any requirements of the bodily nature; and the other turned towards the higher principles, and it must always be ready to receive from what is There in the Higher Plane and to be influenced by it. So much for the practical faculty.

## CHAPTER V

*The Theoretical Faculty and Its Degrees*

THE function of the theoretical faculty is to receive the im- 20 pressions of the universal forms abstracted from matter. If these forms are already abstract in themselves, it simply receives them; if not, it makes them immaterial by abstraction, so that no trace whatever of material attachments remains in them. We will explain this later.

Now this theoretical faculty has different relations to these forms. This is because a thing whose function is to receive another thing is its recipient either potentially or actually. Potentiality is spoken of in three different senses *per prius et posterius*. This term may imply absolute potentiality in which 30 nothing has yet become actual nor has the instrument of its actualization even been achieved, for instance the capacity of an infant to write. Secondly, it may imply a relative potentiality when nothing more than the instrument of the acquisition of actuality has been achieved. For example, an older child who has learnt the use of the pen and the inkpot

and knows the value or meaning of the letters is said to have the capacity of writing. Thirdly, it may imply this capacity when the instrument has been perfected, and when by means of the instrument the capacity has been made complete, so that the agent may exercise it whenever he wishes without having to learn or acquire it. The intention is all that is required,<sup>1</sup> as in the case of the capacity said to be possessed by a scribe who has reached perfection in his art, even when he is not actually writing. In the first instance it is called  
 10 absolute or material potentiality; in the second, possible potentiality; and in the third, *habitus*. Sometimes the second is termed *habitus* and the third the perfection of potentiality.

Thus the relation of the theoretical faculty to the abstract immaterial forms which we have mentioned is sometimes of the nature of absolute potentiality; this faculty belongs to the soul which has not yet realized any portion of the perfection potentially belonging<sup>2</sup> to it. In this stage it is called the 'material intelligence', a faculty that is present in every individual of the human species. It is called 'material' in  
 20 view of its resemblance to primary matter, which in itself does not possess any of the forms but is the substratum of all forms. And sometimes its relation is of the nature of possible potentiality, i.e. when out of its possible perfections only the primary intelligibles which are the source and the instrument of the secondary intelligibles have been acquired by the 'material potentiality'. By the primary intelligibles I mean the basic premisses to which assent is given, not through any process of learning, nor even with any consciousness on the part of the subject giving assent that it might be just as  
 30 possible for him sometimes to abstain from doing so, just as we necessarily believe that the whole is greater than the part, and that things which are equal to the same thing are equal to one another. So long as only this amount of actualization<sup>3</sup> has been achieved, it is called *intellectus in habitu*; it may also be called the actual intelligence in relation to the first potentiality, because the latter cannot actually think at all, whereas this one does so when it begins to reason. Sometimes its relation is of the nature of perfected potentiality, when, after the 'primary intelligible forms, it has also acquired

secondary ones<sup>4</sup> except that it does not actually contemplate them or return to them; it has, as it were, conserved them, so that it can actually contemplate those forms when it wills and knows that it can do so. It is called *intellectus in actu*, because it is an intelligence which thinks whenever it wills without needing any further process of acquisition,<sup>5</sup> although it could be called potential intelligence in relation to what comes next. Lastly, its relation to those forms may be of the nature of absolute actuality, as when they are present to it and it actually contemplates and thinks them and also knows<sup>10</sup> that it does so. At this point it becomes the *intellectus acquisitus*, since we shall soon see that the potential intelligence becomes actual only through an intelligence which is always actual, and that, when the potential intelligence makes some sort of contact with it, certain forms are actually imprinted on the former from the latter. Such forms are therefore acquired from without.

These then are the degrees of the faculties which are called theoretical intellects. At the stage of the acquired intelligence the animal genus and its human species are perfected, and<sup>20</sup> here human potentiality becomes at one with the first principles of all existence.

## CHAPTER VI

*How the Rational Soul Acquires Knowledge*

THE acquisition of knowledge, whether from someone else or from within oneself, is of various degrees. Some people who acquire knowledge come very near to immediate perception, since their potential intellect which precedes the capacity we have mentioned is the most powerful. If a person can acquire knowledge from within himself, this strong capacity is called<sup>30</sup> 'intuition'. It is so strong in certain people that they do not need great effort, or instruction and actualization, in order to make contact with the active intelligence. But the primary capacity of such a person for this is so powerful that he might also be said to possess the second capacity; indeed, it seems as though he knows everything from within himself. This is the

highest degree of this capacity. In this state the material intelligence must be called 'Divine Spirit'. It belongs to the genus of *intellectus in habitu*, but is so lofty that not all people share it. It is not unlikely, indeed, that some of these actions attributed to the 'Divine Intelligence' because of their powerful and lofty nature overflow into the imagination which symbolizes them in sense-imagery and words in the way which we have previously indicated.

What proves this is the evident fact that the intelligible  
10 truths are acquired only when the middle term of a syllogism is obtained. This may be done in two ways: sometimes through intuition, which is an act of mind by which the mind itself immediately perceives the middle term. This power of intuition is quickness of apprehension. But sometimes the middle term is acquired through instruction, although even the first principles of instruction are obtained through intuition, since all knowledge can be reduced ultimately to certain intuitive principles handed down by those who first accepted them to their students.

20 It is possible that a man may find the truth within himself, and that the syllogism may be effected in his mind without any teacher. This varies both quantitatively and qualitatively; quantitatively, because some people possess a greater number of middle terms<sup>2</sup> which they have discovered themselves; and qualitatively, because some people find the term more quickly than others. Now since these differences are unlimited and always vary in degrees of intensity, and since their lowest point is reached in men who are wholly without intuition, so their highest point must be reached in people  
30 who possess intuition regarding all or most problems, or in people who have intuition in the shortest possible time. Thus there might be a man whose soul has such an intense purity and is so firmly linked to the rational principles that he blazes with intuition, i.e. with the receptivity of inspiration coming from the active intelligence concerning everything. So the forms of all things contained in the active intelligence are imprinted on his soul either all at once or nearly so, not that he accepts them merely on authority but on account of their logical order which encompasses all the middle terms. For

beliefs accepted on authority concerning those things which are known only through their causes possess no rational certainty. This is a kind of prophetic inspiration, indeed its highest form and the one most fitted to be called Divine Power; and it is the highest human faculty.

### *The Hierarchy of Faculties*

It should be seen how some of these faculties govern others. You will find the acquired intellect to be the governor whom all the rest serve. It is the ultimate goal. The *intellectus in habitu* serves the *intellectus in actu*, and is in turn served by the 10 material intellect with all its capacities. The practical intellect serves them all, for attachment to the body, as will shortly become clear, exists for the sake of the perfection and purification of the theoretical intellect, and the practical intellect governs this relationship. It is served by the faculty of estimation which, in its turn, is served by two faculties: an anterior and a posterior. The posterior conserves what is brought to it by estimation, while the anterior is the totality of animal faculties. The faculty of representation is served by 20 two faculties of different origins:<sup>1</sup> the appetitive faculty serves it by obeying it, for the representative faculty impels the appetitive to movement, and the faculty of imagination serves it by accepting the combination and separation of its images. In their turn those two are the governors of two groups. The faculty of imagination is served by *fantasia* or *sensus communis*, which is itself served by the five senses, while the appetitive faculty is served by desire and anger. These last two are served by the motive faculty distributed through the muscles. Here the animal faculties come to an end.

The animal faculties in their entirety are served by the 30 vegetable faculties, of which the reproductive is the first in rank and the highest one. The faculty of growth serves the reproductive, and the nutritive faculty serves them both. The four 'natural' faculties—'of digestion, retention, assimilation, and excretion'<sup>4</sup>—are subservient to all these. 'The digestive faculty is served on the one hand by the retentive and the assimilative, and on the other by the excretive.'<sup>5</sup> The four physical qualities serve these, with cold subservient to



heat, while dryness and moisture serve them both. This is the last degree of the faculties.

## CHAPTER VII

*The Difference between Perception by Sense, Imagination, Estimation, and Reason*

It is probable that all perception is but the abstraction by the percipient subject of the form of the perceived object in some manner. If, then, it is a perception of some material object, it consists in somehow abstracting its form from its  
 10 matter. But the kinds of abstraction are different and its grades various. This is because, owing to matter, the material form is subject to certain states and conditions which do not belong to it *qua* form. So sometimes the abstraction of the form is effected with<sup>1</sup> all or some of these attachments, and sometimes it is complete in that the form is abstracted not only from matter but also from the accidents it possesses. For example, the form or quiddity of man is a nature in which all the individuals of the species share equally, while in its definition it is a single unit: although it is merely by accident  
 20 that it happens to exist in this or that individual and is thus multiplied. This multiplicity does not belong to it in so far as it is the nature of man, for, if multiplicity were essential to this nature, then 'man' would not be predicated of what is numerically one. Again, if the quiddity of man were present in Zaid merely because it is his own quiddity, it could not be attributed to 'Amr. Consequently, one of the accidents which occur to the human quiddity through matter is multiplicity and divisibility.

Besides these it is also subject to other accidents, namely,  
 30 when it is present in any matter it possesses to a certain degree quantity, quality, place, and position. All these are accidents foreign to its nature, since if its possession of this particular measure or any other particular measure of quantity, quality, place, and position were due to its being man's nature, all men would equally participate in all these concepts. It follows that the quiddity of man itself does not

necessitate any of these accidents, which must therefore be accidents occurring to it on account of their matter. For the matter with which the form is conjoined has already been subject to them and then sense abstracts the form from matter along with these accidents and its relationship with matter. If this relationship is removed, the process of abstraction will be nullified. This is because sensation cannot disentangle form from matter completely divorced from material accidents, nor can it retain that form after<sup>2</sup> the absence of matter. Thus it seems that it cannot effect a complete detachment of 10 form from matter, but needs the presence of matter if the form is to remain present to it.

But the faculty of representation purifies the abstracted form to a higher degree, since it takes it from matter in such a way that it does not need the presence of matter for the presence of form. For, even after the absence or corruption of matter, the form remains in the representative faculty, although even here it is not divested of its material accidents. Sense neither abstracts it completely from matter, nor from the accidents of matter. But representation does so in the 20 first instance but not in the second, since the forms in representation are, in this respect, the same as the sensed forms and they possess a certain quantity, and position. It is impossible for a form in representation to be such as to admit all the individuals of the species to share in it, for a man in representation resembles always a particular man among men, and there might be men really existing as well as represented who are quite different from that particular man in representation.

The faculty of estimation goes a little farther than this in 30 abstraction, for it receives the intentions which in themselves are non-material, although they accidentally happen to be in matter. This is because shape, colour, position, &c., are attributes which cannot be found except in bodily matters, but good and evil, agreeable and disagreeable, &c., are in themselves non-material entities and their presence in matter is accidental. The proof of their being non-material is this: If it were of their essence to be material, then good and evil, agreeable and disagreeable would be inconceivable except

as accidents in a physical body. But sometimes they are conceived in themselves apart from matter. It is clear that in themselves they are non-material and their being in matter is entirely by accident. It is such entities which the faculty of estimation perceives; and thus it perceives non-material objects which it abstracts from matter. This abstraction is relatively more perfect and nearer the absolute than in the previous two forms of the process. For all this, however, it does not abstract the form from all accidents of matter, 10 because it apprehends it in its individuality and according to its particular matter and its attachments to sensible images conditioned by material accidents with the co-operation of representation. But the faculty in which the fixed forms are either the forms of existents which are not at all material and do not occur in matter by accident, or the forms of existents which in themselves are not material but happen to be so by accident, or the forms of material existents though purified in all respects from material attachments—such a faculty obviously perceives the forms by taking them 20 as completely abstracted from matter in all respects. This is evident in the case of existents which are in themselves free from matter. As to those existents which are present in matter, either because their existence is material or because they are by accident material, this faculty completely abstracts them both from matter and from their material attachments in every respect and perceives<sup>1</sup> them in pure abstraction. Thus in the case of 'man' which is predicated of many, this faculty 'takes the unitary nature of the many,'<sup>4</sup> divests it of all material quantity, quality, place, and position, and 30 abstracts it from all these in such a way that it can be attributed to all men. In this way the knowledge of the various judging faculties—sensation, representation, estimation, and intellect—is distinguished; and throughout the present chapter we have been directing our discourse to this very issue.

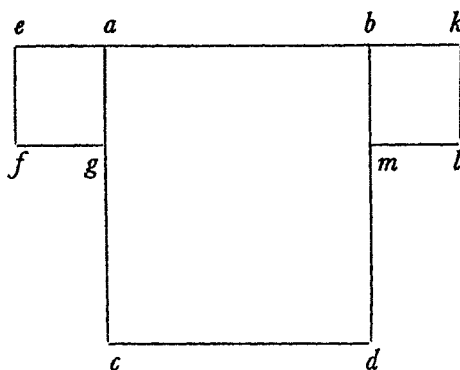
## CHAPTER VIII

*The Particular is perceived only by the Material, the Universal only by the Non-material*

ALL perception of the particular is through a bodily organ. As for the faculty which perceives the individual forms, for instance, the external senses which perceive them in a way not completely divested of or abstracted from matter and not at all divorced from material attachments, the question of such a faculty is quite easy and clear. This is because these forms are perceptible only so long as their matter is present, and a body can be present only to another body; it cannot be present to what is incorporeal. It has no relation whatever of presence and absence to an immaterial faculty, for a thing in space cannot have a relation of presence and absence<sup>1</sup> to anything non-spatial. Presence does not even occur without a certain position of nearness<sup>2</sup> and distance of the present object in relation to the one to which it is present, and this is not possible when the present object is a body except when the object to which it is present is also either a body or in a body. And as for the faculty which perceives the individual forms as completely abstracted from matter but not at all abstracted from material attachments, <sup>3</sup>like representation, it also needs a physical organ. For the faculty of representation cannot perceive<sup>1</sup> without the represented forms being imprinted on a body in such a way that both it and the body share the same imprint. Let us suppose that the form imprinted on the faculty of representation is the form of Zaid, exactly according to his shape, contours, and the position of his limbs in relation to each other<sup>4</sup> which, in the faculty of representation, <sup>5</sup>are as distinct from each other as they are to the external sight.<sup>5</sup> We maintain that these parts and sides of his limbs must be imprinted on a body and that the sides and parts of his form must fit into the sides and parts of that body.

Now from the form of Zaid let us change our example to the form of the square *abcd*, which has a definite quantity, position, and quality, and which has a number of angles. Let us suppose that adjacent to its two angles, *a* and *b*, there

are two other squares each of which is exactly similar to the other, and that although each lies on a particular side, they are nevertheless similar in form. But the totality of these figures is imprinted on the imagination as one individual form. Now the square *bklm* is numerically different from the square *eagf*, and in the imagination is situated to the right of



it and 'distinct from it in position.'<sup>6</sup> Either its difference from the other square is attributable to the form of squareness or to some accident peculiar to squareness other than its form,  
 10 or to the matter in which this form is imprinted. But this difference is not attributable to the form of squareness, since we have already supposed them to be of the same shape and equal. Nor is it attributable to any accident peculiar to it; firstly, because in order to imagine it to be on the right side we need not think that it has a particular accident which does not belong to the other figure as well.<sup>7</sup> Secondly,  
 because that accident belongs to the imagined figure either in its own essence or with reference to its externally existent figure, so that it is, as it were, a figure abstracted from an  
 20 external existent which is in this condition, or it belongs to the imagined figure with reference either to the receptive faculty or to its material substratum.

Let us now consider every alternative:

1. It is impossible that this should be one of the accidents which belong to its essence, i.e. that it should be among the

accidents peculiar to it, for in that case it will be either a constant or a transient accident.

It cannot be constantly united with its essence for two reasons:

- (a) If it were inseparable from its essence it would also be inseparable from the other member of the species, since the two squares have been supposed to be equal members of the same species, so that one cannot have a constant accident without the other having it too.
- (b) Again, if the imagined square is in an indivisible 10 faculty, it cannot have an accident to the exclusion of the other which is exactly similar to it while their substratum is one indivisible unit, i.e. the receptive faculty.

Nor can it be a transient accident, for when such an accident disappears, the form of the figure in the imagination should accordingly change. The imagination does not imagine it by connecting some additional factor with it, but imagines it just as it is in itself. This is the reason why it is not permissible to say that supposition of the supposer has added 20 this condition to it, as may be said of the same square when it is an object of the intellect (as distinguished from imagination). This is because the same difficulty will remain,<sup>8</sup> and it will be asked: How was it possible for the supposer to suppose it in this particular way so that it became distinct from the other, and with what did the supposer operate so that he could suppose one in this way and the other in that? In the case of the universal square it becomes possible through a factor which the intellect adds to it, namely, the concept of right and left.<sup>9</sup> And 10such a concept is correct only in 30 the case of a universal and rational intelligible.<sup>10</sup> But in the case of this individual figure this concept cannot be found to the exclusion of the other, except on the strength of some factor by which the addition of this particular concept rather than the other is justified. And the imagination does not suppose it so through some condition which it then adds to it, but does so at once just as it is without supposition. Thus the imagination does not imagine this figure as right and that as

left, except through<sup>11</sup> some condition which is already added to this or that figure. There (i.e. in the realm of the intellect) the concept of right and left may be added to the square (which has not already been qualified by any such accident) just as one universal concept is combined with another. Here (i.e. in the sphere of the imagination), on the other hand, if the square has not already been qualified by an individual and defined position, no concept can be added to it afterwards. It is not supposition which gives it this particular  
 10 position in imagination,<sup>12</sup> but it is the previous possession of that position which renders such a supposition possible.<sup>12</sup> Imagination, in fact, has no concept at all, since concept is a universal, so how can it add the concept to the square?

That this distinct position of the square is in reality due either to some constant or supposed accident has thus proved to be false.

2. We further maintain that this distinction cannot belong to it in relation to the externally existent object of which it is an image, because:

- 20 (a) We can often imagine things that do not exist in reality, and there cannot be any such relationship with reference to what is non-existent.
- (b) Again, if one of the imagined squares has one relationship to a body and the other has another, this would be impossible while their substratum is indivisible, since neither of the two imagined squares has a better claim to be related to one of the externally existent squares rather than to the other, unless one of them is peculiarly related to this external body, while the other  
 30 is not. In this case the substratum of one square would be different from that of the other. The faculty would then be divisible, not of itself, but because of the divisibility of that in which it resides; and it would be a bodily faculty and the form would be imprinted on a body.

It is therefore not true that the two squares in imagination are different because of the difference between the two externally existent squares and with reference to them. The solutions left are that this is due either:

3. to the different parts<sup>13</sup> of the receptive faculty; or
4. to the different parts of the instrument with which the faculty operates.

In either case the result remains that this form of perception takes place through the bodily matter. If it appertains to the receptive faculty, that faculty is divisible only through the divisibility of its matters; and if it appertains to the bodily instrument, then this is the very point we want to prove. Thus it has been shown that the imaginative perception also takes place through the body.

10

This is further elucidated by the following: The imagined form as we imagine<sup>14</sup> it, e.g. the form of man, is sometimes big and sometimes small. Now when these big and small forms are imprinted, they must be imprinted on one and the same thing not on a number of similar things, for if they were imprinted on the latter then their difference in size would be due either to their external originals or to the faculty which has abstracted them, or to the two forms themselves. It cannot be due to their external originals, for many of the imagined forms are not derived from anything at all. Nor is the difference attributable to the two forms themselves, for when they agree in definition and quiddity and differ in size, the difference cannot be attributed to their essential nature. It is then due to the recipient, since the form is sometimes imprinted on a big part of it and sometimes on a small one.

20

Moreover, we cannot imagine black and white together in the same imagined figure, although we can imagine them in two different parts of it. Now if these two parts were not distinct in position but both imagined forms were imprinted on one single indivisible thing as independent units as it were, not as parts of the same thing, we should not be able to distinguish between the impossible and the possible of the two cases. The two parts are therefore distinct in position.<sup>15</sup>

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When you have understood this as regards imagination, you will have understood it as regards the estimative faculty as well, which perceives its object only as attached to the individual forms of imagination, as we have shown before.



## CHAPTER IX

*The Substratum of Rational Concepts is Immaterial*

WE further maintain that the substance which is the substratum of the intelligibles is neither itself a body nor does it subsist in a body in such a way as to be in any sense a faculty residing in, or a form of, that body. If the substratum of the intelligibles were a body or a magnitude of some kind, then that body which is the substratum of the forms would be either indivisible or divisible. Let us first examine whether

10 such a substratum can have a part that is not further divisible. I think this is absurd, since a point is some sort of a limit and its position cannot be distinguished from the line or the magnitude of which it is the limit. Thus if anything were to be imprinted on it, it must be imprinted on a part of that line. If, however, the point does not exist separately but is an essential part of what is in itself a quantity, one can say that, in some sense, anything which inheres in that quantity (i.e. the line) of which the point is the limit, must also inhere in that point and thus become accidentally quantified by it.

20 When this happens it also remains accidentally limited by that point. If the point were separate and could receive something, it would be an independent self-subsisting entity and would have two sides: one side contiguous with the line from which it is distinguished and another side opposite to it. It would then be separate from the line which would have a limit other than the point touching it. Then that point and not this one would be the limit of the line, and we should have the same problem repeated *ad infinitum*. It would follow from this that the finite or infinite repetition of points

30 produces a line, a view which we have elsewhere shown to be absurd. It is clear, therefore, that the points are not synthesized into a line by being put together.<sup>1</sup> It is also clear that the point has no particular and distinct<sup>2</sup> position. We might, however, allude to a part of the arguments already given to show the absurdity of this view, and say: either

- (1) a certain given point which is in the middle of two other points separates them, so that they do not meet.

If so, then with primary rational intuition it follows that each of the two is particularized by a special part of the middle point which it touches, and thus the middle point would be divided. This is absurd. Or

- (2) the middle part does not prevent the two side-points from touching. The rational form would then inhere in all the points at once, and all the points (interpenetrating as they are, on this supposition) would be like one single point. But we have already supposed this point to be separate from the line, and therefore <sup>10</sup> the line being separate from it has a limit other than the point by which limit it is separated from the point in question. Thus that point (which separates the line from the point in question) would have a different position from this point. But we have already supposed that all the points have one common position. This is a contradiction. The view that the substratum of the intelligibles is some indivisible part of the body is therefore false.

The remaining solution is that the substratum of the <sup>20</sup> intelligibles (if their substratum is a body)<sup>3</sup> is something divisible. Let us suppose an intelligible form in something divisible. A form thus supposed to subsist in something somehow divisible would itself be accidentally divisible. Then the two parts of the form would be either similar or dissimilar. If they are similar, then why is their synthesis something different from them? <sup>4</sup>For the whole, as such, is different from the part.<sup>4</sup> For if the parts are exactly similar, the only difference their totality would make is an increase in quantity or in number and not in form. But if so, then the intelligible <sup>30</sup> form would be a certain shape or number. No intelligible form, however, has shape or number, otherwise the form would be representational and not intelligible. The following is a still clearer argument. It is not possible to say that the concept of each of the two parts is exactly the same as that of the whole, for, if the second part does not enter into the concept of the whole, it is necessary that at the outset we should reserve the concept of the whole for the first part only

and not for both. But if it enters into the concept of the whole, it is obvious that either of these two parts alone cannot indicate exactly the <sup>5</sup>concept of the complete whole.<sup>5</sup>

If, on the other hand, the two parts of the form are dissimilar, let us see in what sense an intelligible form can have such parts. These dissimilar parts can only be the parts of definition, viz. genera and differentiae. From this many absurdities would necessarily follow; for example, every part of the body is also potentially divisible *ad infinitum*, so that  
 10 the genera and differentiae must also be potentially infinite. But it has been established that the genera and essential differentiae of a single thing are not potentially infinite. Furthermore, it is not the supposition of division which produces distinction between the genus and the differentiae; if there were a genus and a differentia necessitating a distinction in the substratum, the division would certainly not depend on supposition. It would necessarily follow that the genera and differentiae would be actually infinite, too. It has  
 20 been established that the genera and differentiae and parts of definition of a single thing are, in all respects, finite. If they were actually infinite, they could not have come together in the body in this form, for it would necessarily entail a single body being actually<sup>6</sup> divisible *ad infinitum*.

Again, let us suppose that the division takes place in a certain way and has placed genus on one side and differentia on the other. If this manner of division is changed it would place half-genus plus half-differentia on the one side and the other halves on the other. Or genus and differentia would exchange places, so that in our supposition or imagination  
 30 the position of genus and differentia would revolve, and each of them would move in any direction according to the will of an external person.<sup>7</sup> But this is not the end,<sup>8</sup> for we can go on introducing a new division within a division *ad infinitum*.

Again, not every intelligible is divisible into simpler intelligibles, for certain intelligibles are the simplest and serve as principles for other compound ones. They have no genera and differentiae, nor are they divisible in quantity or concept. It is not possible, then, that the supposed parts of the form should be dissimilar in such a way that each one of them is, in

concept, different from the whole and the whole is made up of their aggregate.

If, then, the intelligible form is indivisible, and it does not inhere in an indivisible part of a magnitude, and, at the same time, there must be something in us which receives it, it is clear that the substratum of the intelligibles is a substance which is not a body, nor a bodily faculty such as might be subject to the accidents of the body, e.g. division with all the absurdities it involves.

### *Another Argument*

10

We can prove this in another way by saying that it is the rational faculty itself which abstracts the intelligibles from a definite quantity, place, position, and all the other categories. Let us examine this form itself which is abstracted from position and ask how this has been effected. Is this abstraction with reference to the knowing subject? i.e. is this intelligible abstracted from position in its external existence or in its conceptual existence in the intelligent? It is absurd that it should be so in its external existence, so that the only alternative is that it is abstracted from position and place in its  
 20  
 existence in the intellect. Thus, when the intelligible form comes to exist in the intellect, it does not possess a position whereby<sup>9</sup> it might be indicated and so divided or subjected to similar processes; therefore it cannot be in a body. Again, when the unitary, indivisible forms of things which are conceptually indivisible are imprinted on a divisible matter having dimensions, then either none<sup>10</sup> of the supposed parts has any relation to the unitary intelligible which is indivisible and abstract from matter, or each and every one of the sup-  
 30  
 posed parts has relation to it, or some parts have such a relation while others do not. If none of the parts has relation to it, then the whole (composed as it is of the parts) cannot possibly have any relation to it either. If some parts have a relation to it, and the others do not, then the parts which have no relation to this intelligible do not enter into its concept at all. But if every supposed part has some relation to it, then either it is related to the intelligible as a whole or to a part of it. If every supposed part of the matter in which

the intelligible inheres has a relation to the whole of the intelligible, then the parts are not parts of the intelligible, but each is independently an intelligible itself; indeed, it would be the intelligible itself. In this case the intelligible would be actually intelligible an infinite number of times in a single moment. If every part has a different relation to this entity, then the entity as an intelligible must be conceptually divisible. This is a contradiction, for we have already supposed it to be indivisible. If the relation of each part is to a different  
 10 part of the intelligible entity, its divisibility is all the more obvious, except that it is inconceivable. It is clear from this that the forms imprinted on matter are only the exterior forms of particular divisible entities and every part of the former is actually or potentially related to every part of the latter. Also, even a thing which is multiple as regards its parts of definition is a unity when regarded as a whole. This unity is indivisible. So how can this unity, as such, be imprinted on something divisible? Otherwise, the absurdity  
 20 we have mentioned in the case of the indivisible intelligible would arise.

Again, we have established<sup>11</sup> that the supposed intelligibles which it is the function of the rational faculty actually to know one by one are potentially infinite. It is also certain that the substratum of something which can encompass infinite things cannot be a body nor a faculty in a body. This has been demonstrated in Aristotle's *Physics*. It is quite impossible, then, that the entity which receives intelligibles should be inherent in a body, or that its action<sup>12</sup> should be in a body or through a body.

*The Rational Faculty does not Know through a Physical Organ*

WE maintain that if the rational faculty were to know through a physical organ, so that its peculiar activity would be incomplete except by the use of that physical organ, it would necessarily follow that it would not know its own self, nor the

organ, nor its act of knowing. For there is no organ between the rational faculty and itself, nor does one intervene between it and its organ or between it and the fact that it knows. But it does know itself and its so-called organ and the fact that it knows. It follows that it knows through itself, not through an organ. Again, its knowledge of its organ is either due to the latter's form, the same one or a numerically<sup>1</sup> different one, in which case this form would be both in it and in its organ, or due to some other form qualitatively different from the form of its organ, this form also being both in it and in its organ. If it is due to the form of its organ, then this form is always both in the organ and in it as well. It follows that it must always know its organ, for it can know other things only when their forms are received in that organ. But if it is due to some form other than that, the difference between things which share a common definition is either due to the difference of their matter or to the difference between the universal and the individual and between the abstract and that which is present in matter. But in this case there is no such difference between matters, for their matter is one, nor any difference between abstraction and presence in matter, for both are present in matter, nor, finally, any difference between the specific and the generic, for the one form would acquire particularity only through the particular matter and through the accidents to which it is subject due to the matter in which it exists; and this circumstance is not peculiar to the one form to the exclusion of the other.

It is also impossible that its knowledge of its organ is due to some intelligible form different in kind from the form of the organ. This is even more absurd. For when the intelligible form comes to inhere in the recipient substance it confers upon the latter a knowledge of the object of which it is the form or to which it is related, so that the form of the object to which it is related is a constituent element of this form. But this intelligible form is not the form of this organ, nor even the form of something essentially related to it, for the essence of the organ is a substance, while we only abstract and consider the form of its essence and the substance in itself cannot be related to it. This is an important argument

to prove that it is impossible that the percipient should perceive an organ<sup>2</sup> which it uses in the act of perception. This is why sense perceives the external object and not itself, nor its organ, nor its act of perception. Similarly, representation does not represent itself, nor its act, nor its organ. Even if it imagines its organ it is quite free to do so in any way it likes, so that the image will not be related to a unique original, unless sensation brings to it the form of its organ—if that be possible. In that case it would only imagine<sup>3</sup> a  
10 representational form taken from a unique sensible object and no other, so that if its organ were not this particular one it would not be able to imagine it at all

### *Another Argument*

Another convincing proof of the fact that the intellect does not use a physical organ is that the faculties which perceive by means of the imprinting of forms in the organ become exhausted through continuous action, since the constant movement fatigues the organs and destroys their composition; and the strong impressions which strike with tremendous  
20 force on the organs of perception weaken them and sometimes destroy them, so that having perceived them, they cannot perceive weaker impressions, since the strong action of the penetrating impressions has reduced them to passivity. It is the same as the case of sense, since penetrating sensations of great force, when repeated, weaken it and often destroy it, like dazzling light on sight or a mighty thunderbolt on hearing. The senses, after an extremely powerful sensation, cannot perceive weak ones: anyone who sees a brilliant light cannot perceive a faint glow at the same time or even after-  
30 wards; likewise, anyone who hears a thunderous noise cannot hear a faint sound at the same time or even afterwards; and anyone who tastes something excessively sweet cannot taste anything less sweet afterwards. But in the case of the rational faculty it is just the reverse, for its continuous thinking and forming of strong conceptions brings it a greater power and facility of receiving weaker ones afterwards. If it sometimes gets fatigued and weary, it is because the intellect seeks help from imagination which uses an organ liable to fatigue, and

so refuses to serve the intellect. If it were due to another cause, this would invariably happen; but, in fact, the intellect retains its capacity for work in most cases.

### *A Third Argument*

Again, after maturity—after the completion of the process of natural, physical growth, which takes place near forty or at forty, the faculties of all the parts of the body begin to decay. In most cases, however, this faculty becomes strong only after that; if it were one of the bodily faculties, it would necessarily always wane at the time, but this is not always so, <sup>10</sup> except in certain cases when it encounters certain special obstacles; in most cases it does not happen. So it is not one of the bodily faculties.

### *An Objection and its Satisfactory Answer*

The supposition that the soul forgets its intelligibles and its activity ceases both with the illness of the body and<sup>4</sup> with old age, and that<sup>5</sup> this is because its activity is incomplete without the help of the body—this supposition is unnecessary and untrue. For now that we have established that the soul thinks by itself, it is necessary to seek the explanation of the difficulty which has caused this doubt. If it is possible that the two facts, namely, that the soul is active by itself and that it nevertheless gives up its activity with the illness of the body and ceases to function, can be combined without any mutual contradiction, this objection is not to be taken into account. So we hold that the soul has two activities<sup>6</sup>: an activity in relation to the body which is its government and control, and an activity in relation to itself and its principles, which is intellection. These two activities are so opposed to each other and mutually obstructive that when the soul is occupied <sup>30</sup> with the one it turns away from the other, not being able easily to combine the two. Its functions in respect of the body are perception, imagination, appetite, anger, fear, sorrow, and pain. You can know this for yourself from the fact that when you begin to occupy yourself with the thinking activity all the aforementioned activities would be suspended, unless you overcame the soul and compelled it to return to them.



This much you would surely concede, that sensation prevents the soul from intellectual activity, for when the soul is engrossed in the sensible, it is diverted from the intelligible, without the intellect itself or the intellectual organ being in any way impaired, and you would agree that its cause is the preoccupation of the soul with one special function rather than another. This is why the activity of the intellect ceases with illness. If the intelligible form were completely set at naught and reduced to nothing because of the organ, the  
 10 return of the organ to its previous state would necessitate a complete reacquisition of the form. But this is not so, for the soul often fully regains its intellection of all its previous objects. This shows, then, that what it had acquired was in some manner present in it, only it was diverted from it.

It is not only this opposition of the two sides of the activity of the soul which produces impediments in its functions, but even the multiplicity of the actions of the one side may cause the same thing. Fear diverts the soul from hunger; appetite hinders it from anger, and anger from fear. The cause in all  
 20 these cases is the same, namely, the complete absorption of the soul in one thing. Therefore, if a thing does not exercise its proper activity due to its preoccupation with something else,<sup>7</sup> it may still function even when that thing is present. We could dwell further on this point,<sup>8</sup> but it is unnecessary to prolong the discussion since we are satisfied<sup>8</sup> with the conclusion that we have already reached. Thus it is apparent from the principles we have established that the soul is not imprinted in the body, nor inheres in it. The way of its attachment to the body, then, must be the way required by its  
 30 particular disposition which attracts it to govern and control this particular body, because the soul has an inherent inclination towards it.

## CHAPTER XI

### *How the Animal Faculties Assist the Rational Soul*

WE say that the animal faculties assist the rational soul in various ways, one of them being that sensation brings to it particulars from which result four intellectual processes.

Firstly, from these particulars the soul abstracts single universals by abstracting their concepts from their matters, material attachments and accidents by considering the common factors and differences, and by distinguishing the essential from the accidental. From this the soul gets the fundamental concepts by using the faculties of imagination and estimation.

Secondly, the soul finds relations of negation and affirmation between these separate universals. Where this combination by negation and affirmation is self-evident, it simply accepts it; but where this is not the case it leaves it till the 10 discovery of the middle term.

Thirdly, it acquires empirical premisses, which consists in finding through sense-experience the necessary attribution of a positive or negative predicate to a subject, or in finding a contradictory opposition (e.g. man is rational, man is not rational; man is not a non-rational being), or in finding a consequence of a positive or negative conjunction (e.g. if it is day it is light; if it is not day it is not light); or in finding a positive or a negative disjunction without contradictory opposition (e.g. either it is day or it is night; it is neither 20 black nor is it white). This relation is valid not sometimes nor in half the number of the cases but always, so that the soul acquiesces in the fact that 'it is of the nature' of this predicate to have such-and-such relation to this subject, or that it is of the nature of this consequence to follow necessarily from this antecedent or to be essentially contrary to it—not by mere chance. Thus, this would be a belief obtained from sense-experience and from reasoning as well: from sense-experience, because it is observed; from reasoning, because if it were by chance it would not be found always or even in 30 most cases. It is just as we judge that scammony is, by its nature, a laxative for bile, for we have experienced this often and then reasoned that if it were not owing to the nature of scammony but only by chance, this would happen only on certain occasions. In the fourth category are the reports to which the soul gives assent on account of unbroken and overwhelming tradition.

The soul then requires the help of the body in order to acquire these principles of conception and judgement. Having

acquired them it returns to itself; if, after that, any of the lower faculties happens to occupy it, this completely diverts it from its proper activity. When not so diverted it does not need the lower faculties for its special activity, except in certain matters wherein it specially needs to refer once more to the faculty of imagination for finding a new principle in addition to what had already been obtained, or for recalling an image. This happens frequently in the beginning but seldom afterwards, and when the soul becomes perfect and strong (i.e. has obtained all the principles it needs for conception and judgement), it isolates itself absolutely in its actions, and the faculties of sensation and imagination and all the other bodily faculties divert it from its activities. For example, a man may need a riding animal<sup>2</sup> and other means of reaching a certain place; but when he has reached it and done his work and feels reluctant<sup>3</sup> to leave on account of certain events, the very means which he employed to get there would indirectly prove an impediment. Now, the arguments we have established to show that the substratum of the intelligibles, i.e. the rational soul, is not a body, nor a faculty in a body, have saved us the trouble of producing further evidence to prove the self-subsistence of the soul independent of the body, although we can prove it in another way from its independent activity.

## CHAPTER XII

### *Concerning the Temporal Origin of the Soul*

WE say that human souls are of the same species and concept. If they existed before the body, they would either be multiple entities or one single entity. But it is impossible for them to be either the one or the other, as will be shown later, therefore it is impossible for them to exist before the body. We now begin with the explanation of the impossibility of its numerical multiplicity and say that the mutual difference of the souls before [their attachment to] bodies is either due to their quiddity and form; or to the element and matter which is multiple in space, a particular part of which each matter occupies; or

to the various times peculiar to every soul when it becomes existent in its matter; or to the causes which divide their matter. But their difference is not due to their quiddity or form, since their form is one, therefore their difference is due to the recipient of the quiddity or to the body to which the quiddity is specifically related. Before its attachment to the body the soul is quiddity pure and simple; thus it is impossible for one soul to be numerically different from another, or for the quiddity to admit of essential differentiation. This holds absolutely true in all cases; for the multiplicity of the species <sup>10</sup> of those things whose essences are pure concepts is only due to the substrata which receive them and to what is affected by them, or due only to their times. But when they are absolutely separate, i.e. when the categories we have enumerated are not applicable to them, they cannot be diverse. It is therefore impossible for them to have any kind of diversity or multiplicity among them. Thus it is untrue that before they enter bodies souls have numerically different essences.

I say that it is also impossible for souls to have numerically one essence, for when two bodies come into existence two <sup>20</sup> souls also come into existence in them. Then either—

- (1) these two souls are two parts of the same single soul, in which case one single thing which does not possess any magnitude and bulk would be potentially divisible. This is manifestly absurd according to the principles established in physics. Or—
- (2) a soul which is numerically one would be in two bodies. This also does not require much effort to refute.

It is thus proved that the soul comes into existence whenever<sup>t</sup> a body does so fit to be used by it. The body which thus comes into being is the kingdom and instrument of the soul. <sup>30</sup> In the very disposition of the substance of the soul which comes into existence together with a certain body—a body, that is to say, with the appropriate qualities to make it suitable to receive the soul which takes its origin from the first principles—there is a natural yearning to occupy itself with that body, to use it, control it, and be attracted by it. This yearning binds the soul specially to this body, and turns it away from other bodies different from it in nature so that the

soul does not contact them except through it. Thus when the principle of its individualization, namely, its peculiar dispositions, occurs to it, it becomes an individual. These dispositions determine its attachment to that particular body and form the relationship of their mutual suitability, although this relationship and its condition may be obscure to us. The soul achieves<sup>2</sup> its first entelechy through the body, 'its subsequent development, however, does not depend on the body but on its own nature.'

- 10 But after their separation from their bodies the souls remain individual owing to the different matters in which they had been, and owing to the times of their birth and their different dispositions due to their bodies which necessarily differ because of their peculiar conditions.

#### CHAPTER XIII

### *The Soul does not Die with the Death of the Body; it is Incorruptible*

- WE say that the soul does not die with the death of the body and is absolutely incorruptible. As for the former proposition,  
 20 this is because everything which is corrupted with the corruption of something else is in some way attached to it. And anything which in some way is attached to something else is either coexistent with it or posterior to it in existence or prior to it, this priority being essential and not temporal. If, then, the soul is so attached to the body that it is coexistent with it, and this is not accidental but pertains to its essence, then they are essentially interdependent. Then neither the soul nor the body would be a substance; but in fact they are  
 30 substances. And if this is an accidental and not an essential attachment, then, with the corruption of the one term only the accidental relationship of the other term will be annulled, but its being will not be corrupted with its corruption. If the soul is so attached to the body that it is posterior to it in existence, then, in that case, the body will be the cause of the soul's existence. Now the causes are four; so either the body

is the efficient cause of the soul and gives it existence, or it is its receptive and material cause—maybe by way of composition as the elements are for the body or by way of simplicity as bronze is for the statue—or the body is the soul's formal or final cause. But the body cannot be the soul's efficient cause, for body, as such, does not act; it acts only through its faculties. If it were to act through its essence, not through its faculties, every body would act in the same way. Again, the bodily faculties are all of them either accidents or material forms, and it is impossible that either accidents or forms subsisting in matter should produce the being of a self-subsisting entity independent of matter or that of an absolute substance. Nor is it possible that the body should be the receptive and material cause of the soul, for we have clearly shown and proved that the soul is in no way imprinted in the body. The body, then, is not 'informed' with the form of the soul, either by way of simplicity or composition so that certain parts of the body are composed and mixed together in a certain way and then the soul is imprinted in them. It is also impossible that the body should be the formal or the final cause of the soul, for the reverse is the more plausible case.

Thus the attachment of the soul to the body is not the attachment of an effect to a necessary cause. The truth is that the body and the temperament are an accidental cause of the soul, for when the matter of a body suitable to become the instrument of the soul and its proper subject comes into existence, the separate causes bring into being the individual soul, and that is how the soul originates from them. This is because it is impossible to bring arbitrarily into being different souls without any specific cause. Besides, the soul does not admit of numerical multiplicity, as we have shown. Again, whenever a new thing comes into being, it must be preceded by a matter which is prepared to receive it or to have a relationship with it, as has been shown in the other sciences. Again, if an individual soul were to come into being without an instrument through which it acts and attains perfection, its being would be purposeless; but there is nothing purposeless in nature. In truth, when the suitability

and preparation for such a relationship exist in the instrument, it becomes necessary that such a thing as a soul should originate from the separate causes.

But if the existence of one thing necessitates the existence of another, the corruption of the former does not necessarily entail that of the latter. This happens only where its very being subsists through or in that thing. Many things originating from other things survive the latter's corruption; when their being does not subsist in them, and especially when  
10 they owe their existence to something other than what was merely preparatory for the emanation of their being. And the being of the soul does in fact emanate from something different from the body and bodily functions, as we have shown; its source of emanation must be something different from the body. Thus when the soul owes its being to that other thing and only the time of its realization to the body, its being would be independent of the body which is only its accidental cause; it cannot then be said that they have a mutual relationship which would necessitate the body  
20 preceding the soul as its necessary cause.

Let us turn to the third division which we mentioned in the beginning, namely, that the attachment of the soul to the body might be in the sense that the soul is prior to the body in existence. Now in that case the priority will be either temporal as well as essential, and so the soul's being could not possibly be attached to the body since it precedes the body in time, or the priority will be only essential and not temporal, for in time the soul will not be separate from the body. This sort of priority means that when the prior entity  
30 comes into existence, the being of the posterior entity must follow from it. Then the prior entity cannot exist, if the posterior is supposed to be non-existent. I do not say that the supposition of the non-existence of the posterior necessitates the non-existence of the prior, but that the posterior cannot be non-existent except when first something has naturally happened to the prior which has made it non-existent, too. Thus it is not the supposition of the non-existence of the posterior entity which necessitates the non-existence of the prior, but the supposition of the non-existence

of the prior itself, for the posterior can be supposed to be non-existent only after the prior itself has ceased to exist. This being so, it follows that the cause of non-existence must occur in the substance of the soul necessitating the body's corruption along with it, and that the body cannot be corrupted through a cause special to itself. But in fact the corruption of the body does take place through a cause special to itself, namely, through changes in its composition and its temperament. Thus it is false to hold that the soul is attached to the body as essentially prior to it, and that at the same time the body is indeed corrupted through a cause in itself; so no such relationship subsists between the two. 10

This being so, all the forms of attachment between the body and the soul have proved to be false and it only remains that the soul, in its being, has no relationship with the body but is related with other principles which are not subject to change or corruption.

As for the proposition that the soul does not admit of corruption at all, I say that there is another conclusive reason for the immortality of the soul. Everything which might be corrupted through some cause has in itself the potentiality of corruption and, before corruption, has the actuality of persistence. But it is absurd that a single thing in the same sense should possess both, the potentiality of corruption and the actuality of persistence; its potentiality of corruption cannot be due to its actual<sup>1</sup> persistence, for the concept of potentiality is contrary to that of actuality. Also, the relation of this potentiality is opposed to the relation of this actuality, for the one is related with corruption, the other with persistence. These two concepts, then, are attributable 30 to two different factors in the concrete thing. Hence we say that the actuality of persistence and the potentiality of corruption may be combined in composite things and in such simple things as subsist in composite ones. But these two concepts cannot come together in simple things whose essence is separate. I say in another absolute sense that these two concepts cannot exist together in a simple thing whose essence is unitary. This is because everything which persists and has the potentiality of corruption also has the potentiality



of persistence, since its persistence is not necessary. When it is not necessary, it is possible; and possibility is of the nature of potentiality. Thus the potentiality of persistence is in its very substance. But, of course, it is clear that the actuality of persistence of a thing is not the same as its potentiality of persistence. Thus its actuality of persistence is a fact which happens to the body which has the potentiality of persistence. Therefore that potentiality does not belong to something actual but to something of which actual existence is only an accident and does not constitute its real essence. From this it necessarily follows that its being is composed of a factor the possession of which gives actual existence to it (this factor is the form in every concrete existent), and another factor which attains this actual existence but which in itself has only the potentiality of existence (and this factor is the matter in the concrete existent).

So if the soul is absolutely simple and is not divisible into matter and form, it will not admit of corruption. But if it is composite, let us leave the composite and consider only the substance which is its matter. We say: either that matter will continue to be divisible and so the same analysis will go on being applied to it and we shall then have a regress *ad infinitum*, which is absurd; or this substance and base will never cease to exist. But if so, then our present discourse is devoted to this factor which is the base and origin (i.e. the substance) and not to the composite thing which is composed of this factor and some other. So it is clear that everything which is simple and not composite, or which is the origin and base (i.e. the substance) of the composite thing, cannot in itself possess both the actuality of persistence and the potentiality of corruption. If it has the potentiality of corruption, it cannot possibly have the actuality of persistence, and if it has the actuality of persistence and existence, it cannot have the potentiality of corruption. Obviously, then, the substance of the soul does not have the potentiality of corruption. Of those things which come to be and are corrupted, the corruptible is only the concrete composite. The potentiality of corruption and of persistence at the same time does not belong to something which gives unity to the composite, but to the matter

which potentially admits of both contraries. So the corruptible composite as such possesses neither the potentiality of persistence nor that of corruption, let alone both. As to the matter itself, it either has persistence not due to any potentiality, which gives it the capacity for persistence—as some people think—or it has persistence through a potentiality which gives it persistence, but does not have the potentiality of corruption; this latter being something<sup>2</sup> which it acquires. The potentiality of corruption of simple entities which subsist in matter is due to matter and is not in their own substance. The argument which proves that everything which comes to exist passes away on account of the finitude of the potentialities of persistence and corruption is relevant only to those things whose being is composed of matter and form. Matter has the potentiality that this form may persist in it, and at the same time the potentiality that this form may cease to exist in it. It is then obvious that the soul is absolutely incorruptible. This is the point which we wanted to make, and this is what we wanted to prove.

### *Refutation of the Transmigration of Souls*

WE have made clear that souls only come into being and multiply when the bodies are prepared to receive them, in the sense that this readiness of the bodies necessitates the emanation<sup>1</sup> of their souls from the separate causes. It is therefore obvious that this does not happen by chance or accident, so that the existence of the soul which comes into being may not be due to the fact that this particular temperament of the elements requires that a soul should come into existence and govern it, but to the fact that a soul exists<sup>30</sup> already and it happens that a body also comes to exist with it. For if it were so, then there would be no essential cause for multiplicity but only an accidental one; we have learnt that the essential causes are prior to the accidental ones. This being so, every body needs with the proper temperament of its elements the existence of a special soul for it. It is not that

some bodies require it while others do not, for the individuals of species do not differ concerning matters which constitute their essence.

So if we suppose a soul transmigrating into several bodies each of which requires for itself the existence of a separate soul attached to it, then two souls will come together in one body at the same time. Again, as we have said, the relationship between the soul and the body is not in the sense that the soul is imprinted in the body, but in the sense that the  
 10 soul is occupied with the government of the body so that it is conscious of that body and the body is influenced by its actions. And every living being is conscious that he has a unique soul which governs<sup>2</sup> and controls him, so that if there be another soul of which the living being is not conscious, neither is it conscious of itself, nor does it occupy itself with his body—then such a soul has no relationship with his body, for the relationship only subsists in this way. Thus there cannot be transmigration in any sense. This is enough for anyone who demands a summary of the subject, although  
 20 we have discussed it at length.<sup>3</sup>

## CHAPTER XV

### *Soul is a Unity*

WE say that the soul is one single substance and has many faculties. If the faculties of the soul were not to unite in one single entity, but sensation, anger, and each of the other faculties had their independent principles, then, when something affects sensation, either

the same thing affects the faculties of anger and of appeti-  
 tion, so that it is the same faculty of the soul which  
 30 becomes angry and also perceives and imagines, in which case different kinds of action would emanate from the same faculty;

or

sensation and anger would come together under one faculty, in which case they would not be separated into two independent faculties which do not come under a unifying principle.

In fact, since these faculties interact and influence each other, either each of them must change with the other's change or there is one single entity which unifies them; all the faculties transmit what they receive to this entity and it receives what they all bring. The first alternative is impossible, for the activity of each faculty is special to the function of which it is said to be the faculty. Not every faculty is suited to every activity: the faculty of anger, in so far as it is the faculty of anger, does not perceive, and the faculty of perception, in so far as it is the faculty of perception, does not become angry. Then the second alternative remains, namely, that all the faculties bring what they receive to one principle. If anyone objects that the faculty of anger is not directly affected by the perceived form but that the perception of the perceptive faculty is necessarily attended by the affection of the faculty of anger by anger, although the latter is not affected by<sup>1</sup> the form of the perceived thing—if anyone makes this objection, the answer is that it is impossible. For when the faculty of anger is affected by that of perception, then this is so either

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because some influence from the perceptive faculty has reached it, this influence being that of the object perceived, so that ultimately it is affected by this object. But whatever is affected by the object of perception as such is itself percipient.

Or

because the faculty of anger is affected by the perceptive faculty though not on account of the perceived object.

In this case, anger will not be due to the object perceived; but since it has been supposed to be due to it, this is a contradiction.

30

Again, we say 'when I perceived such and such a thing, I became angry', and it is a true statement, too. So it is one and the same thing which perceives and becomes angry. Now this unitary thing is either man's body or his soul. If it is the body, it is either the totality of its organs or only some of them. It cannot be the totality of its organs, for hands and feet are obviously not included in it. Nor can it be two of its organs, the one perceiving, the other becoming angry, since

in that case it would not be one and the same thing which perceives and becomes angry. It is not even one organ which, according to the holders of this view, might be the substratum of both these functions. Then most probably the truth is that when we say 'I perceived and became angry' we mean that something in us perceived and something in us became angry. But when one says, 'I perceived and became angry', one does not mean that this occurs in two different things in us, but that something to which perception transmitted its content happened to become angry. Now either this statement in this sense (in which we have interpreted it) is false, or the truth is that what perceives and what becomes angry is one and the same thing. But this statement is manifestly true (i.e. in the sense in which we have interpreted it). Then, what becomes angry is that very thing to which the perceptive faculty transmits the content of its perception. Its being in this status, even though it be body, is not due to its being body alone; it is then due to its being in possession of a faculty by which it is capable of combining both these things. This faculty not being a physical one must be soul itself. Thus the substratum in which both these qualities inhere is not the whole of our body, nor any two organs of our body, nor yet a single organ in so far as it is a physical organ; so the conclusion is that the combining substratum is soul itself or body inasmuch as it possesses soul, the combining substratum even in the latter case really being the soul, which itself is the principle of all these faculties. It is necessary that the soul should be attached to the first<sup>2</sup> organ in which life takes birth, and so it is impossible that an organ should be alive without the attachment of a psychical faculty to it, or that the first thing attached to the body should not be this principle but a posterior faculty. This being so, the organ to which this principle is attached must be the heart. This theory of Aristotle is opposed to that of the Divine Plato. There is, however, a difficulty here, for we see that there are vegetative faculties in the plant but it does not possess the perceptive or the rational soul. Again, both the vegetative and perceptive souls are in the animal, but not the rational. This shows that each of these is a different faculty,

having no connexion with the others. To answer this doubt it must be understood that elemental bodies are prevented from receiving life by their being in absolute contradiction. The more these bodies are able to break the absoluteness of contradiction and bring it nearer to the mean, which has no opposite, the nearer they approach a resemblance with the celestial bodies and to that extent they deserve to receive an animating faculty from the controlling separate principle. The nearer they approach the mean, the more capable of life they become, till they reach the limit where it is impossible <sup>10</sup> for them to come any nearer to the mean and to break the contradictory extremes any further, and so they receive a substance which somehow closely resembles the immaterial substance itself, just as the heavenly bodies have received it and are connected with the immaterial substance. Then, when the elemental bodies have received this substance, whatever was said to originate in them exclusively through the separate external substance before the reception of this new substance may now be said to originate in them through <sup>20</sup> both these substances. To illustrate this point with an example from physics, let us suppose fire, or rather sun, in place of the immaterial substance, and in place of the living body a material substance capable of being affected by fire, say a ball.<sup>3</sup> In place of the vegetative soul let us take the sun's heating of this ball<sup>3</sup>; in place of the animal soul the sun's illuminating it, and in place of the human soul the sun's kindling a fire in it. Now we say that the position of this ball<sup>3</sup> in relation to fire or the sun by which it is capable of being affected may be such that it can be neither illumined nor kindled by them, but can only be heated by them. But if its <sup>30</sup> position in relation to the source of light or heat becomes such that it can be illuminated and rendered translucent as well as heated, then in that case the illumination proceeding from the source of light towards the ball<sup>3</sup> may also be said to be a cause of its heating in addition to the source itself, for the sun heats only<sup>4</sup> through its rays. But then if the ball<sup>3</sup> has a greater capacity for receiving light and heat and is by its nature combustible on being affected by the power or rays of an incendiary agent, it would be kindled and the

flame would come into existence as a body which in some sense would resemble the immaterial substance (which in this case is the sun). Then that flame would be, together with the immaterial substance, the cause of both illumination and heating. If the flame alone remained, the heating and the illumination would also continue to exist along with it, although it is possible that heating alone would exist, or only both heating and illumination, in which case the posterior (i.e. the flame) would not be the source of the emanation of  
 10 the anterior (i.e. the heating and the illumination). But when all the phases occur simultaneously, then whatever is supposed to be posterior would also be a source of the anterior, and the anterior would emanate from it. In some such manner the psychical faculties are to be conceived. From this it also appears that the soul exists with the body and that it does not originate from a body but from a substance which is a form without body.

## CHAPTER XVI

### *The Active Intellect*

20 WE say that the theoretical faculty in man also comes into actuality from potentiality through the illumination of a substance whose nature it is to produce light. This is because a thing does not come into actuality from potentiality by itself but through something else which gives it actuality. The actuality which this substance gives to the potential human intellect is the intelligible forms.<sup>1</sup> There exists then something which from <sup>2</sup>its own substance<sup>2</sup> confers and imprints on the soul the intelligible forms. This entity thus has in its essence the intelligible forms, and is therefore essentially  
 30 an intellect. If it were a potential intellect, this would involve an infinite regress, which is absurd, and so the series must stop at something which in its essence is an intellect and causes all potential intellects to become actual intellects. This something is in itself a sufficient cause to bring the other intellects from potentiality into actuality; it is termed, in relation to the potential intellects which pass into actuality, active

intellect, just as the material intellect is termed in relation to it passive intellect, or imagination is termed in relation to the same a second passive intellect. The intellect which is between these two is called the acquired intellect. This active intellect is related to our souls which are potential intellect, and to the intelligibles which are potential intelligibles, in the same way as the sun is related to our eyes which are potential percipients, and to the colours which are the potential perceptibles. For when the influence of the sun (i.e. the ray) reaches the potential objects of sight, they become 10 actual perceptibles and the eye becomes an actual percipient. Similarly some power emanates from this active intellect and proceeds to the objects of imagination which are potential intelligibles, and makes them actual intelligibles and the potential intellect an actual intellect. And just as the sun is by itself an object of sight and causes the potential object of sight to become an actual one, similarly this substance is in itself intelligible and causes other potential intelligibles to become actual intelligibles. But what is in itself intelligible 20 is in itself an intellect, for what is in itself intelligible is the form abstracted from matter, and especially when it is in itself abstract and not through any other agent. This substance then must needs be eternally intelligible in itself as well as intelligent in itself.



# HISTORICAL AND EXPLANATORY NOTES

## CHAPTER I

THIS chapter deals with the genesis of the soul and its definition, and describes the functions of the lowest form of soul, namely, the soul of plants.

The soul is something which is brought into existence by heavenly powers, and a harmonious mixture of the elements is a precondition of its genesis, although it is itself over and above this mixture.

The first in the series is the vegetative soul which has three faculties: nutrition, growth, and reproduction, the last being shared only by some plants.

All these three faculties are different from one another. The nutritive faculty nourishes by assimilating another body to the body whose food it is. The faculty of growth, with the help of the body thus assimilated, makes a proportional increase in the basic limbs of the nourished body. The reproductive faculty separates a part of the body potentially like the parent and, if certain conditions obtain, so acts upon it as to make it actually like the parent.

The soul is a generic being comprising three species: the vegetative soul, the animal soul, and the human soul. The most comprehensive definition of the soul is that it is the first perfection of a natural body possessed of organs.

*p. 24, 4: elements are mixed*

The existence of the soul presupposes a mixture or blending of the elements in a certain proportion. But Avicenna adds that the psychological functions are over and above this mixture. The soul then is not merely the harmony of the elements but something distinct from it. See Aristotle's discussion of the harmony-theory and its refutation, *De An.* i. 4. 407<sup>b</sup>27-408<sup>a</sup>30. Aristotle says there that harmony is a *κρᾶσις* (blending) or *σύνθεσις* (combination) or *μειξίς* (mixture) of elements. But Aristotle also points out difficulties in the theory that the soul is something distinct from the mixture, *De An.* i. 4. 408<sup>a</sup>24 ff. Arguing against Empedocles who held the harmony-theory, Aristotle asks: *πότερον οὖν ὁ λόγος ἐστὶν ἡ ψυχὴ ἢ μᾶλλον ἑτερόν τι οὕσα ἐγγίνεται τοῖς μέλεσιν*; (*De An.* i. 4. 408<sup>a</sup>20-21).

*p. 24, 7: The first . . . are plants*

The plants are the first, i.e. they have the minimum psychical faculties, namely, nutrition, growth, and reproduction. They do not have sensation (like animals) or intelligence (like man).

*p. 24, 10: spontaneous generation*

The spontaneous generation of plants and animals is mentioned in *De An.* ii. 4. 415<sup>a</sup>26: φυσικώτατον γὰρ τῶν ἔργων τοῖς ζῶσιν, ὅσα τέλεια καὶ μὴ πηρώματα ἢ τὴν γένεσιν αὐτομάτην ἔχει, τὸ ποιῆσαι ἕτερον οἷον αὐτό, ζῶον μὲν ζῶον, φυτὸν δὲ φυτόν . . . Aristotle mentions it also in many other places, e.g. *Hist. An.* v. 1. 539<sup>a</sup>18-25; *De Gen. An.* i. 1. 715<sup>b</sup>25, and elsewhere.

*p. 24, 16: reproductive faculty . . .*

Avicenna attributes three distinct faculties to plants: nutrition, reproduction, and growth. He emphasizes their being different faculties by pointing out that unripe fruits have the faculty of nutrition and growth, but lack that of reproduction; and that decrepit animals have nutrition without growth. Aristotle seems to consider nutrition and reproduction as two functions of the same faculty, *De An.* ii. 4. 416<sup>a</sup>19: ἐπεὶ δὲ ἡ αὐτὴ δύναμις τῆς ψυχῆς θρεπτικὴ καὶ γεννητικὴ . . .; also *De An.* ii. 4. 415<sup>a</sup>23-26; *De Gen. An.* ii. 1. 735<sup>a</sup>16-19. Aristotle thinks that just as nutrition preserves the life of an individual, so does reproduction perpetuate the species. In fact, he says, that to be able to share in the eternal is the purpose of all the natural activity of living things; e.g. *De An.* ii. 4. 415<sup>a</sup>29.

*p. 24, 27: The reproductive . . .*

The process described in this line may be illustrated by animal reproduction. An animal separates from itself a part, i.e. the semen, which carries in it a faculty derived from the animal. When the necessary nursing place, i.e. the womb of the female, and the necessary material, i.e. the menstrual blood, obtain, the faculty in the semen acts upon this material so as to give it the form of the parent animal.

*p. 25, 3: The previous two*

The two cases referred to are: the inorganic bodies which have been discussed before the psychological part begins, and the plants.

*p. 25, 8: The soul . . . single genus*

At the beginning of *De An.* i. 402<sup>b</sup>1 ff. Aristotle raises the question whether the soul is divisible or not; and, if divisible, whether

the differences between its parts are specific or generic. The most comprehensive definition (*κοινότατος λόγος*) implies that although there are different varieties of soul, they nevertheless share a common nature by virtue of which they admit of a common definition. This would include the lowest manifestations of soul in plants.

*p. 25, 9: first entelechy*

The soul is the first entelechy (perfection or actuality) of a natural body possessed of organs (*De An.* ii. 412<sup>a</sup>27-28 also 412<sup>b</sup>4-5). This is the most comprehensive definition of the soul, which, when added to the differentiae, would yield the definition of the species, so to speak. Every species of the soul includes the lower soul and transcends it. The qualification 'first' refers to Aristotle's distinction (*De An.* ii. 1. 412<sup>a</sup>22 ff.) between two kinds of actuality corresponding to knowledge as a state (*ἐπιστήμη*) and to the exercise of knowledge or thinking (*θεωρεῖν*).

*p. 25, 23: transformis*

The nutritive faculty changes the body (which constitutes food) and makes it like the body which is nourished. Therefore before digestion the food is unlike, and after digestion like the body to be nourished (*De An.* ii. 4 416<sup>a</sup>29, <sup>b</sup>9).

## CHAPTER II

IN this chapter Avicenna speaks of some of the faculties of the animal soul, namely, the motive faculty and the external senses; the treatment of the internal senses is left to the next chapter. After a brief statement of the motive faculty and the external senses, Avicenna dwells at length on the refutation of the view that the act of sight takes place through something issuing from the eye.

In the widest division the animal soul has two faculties: the motive and the perceptive. The motive is again of two species: the one provides the impulse, the other, a bodily power, moves the limbs. With the presence of a pleasant or unpleasant image which provokes pursuit or avoidance, the impulsive faculty (which may accordingly be subdivided into those of desire and anger) moves the animal. But for actual motion another bodily power is necessary, which should move the animal by moving its tendons and ligaments to and fro. The perceptive faculty is also divisible into the faculty of external and that of internal perception. The faculty of external

perception consists of the five senses, namely, sight, hearing, smell, taste, and touch. Four pairs of contraries—hot and cold, dry and moist, hard and soft, smooth and rough—are generally subsumed under 'touch'. If, however, we assume a separate faculty for each pair of contraries, touch would be a generic term including four senses, and the number of the external senses would be eight, not five.

The forms of all the sensibles come to their relevant sense-organs in which they are imprinted, and which thus passively receive them. Therefore the view that some ray or something else issues from the eye, impinges on the object and so the act of sight takes place, must be rejected. Against this view the following may be urged:

This outgoing something will be either a body or not a body. If it is a body and it loses its integrity outside the eye, then only those parts of the object will be seen on which the rays impinge and not the whole object. If it retains its integrity, it will contact the sphere of the fixed stars either having pierced through the air and the heavens or having moved through a vacuum. Both are obviously unacceptable. Or, it may coalesce with the air and the heavens which, having thus become part of the sense-organ, will themselves be sensitive. On this account a group of people would perceive better than a single individual. Again, a body, whether simple or composite, can move in one direction only. Also, if perception takes place through the base of this conical body, then also the magnitude and shape of a distant object should be perceptible; if through the angle, then objects at great distances should not be seen at all. If, on the other hand, this outgoing something is not a body but a quality, then, apart from the difficulty of understanding how it goes out at all, it involves similar absurdities as noticed before. Moreover, on this view the complicated structure of the eye will be unintelligible and would contradict the purposive activity of nature.

*p. 25, 36: two faculties*

Aristotle recognizes two broad divisions or faculties of the soul, the cognitive and the motive: ἡ ψυχὴ κατὰ δύο ὠρίσται δυνάμεις ἡ τῶν ζώων, τῷ τε κριτικῷ, ὃ διανοίας ἔργον ἐστὶ καὶ αἰσθήσεως, καὶ ἔτι τῷ κινεῖν τὴν κατὰ τόπον κίνησιν (*De An.* iii. 9. 432<sup>a</sup>15). Again: ψυχὴ ἐκ λόγου καὶ ὁρέξεως (*Polit.* iii. 4. 1277<sup>a</sup>7). Cf. his discussion of the traditional views about the soul (*De An.* i. 3. 404<sup>b</sup>18), where the soul is κινήτικόν καὶ γνωριστικόν.

p. 25, 37: *The motive . . . kinds*

In *De An.* iii. 10. 433<sup>b</sup>13 ff.: Aristotle describes animal motion as a four-term process: the practical good (the unmoved movent) moves the faculty of appetite, which, through the instrumentality of a bodily power (σωματικόν = قوّة فاعلة of Avicenna), moves the body.

p. 26, 4: *desirable or repugnant image*

Only when the image is pleasant or unpleasant, i.e. when its object is to be pursued or avoided, does it move to action: *De An.* iii. 9. 432<sup>b</sup>16: οὐθὲν γὰρ μὴ ὁρεγόμενον ἢ φεύγον κινεῖται ἀλλ' ἢ βίᾳ.

p. 26, 5: *Imagination*

التخيل (in the succeeding pages called المتخيلة) is, as we shall see, a function of imagination (φαντασία). For Aristotle appetite (ὄρεξις) is dependent on imagination and cannot exist without it. *De An.* ii. 2. 413<sup>b</sup>22: εἰ δ' αἰσθησιν, καὶ φαντασίαν καὶ ὄρεξιν; in *De An.* iii. 7. 431<sup>b</sup>4 images are the cause of movement; *De An.* iii. 10. 433<sup>b</sup>28: ὁρεκτικὸν δὲ οὐκ ἄνευ φαντασίας. Aristotle sometimes mentions them together as if they were one faculty: *De An.* iii. 10. 433<sup>a</sup>26: νοῦς μὲν οὖν πᾶς ὀρθός ἐστιν ὄρεξις δὲ καὶ φαντασία καὶ ὀρθή καὶ οὐκ ὀρθή. Interpreting 433<sup>b</sup>31 Trendelenburg says: 'Imaginatio ea vis, a qua ὄρεξις, quae motum moderatur, proficiscitur'.

p. 26, 6: *It has two subdivisions*

Aristotle recognizes three forms of ὄρεξις or appetite; desire, anger; rational wish. *Mag. Mor.* i. 12. 1187<sup>b</sup>36: ὀρέξεως δ' ἐστὶ. εἶδη τρία, ἐπιθυμία θυμὸς βούλησις. Also *De An.* ii. 3. 414<sup>b</sup>2: ὄρεξις μὲν γὰρ ἐπιθυμία καὶ θυμὸς καὶ βούλησις. Of these three rational wish (βούλησις) belongs only to man; the rest of the animals have the first two (*De An.* iii. 9. 432<sup>b</sup>5). Anger is not the flight or avoidance (φεύγειν) mentioned in the previous note: the one provokes a violent response, the other excites fear, the one conquers with revenge, the other seeks flight. In a passage in the *Nic. Eth.* vii. 7 (1149<sup>a</sup>30 ff.) Aristotle contrasts anger with desire.

p. 26, 13: *power . . . muscles*

Desire itself is a psychical faculty, but that whereby it moves the animal is a bodily power. *De An.* iii. 10. 433<sup>b</sup>19: ᾧ δὲ κινεῖ ὀργάνῳ ἢ ὄρεξις, ἥδη τοῦτο σωματικόν ἐστιν.

p. 26, 16: *starting-point*

Movement of the bodily members presupposes a fixed point in the joints which, itself at rest, is the starting-point of the movement.

When from this point the movement works forward (الى خلاف) (جهة المبدأ), it expands the muscles and so the member becomes straight; when the movement works backward (الى جهة المبدأ) to the starting-point, it contracts the muscles and so the member is bent, as, for instance, in the elbow-joint. *De An.* iii. 10. 433<sup>b</sup>25: πάντα γὰρ ὥσει καὶ ἔλξει κινεῖται. διὸ δεῖ . . . μένειν τι, καὶ ἐντεῦθεν ἄρχεσθαι τὴν κίνησιν. Cf. *De Mot. An.* 1.

*p. 26, 19: perceptive faculty*

Sensation consists in the passive reception of the forms of sensibles without their matter. These forms get imprinted in the sense-organs. Thus sensations are able faithfully to represent the real objects which lie over against them. The idea is in general characteristic of Greek and Muslim philosophy. *De An.* ii. 12. 424<sup>a</sup>18: ἡ μὲν αἰσθησίς ἐστι τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἀνευ τῆς ὕλης; *De Mem.* i. 450<sup>a</sup>30: ἡ γὰρ γινομένη κίνησις ἐνσημαίνεται οἷον τύπον τινὰ τοῦ αἰσθήματος.

*p. 26, 29: one striking . . . struck*

The essential condition for sound is that two bodies capable of producing sound (قوع) should strike one another in such a way that they forcibly press the air and do not allow it to escape: *De An.* ii. 8. 419<sup>b</sup>19 ff.: ἀλλὰ δεῖ στερεῶν πληγὴν γενέσθαι πρὸς ἄλληλα καὶ πρὸς τὸν ἀέρα. τοῦτο δὲ γίνεται, ὅταν ὑπομένη πληγείς ὁ ἀήρ καὶ μὴ διαχυθῇ.

*p. 26, 31: vibrations . . . sound*

The air must be set in motion (*De An.* ii. 8. 419<sup>b</sup>35; 420<sup>a</sup>3). Aristotle in fact defines sound as the movement of the air which is not allowed to break up (*De An.* 420<sup>a</sup>8).

*p. 26, 32: The air . . . compressed*

There is air also in the ear (*De An.* ii. 8. 420<sup>a</sup>9): ὁ δ' ἐν τοῖς ὠσὶν ἐγκατακودόμῃται πρὸς τὸ ἀκίνητος εἶναι (also 420<sup>a</sup>16). The external air moves this internal air with a movement similar to its own (بشكل نفسه) so that the sound as heard is a copy of the external event. Themistius (p. 64. 18 Heinze) conceives the result of the contact between the external air and the internal air not merely as movement but as transmission: κινουμένου τοίνυν τοῦ ἕξω ἀέρος γίνεται διάδοσις εἰς τὸν εἶσω.

*p. 26, 39: mixed with the vapour*

In *De Sensu* 5. 443<sup>b</sup>3 Aristotle says that the moisture in the air absorbs the smell of objects and transmits it to the organ. Aristotle

recognizes both air and water as media for the transmission of smell (*De An.* ii. 9. 421<sup>b</sup>9; *De Sensu* 5. 442<sup>b</sup>5. 29, &c.).

*p. 27, 5: bodies touching it*

Taste is perceived by the actual contact of the object with the tongue unlike objects of the senses mentioned before, which are perceived only through media; hence Aristotle calls it a species of touch: *De An.* ii. 10. 422<sup>a</sup>8.

*p. 27, 9: entire skin and flesh*

The flesh then according to Avicenna is the organ of touch. Aristotle, however, raises the question (*De An.* ii. 11. 422<sup>b</sup>34) whether flesh is the organ or only the medium, and concludes that it is the medium. In a passage in *De Part. An.* ii. 12. 656<sup>b</sup>34 he definitely says: ἐπὶ μὲν οὖν τῆς ἀφῆς . . . οὐκ ἔστι τὸ πρῶτον αἰσθητήριον ἡ σὰρξ καὶ τὸ τοιοῦτον μόριον ἀλλ' ἐντός.

*p. 27, 13: probably . . . species*

*De An.* ii. 11. 422<sup>b</sup>19 ff. Aristotle discusses the question whether touch is one sense or many. In answering this question he is much less definite than in the previous one, and gives up the discussion without giving a final answer. This question, however, appears again when Aristotle refers to the one we have previously mentioned, viz. What is the organ of touch?: εἰ μὲν οὖν καὶ ἡ ἄλλη σὰρξ ἡσθάνετο τοῦ χυμοῦ, ἔδόκει αὖν ἡ αὐτὴ καὶ μία εἶναι αἰσθησις ἡ γεῦσις καὶ ἡ ἀφή (*De An.* ii. 11. 423<sup>a</sup>19). (Cf. Avicenna: *إلا ان اجتماعها*). (معاً في آلة واحدة يوم تاحدها في الذات). But at the beginning of the third book of *De An.* Aristotle clearly says that there are five senses and no more.

*p. 27, 23: but concerning sight*

The account of sight corresponds to *De An.* ii. 7. 418<sup>a</sup>26 ff. The view here refuted is Platonic. Plato in the *Timaeus* (45 B ff.) says that vision is the result of three fires: the fire of the visual current streaming from the eye, the fire of daylight, and the fire of the object seen. Aristotle (*De An.* iii. 12. 435<sup>a</sup>5, &c.) opposes the view that light issues from the eye.

*p. 28, 10: sphere of the fixed stars*

Aristotle (*De Sensu*, 2. 438<sup>a</sup>25) criticizes this view, which previously he has attributed to Empedocles: ἀλογον δὲ ὅλως τὸ ἐξίόντι τινὶ τῇν ὄψιν ὄραν, καὶ ἀποτείνεσθαι μέχρη τῶν ἀστρῶν.

p. 28, 11: *conical body*

The whole subsequent argument with all its details is post-Aristotelian, and has its source in Alexander of Aphrodisias' *De An.*, pp. 127 ff. Bruns, under the heading: *πρὸς τοὺς δι' ἀκτίνων λέγοντας γίνεσθαι τὸ ὄραν*.

### CHAPTER III

OF the faculties of internal perception some perceive forms of things while others perceive their intentions. Form is always perceived first by the external senses and then by the interior soul, but intention is perceived directly by the soul: thus the form of the wolf is perceived first by the external senses of the sheep and then by its internal senses, but the intention that this wolf is harmful is perceived directly by its soul.

Some internal faculties perceive directly while others do so indirectly; again, some faculties are merely passive while others act upon their objects. Thus representation passively perceives its objects while imagination combines these objects with one another and separates them from one another.

One of the internal senses is the *sensus communis* which directly receives the contents of the five external senses.

The second is representation which retains the images formed in the *sensus communis*. That retention is a different function from reception is illustrated by water which receives imprints but cannot retain them.

The third is imagination which combines the images stored in memory with one another and separates them from one another. It is called sensitive imagination with reference to animals and rational imagination with reference to man.

The fourth is estimation which perceives intentions in particular objects of the external senses, just as the sheep perceives that the wolf is to be avoided while her young one is to be shown affection.

The fifth faculty is that of recollection in which the objects of estimation are stored up just as in representation the images of *sensus communis* are conserved.

Taste and touch are necessary for every animal, especially the latter, but other senses are lacking in certain animals.

p. 30, 2: *internal senses*

The term 'internal sense' or 'internal senses' is not Aristotelian, although most of the faculties included under this name are to be found in Aristotle. The earliest use known to me of the term



'internal' as applied to *sensus communis* which later appears as one of the internal senses is by the Stoics. We are told that the Stoics called *sensus communis* 'internal touch' through which we perceive ourselves: οἱ Στωικοὶ τήνδε τὴν κοινὴν αἴσθησιν ἐντὸς ἀφ' ἧν προσαγορεύουσι, καθ' ἣν καὶ ἡμῶν αὐτῶν ἀντιλαμβανόμεθα (*Stoicorum Veterum Fragmenta*, vol. ii, p. 230. 38-39 Arnim). Alexander of Aphrodisias, comparing the objects of external senses with those of imagination, describes the latter as 'internal sensibles', as opposed to the former which he calls 'external sensibles': ὑπόκειται γὰρ τῇ φανταστικῇ δυνάμει τὰ ἀπὸ τῆς κατ' ἐνέργειαν αἰσθήσεως γινόμενα ἐγκαταλείμματα ὡς ὄντα τινὰ αἰσθητὰ ἐντὸς, ὡς τῇ αἰσθητικῇ τὰ αἰσθητὰ ὄντα ἐκτός (*De Anima*, pp. 68. 31-69. 2 Bruns).

p. 30, 5: *intention*

The Latin expression is *intentio*, of which I use the Anglicized form 'intention' in my translation. Cf. note on *wahm* below.

p. 31, 2: *Fantasy, i.e. sensus communis*

Avicenna's application of the term *φαντασία* to *sensus communis* is not so strange as Professor Wolfson thinks (in his article on the internal senses in the *Harvard Theological Review*, 28, 1935, p. 97. 16) for, according to Aristotle, imagination is a function of *sensus communis*: τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἐστίν. (Arist. *De Mem.* i. 450<sup>a</sup>10); see J. Freudenthal, *Über den Begriff des Wortes φαντασία bei Aristoteles*, p. 25. 24; Sir David Ross, *Aristotle*, 3rd edition (1937), p. 142. Professor Wolfson's remark (op. cit. 72. 24; reiterated p. 118. 23) that Aristotle would have included *sensus communis* among the external senses, had he made the distinction between internal and external, seems unintelligible to me. Aristotle clearly says that the (external) senses are five and no more. Again, each external sense has an organ and its direct objects are special (*ἴδια*). *Sensus communis*, on the other hand, has no organ and its direct objects are common sensibles (*κοινά*). Arist. *De An.* iii. 1. 425<sup>a</sup>14: ἀλλὰ μὴν οὐδὲ τῶν κοινῶν οἷόν τ' εἶναι αἰσθητήριόν τι ἴδιον. These common sensibles cannot have a sense special to them. *De An.* iii. 1. 425<sup>a</sup>20: ὥστε δῆλον ὅτι ἀδύνατον ὁνομαζέσθαι ἰδίαν αἴσθησιν εἶναι τούτων . . . (27) τῶν δὲ κοινῶν ἥδη ἔχομεν αἴσθησιν κοινήν, οὐ κατὰ συμβεβηκός· οὐκ ἄρ' ἐστὶν ἴδια. Finally, imagination and memory which, according to Aristotle, is a special kind of imagination, are both functions of *sensus communis*. How can such purely spiritual functions appertain to external sense? The unity of *sensus communis* is the unity of the sensitive soul and therefore its functions are soul-functions.

*p. 31, 3: ventricle of the brain*

The localization of the internal senses in the brain is Galenic. According to Aristotle, the heart is the seat of *sensus communis* and therefore of imagination and memory.

*p. 31, 5: representation*

The faculty of representation preserves the images which are formed in the *sensus communis*. They are therefore memory-images. Cf. Arist. *De Memoria et Reminiscentia*. This and the succeeding faculty both have their source in Aristotle's *φαντασία*. In Aristotle *φαντασία* has a variety of functions. Avicenna treats each of these functions as a separate faculty.

*p. 31, 12: sensitive and rational imagination*

متخيلة represents the sensitive imagination, مفكرة the rational imagination of Aristotle: *De An.* iii. 10. 433<sup>b</sup>29: *φαντασία δὲ πᾶσα ἢ λογιστικὴ ἢ αἰσθητικὴ. ταύτης μὲν οὖν καὶ τὰ ἄλλα ζῶα μετέχει;* *ibid.* iii. 11. 434<sup>a</sup>5: *ἡ μὲν οὖν αἰσθητικὴ φαντασία, ὥσπερ εἴρηται, καὶ ἐν τοῖς ἄλλοις ζῴοις ὑπάρχει, ἡ δὲ βουλευτικὴ ἐν τοῖς λογιστικοῖς.*

*p. 31, 19: estimative faculty*

The faculty of *wahm* which the Latin Scholastics called *aestimatio* has been discussed by several scholars. Two historically important views have been held regarding its Greek equivalent. According to one theory which was expounded by Landauer in the *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 1875, p. 401 n. 6, *wahm* represents the *δόξα* of Aristotle. The second theory which makes of *wahm* an instinct has been restated by Professor Wolfson, who maintains that what Aristotle has called *φύσις*, to which the latter refers certain animal actions, was later developed into the faculty called *wahm* (Wolfson, op. cit., p. 90. 24 f.).

Both these theories, it seems to me, take into account only a small part of the evidence to be found in Avicenna's different works, and neglect the larger part. The examples and illustrations of *wahm* which Avicenna has given are so varied that it seems indeed difficult to include them under one definition; but, if we look at the whole evidence, it seems to me that *wahm* is just as much a differentiation of Aristotle's *φαντασία* as the rest of the internal senses.

In the psychological text of Avicenna published by S. Landauer in the *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 1875, Avicenna refers to the faculty of *wahm* by the word *zann*, which taken in its strict sense would correspond to the Greek *δόξα*; and

also one of the examples with which he illustrates *wahm* is the same as that with which Aristotle illustrates *δόξα* (*De An.* iii. 3. 428<sup>b</sup>3), namely, that *δόξα* tells us that the sun is larger than the inhabited world although it appears to measure only a foot across. This text, as Landauer himself says (op. cit., pp. 336-7), was probably the earliest work of Avicenna, and the remarkable fact is that in no later work does Avicenna repeat this example in discussing *wahm*.

As to the word *wahm*, in common language it is employed indiscriminately both for opinion and for imagination. Thus the Arabic dictionary *lisān al-‘arab* gives *takhayyul* (imagination) as the equivalent of *wahm*, while *tāy al-‘arū* gives *ẓann* (opinion or belief). It is also noteworthy that Avicenna has never used the word *ẓann* with reference to *wahm* in any of his later works (not even in the *Shufā* which treats *wahm* at length), except in one place where *wahm* and *ẓann* both are clearly employed for imagination. I mean the passage in Avicenna's Arabic commentary on Aristotle's *De Anima* (published by Abdarraḥman Badawī, *Aristū ‘inda al-‘arab*, Cairo, 1947, p. 109. 18). Commenting on the rather obscure illustration in *De An.* iii. 7. 431<sup>a</sup>17. ὥσπερ δὲ ὁ ἄνθρωπος τὴν κόρην τοιαυτὴν ἐποίησεν, αὐτὴ δ’ ἕτερον . . . Avicenna says. 'Aristotle has not made clear the purpose of this passage. His meaning, however, is that the immediate movent of sensation is external sensibles, of images, the (traces of) sensibles imprinted on sensation and of reason (διανοητικὴ ψυχὴ) the images themselves. When the images alone are present and not the external sensibles, they affect the rational soul like present sensations. Similarly, when the rational soul, with the help of *wahm*, creates images, it is affected by them, thus giving rise to a *ẓann*-process.' *Wahm* is here clearly the faculty in which images are created. The *ẓann*-process here cannot mean anything else than the discernment of pleasure or pain in the images by the soul resulting in the pursuit or avoidance of the object of imagination, of which Aristotle has been speaking immediately before. It is nothing but a function of *φαντασία* in Aristotle. I will presently discuss this point a little further. Besides, the most serious objection to the interpretation of *wahm* as Aristotle's *δόξα* is that *δόξα*, according to Aristotle, presupposes reason and therefore belongs to man only and not to animals.

There is still another passage in Avicenna's commentary on *De Anima* in which *wahm* has been used absolutely literally for *φαντασία*. Commenting on Arist. *De An.* iii. 10. 433<sup>b</sup>11: τοῦτο (i.e. τὸ ὀρεκτόν) γὰρ κινεῖ οὐ κινούμενον τῷ νοηθῆναι ἢ φαντασθῆναι Avicenna says (op. cit., p. 114. 11): 'It (i.e. the object of appetite)

moves because it is desired and sought and it is desired and sought because it is an object of thought ( $\tau\hat{\omega}$  νοηθῆναι) or an object of *wahm* ( $\tau\hat{\omega}$  φαντασθῆναι).<sup>2</sup>

Similarly Professor Wolfson's description of *wahm* as instinct is based on a partial consideration of examples (op. cit., p. 87. 11). Avicenna clearly says in the *Shifā'* that the operations of *wahm* need not be purely instinctive but may be based on previous experience. He says: 'If an animal has experienced pleasure or pain or any sensual good or evil associated with a sensible form, the imagination preserves an imprint of the form and memory conserves the association of good or evil with this sensible form . . . so that when the same form is presented again to the imagination from without, it stirs in the imagination and so the idea of good or evil associated with it is also moved.' (*Al-Shifā'*, MS. Bodl. Pococke, 125, fol. 185b. 11 ff.) This is why, he says, a dog fears a stick. Thus imagination and memory are essentially involved in determining the animal's response to the present stimulus.

There is a curious parallel of Avicenna's account of association and memory in Leibniz (*Monadology*, translated by R. Latta, p. 232): 'Memory provides the soul with a kind of consecutiveness which resembles (*imite*) reason, but which is to be distinguished from it. Thus we see that when animals have a perception of something which strikes them and of which they have formerly had a similar perception, they are led, by means of representation in their memory, to expect what was combined with the thing in this previous perception, and they come to have feelings similar to those they had on the former occasion. For instance, when a stick is shown to dogs, they remember the pain it has caused them, and howl and run away.' The similarity is remarkable, not only in the treatment of the subject, but also in the example of the dog and the stick with which both Avicenna and Leibniz illustrate their theory.

It is on the strength of this fact, namely, that *wahm* operates through the memory-images of past experience, that Avicenna attributes the function of referring sensation to the external object to *wahm* and not to common sense as Aristotle did (*De An.* iii. 1. 425<sup>a</sup>30 f.); and he thus anticipates the view of modern psychology on this point. This enables him to explain much more adequately than the Stagirite the fallibility of such reference; Avicenna illustrates this by an example and says that if we perceive something yellow, *wahm* pronounces this yellow thing to be sweet honey although it may be quite mistaken in doing so (*Al-Shifā'*, Bodl. MS. Pococke 125, fol. 182b. 6 f.). This also shows that *wahm* is a function of imagination.

But the most important function of *wahm* according to Avicenna is to judge pleasure and pain, agreeableness and disagreeableness of objects, and thus to produce appetite (*ἄρεξις*) and movement. He says: 'There cannot be any appetite without *wahm* having operated on the object of appetite, although not all operations of *wahm* are attended by appetite' (ibid., fol. 187b. 6 ff.). Also, '*wahm* is the supreme judging faculty in the animal and it judges by way of an imaginative impulse without its judgement being (rationally) proved' (ibid., fol. 185a. 22, &c.). In Aristotle animal movement depends on *ὄρεξις* which in its turn presupposes imagination. In fact he treats them as one and the same faculty: *νοῦς μὲν οὖν πᾶς ὁρθός ἐστιν· ὄρεξις δὲ καὶ φαντασία καὶ ὀρθή καὶ οὐκ ὀρθή* (*De An.* iii. 10. 433<sup>a</sup>26). Trendelenburg says: 'imaginatio, sicut inter intellectum et sensus media interjecta est, ita communis appetitus fons, sive appetitus a ratione ducitur, sive e cupidine nascitur. Imaginatio ea vis, a qua *ὄρεξις*, quae motum moderatur, proficiscitur' (*De An.*, Berlin, 1877, p. 451. 6 ff.). Cf. Arist. *De An.* iii. 10. 433<sup>b</sup>28: *οὐκ ὀρεκτικὸν τὸ ζῶον ἄνευ φαντασίας*.

*φαντασία* used thus, however, is to be taken in its widest sense as including sensation (that *φαντασία* does include sensation see Sir David Ross, *Aristotle*, 3rd edition, p. 142. 20 ff.): Aristotle says: *τὸ μὲν οὖν αἰσθάνεσθαι ὁμοιον τῷ φάναι μόνον καὶ νοεῖν· ὅταν δὲ ἡδὺ ἢ λυπηρόν, οἷον καταφᾶσα ἢ ἀποφᾶσα, διώκει ἢ φεύγει . . . καὶ ἡ φυγὴ δὲ καὶ ἡ ὄρεξις τοῦτο ἢ κατ' ἐνέργειαν, καὶ οὐχ ἕτερον τὸ ὀρεκτικὸν καὶ φευκτικόν, οὔτ' ἀλλήλων οὔτε τοῦ αἰσθητικοῦ· ἀλλὰ τὸ εἶναι ἄλλο. τῇ δὲ διανοητικῇ ψυχῇ τὰ φαντάσματα οἷον αἰσθήματα ὑπάρχει* (*De An.* iii. 7. 431<sup>a</sup>8-15). Cf. 431<sup>b</sup>2-4.

Aristotle refers the judgement of the pleasant or painful object simply to the imagination. The perception of the image on the part of the animal carries with it a sense of pleasure or pain, of good or evil. But Avicenna sharply distinguishes between two functions: the perception of the image and the perception of pleasure or pain, of agreeableness or disagreeableness with reference to the image. According to him, an image *qua* image is neither painful nor pleasant and therefore the discernment of pleasure or pain or harm, &c., on which pursuit or avoidance of the object depends, is an operation distinct from the perception of the image itself.

Where this sense of pleasure or pain, of good or evil with reference to an image depends on previous experience, it involves memory and association. But where there is no past experience, as in the case of a sheep which, for the first time, encounters a wolf and perceiving danger in it flees away, the discernment of danger on the part of the sheep is explained by Avicenna as an instinctive

interpretation of the image by the soul, although in this case also the presence of the image is necessary. For Aristotle such an explanation was not necessary, since according to him the perception of the image and that of harm or good is one and the same operation, but it is necessary for Avicenna since he distinguishes between the two operations. We conclude then that *wahm* in Avicenna is an operation subsidiary to imagination and that it is therefore a differentiation of Aristotle's *φαντασία* like the rest of the internal senses.

*p. 31, 23: retentive and recollective faculty*

This faculty does not represent the intellectual memory as Professor Wolfson suggests, but preserves the ideas of pleasure and pain, of good and evil experienced in the past, and is therefore a differentiation of the ordinary memory which preserves images just as *wahm* itself is a differentiation of *φαντασία*.

*p. 31, 33: Taste and touch*

Taste and touch (especially the latter) are found in all animals. According to Aristotle touch is necessary for all animals: τὰ μὲν γὰρ ἔχει πάσας, τὰ δὲ τινάς, τὰ δὲ μίαν τὴν ἀναγκαιοτάτην, ἀφήν (*De An.* ii. 2. 414<sup>a</sup>2), &c. Avicenna adds taste to touch most probably because according to Aristotle taste is a modification of touch: ἀλλ' ἀκριβεστέραν ἔχομεν τὴν γεῦσιν διὰ τὸ εἶναι αὐτὴν ἀφήν τινα (*De An.* ii. 9. 421<sup>a</sup>18), &c.

## CHAPTER IV

CORRESPONDING to the cognitive and the motive faculties of the animal soul, the human rational has also two faculties: the theoretical and the practical, both being called 'intellect'. While the theoretical intellect, which will be considered later, is concerned with the pure cognition of truth, the practical intellect moves man to particular actions and is the source of human behaviour. The practical intellect may be considered in three relations: in its relation to the animal appetitive faculty, it is the source of certain human emotions, e.g. shame; in its relation to the animal imagination, it makes use of it in its deliberations concerning particular actions and human arts; and in its relation to itself, it is the source of moral premisses and the general principles on which morality is based. Good character may be attributed to natural or non-rational tendencies as well as to practical reason, but it is called

ethical in the strict sense only in the latter case, i.e. when it is deliberative and not merely instinctive. This is so because the practical intelligence must govern and control the irrational tendencies: it must not allow them to get the upper hand and so, by controlling the lower side, it must facilitate the reception of contemplative knowledge from above by the theoretical intelligence.

*p. 32, 3: practical and theoretical*

Just as the animal soul has a motive and a cognitive faculty (this is the force of *ايضا*), similarly the rational soul has a practical and a theoretical faculty. Aristotle, *De An.* iii. 10. 433<sup>a</sup>14 makes this distinction: *νοῦς δὲ ὁ ἐνεκά τοῦ λογιζόμενος καὶ ὁ πρακτικός· διαφέρει δὲ τοῦ θεωρητικοῦ τῷ τέλει.* Cf. below.

*p. 32, 13: shame*

Affections like shame and modesty in the practical intelligence correspond to desire and anger in the animal appetitive faculty. Aristotle says that although shame is a mere involuntary affection (*πάθος*) and therefore does not deserve the name of moral virtue, it is nevertheless praiseworthy when it is present in moderation: *Nic. Eth.* ii. 7. 1108<sup>a</sup>30.

*p. 32, 14: its relationship . . . things*

As has been said before, intellect falls into two divisions: the theoretical and the practical. The function of the theoretical intellect is to know the truth, and that of the practical to deliberate about some end and to produce some action. Arist. *Met.* a 1. 993<sup>b</sup>21: *θεωρητικῆς φιλοσοφίας τέλος ἀλήθεια πρακτικῆς δ' ἔργον.* This is because the objects of the former are necessary, universal, immovable, and unchangeable. They admit only of contemplation (*النظر* = *θεωρία*), not of deliberation (*الروية* = *βούλευσις*). On the other hand, the objects of the practical intelligence are contingent, particular, and liable to mutation and change. Thus they can be deliberated about and voluntarily changed: *Nic. Eth.* vi. 1. 1139<sup>a</sup>5 ff. *νῦν δὲ περὶ τοῦ λόγον ἔχοντος* (i.e. *μέρους τῆς ψυχῆς*) . . . *διαιρετέον. καὶ ὑποκείσθω δύο τὰ λόγον ἔχοντα, ἓν μὲν ᾧ θεωροῦμεν τὰ τοιαῦτα τῶν ὄντων ὅσων αἱ ἀρχαὶ μὴ ἐνδέχονται ἄλλως ἔχειν, ἓν δὲ ᾧ τὰ ἐνδεχόμενα . . . λεγέσθω δὲ τούτων τὸ μὲν ἐπιστημονικὸν τὸ δὲ λογιστικόν· τὸ γὰρ βουλευέσθαι καὶ λογίζεσθαι ταῦτόν, οὐδεὶς δὲ βουλευέται περὶ τῶν μὴ ἐνδεχομένων ἄλλως ἔχειν.* Av. *al-Shifā'* (Bodl. MS. Pococke 125, fol. 191b. 24 ff.) *فيكون للانسان اذن قوة تختص بالاراء*

الكلية وقوة اخرى تختص بالروية في الامور الجزئية . . . ويكون ذلك بضرب من القياس والتأمل . . . غايته أنه نوقع رأيا في أمر جزئي مستقبل من الامور الممكنة لأن الواجبات او الممتنعات لا يروى فيها —

The same function of the practical intelligence, namely, to deliberate about the future, is attributed by Aristotle in *De An.* iii. 11. 434<sup>a</sup>5 ff. to what he has called there *φαντασία βουλευτική* (deliberative imagination) which in iii. 10. 433<sup>b</sup>29 he has called *λογιστική*, as opposed to *αἰσθητική*. Aristotle has not explained, however, what this imagination is. Avicenna thinks that it is the usual animal imagination of sense as employed by the practical intellect. See J. Freudenthal, *Über d. Begriff d. Wortes φαντασία bei Arist.*, Gottingen, 1863, p. 30. 30 ff.; Zeller, *Phil. d. Gr.* ii. 2, 1879, p. 547. n. 3.

p. 32, 16: human arts

Doing and producing, morality and art, are both functions of the practical reason. Aristotle often speaks of them as if they were different faculties, e.g. *Met.* v. 1. 1025<sup>b</sup>25, *Top.* vi. 6. 145<sup>a</sup>15, or habits or functions, *Nic. Eth.* vi. 4. 1140<sup>a</sup>4; but that they are identical is expressly said by Aristotle, *Nic. Eth.* vi. 2. 1139<sup>a</sup>35: *διάνοια δ' αὐτὴ οὐθέν κινεῖ, ἀλλ' ἡ ἐνεκά του καὶ πρακτικῆ· αὐτὴ γὰρ καὶ τῆς ποιητικῆς ἄρχει· ἐνεκα γὰρ του ποιεῖ πᾶς ὁ ποιῶν, καὶ οὐ τέλος ἀπλῶς ἀλλὰ πρὸς τι καὶ τινος τὸ ποιητόν, ἀλλὰ τὸ πρακτόν.* In *Nic. Eth.* vi. 4. 1140<sup>a</sup>3 he says that this distinction is not intrinsic but is due to *ἐξωτεριοὶ λόγοι*.

p. 32, 18: ordinary . . . actions

These are the principles of morality. They are the *مقدمات* (*ὑποθέσεις, προτάσεις*) of ethics which are incapable of demonstration (*al-Shifā'* says: *(لا على سبيل التبرهن)* and must therefore be immediately apprehended or intuitively perceived (see Burnet's *The Ethics of Aristotle*, Introduction, p. 22. 23). But these first principles of morality should be distinguished from those of the theoretical sciences. They are not so universal and immutable as the latter. Arist. *Nic. Eth.* i. 1. 1094<sup>b</sup>15 ff.: *τὰ δὲ καλὰ καὶ τὰ δίκαια περὶ ὧν ἡ πολιτικὴ σκοπεῖται, τοσαύτην ἔχει διαφορὰν καὶ πλάνην . . . ἀγαπητόν οὖν περὶ τοιούτων καὶ ἐκ τοιούτων λέγοντας παχυλῶς καὶ τύπῳ τὰ ληθῆς ἐνδείκνυσθαι, καὶ περὶ τῶν ὡς ἐπὶ τὸ πολὺ καὶ ἐκ τοιούτων λέγοντας τοιαῦτα καὶ συμπεραίνεισθαι.* Yet, however shifting and changeable



a character these principles may have, there is always an unchangeable element in them. In *Nic. Eth.* v. 7 Aristotle distinguishes between this element which is φύσει and therefore ἀκίνητον and that which is merely accepted on convention and is therefore ἐνδεχόμενον. Cf. *Nic. Eth.* vi. 11. 1143<sup>a</sup>35 ff., where the πρῶτοι ὅροι of the practical intelligence are attributed to νοῦς. This double character of the principles of the practical intelligence is indicated here by Avicenna by the words: فتكون هذه القوة: *Al-Shifā'*: فيما بين [أى القوة العملية] استمدادها من القوة التى على الكليات — فمن هناك تأخذ المقدمات الكبرى فيما يروى وينتج فى الجزئيات

p. 32, 31: it is also possible . . . &c.

This passage is extremely concise, very obscure and hard to interpret. I think, however, that here Avicenna draws the distinction, within the domain of praiseworthy character, between 'natural' good character and moral character, and that this distinction must not be confounded with that in the previous passage between excellent and bad character. The word البدنية must be taken to be an equivalent for الطبيعية and as corresponding to φυσική. Aristotle says that moral virtue is preceded by a kind of sub-rational virtue or natural states (φυσικαὶ εἵξεις) or dispositions (*Nic. Eth.* vi. 13. 1144<sup>b</sup>1 ff.; see Zeller, *Gr. Phil.* ii. 2, p. 626). We have seen before an instance of such a natural disposition in shame. Aristotle's conception of the relation between these natural virtues and moral virtues is, however, not clear. On the one hand he says, *Nic. Eth.* ii. 1. 1103<sup>a</sup>24: οὐτ' ἄρα φύσει οὔτε παρὰ φύσιν ἐγγίνονται αἱ ἀρεταί. What is naturally 'given' here is a mere capacity for goodness. On the other hand, we have positively good states as given by nature.

We may hold two views about this duality of good character. Each of the two sides may be regarded independently of each other as character, and as actively producing virtue. But when the rational side is active that is the proper virtue (ἡ κυρία ἀρετή = غير غريبة) and constitutes morality in the strict sense. These would be two different species of virtue coming under one genus. *Nic. Eth.* vi. 13. 1144<sup>b</sup>14: ὥστε καθάπερ ἐπὶ τοῦ δοξαστικοῦ δύο ἐστὶν εἶδη δεινότης καὶ φρόνησις οὕτως καὶ ἐπὶ τοῦ ἡθικοῦ δύο ἐστί, τὸ μὲν ἀρετὴ φυσική τὸ δὲ ἡ κυρία. Or natural qualities may be regarded as preparatory for the rational moral character. The former is to the latter as matter to form, and the concrete product of the two is moral character. That the later Peripatetic tradition conceived

this relation as such is evident from what Eustratius says in his commentary (ed. Heylbut) on the *Nic. Eth.*, p. 399. 6: αἱ γὰρ φυσικαὶ ἀρεταὶ εὐφυῖαι πρὸς τὰς κυρίως ἀρετάς, αἱ μορφωτικαὶ εἰσι τῶν φυσικῶν ὡς ὕλῶν . . . Cf. *ibid.*, p. 395. 30 ff.

Also Plotinus, *Enn.* iv. 8. 3. 26 ff. Brehier, speaks of 'natural' and perfect virtues and discusses their relationship with each other. But according to Plotinus the φυσικαὶ ἀρεταὶ would be what he calls civic virtues, which are not purely instinctive sub-rational virtues, while Avicenna, I think, means instinctive virtues in the Aristotelian sense; he attributes them, indeed, to bodily faculties.

p. 33, 5: *two planes*

The soul has an intermediary position between the intellectual and the bodily. With regard to the former its activity is contemplation, and with regard to the latter its activity is to govern and control. Plotinus, *Enn.* iv. 8. 3. 20: βλέπουσα (i.e. ἡ ψυχὴ) δὲ πρὸς μὲν τὸ πρὸ ἑαυτῆς νοεῖ, εἰς δὲ ἑαυτὴν σώζει ἑαυτήν, εἰς δὲ τὸ μετ' αὐτὴν κοσμεῖ τε καὶ διοικεῖ καὶ ἄρχει αὐτοῦ.

## CHAPTER V

THE theoretical intellect is a faculty in which forms come to be imprinted; if these forms are in matter, it abstracts them; if they are already abstract, it simply receives them. The stages through which the theoretical intellect passes from potentiality into actual possession of forms may be illustrated by the analogy of learning, say the art of writing. The first stage is that of absolute potentiality when a knowledge, not only of the art of writing but even of its rudiments, is lacking. This mere capacity exists in an infant. The second stage marks the possession of the rudiments of the art of writing. A child who knows pen and inkpot and has learnt simple letters is in this stage. The third stage is that of the perfection of this potentiality, namely, when not only the rudiments of the art but the whole art has been learnt in its completeness. This is like the capacity of a perfect scribe to write.

In the transition of the potential intellect into actual intellect we may likewise distinguish three stages. The first stage is that of the material intellect, which actually thinks nothing but is a mere potentiality of thinking. The second stage is that of possible potentiality and marks the possession only of the principles or axioms of knowledge. The third stage is that of the perfection of this potentiality. Here the process of acquisition ceases; all the forms

exist in the intellect which is in a state (*ἔξις, habitus*) where it can by itself perform the act of thinking. In contradistinction to the analogy, intellect has a fourth and last stage where, from its state (*ἔξις, habitus*), it passes into absolute actuality and actually does think the forms it has. In this stage it is called *intellectus adeptus*. The actualization of the potential intellect presupposes another external intelligence which is always in actuality and which makes the potential human intellect actual. This is the active intelligence.

*p. 33, 20: receive the impressions*

Thinking is conceived on the analogy of perceiving (Arist. *De An.* iii. 4. 429<sup>a</sup>13; iii. 5. 430<sup>a</sup>10 ff.; Alexander, *De An.* 83. 13). Hence the expression *تنطبع*. Since, however, intellect is not matter, the expression must be taken as merely expressing the analogy and as really equivalent to *تقبل*. Since intellect must not be creative in the act of knowledge, it must be a mere capacity or potentiality, for, if it is something actual, it will not be able to apprehend the naked reality. Its activity therefore consists of receiving immaterial forms. Arist. *De An.* iii. 4. 429<sup>a</sup>18 ff.; Alexander, *De An.* 83. 14 Bruns: *ἡ νόησις λήψις τῶν εἰδῶν ἐστι χωρὶς ὕλης*: p. 84. 21: *οὐδὲν ἄρα τῶν ὄντων ἐνεργεία ἐστὶν ὁ ὕλικὸς νοῦς, ἀλλὰ πάντα δυνάμει . . . ἐπιτηδείότης τις ἄρα μόνον ἐστὶν ὁ ὕλικὸς νοῦς πρὸς τὴν τῶν εἰδῶν ὑποδοχὴν ἐοικῶς πινακίδι ἀγράφῳ . . .* This is the potential or material intellect.

*p. 34, 18: in every individual*

Potential intellect is shared by all human beings, but actual intellect only by some of them: Alexander, *De An.* 81. 26: *καὶ ὁ μὲν φυσικὸς τε καὶ ὕλικὸς ἐν πᾶσιν τοῖς μὴ πεπηρωμένοις . . . (καθ' ὃν καὶ λέγομεν πάντας ἀνθρώπους νοῦν ἔχειν), ὁ δὲ ἐπίκτητός τε καὶ ὕστερον ἐγγινόμενος, καὶ εἶδος καὶ ἔξις ὧν καὶ τελειότης τοῦ φυσικοῦ οὐκέτ' ἐν πᾶσιν.*

*p. 34, 24: primary intelligibles*

These are the primary truths or axioms on which all demonstrative knowledge is based, Arist. *Anal. Post.* i. 2. 71<sup>b</sup>20: *ἀνάγκη καὶ τὴν ἀποδεικτικὴν ἐπιστήμην ἐξ ἀληθῶν τ' εἶναι καὶ πρώτων καὶ ἀμέσων καὶ γνωριμωτέρων καὶ προτέρων καὶ αἰτίων τοῦ συμπεράσματος*. These first principles of all knowledge are necessary, Arist. *ibid.*: *ἐξ ἀναγκαίων ἄρα συλλογισμὸς ἐστὶν ἡ ἀπόδειξις*. Avicenna's account of the development of intellect commits him to the view that the knowledge of axioms, although not indeed congenital, is

nevertheless prior in time to all other knowledge. But how do we actually become aware of this immediate knowledge? Avicenna does not make any attempt to answer this question. The problem was raised by Aristotle, *Anal. Post.* ii. 19. 99<sup>b</sup>25: *πότερον οὐκ ἐνοῦσαι αἱ ἔξεις ἐγγίνονται ἢ ἐνοῦσαι λελήθασιν*. But in Aristotle the question remained finally unsolved, for, on the one hand, he made the knowledge of basic truths a precondition of all other knowledge (*ibid.* ii. 19. 100<sup>b</sup>9: *αἱ δ' ἀρχαὶ τῶν ἀποδείξεων γνωριμώτεραι, ἐπιστήμη δ' ἅπαντα μετὰ λόγου ἐστί, τῶν ἀρχῶν ἐπιστήμη μὲν οὐκ ἂν εἴη, ἐπεὶ δ' οὐδὲν ἀληθέστερον ἐνδέχεται εἶναι ἐπιστήμης ἢ νοῦν, νοῦς ἂν εἴη τῶν ἀρχῶν*), and, on the other, he sought to explain the genesis of the basic truths through induction and experience (*ibid.* ii. 19. 100<sup>a</sup>3: *ἐκ μὲν οὖν αἰσθήσεως γίνεται μνήμη . . . ἐκ δὲ μνήμης πολλάκις τοῦ αὐτοῦ γινομένης ἐμπειρία . . . ἐκ δ' ἐμπειρίας ἢ ἐκ παντός ἡρεμήσαντος τοῦ καθόλου ἐν τῇ ψυχῇ, τοῦ ἐνὸς παρὰ τὰ πολλά, ὃ ἂν ἐν ἅπασιν ἐν ἐνῇ ἐκείνοις τὸ αὐτό, τέχνης ἀρχὴ καὶ ἐπιστήμης*. Cf. 100<sup>b</sup>3: *δηλον δὴ ὅτι ἡμῖν τὰ πρῶτα ἐπαγωγῇ γνωρίζειν ἀναγκαῖον*).

To the description of this second stage of intellectual development there is nothing to correspond in Alexander.

*p. 34, 38: perfected potentiality*

This is *intellectus in habitu* (νοῦς καθ' ἑξιν) of Alexander, *De An.* 85. 25: *ὅταν γὰρ ἐν ἔξει γένηται διὰ τὰς συνεχεῖς ἐνεργείας τοιαύτη ὡς δι' αὐτοῦ λοιπὸν ἐνεργεῖν δύνασθαι, τότε ὁ ὡς ἔξις καλούμενος νοῦς γίνεται*; it has its source in Arist. *De An.* iii. 4. 429<sup>b</sup>5: *ὅταν δ' οὕτως ἕκαστα γένηται (i.e. δυνάμει νοῦς) . . . λέγεται ὁ κατ' ἐνέργειαν (τοῦτο δὲ συμβαίνει, ὅταν δύνῃται ἐνεργεῖν δι' αὐτοῦ), ἔστι μὲν . . . καὶ . . . δυνάμει πως*.

*p. 35, 9: absolute actuality*

When *intellectus in habitu* actually thinks, it passes into absolute actuality, as distinguished from the relative actuality of the previous stage and as opposed to the absolute potentiality of the material intellect. This intellect is called by Avicenna *intellectus adeptus*. It is to be noted that the distinction which Avicenna draws between *intellectus in habitu* and *intellectus adeptus* exactly corresponds to Alexander's distinction between νοῦς καθ' ἑξιν and νοῦς κατ' ἐνέργειαν. Alexander says (*De An.* p. 85. 25 ff.): *ὅταν γὰρ ἐν ἔξει γένηται . . . ὡς δι' αὐτοῦ λοιπὸν ἐνεργεῖν δύνασθαι, τότε ὁ ὡς ἔξις καλούμενος νοῦς γίνεται, ἀνάλογον ὧν τῷ ἐπιστήμονι ὃς τοῦ τε κατὰ δυνάμιν ἐπιστήμονος λεγόμενος καὶ τοῦ κατ' ἐπιστήμην ἐνεργοῦντος ἐστὶ μεταξύ, ὅσον ἀπολείπεσθαι δοκεῖ τοῦ κατὰ τὴν ἐπιστήμην*

ἐνεργούντος, τοσοῦτον πλεονεκτῶν τὸν κατὰ δύναμιν ἐπιστήμονα· ἐνεργούσα δὲ ἦδε ἡ ἕξις ὁ κατ' ἐνέργειαν γίνεται νοῦς. ὁ γὰρ κατὰ ἕξιν νοῦς ἀποκείμενα πῶς ἐστὶν ἀθρόα καὶ ἡρεμοῦντα τὰ νοήματα. Alexander's division of the intellect is thus quadripartite. We cannot therefore agree with Prof. E. Gilson (*Archives d'histoire doctrinale et littéraire du moyen âge*, 1929-30, p. 21, n. 2) that Alexander always combined νοῦς καθ' ἕξιν and νοῦς κατ' ἐνέργειαν and that his classification was therefore tripartite. Our view is supported also by Ps.-Alexander's *Metaphysics*, where he says (p. 697. 16 Hayd.): λέγοι δ' ἂν καθ' αὐτὴν νόησιν τὸν κατ' ἐνέργειαν νοῦν, ὅστις διαφέρει τοῦ καθ' ἕξιν, ὅστις πάλιν καθ' ἕξιν διαφέρει τοῦ δυνάμει.

Avicenna's classification falls into five parts:

Human Intellect	{	<i>in potentia</i>	{	<i>in potentia absoluta</i> or <i>intell. materialis.</i> <i>in potentia facili</i> or <i>intell. in effectu</i>
		<i>in potentia perfecta</i>	{	<i>intell. in habitu.</i> <i>intell. in actu absoluto</i> or <i>intell. adeptus</i>
Active Intelligence				<i>Intelligencia Agens.</i>

p. 35, 11: *intellectus acquisitus*

Avicenna has taken the term 'acquired intellect' from Al-Fārābī, on whom his doctrine of intellect for the most part depends. Al-Fārābī uses this technical expression in order to designate the final stage of intellectual development in man. The Greek word ἐπίκτητος, of which the Arabic *mustafād* is a translation, first appears in Alexander's *De Anima* (ed. Bruns), p. 82. 1; but, as Professor Gilson has rightly pointed out (op. cit. p. 20, n. 2), it is not used there as a technical term.

In the article cited above Professor Gilson has developed at length a theory of the historical origin of the acquired intellect. The problem is set for this learned historian of medieval philosophy by the occurrence, in the medieval Latin translations of Alexander's *De Anima*, of such expressions as *intellectus adeptus agens* which are intended to translate the Greek θύραθεν but which attribute a double character to the active intelligence. They suggest, on the one hand, that the active intelligence is a separate external substance and, on the other, that it is an internal intellect acquired by the human soul. Professor Gilson's answer, in effect, is that the Arab translators of Alexander substituted *adeptus* or *acquisitus* (Arabic: *mustafād*) for the Greek ἐξωθεν or θύραθεν and thus introduced a fourth and foreign intellect into the tripartite division of

Alexander. This was brought about, according to him, by duplicating the active intellect into *intellectus acquisitus* and *intelligentia agens*, and he holds Al-Fārābī responsible for doing so: 'l'intellect agent s'est dédoublé en intellectus adeptus et en intelligentia agens pour faire place à une notion dont nous aurons à chercher l'origine chez Al-Fārābī' (p. 21. 10). Subsequently, discussing Al-Fārābī's conception of the active intelligence he says: 'en tant qu'elle (i.e. the active intelligence) abstrait pour nous les formes sensibles, elle fait passer notre intellect possible de la puissance à l'acte, en tant qu'elle est elle-même objet d'intellection, elle devient l'intellect acquis' (p. 33. 17 f.).

I have maintained in the previous note that Alexander's classification was, strictly speaking, fourfold, and that he made a distinction between νοῦς καθ' ἑξῆς and νοῦς κατ' ἐνέργειαν. It is also not correct to say that the Arabs were the first to identify ἑξωθεν with ἐπίκτητος. We find this usage already in Simplicius, who, commenting on Arist. *De An.* 429<sup>a</sup>27, where the latter describes the soul as a place of forms, says (*De An.* ed. Hayduck, p. 228. 1): τόπος δὲ ὡς δεκτικὴ ἐπικτήτως καὶ ἑξωθέν πως. Simplicius is, no doubt, using these words as adverbs in order to express the manner in which the soul receives forms from without, but the noteworthy point is his equating the two terms.

Similarly, Professor Gilson's account of the *intellectus acquisitus* in Al-Fārābī (and therefore also in Avicenna) as a duplicate of the active intelligence is, I think, based on a misunderstanding. Nowhere in Al-Fārābī's Arabic text of *De Intellectu* do we find him saying that the active intelligence, in so far as it is an object of our intellection, becomes *intellectus acquisitus*. According to Al-Fārābī, when the potential intellect becomes actual it becomes identical with the actual intelligibles: the actual intelligible and the actual intellect are one and the same. Therefore when the actual intellect makes the actual intelligibles objects of a second intellection, its act is essentially an act of self-consciousness: it becomes a self-thinking thought—'form of form', to use an Aristotelian expression. At this stage, when the actual intellect apprehends its own contents which are pure intelligibles, abstract from matter, it becomes acquired intellect. Al-Fārābī says (Dieterici's text, p. 45. 7; Bouyges's text, 1938, p. 20. 1): 'When the intellectus in effectum apprehends the intelligibles which are forms for it in so far as they are actual intelligibles, the intellect which we previously described as actual now becomes acquired intellect.' The Latin translation of this sentence, which, I think, is most important for Al-Fārābī's idea of *intellectus adeptus*, is wrong: 'Igitur intellectus in effectum cum

intellegit, intellecta quae sunt sibi formae, scilicet secundum quod sunt intellecta in effectu, fiunt intellectus quem nos prius diximus esse intellectum in effectu; tunc fit modo intellectus adeptus' (Gilson, *op. cit.*, p. 120. 15). The actual intellect becomes *acquisitus*, not by apprehending the active intelligence but by reflecting on its own contents. It is important to make this distinction. Al-Fārābī proceeds to compare the contents of actual intellect with those of the active intelligence in so far as both are pure intelligibles. He says (Dieterici, p. 45. 14; Bouyges, p. 20. 8): 'Since there exist things which are not in matter, this essence need not abstract them from matter at all, but finds them already abstracted and so apprehends them just as its essence, being actual intellect, finds pure intelligibles (as its own contents) and so apprehends them a second time [this has been rendered incorrectly into Latin, cf. Gilson, *op. cit.*, p. 120. 27], their being when they are objects of this second intellection remaining the same as it was before they became objects of it. [This sentence has been rendered wrongly into Latin: 'Fit igitur esse earum, secundum quod sunt intellectae, intellectum secundum'; so Dieterici: 'So wird denn die Existenz desselben, so fern jene (Formen) intelligible sind, zu einem zweiten Intellect', &c.] Exactly the same is to be understood regarding these forms which are not in matter and never were (i.e. the contents of the active intelligence).

The analogy between the two kinds of forms compares only their character as pure intelligibles abstract from matter. They are not of the same order, for Al-Fārābī says that the contents of the active intelligence can be apprehended only after all the actual intelligibles have been obtained and after, through a second intellection, the actual intellect has already become acquired intellect. Far from saying that the active intelligence, as an object of our intellect, becomes acquired intellect, Al-Fārābī says that our intellect becomes acquired intellect already before apprehending the active intelligence. When the acquired intellect contacts the active intelligence, the former becomes the matter for the latter and so gets transformed into a higher form, just as the potential intellect becomes transformed into actual intellect when it receives the actual intelligible form. The idea that each lower term serves as matter for the higher and gets transformed into it, on which Al-Fārābī constructs his system of the hierarchy of intellects, is essential, and to say that the active intelligence becomes acquired intellect is to reverse the logic of the whole theory: it is as though we said that the actual intellect, by conferring intelligible form on the potential intellect, itself becomes potential intellect.

We conclude, therefore, that the acquired intellect in Al-Fārābī is not a duplicate of the active intelligence and that it is a much lower intellect representing the final stage of the acquisition of actuality by our potential intellect. This happens when the actual intellect reflects upon itself and its contents. The idea of self-consciousness seems, in course of time, to have become very important for this theory. Both Al-Fārābī and Avicenna stress it. Simplicius thinks that self-knowledge is an essential activity of the actual intellect and not merely accidental as Alexander says (Simpl. *De An.* p. 230. 12): οὐ κατὰ συμβεβηκὸς τῷ τὰ νοητὰ ἔχειν καὶ εἶναι πως ὁ αὐτὸς τοῖς νοουμένοις εἶδεν, ὡς προηγουμένως τὰ εἶδη ἀλλ' οὐχ ἑαυτὸν νοῶν, ὡς ὁ Ἀλέξανδρος βούλεται, καὶ ἑαυτὸν δὲ νοῶν προηγουμένως.

## CHAPTER VI

THIS chapter falls conveniently into two parts. In the first part Avicenna states his doctrine briefly, while in the second part which begins with the words *وما يحق هذا* he gives an exposition of this doctrine. While the main element in this doctrine, namely the idea of ἀγγίνοια, is Aristotelian, the doctrine as it has been elaborated and connected with that of the intellect stated in the previous chapter seems to have no Greek source and is probably Avicennian.

Some people are endowed with such a great power of sagacity that they are capable of acquiring knowledge by themselves, and their *intellectus materialis*, almost independently of external instruction, becomes *intellectus in habitu*.

We can prove this by the following argument. All rational knowledge is acquired by obtaining the middle term in a syllogism. Middle terms may be discovered through sagacity or they may be learnt through instruction. The middle terms learnt through instruction were also originally discovered by sagacious conjecture, so that all knowledge is ultimately based on sagacity. Power of sagacity varies both quantitatively and qualitatively, and since there are people who are completely devoid of it, there must be others who acquire all knowledge in this way.

A person so endowed receives all the intelligibles from the active intelligence either instantaneously or nearly so, and this acquisition is not a mere acceptance of facts but a demonstrative knowledge of reasoned facts.

This is the highest faculty of prophecy and should be termed the divine faculty.



p. 35, 35: *second capacity*

By the second capacity must be meant *intellectus in habitu*, as Avicenna himself says *هو من جنس العقل بالملكة*, just as by the first capacity he means *intellectus materialis*. We have seen before that in ordinary cases the material intellect, after a process of acquisition and learning, gains *habitus* when it can function by itself without further learning. But here, by an instantaneous reception of forms, the material intellect is able to function by itself, that is, the *intellectus materialis* is the *intellectus in habitu*.

p. 36, 4: *it is not unlikely . . . &c.*

Most probably Avicenna means that the books which have been traditionally accepted as Revelation emanate from the Prophet's imagination and express the intellectual truth under the guise of metaphor.

p. 36, 10: *middle term . . . is obtained*

A middle term is necessary to yield the conclusion in demonstration: *δηλον ὅτι καὶ διὰ μέσου ἀναγκαίου δεῖ ἔχειν τὴν ἀπόδειξιν* (Arist. *Anal. Post.* i. 6. 75<sup>a</sup>13). Themistius: *πάν γὰρ μέσον αἴτιον τῆς συναγωγῆς τοῦ συμπεράσματος* (*Anal. Post.* 27. 10).

p. 36, 12: *intuition*

The basis of this whole doctrine is *Anal. Post.* i. 34, where Aristotle says that by quick-wit or sagacity we may guess the middle term in imperceptible time without puzzling our brains: *ἡ δ' ἀγχίνουιά ἐστιν εὐστοχία τις ἐν ἀσκέπτῳ χρόνῳ τοῦ μέσου*. Philoponus explains this (*Anal. Post.*, p. 333. 5 Wallies): *τὸ δὲ ἐν ἀσκέπτῳ χρόνῳ ἀντὶ τοῦ ἐν ἀκαριαίῳ, ἵνα δίχα τοῦ σκέψασθαι ἡ εὕρεσις τοῦ μέσου γένηται*. In Stoic thought *ἀγχίνουια* has become a technical term for immediate (intuitive) apprehension: *ἀγχίνουιά ἐστιν ἐπιστήμη εὐρετική τοῦ καθήκοντος ἐκ τοῦ παραχρήμα* (*Stoic. Vel. Frag.* iii. 66. 7).

How is Aristotle's doctrine of *ἀγχίνουια* to be understood? In the first place it is to be noted that although Aristotle speaks of it as *operatio* rather than as *facultas*, it must nevertheless be understood in the latter sense as is required by Aristotle's words (89<sup>b</sup>14): *πάντα γὰρ τὰ αἴτια, τὰ μέσα [δ] ἰδὼν τὰ ἄκρα ἐγνώρισεν*. As Zabarella says: 'Solertia proprie loquendo est ipsa in aliquo innata facultas medium celeriter conjectandi' (*Post. Anal.* 108<sup>b</sup>24, ed. Venitiis, 1582). Again: 'inquit . . . Arist. (omnes causas medias) seu quia de pluribus problematibus loquatur, si quidem non is, qui semel facile medium conjectet, dicitur solers, sed qui frequenter, aut in

omnibus id faciat . . . seu quia etiam de uno problemate plures habente ordinatas causas, potest enim proxima causa alicuius effectus habere causam aliam priorem & illa aliam, & illa aliam . . . has igitur omnes, ordinatim facile coniectet homo solers donec ad primam causam pervenerit' (ibid. 108<sup>b</sup>45).

*ἀγχινοια*, then, is the faculty of quickly discovering middle terms. The second question is as to the manner of this discovery. As we have seen, Zabarella conceives it as a series of discoveries, and therefore as a process. Avicenna, however, conceives it as an instantaneous revelation of all the middle terms. *فترسم فيه الصور التي في العقل الفعال من كل شيء إما دفعة وإما قريبا من دفعة*. But, according to Avicenna, it is at the same time also an order and comprises premisses, middle terms, and conclusions. The two ideas do not seem to me to be consistent with each other.

p. 36, 29: *highest point . . .* etc.

This argument rests on the false assumption that if the starting-point of a series be zero, its term must be the maximum possible number. Our objection, however, would exclude only the necessity, but not the possibility, of such a divine person.

p. 37, 1: *beliefs accepted*

Mere knowledge of a fact which does not include the middle term or the cause cannot rank as scientific knowledge. Only the knowledge of a reasoned fact can claim to be such: Arist. *Anal. Post.* i. 6. 74<sup>b</sup>27: *εἰ γὰρ ὁ μὴ ἔχων λόγον τοῦ διὰ τί οὐσης ἀποδείξεως οὐκ ἐπιστήμων*. This condition, however, exists only when demonstration is possible (*οὐσης ἀποδείξεως* = Avicenna: *في الأمور التي إنما* (يعرف ناسبها), and is not valid for the basic or axiomatic truths where there is no prior proposition. Cf. Philoponus, *Anal. Post.*, p. 87. 8 ff.

## CHAPTER VII

ALL knowledge consists in receiving immaterial forms. If these forms are present in matter, the degrees of knowledge vary according to the degrees of abstraction. To take an example, the quiddity of man is in itself an immaterial form, but when present in matter it is accidentally subject to material attachments and relationships such as multiplicity, a definite quantity, quality, place, and position. We may prove that these attributes are not essential to the quiddity of man by pointing out that if they were all human beings would equally partake of them.

The first stage of knowledge is sensation, which knows an object, although not as matter but as present in matter and with all its material attachments.

The next stage is that of imagination, which does not know an object either as matter or as present in matter, but certainly with all its material attachments.

The third stage is reached in *aestimatio*, which comprehends intentions, such as 'agreeable' or 'disagreeable', which, although they are immaterial, are nevertheless taken in their particularity.

Finally, reason comprehends objects which are either pure forms or forms present in matter from which it abstracts them completely and takes them in their universality.

*p. 38, 7: form*

We have seen in the second chapter that sensation receives the forms of sensibles, and in the fifth chapter that intellect receives the forms of intelligibles. Here it is said that all knowledge consists of the reception of the forms of the objects of knowledge: Arist. *De An.* iii. 8. 431<sup>b</sup>22 ff.: ἡ γὰρ αἰσθητὰ τὰ ὄντα ἡ νοητά, ἔστι δ' ἡ ἐπιστήμη μὲν τὰ ἐπιστητὰ πως, ἡ δ' αἰσθησις τὰ αἰσθητὰ . . . ἀνάγκη δ' ἡ αὐτὰ ἡ τὰ εἶδη εἶναι. αὐτὰ μὲν γὰρ δὴ οὐ· οὐ γὰρ ὁ λίθος ἐν τῇ ψυχῇ ἀλλὰ τὸ εἶδος.

*p. 38, 17: form or quiddity of man*

The form (εἶδος) of all human beings is one and universal; their plurality is due to the matter which is the principle of individualization. *Met. A.* 8. 1074<sup>a</sup>31: ὅτι δ' εἰς οὐρανός, φανερόν. εἰ γὰρ πλείους οὐρανοὶ ὥσπερ ἄνθρωποι, ἔσται εἶδει μία ἡ περὶ ἕκαστον ἀρχή, ἀριθμῷ δέ γε πολλαί. ἀλλ' ὅσα ἀριθμῷ πολλὰ, ὕλην ἔχει (εἰς γὰρ λόγος καὶ ὁ αὐτὸς πολλῶν, οἷον ἀνθρώπου, Σωκράτης δὲ εἰς).

*p. 39, 4: sense abstracts the form . . .*

In Aristotle both sensation and intellect are receptive of forms. To the question, What is the difference between the 'form' received by sensation and that received by intellect? Aristotle's reply is that sensation receives individual (τόδε τι) forms, while intellect receives universals (τοιόνδε). The reason for this is that forms received by sensation are in matter which is the principle of individualization. But Aristotle says at the same time that sensation receives forms apart from their matter: ἡ μὲν αἰσθησις ἔστι τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἀνευ τῆς ὕλης (*De An.* ii. 12. 424<sup>a</sup>17). This doctrine, however, is liable to serious objections. If sensation receives forms without matter, they should be no longer individual forms, for the

cause of their individualization has been removed. And, on the whole, a 'form' (εἶδος) is by definition universal; how can it be individual at all? Again, if forms come to the senses without matter, how do we know that they are in matter at all? Most probably to meet such objections Aristotle's theory of perception was modified by Alexander, who seems to be Avicenna's source here. Alexander says (*De An.* 83. 16 ff.): . . . ἡ μὲν αἴσθησις, εἰ καὶ μὴ ὡς ὕλη τὰ αἰσθητὰ εἶδη λαμβάνει, ἀλλ' οὕτως γε αὐτῶν ποιεῖται τὴν ἀντίληψιν ὡς ὄντων ἐν ὕλῃ (τὰ γὰρ κοινὰ αἰσθητὰ συμπεπλεγμένα τῇ τῶν ἰδίων αἰσθητῶν ἀντιλήψει μαρτύρια τοῦ ὡς ἐνύλων αὐτῶν ὄντων τὴν αἴσθησιν ἀντιλαμβάνεσθαι. ἅμα γὰρ χρωμάτων ὄψις αἰσθανομένη σὺν αὐτῷ καὶ μεγέθους . . . αἴσθησιν λαμβάνει, ἃ μαρτύρια τοῦ περὶ τι ὑποκείμενον εἶναι τὸ χρῶμα), ὁ δὲ νοῦς οὔτε ὡς ὕλη τὰ εἶδη λαμβάνει, οὔτε ὡς ἐν ὕλῃ ὄντα καὶ μεθ' ὕλης. This theory clearly provides a basis for the grades of abstraction which we find in Avicenna. Cf. what follows.

p. 39, 13: *representation . . . &c.*

According to Avicenna imagination represents the second stage of abstraction. Imagination does not need the presence of the material object, although in other respects it does not go beyond sensation. Alexander is also the source of this (*De An.* 68. 31 ff.), where he compares imagination with sensation: ὑπόκειται γὰρ τῇ φανταστικῇ δυνάμει τὰ ἀπὸ τῆς κατ' ἐνέργειαν αἰσθήσεως γινόμενα ἐγκαταλείμματα ὡς ὄντα τινὰ αἰσθητὰ ἐντός, ὡς τῇ αἰσθητικῇ τὰ αἰσθητὰ ὄντα ἐκτός . . . αἰσθητικὴ μὲν γάρ ἐστι, καθόσον τῶν αἰσθητῶν κεχωρισμένων τε τοῦ ἔχοντος αὐτὴν καὶ παρόντων ἐστὶν ἀντιληπτικὴ μόνων, φανταστικὴ δέ, καθόσον ὡς ἐκείνη περὶ τὰ αἰσθητὰ ἐκτός ὄντα ἐνεργεῖ, οὕτως αὕτη περὶ τὰ φανταστὰ ὄντα ἐν τῷ ἔχοντι αὐτὴν σώματι ὥσπερ αἰσθητὰ αὐτῇ, εἰ καὶ μὴ παρείη ἐτι τὰ αἰσθητά.

p. 40, 20: *completely abstracted*

Alexander, *De An.* 84. 6: οὔτε οὖν ὡς ὕλη γινόμενος ὁ νοῦς τῶν εἰδῶν οὕτως αὐτὰ λαμβάνει οὔτε ὡς μετὰ ὕλης ὄντα ὡς τὰ αἰσθανόμενα, ἀλλ' αὐτὰ καθ' αὐτὰ χωρίζων αὐτὰ ἀπὸ πάσης ὑλικῆς περιστάσεως, μόνον λαμβάνων θεωρεῖ.

## CHAPTER VIII

EVERY faculty which perceives the particular has a bodily organ. This can be easily seen in the case of sense-perception, for sense perceives only those objects which are present to it. Since presence

is a spatio-temporal relation and is possible only between two bodies, it follows that sense-organs must be material.

That imagination, although it perceives objects which are not present to it, has also a material organ, may be proved as follows. Let us suppose a certain square *abcd*, and contiguous to its two angles *a* and *b* two squares of equal size. Now, of this whole figure we have a single image in which one square is situated on the right, the other on the left, i.e. they have distinct positions. To what factor does the right-hand square owe its peculiar position? Its position cannot be due to its being a square, for the other figure is a square also. It cannot be due to some peculiar accident, for, if the accident is essential, it must belong also to the other square; if it is non-essential, when it is removed, the position of the square must change. In fact, imagination does not add the 'right position' to the square in the sense that the square existed before and then imagination contributed the position to it. Indeed, unless the image were already qualified by a definite position, it could not become an image at all. Such addition and combination takes place only in the conceptual realm. Intellect, for example, may combine the concept of 'right' with the concept of 'square'. This, however, is possible only in the realm of universals, not in the sphere of particulars. Nor can this position be due to the external figure of which the image is a copy, since we may imagine objects which do not exist at all in reality. We therefore conclude that the distinct position of the square is due to the material organ used by the imaginative faculty.

What we have proved through different positions of the images, may also be proved through their different magnitudes.

Again, we cannot imagine both blackness and whiteness at the same time in the same image, although we can do so in two distinct parts of the same image. The possibility of this must depend on the fact that images have distinct parts. Therefore the organ in which they are imprinted must be material.

From the preceding it will be evident that the estimative faculty also has a material organ, for it perceives its objects only in particular images.

The occasion for this elaborate argument was probably provided by the few words of Aristotle (*De An.* iii. 2. 425<sup>b</sup>24) that, after the objects of sense have been withdrawn, images and sensations remain in the sense-organs: διὸ καὶ ἀπελθόντων τῶν αἰσθητῶν ἐνεῖσιν αἱ αἰσθήσεις καὶ φαντασίαι ἐν τοῖς αἰσθητηρίοις. But the argument with its complex structure has, so far as I know, no Greek source. It

most probably emanates from Avicenna himself, and contains fine differentiations which are genuine Avicennian characteristics. These differentiations are so complex and numerous that the philosopher has been confused in dealing with them. Thus, if we take the discussion of the 'accident' as completed with the sentence, 'That this distinct position . . .' (p. 29), the three last of the four alternatives offered by the passage beginning with the words 'Secondly, because' (p. 26) and ending with the words 'material substratum' (p. 27) have not been treated. On the other hand, if the discussion of the 'accident' does not stop at this sentence, then the third of the three alternatives proposed before the discussion of the 'accident' has been left untreated. This, however, is only a technical flaw and does not materially affect the argument.

In the internal structure of the argument Avicenna lays great stress on the passivity of imagination. Imagination cannot change, or add anything to, the images, but simply perceives them as they already exist. It cannot suppose them as right or as left at its own will, but must accept the relative positions as they actually are, such supposition being only an intellectual operation. But as a matter of fact we know that imagination can change images and represent the right as left and vice versa. Avicenna's account can be true only if we believe that images are already imprinted in some material organ and therefore cannot be changed, in which case, I think, he is begging the question, since this is precisely what he is at pains to prove.

## CHAPTER IX

INTELLECT which is receptive of intelligibles is an immaterial substance.

If intellect were something material, then an intelligible form would be imprinted either in an indivisible part or in a divisible part of the material recipient. It is impossible that an intelligible form should be imprinted in an indivisible, self-subsisting point, because such a point cannot exist. Nor can points, finitely or infinitely repeated, be synthesized so as to generate a line. This has been shown before (in the *Physics*, while refuting the atomism of Kalām).

If the form is imprinted in divisible matter, then through the division of matter it would be divided. Now, its parts would be either similar or dissimilar. If the parts are exactly similar, their totality cannot be different from them except that it would mean a quantitative or numerical increase, in which case it would be a

representational not an intellectual form. But it is obvious that a part as such cannot be the whole. Therefore the form cannot be divided into mutually similar parts.

On the other hand, the only division into dissimilar parts of which an intelligible form admits is the division into genera and differentiae. This leads to many absurdities. Every part of matter being potentially divisible *ad infinitum*, it is necessary that the genera and differentiae of a given form should also be infinite, which is false. Again, when the intelligible form is imprinted in matter, genus and differentia cannot retain their internal coherence as in a definition, but their positions will depend on an arbitrary external factor, i.e. the divider. There are even certain intelligibles which are simple and therefore have no dissimilar parts.

Again, a form in matter has a certain position, but when it comes to exist in the intellect, it has no position, which shows that intellect is not material.

If a simple indivisible form exists in a divisible matter, then either every part of the matter will have relationship with the form, or only some will have, or none. If none, then the whole cannot have any relationship with the form either. If only some, then those which have none do not enter as factors into the form at all. If all parts have a similar relation to the whole of the form, then they are not parts of the form, but each is the complete intelligible form itself. If they have a dissimilar relation to the whole form, or if each has a relation to a special part of the form, the form will be in both cases divided, which contradicts our supposition.

Again, even a form which is divisible into parts of definition is a unity as a whole. It therefore cannot exist in a divisible matter.

Finally, intellect is capable of thinking infinite thoughts one after another; a thing which has such an infinite capacity cannot exist in matter.

*p. 46, 7: a body or a magnitude*

The source for this whole chapter would appear to be Aristotle, *De An.* i. 3. 407<sup>a</sup>6 ff., where Aristotle accuses Plato of having made the νοῦς a magnitude in the *Timaeus*. Aristotle says: ὁ δὲ νοῦς εἰς καὶ συνεχής, ὡς περ καὶ ἡ νόησις· ἡ δὲ νόησις τὰ νοήματα· ταῦτα δὲ τῷ ἐφεξῆς ἐν, ὡς ὁ ἀριθμός, ἀλλ' οὐχ ὡς τὸ μέγεθος. διόπερ οὐδ' ὁ νοῦς οὕτω συνεχής, ἀλλ' ἥτοι ἀμερῆς ἢ οὐχ ὡς μέγεθος τι συνεχής· πῶς γὰρ δὴ καὶ νοήσει μέγεθος ὦν; πότερον ὁτιοῦν τῶν μορίων τῶν αὐτοῦ; μορίων δ' ἥτοι κατὰ μέγεθος ἢ κατὰ στιγμήν, εἰ δὲ καὶ τοῦτο μόριον εἰπεῖν. εἰ μὲν οὖν κατὰ στιγμήν, αὐταὶ δ' ἄπειροι, δηλον ὡς οὐδέποτε διέξεισιν· εἰ δὲ κατὰ μέγεθος, πολλάκις ἢ ἀπειράκις νοήσει τὸ αὐτό . . .

εἰ δ' ἱκανὸν θιγεῖν ὁττωῦν τῶν μορίων, τί δεῖ κύκλῳ κινεῖσθαι ἢ καὶ ὅλως μέγεθος ἔχειν; εἰ δ' ἀναγκαῖον νοῆσαι τῷ ὅλῳ κύκλῳ θιγόντα, τίς ἐστὶν ἡ τοῖς μορίοις θίξις; ἔτι δὲ πῶς νοήσῃ τὸ μεριστὸν ἀμερεῖ ἢ τὸ ἀμερὲς μεριστῷ;

Commenting on this passage Philoponus says (*De An.* 127. 2) that the *νοῦς* is not number, but the words merely express the analogy. He says that the *νοῦς* is not even continuous—it is not *συνεχῆς ἀπλῶς* but *οἷον συνεχῆς*.

Themistius bases the immateriality of the *νοῦς* clearly on the simplicity and individuality of forms and especially of the basic truths: *δηλονότι καὶ ὁ νοῦς, καὶ ἤτοι παντάπασιν ἀμερῆς, ὥσπερ ἔχει ὁ τῶν πρώτων ὄρων, ἢ οὐχ ὡς μέγεθος συνεχῆς* (*De An.* 20. 38). Again: *τὸ γὰρ εἶδος ἐκάστου καὶ τὸ τί ἦν εἶναι ἀμερὲς ἑαυτῷ ποιεῖ καὶ ἀπλοῦν, καὶ οἱ πρώτοι ὄροι ταῦτα τὰ εἶδη, . . . οὕτω νοεῖ* (*ibid.* 22. 4). Philoponus (*De An.* 131. 11): *ἔτι εἰ ἐκάστῳ μορίῳ μέρος νοεῖ, τὸ ὅλον νόημα σύνθετον ἔσται· πῶς οὖν νοήσῃ τὸ ἀπλοῦν νόημα; ἅπαν γὰρ οὕτω νόημα σύνθετον ἔσται.*

Themistius further asks, Will each part of the magnitude (as the *νοῦς* is supposed to be on this view) know the whole *νόημα*? or will its parts know the parts of the *νόημα* and the whole of it the whole *νόημα*? (*De An.* 21. 6). Philoponus differentiates this further and says: either one part of the magnitude will know the whole *νόημα*, in which case the parts which do not know will be useless, or all the parts will know; if so, then either each part would know the whole independently, in which case the same thing will be known simultaneously an infinite number of times, or each part would know something different, and so it would be impossible to judge from a uniform standard (*De An.* 127. 28–128. 23).

But although Avicenna's source must be this passage of Aristotle and the finer differentiations of his commentators, the detailed elaboration of the argument seems to be Avicenna's own work.

*p. 46, 29: points . . . line*

Points cannot be synthesized into a line, which, being infinitely divisible, cannot be made up of points at all. Arist. *Physics*, iv. 8. 215<sup>b</sup>18: *διὸ οὐδὲ γραμμὴ στιγμῆς ὑπερέχει, εἰ μὴ σύγκειται ἐκ στιγμῶν*. Ibid. vi. 1. 231<sup>a</sup>24: *ἀδύνατον ἐξ ἀδιαίρετων εἶναι τι συνεχές, οἷον γραμμὴν ἐκ στιγμῶν, εἴπερ ἡ γραμμὴ μὲν συνεχές, ἡ στιγμὴ δὲ ἀδιαίρετον*. Ibid. i. 2. 185<sup>b</sup>10: *εἰς ἀπειρον γὰρ διαιρετὸν τὸ συνεχές*.

*p. 50, 15–16: also . . . whole*

Although the definition is divisible into parts—genus and differentia—as a whole it is a unity. Aristotle discusses the problem



of the unity of definition in *Met. Z.* 12 and *H.* 6, and says that the elements of definition must be one because it is definition of a particular object, a 'this'.

## CHAPTER X

THE intellect does not employ any bodily organ in its activity, for, if it did, it would not be able to know itself, or its activity or its organ, for there would be no organ between it and itself or between it and its activity or between it and its organ.

Even if it did know its organ, it would know it either through the form of the organ which exists in the organ, or through some numerically different form of the organ, or through some other form which is not the form of the organ. In the first case it would perpetually know its organ only. The second division is not possible, for an individual thing can have only one form. The last case is also impossible, for the form, not being the form of the organ at all, cannot confer on the soul the knowledge of the organ.

This is the reason why sensation and imagination, using as they do a bodily organ, cannot know themselves or their activity or their organs.

Moreover, these faculties which perceive through a bodily organ, for instance sensation, get weakened by incessant activity. Senses are destroyed by the vehement action of the sensible objects on them. But the intellectual faculty gets stronger by a strenuous exercise of its functions, which shows that its activity does not depend on any material instrument.

Again, the parts of the body weaken and begin to decay after having reached their point of maturity, but this faculty in most cases gains strength only after the term of bodily maturity. If it were a faculty dependent on the body it would in all cases decline with the decline of the body.

There is an objection against our thesis, that the intellectual faculty suspends its activity during bodily illness, the inference being that the intellectual faculty must need the body for its exercise. But this objection is wrong. The suspension of intellectual activity during illness is not because the intellect is dependent on the body but because the soul, during illness, is preoccupied with the body and is diverted from the intellectual activity. The very fact that after the recovery of health it also recovers its intelligibles shows that those intelligibles were not destroyed but were preserved somehow, otherwise their recovery would mean a reacquisition.

p. 52, 1: *it is impossible . . . perception*

Sensation perceives neither its own organ, nor itself, nor its activity. That senses do not perceive their organs is an Aristotelian theory: *De An.* ii. 5. 417<sup>a</sup>2: ἔχει δ' ἀπορίαν διὰ τί καὶ τῶν αἰσθήσεων αὐτῶν οὐ γίνεται αἰσθησις, καὶ διὰ τί ἀνευ τῶν ἔξω οὐ ποιοῦσιν αἰσθησιν, ἐνόντος πυρὸς καὶ γῆς καὶ τῶν ἄλλων στοιχείων, ὧν ἐστὶν ἡ αἰσθησις καθ' αὐτὰ ἢ τὰ συμβεβηκότα τούτοις. Aristotle's reply to this question is that the faculty of sensation exists only potentially until some actual sensible object brings it into actuality. This is, however, difficult to understand, for according to Aristotle the sensible object becomes actual only in the act of sensation and before that it exists only potentially. The question is not really answered at all. If other bodies can become actual objects of sensation, why not the organs themselves? Avicenna's reply is that sensation must use a bodily organ, and there being no such organ between it and its organ, it cannot know its own organ.

In his theory that sensation cannot know itself and its own activity Avicenna is opposed to Aristotle, who, drawing attention to the fact that all activity of the senses is accompanied by self-consciousness, attributes self-consciousness to sensation itself: ἐπεὶ δ' αἰσθανόμεθα ὅτι ὁρῶμεν καὶ ἀκούομεν, ἀνάγκη ἢ τῇ ὅψει αἰσθάνεσθαι ὅτι ὁρᾷ, ἢ ἑτέρᾳ. ἀλλ' ἢ αὐτὴ ἔσται τῆς ὁψεως καὶ τοῦ ὑποκειμένου χρώματος. ὥστε ἡ δύο τοῦ αὐτοῦ ἔσονται ἢ αὐτὴ αὐτῆς. ἔτι δ' εἰ καὶ ἑτέρα εἴη ἢ τῆς ὁψεως αἰσθησις, ἢ εἰς ἄπειρον εἰσιν ἢ αὐτὴ τις ἔσται αὐτῆς. ὥστ' ἐπὶ τῆς πρώτης τοῦτο ποιητέον (*De An.* iii. 2. 425<sup>b</sup>12 ff.). Aristotle, however, points out the difficulty that if the eye is to 'see' itself it must, as an object of sight, be coloured. His solution is to admit that the eye is coloured. From *De Somno* 2. 455<sup>a</sup>12, we learn that this self-consciousness is a common element in all sensation, which suggests that it is a function of common sense, and Alexander of Aphrodisias in fact attributes it to common sense: ὁ γὰρ ὁρῶν αἰσθάνεται αὐτοῦ ὁρῶντος καὶ ἀκούων ἀκούοντος. οὐ γὰρ δὴ ἄλλη τινὶ δυνάμει παρὰ τὴν <κοινήν> αἰσθησιν αὐτῶν αἰσθανομένων αἰσθανόμεθα. οὐ γὰρ ὁρῶμεν ὅτι ὁρῶμεν, οὐ δὲ ἀκούομεν ὅτι ἀκούομεν (*De An.* 65. 4 ff.).

Philoponus rejects the theory that self-consciousness is a sensual principle at all and refuses to believe with Aristotle that the eye is coloured. He describes, at some length, the view of the more recent interpreters of Aristotle (οἱ νεώτεροι) who say that the self-conscious principle is the spiritual ego which they call τὸ προσεκτικόν. In all experiences this principle pronounces, ἐγὼ ἐνόησα, ἐγὼ διενεόηθη, ἐγὼ ἐδόξασα, ἐγὼ ἐθυμώθη, ἐγὼ ἐπεθύμησα, καὶ ἀπλῶς τοῦτο τὸ προσεκτικόν μέρος τῆς λογικῆς ψυχῆς διὰ πασῶν τῶν δυνάμεων δίδεισιν,

τῶν τε λογικῶν καὶ τῶν ἀλόγων καὶ τῶν φυτικῶν. εἰ οὖν δεῖ, φασί, τὸ προσεκτικὸν διὰ πάντων διέναι, καὶ διὰ τῶν αἰσθήσεων χωρεῖτω καὶ λεγέτω ἐγὼ εἶδον, ἐγὼ ἤκουσα ([Philoponus] *De An.* 465. 1 ff.). Philoponus agrees with this theory and accepts the self-conscious ego as the unifying principle of experience. Aristotle, although he insisted (see below, Chapter XII) that every soul and every body must possess certain peculiarities in order to be able to fit into each other, and, although, against Plato, he maintained the unity of the soul in experience (see below, Chapter XV), he failed to formulate the idea of an individual central ego, on account of his general doctrine that soul in itself, being form, is universal and is individualized only through matter, and on account of attributing self-consciousness to a sensual principle.

*p. 52, 24: it is . . . sense*

Excessive force of the sensibles destroys the sensitive faculties: Arist. *De An.* iii. 2. 426<sup>a</sup>30: καὶ διὰ τοῦτο καὶ φθείρει ἕκαστον ὑπερβάλλον, καὶ τὸ ὀξύ καὶ τὸ βαρὺ, τὴν ἀκοήν· ὁμοίως δὲ καὶ ἐν χυμοῖς τὴν γεῦσιν, καὶ ἐν χρώμασι τὴν ὄψιν τὸ σφόδρα λαμπρὸν ἢ ζοφερὸν, καὶ ἐν ὁσφρήσει ἡ ἰσχυρὰ ὁσμὴ καὶ γλυκεῖα καὶ πικρά, ὡς λόγου τινὸς ὄντος τῆς αἰσθήσεως. In *De An.* iii. 4. 429<sup>a</sup>29 ff. this characteristic of sense is contrasted with the impassivity of intellect: ἀλλ' ὁ νοῦς ὅταν τι νοήσῃ σφόδρα νοητόν, οὐχ ἥττον νοεῖ τὰ ὑποδεέστερα, ἀλλὰ καὶ μᾶλλον (429<sup>b</sup>3).

*p. 53, 5: Again . . . decay*

Intellect does not perish with old age or the decay of the body: Arist. *De An.* i. 4. 408<sup>b</sup>18: ὁ δὲ νοῦς ἔοικεν ἐγγίνεσθαι οὐσία τις οὐσα, καὶ οὐ φθείρεσθαι. μάλιστα γὰρ ἐφθείρετ' ἂν ὑπὸ τῆς ἐν τῷ γήρα ἁμαυρώσεως . . . ὥστε τὸ γήρας οὐ τῷ τὴν ψυχὴν τι πεπονθέναι, ἀλλ' ἐν ᾧ, καθάπερ ἐν μέθαις καὶ νόσοις. καὶ τὸ νοεῖν δὴ καὶ τὸ θεωρεῖν μαραίνεται ἄλλου τινὸς ἔσω φθειρομένου, αὐτὸ δὲ ἀπαθές ἐστιν.

## CHAPTER XI

THE animal faculties help the rational soul in various ways; for example, sensation brings to it a knowledge of the particulars which produces other purely rational processes.

The first of them is that the intellect apprehends single universals in these particulars and distinguishes the essential from the accidental through the assistance of memory and the estimative faculty.

Secondly, the intellect discovers relations between these simple

universals and combines them into affirmative and negative propositions. If these relations of affirmation and negation are not evident, it finds them through the middle term by constructing a syllogism.

Thirdly, the intellect finds, through induction, empirical premisses, that is, it discovers predicates which are affirmed or denied of certain subjects; or consequents which are affirmatively or negatively conjuncted with certain antecedents or affirmatively or negatively disjuncted from them without being their contradictories. These relations are recognized as being necessary, that is, as holding in all cases and not merely as accidentals.

Fourthly, the intellect gives assent to traditions which are supported by unbroken chains of transmission and thus collects historical propositions.

Having collected all this inductive and empirical knowledge, the intellect returns to its proper activity and becomes independent of the lower faculties.

*p. 55, 1: the soul . . . universals*

The doctrine to which the main part of this chapter is devoted is that sensation is the basis of all inductive processes of the intellect. Arist. *Anal. Post.* ii. 19. 100<sup>a</sup>3: ἐκ μὲν οὖν αἰσθησεως γίνεται μνήμη, ὥσπερ λέγομεν, ἐκ δὲ μνήμης πολλάκις τοῦ αὐτοῦ γινομένης ἐμπειρία· αἱ γὰρ πολλαὶ μνήμαι τῷ ἀριθμῷ ἐμπειρία μία ἐστίν. ἐκ δ' ἐμπειρίας ἡ ἐκ παντὸς ἡρεμήσαντος τοῦ καθόλου ἐν τῇ ψυχῇ . . .

*p. 55, 7: negation and affirmation*

To make affirmative and negative propositions is a function of intellect (διάνοια) Arist. *Eth. Nic.* vi. 2. 1139<sup>a</sup>21: ἔστι δ' . . . ἐν διανοίᾳ κατάφασις καὶ ἀπόφασις. Again *Met. E.* 4. 1027<sup>b</sup>30: ἡ συμπλοκή ἐστίν καὶ ἡ διαίρεσις ἐν διανοίᾳ ἀλλ' οὐκ ἐν τοῖς πράγμασιν.

For the rest, this chapter does not contain purely Aristotelian logic and presupposes post-Aristotelian developments in Greek logic with which I am not acquainted.

## CHAPTER XII

IF human souls existed before their bodies, they would either be one single substance or a plurality of substance; neither of these two cases being possible, souls cannot pre-exist their bodies. It is impossible that souls should exist as a plurality before the bodies, for soul being a form would not be divisible in itself and would admit of division and diversity only when it enters different

matters. Therefore before entering their bodies, souls would be of necessity one single substance and not many.

But neither is it possible that souls should exist as one single substance before their bodies. For one thing, we shall have to admit that one single entity which has no magnitude is potentially divisible (if souls in different bodies are parts of this pre-existing soul-substance), which admission is absurd. For another, if the souls in different bodies are not parts of this one soul-substance but each is the whole of it, we must believe that numerically one soul exists in many bodies, which is again absurd. Therefore souls come into being when their bodies do so.

In fact, souls and bodies taken at random cannot fit into each other. But every body requires a particular soul and every soul wants a particular body which it may govern and use as its instrument. This mutual suitability of the body-soul couplement gives to the soul its particular character, which constitutes its proper individuality.

After the death of the body the soul preserves its individuality and survives as such.

*p. 57, 31: kingdom and instrument of the soul*

The body is an organ or instrument of the soul. Arist. *De An.* ii. 4. 415<sup>b</sup>18: πάντα γὰρ τὰ φυσικὰ σώματα τῆς ψυχῆς ὄργανα, καὶ καθάπερ τὰ τῶν ζώων, οὕτω καὶ τὰ τῶν φυτῶν, ὡς ἔνεκα τῆς ψυχῆς ὄντα. The idea that the soul governs and cares for the body is Plotinian *Enn.* iv. 8. 3. 26: βλέπουσα (i.e. ἡ ψυχὴ) . . . εἰς δὲ τὸ μετ' αὐτῇ (i.e. εἰς τὸ σῶμα) κοσμεῖ τε καὶ διοικεῖ καὶ ἄρχει αὐτοῦ.

*p. 58, 5: mutual suitability*

This whole passage which ends in these words has its source in Arist. *De An.* i. 3. 407<sup>b</sup>15 ff.: συνάπτουσι γὰρ καὶ τιθέασιν εἰς σῶμα τὴν ψυχὴν, οὐθὲν προσδιορίζαντες διὰ τίν' αἰτίαν καὶ πῶς ἔχοντος τοῦ σώματος. καίτοι δόξειεν ἂν τοῦτ' ἀναγκαῖον εἶναι· διὰ γὰρ τὴν κοινωνίαν τὸ μὲν ποιεῖ τὸ δὲ πάσχει καὶ τὸ μὲν κινεῖται τὸ δὲ κινεῖ, τούτων δ' οὐθὲν ὑπάρχει πρὸς ἀλλήλα τοῖς τυχοῦσιν. οἱ δὲ μόνον ἐπιχειροῦσι λέγειν ποῖόν τι ἡ ψυχὴ, περὶ δὲ τοῦ δεξομένου σώματος οὐθὲν ἔτι προσδιορίζουσιν, ὥσπερ ἐνδεχόμενον κατὰ τοὺς Πυθαγορικοὺς μύθους τὴν τυχοῦσαν ψυχὴν εἰς τὸ τυχόν ἐνδύεσθαι σῶμα. And *De An.* ii. 2. 414<sup>a</sup>20 ff.: σῶμα μὲν γὰρ οὐκ ἔστι (i.e. ἡ ψυχὴ), σώματος δέ τι, καὶ διὰ τοῦτο ἐν σώματι ὑπάρχει, καὶ ἐν σώματι τοιούτῳ, καὶ οὐχ ὥσπερ οἱ πρότερον εἰς σῶμα ἐνέημοζον αὐτήν, οὐθὲν προσδιορίζοντες ἐν τίνι καὶ ποίῳ, καίπερ οὐδὲ φαινόμενον τοῦ τυχόντος δέχεσθαι τὸ τυχόν.

Aristotle, however, directs the argument against the Pythagorean doctrine of metempsychosis and emphasizes the definite character

of the body in both passages. But Avicenna, to my mind, in the true spirit of the argument uses it also against the idea of the pre-existence of the soul. For, if the soul-body relation is a unique relation in which both terms are equally and essentially involved, neither of the two terms can exist without the other. A difficulty arises, however, when Avicenna at the same time wants to believe in the survival of the individual soul after the death of the body.

In Avicenna's expression 'the soul . . . has a natural appetite to use the body and to care for it', &c., however, there is a discernible Plotinian influence. The idea even suggests, inconsistently with the thesis of the chapter, that the soul comes into existence apart from the body and then yearns for it. Plotinus speaks in similar terms of the soul's appetite to descend into a body in order to edify the sensual world on the pattern of the Intelligible. *Enn.* iv. 7. 13. 3: οὐ γὰρ ἐνι ὁρμῇ οὐδ' ὀρεξίς· δ' δ' ἂν ὀρεξιν προσλάβῃ, ἐφεξῆς ἐκείνῳ τῷ νῷ ὄν, τῇ προσθήκῃ τῆς ὀρέξεως οἷον πρόεισιν ἤδη ἐπὶ πλέον, καὶ κοσμεῖν ὀρεγόμενον καθ' ἃ ἐν νῷ εἶδεν, ὥσπερ κνοῦν ἀπ' αὐτῶν καὶ ὠδίνον γεννῆσαι, ποιεῖν σπεύδει καὶ δημιουργεῖν.

## CHAPTER XIII

THE soul does not perish with the death of the body and is indestructible.

That the soul does not die with the death of the body may be proved as follows. Everything which perishes with the destruction of something else must be in some way attached to that something: either being coexistent with it, or being prior to it or posterior to it.

If the soul is coexistent with the body and they are essentially attached to each other, then neither of them can be a substance. If they are accidentally related, then, with the death of the body, only the relation of the soul's attachment will be destroyed and not its essence.

If the soul is posterior to the body, then the body must be its cause—material, efficient, formal, or final. But the body cannot be a material or receptive cause of the soul, for we have already proved that the soul is not imprinted in the body. And the body is not the formal or final cause of the soul, for the fact is just the reverse of it; the soul as we have held is the entelechy of the body. Nor can the body be the efficient cause of the soul, for the body as such does not act at all. It acts only through its properties, and properties being accidents or material forms cannot cause a self-subsisting substance like the soul. Body is in fact only an accessory cause of the soul and effects may and in fact do survive accessory causes.

If the soul is prior to the body in time, it cannot be attached to the body at all, for it precedes the latter in time. If the priority is not temporal but essential, then body can neither exist nor die independently: if it dies, it will die not of a cause peculiar to itself but through the destruction of the soul. But in fact body dies through causes peculiar to itself, i.e. through changes in its composition. Thus soul and body are not in any way dependent on each other for their existence.

That the soul is in itself indestructible may be proved by the fact that only the composites are destructible and since the soul is simple, it cannot therefore perish. We may state this otherwise: Everything which actually persists but has the potentiality of corruption has also the potentiality of persistence, for its persistence is not necessary. Thus it possesses two different characteristics: potentiality of persistence and actuality of persistence. This is possible only in composite things, for matter in everything is potential existence and the form actual existence. Now since the soul is immaterial and simple, it cannot have the potentiality of existence but only the actuality of existence. It is therefore immortal and indestructible.

This chapter comprises, broadly speaking, two different arguments about the immortality of the human soul. The first proceeds by examining the relationship between body and soul and whether soul and body are interdependent entities. The second argument examines the character of the soul and the nature of destructibility itself and concludes that soul by its very nature is indissoluble and indestructible. The idea of the immortality of the soul expounded here is entirely non-Aristotelian.

The basic idea in the second argument, namely that destruction is the fate only of composite substances and that the soul being immaterial and simple is not liable to perdition, is Plotinian. Plotinus, *Enn.* iv. 7. 12. 11: *πάν τε τὸ λυόμενον σύνθεσιν εἰς τὸ εἶναι εἰληφὸς ταύτῃ διαλύεσθαι πέφυκεν, ἣ συνετέθη. ψυχὴ δὲ μία καὶ ἀπλή ἐνεργεία οὐσα ἐν τῷ ζῆν φύσις· οὐ τοίνυν ταύτῃ φθαρήσεται.* So also the idea that the soul is not imprinted in the body as form in matter is Plotinian. Plotinus says, in his argument about the immortality of the soul, that the soul is not like a material form, for material forms are destructible: *κἂν μονωθῇ δὲ ἕκαστον γινόμενον, ἐν οὐκ ἔστι, λύσειν δεχόμενον εἰς τε μορφήν καὶ ὕλην, ἐξ ὧν ἀνάγκη καὶ τὰ ἀπλᾶ τῶν σωμάτων τὰς συστάσεις ἔχειν καὶ μὴν καὶ μέγεθος ἔχοντα, ὅτε σώματα ὄντα, τεμνόμενά τε καὶ εἰς μικρὰ θραυόμενα καὶ ταύτῃ φθορὰν ἂν ὑπομένοι* (*Enn.* iv. 7. 1. 15; cf. Zeller, *Phil. d. Gr.* iii. 2, p. 580. 20).

What Avicenna has proved before in this book (Chapter IX) is not the immateriality of the soul but of the *voûs* in the strict Peripatetic spirit. But in this chapter he says that he has already proved that the soul is not imprinted in the body as form in matter, which idea is indeed not Peripatetic but Neoplatonic. On the whole in his account of soul Avicenna has combined Aristotelianism with Neoplatonism. Cf. Chapters IV and XII.

*p. 58, 35: the causes are four*

These are the four Aristotelian causes.

#### CHAPTER XIV

WE have said before that the couplement of a soul with a body is not a matter of mere chance so that souls exist on their own account independent of bodies and organized bodies exist apart from souls and then souls come to inhabit bodies by chance. On the contrary, every organized body requires a particular soul. Now, if we suppose a soul which transmigrates from one body into another, the second body will have two souls—one its own soul, since being an organized body it must require a particular soul of its own, and the other which will transmigrate into it from another body. This is absurd. Therefore there cannot be any transmigration of souls.

Again, the soul which dwells in a living body governs it and administers it so that the living being is conscious of itself as being possessed of that soul and the soul is also conscious of itself as being the governor of that body. Now, no one is conscious of having two souls but only one. If then there be a soul of which the living being is not conscious, and the soul is not conscious of being the soul of that body, that soul cannot be attached to that body at all. Therefore the doctrine of metempsychosis is impossible.

The first of these two arguments is based on the idea that a soul can have only one particular body, which is an Aristotelian idea. See Arist. *De An.* i. 3. 407<sup>b</sup>15 ff. and ii. 2. 414<sup>a</sup>20 ff., quoted above p. 106. The second argument which rests on the idea of self-consciousness is evidently not Aristotelian and presupposes the idea of an ego, cf. above p. 103 and the notes on the following chapter.

#### CHAPTER XV

SOUL is one single substance and is the substratum of all experience. This may be proved in the following way: It is quite certain that different faculties are affected by one another as, for example, the



activity of the perceptive faculty may be attended by anger, which is an operation of the appetitive faculty. Now, to explain this interaction of different faculties there are two ways open to us: If we do not believe in the ultimate subsumption of the faculties under a unitary substance, we must believe that some faculties are directly affected by the objects of other faculties. Thus, if we perceive a thing and then our anger is roused, we must admit on this assumption that the appetitive faculty itself is directly affected by the object of perception. This would mean that the appetitive faculty performs a double function—perceptive and appetitive. This is wrong, because each faculty performs only one function special to itself. If someone says: 'We do not hold that the appetitive faculty is affected by the perceived form itself but that, when the perceptive faculty perceives, it is necessarily followed by the anger of the appetitive faculty', we reply that if the affection of the appetitive faculty is not due to the object of perception, then the anger cannot be said to be due to the object of perception at all, and if the affection is due to the object of perception, then whatever is affected by the object of perception as such is percipient, so that the same faculty would be angry as well as percipient. The view that faculties are directly affected by the objects of other faculties is then false. Therefore the only other course open to us is that the faculties are subsumed under one single principle which is the ultimate object of all experience.

Again, when we say, 'I perceived and I became angry', what is the subject of these experiences, expressed by the word 'I'? It cannot be any one organ of the body, nor two organs of the body, nor yet the whole body as such. The sentence must then mean that the faculty to which perception referred its contents became angry. The unifying principle of experience is then the soul itself.

The heart is the first organ to which the soul as a principle of life is attached. This Aristotelian view is opposed to Plato.

An objection may be raised against our doctrine of the unity of the soul. The objection is that in plants we find only the vegetative soul and not the animal and rational souls, while in animals we find the first two only to the exclusion of the third. This suggests that each of these is an independent soul and that the soul is not one whole. The answer to this is that the soul is a unity but that certain bodies are unfit, through lack of proper temperament, to receive the whole soul and therefore receive only a part. To give a physical analogy, fire is one unitary substance but may warm or illuminate or engender a flame in an object according to its capacity and position. Warmth alone or warmth and illumination together may

exist without the flame, but when the flame exists, the former two will automatically exist along with it. Each subsequent stage includes the former and transcends it.

*p. 64, 23: one single substance*

The doctrine of the unity of the soul was held by Aristotle in opposition to Plato who maintained the theory of the tripartite division of the soul. Arist. *De An.* i. 5. 411<sup>a</sup>26 ff.: ἐπεὶ δὲ τὸ γινώσκειν τῆς ψυχῆς ἐστὶ καὶ τὸ αἰσθάνεσθαι τε καὶ τὸ δοξάζειν, ἔτι δὲ τὸ ἐπιθυμεῖν καὶ βούλεσθαι καὶ ὅλως αἱ ὀρέξεις, γίνεται δὲ καὶ ἡ κατὰ τόπον κίνησις τοῖς ζώοις ὑπὸ τῆς ψυχῆς, ἔτι δ' αὖξή τε καὶ ἀκμή καὶ φθίσις, πότερον ὅλη τῇ ψυχῇ τούτων ἕκαστον ὑπάρχει, καὶ πάσῃ νοοῦμέν τε καὶ αἰσθανόμεθα καὶ κινούμεθα καὶ τῶν ἄλλων ἕκαστον ποιούμεν τε καὶ πάσχομεν, ἢ μορίοις ἑτέροις ἕτερα; . . . λέγουσι δὲ τινες μεριστὴν αὐτὴν, καὶ ἄλλω μὲν νοεῖν ἄλλω δὲ ἐπιθυμεῖν. τί οὖν δὴ ποτε συνέχει τὴν ψυχὴν, εἰ μεριστὴ πέφυκεν; οὐ γὰρ δὴ τό γε σῶμα δοκεῖ γὰρ τούναντίον μᾶλλον ἢ ψυχῇ τὸ σῶμα συνέχειν . . . εἰ οὖν ἕτερόν τι μίαν αὐτὴν ποιεῖ, ἐκείνο μάλιστ' ἂν εἴη ψυχῇ. δεήσει δὲ καὶ πάλιν κάκεῖνο ζητεῖν πότερον ἐν ἡ πολυμέρες. εἰ μὲν γὰρ ἐν, διὰ τί οὐκ εὐθέως καὶ ἡ ψυχὴ ἐν; εἰ δὲ μεριστόν, πάλιν ὁ λόγος ζητήσῃ τί τὸ συνέχον ἐκείνο, καὶ οὕτω . . . ἐπὶ τὸ ἄπειρον. Aristotle reiterates this doctrine in *De An.* ii. 2. 413<sup>b</sup>11-414<sup>a</sup>3, and iii. 9. 432<sup>a</sup>22-432<sup>b</sup>7.

Avicenna's whole argument may be conveniently treated as two independent arguments. In the first he strives to establish the soul as a substance starting from the multiplicity of experience and maintains that in order to combine the multiplicity of experience together we need the self as a unifying principle. In thus invoking the existence of an ego Avicenna, as we have already said in Chapter X, goes beyond Aristotle. This idea enables him to construct his second argument on the direct consciousness of the self as the subject of experience, which he proceeds to identify with the soul.

In Chapter X we said that the followers of Aristotle had gone beyond their master and, indeed, in a certain degree, quite in opposition to him, had formulated the idea of a self-conscious spiritual ego in order to explain the unity of experience. Since the passage in which Philoponus informs us of this development is interesting and important and, to my knowledge, has nowhere been discussed, I take this opportunity to give a translation of it. Commenting on Arist. *De An.* iii. 2. 425<sup>b</sup>12, Philoponus (*De An. Greek*, ed. Hayduck, Berlin, 1897, p. 464. 13 ff.; Latin translation, 1581, 137<sup>a</sup>15 ff.) says:

'We, however, say about this that Aristotle's view is wrong, for

the acts of the eye are not coloured, but the transparent is the cause of the twinklings. For the transparent itself, after the removal of the object of sight, leaves certain twinklings and traces of light [*προυνυάσματα*, omitted in the Latin translation] imprinted before the eye. What is apparent from the statements [of Aristotle] is this, and to put it briefly, his meaning is quite clear: He wants to attribute to individual senses the knowledge both of their objects and of their own acts. Alexander, however, in his commentary, attributes to the five senses the knowledge of their objects only, and to the *sensus communis* the knowledge of objects and the knowledge of their acts as well. Plutarch holds that it is a function of the rational soul [*λογικὴ ψυχὴ*] to know the acts of the senses. He says that this happens through the least honourable part [*τὸ ἄτιμον μέρος*; Latin: *ignobilis pars*] of the rational soul, namely, opinion [*δόξα*]. For opinion, being the commonest and least worthy part of the soul, links the rational with the irrational. For, as we have often learnt, it is through their least worthy part that the primary principles are linked with the secondary; the present case also illustrates this. Opinion, then, according to Plutarch, performs this function and is conscious of the activity of the senses.

But the more recent interpreters neither revering Alexander's brow nor following Plutarch, even rejecting Aristotle himself, have discovered a new explanation. They say that it is a function of the attentive part of the rational soul to know the acts of the senses. For, according to them, the rational soul has not only five faculties—intellect, reason, opinion, will, and choice, but, besides these, also a sixth faculty which they add to the rational soul and which they call the attentive faculty. This faculty of attention [*προσεκτικόν*] they say, superintends [*ἐφιστάναι*; Latin: *animadvertit*] the events occurring in a human being and pronounces. "I intellectualled, I reasoned, I opined, I was angry, I desired"—in short, this attentive part of the rational soul pervades all the faculties, rational, irrational, and vegetative. If, then, it is to pervade all the faculties, they say, it must also proceed to the senses and say, "I saw, I heard". To make such pronouncements as these is the proper function of that which cognizes the activities [of all the faculties]. And in fact the attentive part does make such pronouncements, or cognizes the acts of the senses. For, man being a single individual, there must be one single cognizant of the activities of all the faculties. If there were two, the one apprehending these acts and the other those others, the attentive faculty would still, just as in other cases, say, "If thou apprehendest that, I apprehend this." The attentive faculty must be one, for it ranges through all the faculties, cognitive

as well as vital. When it applies itself to the cognitive faculties, it is called attention; hence when we want to reproach a man who lacks concentration in the exercise of his cognitive faculties, we say to him, "Mind yourself." But when it attends to the vital faculties, it is called conscience. Whence the tragedy says (Euripides, *Orest.* 396): "Conscience. Being conscious that I have done a wrongful deed."

'Attention, then, (according to them) is conscious of the acts of the senses. They say that Plutarch is wrong in explaining this self-consciousness through opinion. For the awareness of the activities of all the faculties must belong to a single principle, but opinion cannot know the activity of the intellect. It cannot pronounce "I intellected", or "I reasoned". Although it may say, "I opined, I was angry", it cannot know the activities of the higher faculties. In these criticisms of theirs, however, they do not accuse Plutarch, for they have not found him anywhere saying that it is a function of the faculty of opinion to be conscious of the activities of the senses. Plutarch, in this matter, agrees with Alexander, i.e. in explaining self-consciousness through *sensus communis*, and both are equally convicted of holding a wrong view in attributing to *sensus communis* the knowledge of the activity of the individual senses. For *sensus communis* does not perceive anything but a sensible object. But every sensible is in a body, while the activity, not being in a body, cannot be a sensible. If it is not sensible, it cannot be an object of the *sensus communis*.

'We agree with these people in saying that there is no sixth sense which possesses self-consciousness, that neither is it the sight which both perceives and perceives that it perceives but it is a function of the attentive part of the rational soul to do so. That there is no sixth sense which perceives perception we admit in accordance with what Aristotle says, but that the same sense which perceives [its object], also perceives its own perceptual act, we do not accept with him, for, even if we admit that the eye sees its own activity, it seems to me illegitimate to conclude that the activity is coloured from the premiss that the eye can see not only colour but also light and darkness. We maintain against him that in itself only colour is the object of sight, other things (e.g. darkness) are perceived only negatively, i.e. by not being colour; and the eye is not affected by them. But no one sees his activity [of sight] in the same way as he sees things which are only negatively perceived. Similarly, when the eye sees colour, it does not see its activity as coloured. It is clearly false to say that the activity is in any way coloured, for how can it be so, being incorporeal as it is? If it is coloured, it will be at the same time both black and white since it apprehends

black and white together, which is, indeed, absurd. It would be better to say that the organ is coloured, not the act. If one seeks to prove this on the evidence of the traces of light, we would say that this is not the colouring of the activity but that the sensible by vehemently striking on the sense-organ produces an affection in it, of which imagination takes an imprint and retains it so that traces of light are seen in imagination. That it is not colour is shown by the fact that it can be perceived even when we close our eyes. For it must be kept in mind that imagination is but mild sensation just as sensation is only lively imagination.

'There is another reason why it is false to attribute self-consciousness to sensation itself. Sensation having perceived colour must at all events reflect upon itself [in order to know that it sees]. If it thus reflects upon itself it belongs to the kind of separate activity, and what belongs to the kind of separate activity belongs also to separate substance, and is therefore incorporeal and eternal. Thus the person who is hesitant about the immortality of the rational soul, openly acclaims the irrational soul as immortal, which is absurd, for senses are not eternal and cannot therefore reflect on themselves. If they cannot reflect on themselves, they cannot know their own acts. For to reflect on one's self is nothing else but to be conscious of one's own activity. Aristotle is therefore wrong, and, as we said, it is a function of the attentive part of the soul to know the acts of the senses.'

Sophonias (*De An.* ed. Hayduck), p. 110. 36 ff. distinguishes between reflection on one's own activity and that on one's self or substance (*οὐσία*). Physical objects know neither their acts nor their own substances, for they are immersed in thick and coarse matter (*πάχος*). Sensation is free from coarse matter but is immersed in thin matter or pneuma, it can therefore know its own activity but cannot know itself. Reason is free from all kinds of matter. It knows the acts and its substance as well and is eternal.

*p. 66, 33: the heart*

According to Aristotle, as opposed to Plato, the heart is the primary and dominant part in animals and is the first of all parts to be formed. *De Part. An.* iii. 4. 665<sup>b</sup>18 and 666<sup>a</sup>10. Cf. also *De Generat. An.* ii. 4. 738<sup>b</sup>16.

*p. 66, 34: this theory . . . Plato*

This opposition of Aristotle to Plato can refer either to the position of the heart or to the whole doctrine of the unity of the soul which is the subject of this chapter.

*p. 67, 20: to illustrate this point . . .*

To illustrate the essential unity of the soul, in the diversity of its parts, Avicenna gives the example of fire and its three qualities. This may be compared to Philoponus, who, in the same connexion, remarks (*De An.*, p. 196. 15): ὡς περ τὸ πῦρ ἐν ὧν καὶ τὸ αὐτὸ κατ' οὐσίαν καὶ θερμαίνει καὶ ξηραίνει καὶ φωτίζει πολυδύναμον ὧν καὶ οὐ πολυμερές. But whereas Philoponus simply enumerates qualities, Avicenna makes a hierarchy of them in which each includes the preceding one and transcends it.

## CHAPTER XVI

SINCE every thing which is potentially existent can pass into actuality only through some other thing which is actual, in order to explain the transition of potential human intellect we must assume some actual intelligence which confers actuality on it.

Since this intelligence bestows intelligible forms on the potential intellect, it must therefore actually possess them, i.e. it must be actual intellect, for if it were potential, this would involve a regress.

This actual intelligence is called, in so far as it acts upon the potential intellect, active intellect; and the latter, which is acted upon, passive intellect; and the intellect emerging between them is called acquired intellect.

The action of the active intellect on the passive intellect is analogous to the action of light on our eyes. Just as light turns our eyes, which are only potentially seeing, into actual subjects of sight, and the potential visibles into actual visibles, so this active intellect renders our potential intellect an actual intellect and potential intelligibles actual intelligibles.

Just as light itself is always actually visible, this active intellect is always actually intelligible. And since that which is in itself intelligible is also in itself intelligent, therefore the active intellect is an eternal self-thinking thought.

*p. 69, 2: imagination*

In *De An.* iii. 5. 430<sup>a</sup>24 Aristotle had described the material intellect as παθητικός νοῦς, i.e. the passive intellect which becomes everything as opposed to the intellect which makes everything. But the idea of a παθητικός νοῦς was hard to understand, for according to Aristotle πάθος or affection is a characteristic of the body or of bodily faculties. How can νοῦς be understood to be affected? This is most probably the reason why the passive intellect was later

identified with imagination when people attempted to determine more closely the nature of the *παθητικός νοῦς*. Philoponus in the introduction to his *De An.*, p. 11. 7 says that Aristotle himself called *φαντασία* the *παθητικός νοῦς*: *ἐναργῶς ἄρα διὰ τούτων καὶ ἀπαθῆ καὶ ἀθάνατον καὶ αἰδιον τὸν νοῦν φησιν εἶναι καὶ χωριστὸν καθ' αὐτόν, τὴν δὲ φαντασίαν φθαρτὴν, ἣν παθητικὸν νοῦν ἐκάλεσεν, νοῦν μὲν, ὅτι παρ' ἑαυτῇ ἔχει τὸ γνωστόν, παθητικὸν δέ, ὅτι μετὰ τύπων*. Cf. Simplicius, *De An.*, p. 17. 3.

p. 69. 7: *the sun*

The action of the active intelligence on the passive intellect is illustrated by the Aristotelian example of light: Arist. *De An.* iii. 5. 430<sup>a</sup>14: *καὶ ἔστιν ὁ μὲν τοιοῦτος νοῦς τῷ πάντα γίνεσθαι, ὁ δὲ τῷ πάντα ποιεῖν ὡς ἕξις τις, οἷον τὸ φῶς· τρόπον γάρ τινα καὶ τὸ φῶς ποιεῖ τὰ δυνάμει ὄντα χρώματα ἐνεργείᾳ χρώματα*.

Avicenna gives a detailed account of the nature of the action of the active intelligence on the potential intellect in order to render it actual. Before the intellection takes place the human soul has, on the one hand, the images of the particular material objects, and, on the other, the potential intellect. The potential intellect considers and compares these images, and this activity prepares it to receive the universal intelligible from the active intelligence by way of emanation. It is not the transportation of the image, denuded of its material attachments by the illumination of the active intelligence, into the intellect which constitutes the act of intellection, but an intellectual intuition coming directly from the active intelligence.<sup>1</sup> Avicenna compares this with the intuitive perception on the part of the intellect of the necessary connexion between the premisses and the conclusion. Nor does the universal element in the images produce its like in the intellect. The images are then not the cause of the intelligible at all. Their consideration by the soul is merely preparatory for the reception of the intelli-

<sup>1</sup> Gilson, 'Les Sources gréco-arabes de l'augustinisme avicennisant' (*Arch. d'hist. doctr. et lit. d. moyen âge*, 1929-30), p. 65. 18-21. Avicenna says:

لا على أنها (الجزويات) (i.e. انفسها تنتقل من التخيل إلى العقل منا ولا على أن المعنى المغمور في العلائق وهو في نفسه واعتباره في ذاته مجرد يفعل مثل نفسه بل على معنى أن مطالعتها تعدّ لأن تفيض عليها المجرّد من العقل الفعّال — فإن الأنكار والتأملات حركات معدة للنفس نحو قبول الفيض كما أن الحدود الوسطى معدة بنحو أشد تأكيد القبول النتيجة —  
(Al-Shifā', Bodl. MS. Pococke, 125, fol. 196b, 13 ff.)

gible. What Avicenna means is that the perception of the universal is a genuine and veritable movement of the intellective soul not reducible to the consideration of the particular images. The difficulty, however, arises, In what does the activity of comparing the images consist without having a knowledge of the universal which is a common element in all the images and on which depends the possibility of the comparison itself?

Thus, by receiving the actual intelligible from the active intelligence the potential human intellect becomes actual. Avicenna rejects the Aristotelian doctrine that the soul becomes the intelligible itself, i.e. he refuses to believe in the Peripatetic doctrine of the identity of the intellect and its object in the act of intellection.<sup>1</sup> He argues at some length that nothing can become something other than itself without itself ceasing to be, and he consequently sharply distinguishes between three things: the intellect, the intelligible, and the act of intellection.<sup>2</sup> Avicenna thereby leaves the question unanswered, How can the human intellect which in itself exists only in pure and absolute potentiality become actual? Professor Gilson has attempted to find an answer to this question in Avicenna, and he claims eventually to have found such an answer in the Avicennian doctrine of *intellectus in habitu* according to which the human soul cannot retain the received intelligible, but whenever it subsequently wants to exercise its knowledge, has to re-unite itself with the active intellect.<sup>3</sup> But so far as I can see, this doctrine which we shall presently learn, has relevance only to the problem of intellectual memory and cannot be made to explain the difficulty about the passage of the potential intellect into actuality. Aristotle had designed the doctrine of the identity of the intellect and the intelligible, not in order to establish intellectual memory which he, indeed, in fact denied,<sup>4</sup> but in order to explain the possibility of knowledge at all, and it was therefore a consequence of his general

<sup>1</sup> Avicenna attributes this doctrine not to Aristotle himself but to Porphyry, 'the man who composed the Isagoge for them', as he puts it.

<sup>2</sup> This identity of the intellect and the intelligible is not possible in our souls but is possible in the higher intelligences or in God. Thomas Aquinas wrongly attributes the doctrine of the identity of the intellect and the intelligible to Avicenna: *Sum. contr. gent. lib. ii, cap. 74*: 'Quod quidem ex hoc probare nititur (sc. Avicenna) quia, quamdiu formae apprehensae manent in potentia apprehensiva, actu apprehenduntur, ex hoc enim sensus in actu fit, et similiter intellectus in actu est intellectum in actu; unde videtur quod, quandocumque sensus vel secundum hoc quod habet forma ipsius, fit apprehensio in actu per sensum vel per intellectum.'

<sup>3</sup> Gilson, *op. cit.*, p. 71. 3 ff.

<sup>4</sup> According to Aristotle intelligibles are never remembered *per se*, but only *per accidens* (*De Mem. i. 450<sup>a</sup>10-14*).



theory of knowledge. For according to Aristotle the organ of knowledge is actually unlike and potentially like the object, and actual knowledge therefore consists in its actually becoming the object. This formula is equally valid both for sensation and for intellection.<sup>1</sup>

The next question is about the intellect after it has become actual or about the nature of *intellectus in habitu*. In other words, What is the relation of the human soul with these intelligibles after they have been received by it? Avicenna's answer to this question had a profound and far-reaching influence on medieval thinkers. His answer consists in expounding the Aristotelian doctrine of the denial of intellectual memory as such, by means of the Neoplatonic idea of the emanation of intelligibles from the active intelligence. According to Avicenna the cognitive faculties are different from the retentive ones: to be presented to a cognitive faculty means to be actually cognized by that faculty; to be presented to a retentive faculty means to be conserved in that faculty without being actually cognized. Now, Avicenna says, there are only two retentive faculties in the soul: one is the storehouse of the images, which is the representative faculty; and the other is the storehouse of the intentions, which is the faculty of conservation. But there is no place which can serve as the storehouse of the intelligibles. For, if they are placed in some faculty lower than the intellect, the intelligibles will become material; and if they remain fixed in the intellect, the intellect must always actually contemplate them, for intellection means nothing else than the presence of the intelligible in the intellect. It is, however, a fact that we do not always actually contemplate the acquired intelligibles, although we can do so when we will. How is this possible? Avicenna's answer is that whenever the soul wants to contemplate the intelligibles previously acquired, it re-unites itself with the active intelligence from which the intelligibles re-emanate as they did previously, and that this constant exercise of the soul facilitates such re-union more and more—this is what is meant by *intellectus in habitu*.

Thomas Aquinas,<sup>2</sup> in discussing the question of intellectual memory, mentions Avicenna's argument. He also admits that Aristotle denied intellectual memory as such, in *De Memoria et Remiscentia*. But he rejects Avicenna's view because it involves a consequence which assigns to the forms a status almost equivalent to that of Plato's Ideas:

<sup>1</sup> Arist. *De An.* iii. 4, 429<sup>a</sup>15-18; 8. 431<sup>b</sup>25-28.

<sup>2</sup> *Summa contra gentiles*, lib. ii, cap. 74; *Summa theologica*, pars prima, Q. 79, art. 6; *De Anima*, lib. iii, sectio viii.

'Sed si diligenter consideretur haec positio, . . . parum aut nihil differt a positione Platonis. Posuit enim Plato formas intelligibiles esse quasdam substantias separatas a quibus scientia fluebat in animas nostras, hic autem ponit ab una substantia separata, quae est intellectus agens secundum ipsum, scientiam in animas nostras fluere. Non autem differt, quantum ad modum acquirendi scientiam, utrum ab una vel pluribus substantiis separatis nostra causetur scientia.'<sup>1</sup>

He consequently held that intelligibles remain conserved in the intellect in a semi-potential semi-actual state.<sup>2</sup>

Zabarella agrees with Avicenna that the intelligibles cannot be retained in the intellect after being acquired, and he accepts Avicenna's argument as being the most correct.<sup>3</sup> But at the same time he is far from being prepared to accept the Neoplatonic theory of emanation held by the Arab philosopher. What is then meant by *intellectus in habitu*? The intellect, in order to exercise its previously acquired knowledge, cannot recall the universal from within itself because it is not there; nor can it have recourse to an active intelligence which contains all the intelligibles in itself; it must then turn again to the images in which it had originally discovered the universal through the illumination of the active intellect. Before the discovery of the universal, we had an intellect which possessed nothing but a mere raw (*rudis*) potentiality. But now, after exercise, it has acquired a refined aptitude which facilitates the recovery of the truths learnt before through hard work. This aptitude is termed by Zabarella *habitus* and the intellect which possesses it, *intellectus in habitu*.<sup>4</sup>

The word 'memory' is highly ambiguous. To distinguish only its two main but very different senses: (1) In its most important usage memory implies a conscious reference to the past. If we restrict the use of the word 'memory' or 'remembering' to this sense, then only particular events and objects can be remembered. Thomas Aquinas's answer to this argument,<sup>5</sup> that the pastness attaches to the intellectual act only and not to the object of the act, seems to rest on a confusion. The object of a past act is as particular as the act itself. Of course a mathematical truth, for instance, is universal and not

<sup>1</sup> *Sum. contr. gent.* lib. ii, cap. 74.

<sup>2</sup> *Ibid.*; *sum. theol.*, pars prima, Q. 79, art. 6.

<sup>3</sup> Zabarella's Commentary on Aristotle's *De Anima*, Venetis, 1605, p. 38. 2, a: 'Avicenna enim hoc, quod verissimum est, cognovit, non posse in intellectu esse impressam speciem sine intellectione.'

<sup>4</sup> Zabarella, *op. cit.* 40. 2, a 15 ff.

<sup>5</sup> *Sum. theol.*, prima pars, Q. 79, art. 6.

particular in itself. But as forming part of a past event, e.g. as an object of my previous act of learning, it is particular; otherwise it could not have been part of an event at all. (2) But there is a sense of remembering in which universal truths or propositions expressing them are remembered. For example, if I now contemplate or use a mathematical truth I had learnt before, and I do not consciously refer it to the past, I am also said to remember that proposition. Remembering in this sense means that I have understood the proposition so that I can contemplate it or use it at my will.

# APPENDIX

## SIGLA

- A Cairo edition.
- B Bodleian MS.
- C Cambridge MS.
- D Paris MS.
- E Manchester MS.
- F Rome edition.
- G Kitāb al-Shifā' MS.

## TEXTUAL NOTES

NOTE: *Chapters and numbers refer to the translation;  
the adopted readings are mentioned first*

### CHAPTER I

1. له A; وكذلك له القوة المنمية C
2. تفعل A; تنقل C, E
3. المتهين A; المتهيين B, C
4. فعله E; مثله A; فعلها B, D
5. في العناصر A; من العناصر C
6. كمال اول A; الكمال الاول B, C, D, E, F
7. يصير A; يصيره G

### CHAPTER II

1. والشوقية A; الشوقية B, E, F
2. المفروق A; المتفرق B, C, D, E, F
3. الرطوبة العذبة B, C, E, F; الرطوبة اللعابية A
4. فتستحيل اليه A, فتحيله C, D, E, F
5. لا لون له يتوسط بينه وبين البصر تادى شبح ذاك الجسم ذى لا A  
لا لون له فانه اذا كان الضوء B, C, D, E, F, G, اللون الواقع عليه الضوء.  
واقعا على الجسم ذى اللون الذى الجسم الذى لا لون له متوسط بينه  
وبين البصر تادى شبح ذاك الجسم ذى اللون الواقع عليه الضوء

## CHAPTER III

1. المضاد; A الضار B
2. B, C, D, E, F من غير ان يفعل A. من غير ان يكون له ان يفعل
3. B, C, D, E, F حيوان A om. والمس ضروري ان يوجد في كل حيوان

## CHAPTER IV

1. اصطلاحية; B, E, F اصطلاحية A
2. A المبينة; C, G المحدودة
3. B, C, D, E, F, G نحدث; A يجلس

## CHAPTER V

1. B, C, D, E, F يكفيه A, كيفية
2. B, C, D, F يحسها A, بحسبها
3. E, G العقل A; الفعل
4. B, C, D, E, F الصورة المعقولة المكتسبة بعد المعقولة الاولى A; الصورة المعقولة الاولى
5. B, C, D, E, F واكتساب A; اكتساب

## CHAPTER VI

1. A, D كرشى E, F; كثير شىء B, C كرشى
2. B, C, F حدوس; A حدس
3. B, C, D, E, F المأخذ A; المأخذين
4. C, D, E, F, A, B om
5. Scripsi: B, C, D, F. 'The digestive is served on the one hand by the retentive and, on the other, by the excretive'; E. 'The digestive is served on the one hand by the assimilative and, on the other, by the retentive, while the excretive serves the retentive'; A 'The digestive serves these on the one side, the retentive on the other, the assimilative on the third, and, finally, the excretive'.

## CHAPTER VII

1. C نزعا للعلائق; A, B, D, E, F نزعا مع تلك العلائق
2. C, D وإن غابت; A وإن غابت

3. B, C, D, E, F فتأخذها A, أخذها  
 4. B فتأخذ للكثيرين D; فتأخذ الكثير C; فيأخذ الكثيرة A, فتوحد الكثير B;  
 E فيأخذ للكثير F; فتوحد للكثير E

## CHAPTER VIII

1. B, D, E, F والغيبه عنه A; والغيبه عنده  
 2. F وضع وقرب A, وضع وقرب  
 3. كالخيال فهو يحتاج الى آلة جسمانية فان الخيال لا يمكنه ان يتخلل F;  
 A, B, C, F كالخيال فهو لا يتخلل  
 4. B, C, D, F بعضها عن بعض A, بعضها عند بعض  
 5. E. Probably a gloss incorporated in the text.  
 6. A, B, C, D, F بالوضع المتخيل المشار اليه في E, G; بالوضع في الخيال  
 الخيال  
 7. A, B, C, F ايقاع عارض فيه ليس في ذلك A, B, C, F ايقاع عارض فيه D, E, G ليس في ذلك غير جهات المادة  
 8. B, C, D, E, F, G لا تبقى المسألة A; تبقى المسألة  
 9. B, C, D, F, G القياس A; التياسر  
 10. A, B, C, D, F وذلك الحد لامر E; وذلك الحد لامر معقول كلي يصح  
 معقول كلي وفي مثله يصح لانه امر فرضي مع الفرض في التصور يصح  
 Probably a gloss.  
 11. A بشرط بقرن بذلك او بهذا E; الا بسبب شرط يقترن بذلك او بهذا  
 وبعد لحوقه يفرض ذلك يمينا وهذا يسارا واما في الوضع العقلي فان  
 حد التياسر والياسر  
 12. A, B, C, D بل وقوع ذلك الوضع الخيالي يجعله بحيث يصدق عليه  
 بل ذلك الوضع الخيالي — فانه يجوز ان يثبت في العقل كلي E; والفرض  
 من غير الحاق يبنى به ويكون معدا لان يلحق به ما يلحق واما الخيال  
 تخيله بحيث يصدق عليه الفرض  
 13. D, E الجزء A; الجزئين  
 14. B, C, E انا انما نتخيل A; انا نتخيل

15. E adds: السواد يعقل العقل ان فنقول ان العقل يعقل السواد  
والبياض معا في زمان واحد من حيث التصور — واما من حيث التصديق  
فيمتنع ان يكون موضوعها واحدا — واما الخيال فلا يتخيلها معا لا  
على قياس التصور ولا على قياس التصديق على ان فعل الخيال انما هو  
Evidently a gloss. على قياس التصور لا غير ولا فعل له في غيره

## CHAPTER IX

1. A يتركب E لا تتركب متشافعة D لا تتركب بتشافعها A  
بتشافعها جسم
2. لا ميز D لا يتم A لا يتميز G
3. B, C, D, E, F, G om.
4. اذ الكل من حيث هو الكل ليس هو الجزء E
5. عليه على التمام A على نفس معنى التمام B, C, D, E, F
6. E بالفعل A, B, C, D, F om.
7. بدن A مرید C
8. لا يفنى = يفنى A لا يفنى D, G
9. وبعث A بعث B, F
10. يكون A لا يكون B, C, D, E
11. قد يصبح A قد صبح B, C, F
12. عقلها A فعلها B, C, D, E, F

## CHAPTER X

1. E بالعدد A, B, C, D, F om.
2. آلة A آلة B, C, D, E, F
3. يحكى B تخيل A, C, D, E, F
4. عند الشيخوخة A وعند الشيخوخة B, C, D, E, F
5. ان ذاك A وان ذاك B, C, D, E, F
6. B, C, D, E, F فعلا A om.
7. آخر C A, B, D, E, F om.
8. A, B, C, D, E, F الا ان الامعان في المطلوب بعد بلوغ الكفاية G  
الا ان بلوغ الكفاية

## CHAPTER XI

1. B, C, D, E, F طبيعة A; أن من طبيعة
2. C, E, F دابة A; ذاته
3. B, D, F يحمله عن E; يعوقه عن A

## CHAPTER XII

1. A, C كلما; B, D, E, F كما
2. C متحققا; A, D متوقعة; E, F متوقعا; B om.
3. A sic; B, C, D, E, F om.

## CHAPTER XIII

1. D لفعله A; لعله
2. B, D, E, F شيء A; شيء

## CHAPTER XIV

1. D, F يفيض A; يقتضى
2. B, C, D, E, F المصروفة A; المصروفة
3. Scripsi: بعد ان فيه A, B, C, E, F; بيد ان بسطنا فيه D; بعد ان بسطنا فيه

## CHAPTER XV

1. B, D, F بصورة A; عن صورة
2. C, D بأول A; بائى
3. D كرة; B, C, E, F كوة A; كوما
4. B, C, D, E, F تسخن A, إنما تسخن

## CHAPTER XVI

1. B, C, D, E, F المعقولات A; معقولاته
2. B, C, D, E, F من جوهره A; من جوهر



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