

ARISTOTLE
DE ANIMA

BOOKS II AND III

(WITH PASSAGES FROM BOOK I)

Translated
with Introduction and Notes
by

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and a Revised Bibliography
by

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BOOK III

CHAPTER 1

424^b22. That there is no other sense_A apart from the five (and by these I mean sight, hearing, smell, taste, and touch) one might be convinced by the following considerations. We have even now perception_A of everything of which touch is the sense_A (for all the qualities of the tangible, *qua* tangible, are perceptible to us by touch). Also, if we lack any sense_A we must also lack a sense-organ. Again, all the things which we perceive through direct contact are perceptible by touch, which we in fact have, while all those which we perceive through media and not by direct contact are perceptible by means of the elements (I mean, for example, air and water). And the situation is such that if two things different in kind from each other are perceptible through one thing, then whoever has a sense-organ of this kind must be capable of perceiving both (e.g. if the sense-organ is composed of air, and air is required both for sound and for colour); while if there is more than one medium for the same object, e.g. both air and water for colour (for both are transparent), then he who has one of these alone will perceive whatever is perceptible through both. Now, sense-organs are composed of two of these elements only, air and water (for the pupil of the eye is composed of water, the organ of hearing of air, and the organ of smell of one or other of these), while fire either belongs to none of them or is common to all (for nothing is capable of perceiving without warmth), and earth either belongs to none of them or is a constituent specially and above all of that of touch. So there would

remain no sense-organ apart from those of water and air, and these some animals possess even now. It may be inferred then that all the senses_A are possessed by those animals which are neither imperfect nor maimed (for even the mole apparently has eyes under the skin); hence, unless there is some other body and a property possessed by none of the bodies existing here and now, no sense_A can be left out.

425^{a14}. Nor again is it possible for there to be any special sense-organ for the common-objects, which we perceive by each sense_A incidentally, e.g. movement, rest, figure, magnitude, number, and unity; for we perceive all these through movement, e.g. magnitude through movement (hence also figure, for figure is a particular form of magnitude), what is at rest through absence of movement, number through negation of continuity and also by the special-objects; for each sense_A perceives one thing. Hence it is clear that it is impossible for there to be a special sense_A for any of these, e.g. movement. For in that case it would be as we now perceive the sweet by sight; and this we do because we in fact have a perception_A of both, as a result of which we recognize them at the same time when they fall together. (Otherwise we should perceive them in no other way than incidentally, as we perceive the son of Cleon not because he is the son of Cleon but because he is white, and the white object happens to be the son of Cleon). But for the common-objects we have even now a common sense_A, not incidentally; there is, then, no special {sense} for them; for if so we should not perceive them otherwise than as stated [that we see the son of Cleon].

425^{a30}. The senses_A perceive each other's special-objects incidentally, not in so far as they are themselves but in so far as they form a unity, when sense-perception_A simul-

taneously takes place in respect of the same object, e.g. in respect of bile that it is bitter and yellow (for it is not the task of any further {perception} at any rate to say that both are one); hence too one may be deceived, and if something is yellow, one may think that it is bile.

425^{b4}. One might ask for what purpose we have several senses₄ and not one only. Is it perhaps in order that the common-objects which accompany {the special-objects}, e.g. movement, magnitude, and number, may be less likely to escape our notice? For if there were sight alone, and this was of white, they would be more likely to escape our notice and all things would seem to be the same because colour and magnitude invariably accompany each other. But as things are, since the common-objects are present in the objects of another sense too, this makes it clear that each of them is distinct.

CHAPTER 2

425^{b12}. Since we perceive that we see and hear, it must either be by sight that one perceives that one sees or by another {sense}. But in that case there will be the same {sense} for sight and the colour which is the subject for sight. So that either there will be two {senses} for the same thing or {the sense} itself will be the one for itself.

425^{b15}. Again, if the sense₄ concerned with sight were indeed different from sight, either there will be an infinite regress or there will be some {sense} which is concerned with itself; so that we had best admit this of the first in the series.

425^{b17}. But this presents a difficulty; for if to perceive by sight is to see, and if one sees colour or that which possesses

colour, then, if one is to see that which sees,¹ that which sees¹ primarily will have colour. It is clear then that to perceive by sight is not a single thing; for even when we do not see, it is by sight that we judge both darkness and light, though not in the same way. Moreover, even that which sees¹ is in a way coloured; for each sense-organ is receptive of the object of perception without its matter. That is why perceptions_A and imaginings remain in the sense-organs even when the objects of perception are gone.

425^b26. The activity of the object of perception and of the sense_A is one and the same, although what it is for them to be such is not the same. I mean, for example, the actual sound and the actual hearing; for it is possible to have hearing and not to hear, and that which has sound is not always sounding. But when that which can hear is active, and that which can sound is sounding, then the actual hearing takes place at the same time as the actual sound, and one might call these, the one listening, the other sounding.

426^a2. If then movement, i.e. acting [and being affected], is in that which is acted upon, both the sound and hearing as actual must be in that which is potentially hearing; for the activity of that which can act and produce movement takes place in that which is affected; for this reason it is not necessary for that which produces movement to be itself moved. The activity of that which can sound is sound or sounding, while that of that which can hear_K is hearing or listening; for hearing is twofold, and so is sound.

426^a8. The same account_L applies also to the other senses_A and objects of perception. For just as both acting and being affected are in that which is affected and not in that which acts, so both the activity of the object of perception and

¹ Reading τὸ ὁρᾶν with most MSS.

that of that which can perceive_K are in that which can perceive_K. But in some cases they have a name, e.g. sounding and listening, while in others one or the other has no name; for, the activity of sight is spoken of as seeing, but that of colour has no name, while that of that which can taste_K is tasting, but that of flavour has no name.

426^a15. Since the activity of the object of perception and of that which can perceive_K is one, though what it is for them to be such is not the same, the hearing and sound which are so spoken of must be simultaneously destroyed and simultaneously preserved, and so too for flavour and taste, and the rest similarly; but this is not necessary for those which are spoken of as potential. But the earlier philosophers of nature did not state the matter well, thinking that there is without sight nothing white nor black, nor flavour without tasting. For in one way they were right but in another wrong; for since perception_A and the object of perception are so spoken of in two ways, as potential and as actual, the statement holds of the latter, but it does not hold of the former. But they spoke indiscriminatingly concerning things which are so spoken of *not* indiscriminatingly.

426^a27. If voice is a kind of consonance, and voice and hearing are in a way one [and the same thing is in a way not one], and if consonance is a proportion_L, then hearing must also be a kind of proportion_L. And it is for this reason too that either excess, whether high or low pitch, destroys hearing; and in the same way in flavours excess destroys taste, and in colours the too bright or dark destroys sight, and so too in smelling with strong smell, whether sweet or bitter, since the sense_A is a kind of proportion_L. For this reason too things are pleasant when brought pure and

unmixed to the proportion_L, e.g. the high-pitched, sweet or salt, for they are pleasant then; but in general a mixture, a consonance, is more pleasant than either high or low pitch, [and for taste the more pleasant is that which is capable of being further warmed or cooled]. The sense_A is a proportion_L; and objects in excess dissolve or destroy it.

426^b8. Each sense_A, therefore, is concerned with the subject perceived by it, being present in the sense-organ, *qua* sense-organ, and it judges the varieties of the subject perceived by it, e.g. sight for white and black, and taste for sweet and bitter; and similarly for the other senses too. Since we judge both white and sweet and each of the objects of perception by reference to each other, by what do we perceive also that they differ? This must indeed be by perception_A; for they are objects of perception. From this it is clear also that flesh is not the ultimate sense-organ; for if it were it would be necessary for that which judges to judge when it is itself touched.

426^b17. Nor indeed is it possible to judge by separate means that sweet is different from white, but both must be evident to one thing—for otherwise, even if I perceived one thing and you another, it would be evident that they were different from each other. Rather one thing must assert that they are different; for sweet is different from white. The same thing then asserts this; hence, as it asserts so it both thinks and perceives. That, therefore, it is not possible to judge separate things by separate means is clear.

426^b23. And that it is not possible either at separate times is clear from the following. For just as it is the same thing which asserts that good and bad are different, so also when it asserts that the one and the other are different the time

when is not incidental (I mean as, for example, when I say now that they are different, but not that they are different now); but it so asserts both now and that they are different now; all at the same time, therefore. Hence, it is undivided and does this in an undivided time.

426^b29. But yet it is impossible for the same thing to be moved simultaneously with opposite motions, in so far as it is indivisible, and in an indivisible time. For if something is sweet it moves perception_A or thought in one way, while the bitter moves it in the opposed way, while white moves it quite differently. Is, then, that which judges at the same time both numerically indivisible and undivided, while divided in what it is for it to be such? It is indeed in one way that which is divided which perceives divided objects, but in another way it is this *qua* indivisible; for in what it is for it to be such it is divided, while it is indivisible in place and number. Or is this impossible? For the same indivisible thing may be both opposites potentially, although it is not so in what it is for it to be such, but it becomes divided when actualized; and it is not possible for it to be simultaneously white and black, so that it cannot also be affected simultaneously by forms of these, if perception_A and thought are of this kind.

427^a9. But it is like what some call a point, which is (both indivisible) and divisible in so far as it is one and two. That which judges, therefore, is one and judges at one time in so far as it is indivisible, but in so far as it is divisible it simultaneously uses the same point twice. In so far then as it uses the boundary-point twice it judges two separate things¹ in a way separately; in so far as it uses it as one it judges one thing and at one time.

¹ Retaining *κεχωρισμένα*.

427^a14. So much then by way of discussion about the first principle in virtue of which we say that an animal is capable of perceiving.

CHAPTER 3

427^a17. There are two distinguishing characteristics by which people mainly define the soul: motion in respect of place; and thinking, understanding, and perceiving. Thinking and understanding are thought to be like a form of perceiving (for in both of these the soul judges and recognizes some existing thing). Indeed the ancients say that understanding and perceiving are the same. Empedocles for instance said 'Wisdom increases for men according to what is present to them' and elsewhere 'Whence different thoughts continually present themselves to them'. And Homer's 'Such is the mind of men' means the same thing too. For all these take thinking to be corporeal, like perceiving, and both perceiving and understanding to be of like by like, as we explained in our initial discussion_L. (Yet they should at the same time have said something about error, for this is more characteristic of animals and the soul spends more time in this state; hence on their view either all appearances must be true, as some say, or error must be a contact with the unlike, for this is the opposite of recognizing like by like. But error and knowledge seem to be the same in respect of the opposites.) That perceiving and understanding, therefore, are not the same is clear. For all animals have the former, but few the latter. Nor again is thinking, in which one can be right and wrong, right thinking being understanding, knowledge, and true belief, wrong the opposite of these—nor is this the same as perceiving. For the perception_A of the special-objects is always true and is found in all animals, whereas it is

possible to think falsely also, and thinking is found in no animal in which there is not also reason_L; for imagination is different from both perception_A and thought, and this does not occur without perception_A, nor supposal without it.

427^b16. That imagination is not the same kind of thinking¹ as supposal is clear. For the former is up to us when we wish (for it is possible to produce something before our eyes, as those do who set things out in mnemonic systems and form images of them); but believing is not up to us, for it must be either true or false. Moreover, when we believe that something is terrible or alarming we are immediately affected correspondingly, and similarly if it is something encouraging; but in the case of the imagination we are just as if we saw the terrible or encouraging things in a picture.

427^b24. There are also varieties of supposal itself, knowledge, belief, understanding, and their opposites, but the difference between these must be left for another discussion_L.

427^b27. As for thought, since it is different from perceiving and seems to include on the one hand imagination and on the other supposal, we must determine about imagination before going on to discuss the other. Now if imagination is that in virtue of which we say that an image occurs to us and not as we speak of it metaphorically, is it one of those potentialities or dispositions in virtue of which we judge and are correct or incorrect? Such are perception_A, belief, knowledge, and intellect.

428^a5 Now, that it is not perception_A is clear from the following. Perception_A is either a potentiality like sight or

¹ Retaining *νόησις*.

an activity like seeing; but something can appear to us when neither of these is present, e.g. things in dreams. Secondly, perception is always present but not imagination. But if they were the same in actuality it would be possible for all beasts to have imagination; and it seems that this is not so, e.g. the ant or bee, and the grub.¹ Next, {perceptions} are always true, while imaginings are for the most part false. Further, it is not when we are exercising {our senses} accurately with regard to objects of perception that we say that this appears to us to be a man, but rather when we do not perceive it distinctly; and then it may be either true or false.² And, as we said before, sights appear to us even with the eyes closed.

428^a16. Nor again will imagination be any of those things which are always correct, e.g. knowledge or intellect; for imagination can be false also. It remains, then, to see if it is belief; for belief may be either true or false. But conviction follows on belief (for it is not possible to believe things without being convinced of them); and while no beast has conviction, many have imagination. Furthermore every belief implies conviction, conviction implies being persuaded, and persuasion implies reason_L; some beasts have imagination, but none reason_L.³

428^a24. It is clear, therefore, that imagination will be neither belief together with perception_A, nor belief through perception_A, nor a blend of belief and percep-

¹ The MS. reading is puzzling since it is doubtful whether Aristotle would have denied imagination to ants and bees. Förster's (and O.C.T.'s) emendation καὶ σκώληκι for ἢ σκώληκι does not really achieve anything. It is possibly right to accept Torstrik's emendation μύρμηκι μὲν ἢ μελίττῃ, σκώληκι δ' οὐ, to be translated 'ants and bees do, but the grub does not'.

² Reading τότε ἢ ἀληθὴς and not Ross's emendation πότερον ἀληθὴς.

³ Retaining the MS. text without brackets suggesting deletion.

tion_A, both on these grounds and because it is clear that¹ on that view the belief will have as object nothing else but that which, if it exists, is the object of the perception too. I mean that it will be the blend of the belief in white and the perception_A of white that will be imagination; for it will surely not come about from the belief in the good and the perception_A of white. Something's appearing to us will then be believing what one perceives and not incidentally. But things can also appear falsely, when we have at the same time a true supposition about them, e.g. the sun appears a foot across, although we believe it to be bigger than the inhabited world. So it follows on this view either that we shall have abandoned the true belief that we had, although the circumstances remain as they were, and we have not forgotten it or been persuaded to the contrary, or, if we still have it, the same one must be both true and false. But it could become false only if the circumstances changed without our noticing. Imagination, then, is not any one of these things nor is it formed from them.

428^b10. But since it is possible when one thing is moved for another to be moved by it, and since imagination is thought to be a kind of movement and not to occur apart from sense-perception_A but only in things which perceive and with respect to those things of which there is perception_A, since too it is possible for movement to occur as the result of the activity of perception_A, and this must be like the perception_A—this movement cannot exist apart from sense-perception_A or in things which do not perceive; and in respect of it, it is possible for its possessor to do and be affected by many things, and it may be both true and false.

¹ Reading $\delta\eta\lambda\omicron\nu\ \delta\tau\iota$ with MSS. or possibly $\delta\tau\iota\ \delta\eta\lambda\omicron\nu\ \delta\tau\iota$ with Shorey.

428^b17. This happens for the following reasons: Perception_A of the special-objects is true or is liable to falsity to the least possible extent. Secondly {there is the perception} that those things which are incidental to these objects of perception are so; and here now it is possible to be in error, for we are not mistaken on the point that there is white, but about whether the white object is this thing or another we may be mistaken. Thirdly {there is perception} of the common-objects which follow upon the incidental-objects to which the special-objects belong (I mean, for example, movement and magnitude);¹ and about these then it is most possible to be in error in sense-perception_A.

428^b25. The movement which comes about as a result of the activity of sense-perception_A will differ in so far as it comes from these three kinds of perception_A. The first is true as long as perception_A is present, while the others may be false whether it is present or absent, and especially when the object of perception is far off.

428^b30. If, then, nothing else has the stated characteristics except imagination, and this is what was said, imagination will be a movement taking place as a result of actual sense-perception_A. And since sight is sense-perception_A *par excellence*, the name for imagination (*phantasia*) is taken from light (*phaos*), because without light it is not possible to see. And because imaginations persist and are similar to perceptions_A, animals do many things in accordance with them, some because they lack reason, viz. beasts, and others because their reason is sometimes obscured by passion, disease, or sleep, viz. men. As to what imagination is, then, and why, let this suffice.

¹ Accepting Bywater's transposition of the words ἀ συμβέβηκε τοῖς αἰσθητοῖς to line 20, as in the O.C.T.

CHAPTER 4

429^a10. In respect of that part of the soul by which the soul both knows and understands, whether this is distinct or not distinct spatially but only in definition_L, we must inquire what distinguishing characteristic it has, and how thinking ever comes about.

429^a13. Now, if thinking is akin to perceiving, it would be either being affected in some way by the object of thought or something else of this kind. It must then be unaffected, but capable of receiving the form, and potentially such as it, although not identical with it; and as that which is capable of perceiving_K is to the objects of perception, so must be the intellect similarly to its objects.

429^a18. It must, then, since it thinks all things, be unmixed, as Anaxagoras says, in order that it may rule, that is in order that it may know; for the intrusion of anything foreign to it hinders and obstructs it; hence too, it must have no other nature than this, that it is potential. That part of the soul, then, called intellect (and I speak of as intellect that by which the soul thinks and supposes) is actually none of existing things before it thinks. Hence too, it is reasonable that it should not be mixed with the body; for in that case it would come to be of a certain kind, either cold or hot, or it would even have an organ like the faculty of perception_K; but as things are it has none. Those who say, then, that the soul is a place of forms speak well, except that it is not the whole soul but that which can think, and it is not actually but potentially the forms.

429^a29. That the ways in which the faculties of sense-perception_K and intellect_K are unaffected are not the

same is clear from reference to the sense-organs and the sense_A. For the sense_A is not capable of perceiving when the object of perception has been too intense, e.g. it cannot perceive sound after loud sounds, nor see or smell after strong colours or smells. But when the intellect thinks something especially fit for thought, it thinks inferior things not less but rather more. For the faculty of sense-perception_K is not independent of the body, whereas the intellect is distinct. When the intellect has become each thing in the way that one who actually knows is said to do so (and this happens when he can exercise his capacity by himself), it exists potentially even then in a way, although not in the same way as before it learned or discovered; and then it can think by itself.

429^b10. Since a magnitude and what it is to be a magnitude are different, and water and what it is to be water (and so too for many other things, but not for all; for in some cases they are the same), we judge what it is to be flesh and flesh itself either by means of something different or by the same thing differently disposed. For flesh does not exist apart from matter, but like the snub it is a this in a this. It is, then, with the faculty of sense-perception_K that we judge the hot and the cold and those things of which flesh is a certain proportion_L. But it is by something else, either something distinct or something which is to the former as a bent line is related to itself when straightened out, that we judge what it is to be flesh.

429^b18. Again, in the case of those things which exist in abstraction, the straight corresponds to the snub, for it involves extension; but 'what it is for it to be what it was', if what it is to be straight and the straight are different, is something else; let it be duality. We judge it, then, by something different or by the same thing differently

disposed. In general, then, as things are distinct from matter, so it is too with what concerns the intellect.

429^b22. Given that the intellect is something simple and unaffected, and that it has nothing in common with anything else, as Anaxagoras says, someone might raise these questions: how will it think, if thinking is being affected in some way (for it is in so far as two things have something in common that the one is thought to act and the other to be affected)? And can it itself also be thought? For either everything else will have intellect, if it can itself be thought without this being through anything else and if what can be thought is identical in form, or it will have something mixed in it which makes it capable of being thought as the other things are.

429^b29. Now, being affected in virtue of something common has been discussed before—to the effect that the intellect is in a way potentially the objects of thought, although it is actually nothing before it thinks; potentially in the same way as there is writing on a tablet on which nothing actually written exists; that is what happens in the case of the intellect. And it is itself an object of thought, just as its objects are. For, in the case of those things which have no matter, that which thinks and that which is thought are the same; for contemplative knowledge and that which is known in that way are the same. The reason why it does not always think we must consider. In those things which have matter each of the objects of thought is present potentially. Hence, *they* will not have intellect in them (for intellect is a potentiality for being such things without their matter), while *it* will have what can be thought in it.

CHAPTER 5

430^a10. Since [just as] in the whole of nature there is something which is matter to each kind of thing (and this is what is potentially all of them), while on the other hand there is something else which is their cause and is productive by producing them all—these being related as an art to its material—so there must also be these differences in the soul. And there is an intellect which is of this kind by becoming all things, and there is another which is so by producing all things, as a kind of disposition, like light, does; for in a way light too makes colours which are potential into actual colours. And this intellect is distinct, unaffected, and unmixed, being in essence activity.

430^a18. For that which acts is always superior to that which is affected, and the first principle to the matter. [Actual knowledge is identical with its object; but potential knowledge is prior in time in the individual but not prior even in time in general]; and it is not the case that it sometimes thinks and at other times not.¹ In separation it is just what it is, and this alone is immortal and eternal. (But we do not remember because this is unaffected, whereas the passive intellect is perishable, and without this thinks nothing.)²

CHAPTER 6

430^a26. The thinking of undivided objects is among those things about which there is no falsity. Where there is both falsity and truth, there is already a combination of thoughts as forming a unity—as Empedocles said ‘where in many cases heads grew without necks’ and were then

¹ The brackets are mine. The sentence is repeated at 431^a1, and has probably been substituted here for a reference to the active intellect, which is required for what follows.

² Bracketing different from O.C.T.

joined together by Love—so too these things, previously separate, are combined, e.g. the incommensurable and the diagonal; and if the thinking is concerned with things that have been or will be, then time is thought of in addition and combined in the thought. For falsity always depends upon a combination; for even if someone says that white is non-white he combines ⟨white and⟩ non-white.¹ It is possible to say that these are all divisions too. But at any rate, it is not only that Cleon is white that is false or true but also that he was or will be. And that which produces a unity is in each case the intellect.

430^b6. Since the undivided is twofold, either potentially or actually, nothing prevents one thinking of the undivided when one thinks of a length (for this is actually undivided), and that in an undivided time; for the time is divided and undivided in a similar way to the length. It is not possible to say what one was thinking of in each half time; for these do not exist, except potentially, if the whole is not divided. But if one thinks of each of the halves separately, then one divides the time also simultaneously; and then it is as if they were lengths themselves. But if one thinks of the whole as made up of both halves, then one does so in the time made up of both halves.

430^b16. That which is thought and the time in which it is thought are divided incidentally and not as those things were, although they are undivided as they were; for there is in these too something undivided, although surely not separate, which makes the time and the length unities. And this exists similarly in everything which is continuous, both time and length.

¹ Reading the text with Ross's addition of the words $\phi\eta$, τὸ λευκὸν καὶ, though the addition is perhaps scarcely necessary, even if 'says' has to be supplied.

430^b14. That which is undivided not quantitatively but in form one thinks of in an undivided time and with an undivided part of the soul.¹

430^b20. The point and every division, and that which is in this way undivided, are made known as privation is. And the same account_L applies to the other cases, e.g. how one recognizes evil or black; for one recognizes them in a way by their opposites. That which recognizes must be its object potentially, †and the latter must be in it.†² But if there is anything, †some one of the causes,†² which has no opposite, then this will know itself and is activity and distinct.

430^b26. Every assertion says something of something, as too does denial, and is true or false. But not every thought is such; that of what a thing is in respect of 'what it is for it to be what it was' is true, and does not say something of something. But just as the seeing of a special-object³ is true, while the seeing whether the white thing is a man or not is not always true, so it is with those things which are without matter.

CHAPTER 7

431^a1. Actual knowledge is identical with its object. But potential knowledge is prior in time in the individual, but not prior even in time in general; for all things that come to be are derived from that which is so actually.

¹ Accepting Bywater's transposition of this sentence.

² The O.C.T. includes these words in daggers, suggesting that the text is corrupt; but the text could stand in the first of the two cases, although its interpretation demands a change of subject.

³ Ross daggers the words τοῦ ἰδίου and suggests tentatively in addition that the words τι λευκόν might be substituted. This is unnecessary.

431^a4. It is clear that the object of perception makes that which can perceive_K actively so instead of potentially so; for it is not affected or altered. Hence this is a different form from movement; for movement is an activity of the incomplete, while activity proper is different, the activity of the complete.

431^a8. Perceiving, then, is like mere assertion and thought; when something is pleasant or painful, {the soul} pursues or avoids it, as it were asserting or denying it; and to feel pleasure or pain is to be active with the perceptive mean towards the good or bad as such. Avoidance and desire, as actual, are the same thing, and that which can desire_K and that which can avoid_K are not different either from each other or from that which can perceive_K; but what it is for them to be such is different. To the thinking soul images serve as sense-perceptions (*aisthēmata*). And when it asserts or denies good or bad, it avoids or pursues it. Hence the soul never thinks without an image.

431^a17. And just as the air makes the pupil such and such, and this in turn something else, and the organ of hearing likewise, and the last thing in the series is one thing, and a single mean, although what it is for it to be such is plural . . .

431^a20. What it is by which one determines the difference between sweet and hot has been stated already, but we must say also the following. It is one thing, but it is so as a boundary is, and these things, being one by analogy and number, are ⟨each⟩ to each as those are to each other; for what difference does it make to ask how one judges those things which are not of the same kind or those which are opposites, like white and black? Now let it be the case that as *A*, white, is to *B*, black, so *C* is to *D* [as those are to each

other]; so that it holds *alternando* too. Now if CD^1 were to belong to one thing, then it would be the case, as for AB too, that they would be one and the same, although what it is for them to be such is not the same—and similarly for those others. And the same account_L would apply if A were sweet and B white.

431^b2. That which can think_K, therefore, thinks the forms in images, and just as in those what is to be pursued and avoided is determined for it, so, apart from sense-perception_A, when it is concerned with images, it is moved, e.g. perceiving that the beacon is alight you recognize² when you see it moving that it belongs to the enemy, but sometimes you calculate on the basis of images or thoughts in the soul, as if seeing, and plan what is going to happen in relation to present affairs. And when one says, as there, that something is pleasant or painful, so here one avoids or pursues—and so in action³ generally. That which is apart from action too, the true and the false, are in the same genus as the good and bad; but they differ, the first being absolute, the second relative to someone.

431^b12. Those things which are spoken of as in abstraction one thinks of just as, if one thought actually of the snub, not *qua* snub, but separately *qua* hollow, one would think of it apart from the flesh in which the hollow exists⁴—one thinks of mathematical entities which are not separate, as separate, when one thinks of them.⁵

¹ Reading ' $CD \dots AB$ ' with MSS., rather than ' $CA \dots DB$ ' with O.C.T.

² Deleting $\tau\eta\ \kappa\omicron\upsilon\alpha\iota\eta$ with Bywater.

³ Reading $\epsilon\nu\ \pi\rho\acute{\alpha}\xi\epsilon\iota$ with MSS.

⁴ Taking the text as emended in O.C.T. But the traditional text could be given a plausible interpretation—'just as one might think of the snub; *qua* snub one would not think of it separately but *qua* hollow, if anyone actually thought of it, one would think of it apart from the flesh, etc.'

⁵ Deleting the η added by the O.C.T. before $\epsilon\kappa\epsilon\iota\alpha$, as unnecessary and perhaps misleading. The addition of $\delta\upsilon\tau\alpha$ after $\omicron\upsilon\ \kappa\epsilon\chi\omega\rho\iota\sigma\mu\acute{\epsilon}\nu\alpha$ is also unnecessary.

431^b17. In general, the intellect in activity is its objects. Whether or not it is possible for the intellect to think of any objects which are separate from spatial magnitude when it is itself not so separate must be considered later.

CHAPTER 8

431^b20. Now, summing up what has been said about the soul, let us say again that the soul is in a way all existing things; for existing things are either objects of perception or objects of thought, and knowledge is in a way the objects of knowledge and perception_A the objects of perception. How this is so we must inquire.

431^b24. Knowledge and perception_A are divided to correspond to their objects, the potential to the potential, the actual to the actual. In the soul that which can perceive_K and that which can know_K are potentially these things, the one the object of knowledge, the other the object of perception. These must be either the things themselves or their forms. Not the things themselves; for it is not the stone which is in the soul, but its form. Hence the soul is as the hand is; for the hand is a tool of tools, and the intellect is a form of forms and sense_A a form of objects of perception.

432^a3. Since there is no actual thing which has separate existence, apart from, as it seems, magnitudes which are objects of perception, the objects of thought are included among the forms which are objects of perception, both those that are spoken of as in abstraction and those which are dispositions and affections of objects of perception. And for this reason unless one perceived things one would not learn or understand anything, and when one contemplates one must simultaneously contemplate an image;

for images are like sense-perceptions (*aisthēmata*), except that they are without matter. But imagination is different from assertion and denial; for truth and falsity involve a combination of thoughts. But what distinguishes the first thoughts from images? Surely neither these nor any other thoughts will be images, but they will not exist without images.

CHAPTER 9

432^a15. The soul of animals has been defined by reference to two potentialities, that concerned with judgement_K, which is the function of thought and sense-perception_A, and secondly that for producing movement in respect of place. Let so much suffice about perception_A and the intellect; we must now inquire what it is in the soul which produces movement, whether it is one part of it separate either spatially or in definition_L, or whether it is the whole soul, and if it is one part, whether it is a special part in addition to those usually spoken of and those which we have mentioned, or whether it is one of these.

432^a22. A problem arises straightaway, in what way we should speak of parts of the soul and how many there are. For in one way there seem to be an indefinite number and not only those which some mention in distinguishing them—the parts concerned with reasoning_K, passion_K, and wanting_K, or according to others the rational and irrational parts; for in virtue of the distinguishing characteristics by which they distinguish these parts, there will clearly be other parts too with a greater disparity between them than these, those which we have already discussed, the nutritive_K, which belongs both to plants and to all animals, and the perceptive_K, which could not easily be set

down as either irrational or rational. There is again the part concerned with the imagination_K, which is different from all of them in what it is for it to be such, although with which of them it is identical or non-identical presents a great problem, if we are to posit separate parts of the soul. In addition to these there is the part concerned with desire_K, which would seem to be different from all both in definition_L and in potentiality. And it would be absurd surely to split this up; for in the part concerned with reasoning_K there will be wishing, and in the irrational part wanting and passion; and if the soul is tripartite there will be desire in each part.

432^b7. To come then to the point with which our discussion_L is now concerned, what is it that moves the animal in respect of place? For, movement in respect of growth and decay, which all have, would seem to be produced by what all have, the faculties of generation_K and nutrition_K. We must inquire also later concerning breathing in and out, and sleep and waking; for these too present great difficulty.

432^b13. But as for movement in respect of place, we must inquire what it is that produces in the animal the movement involved in travelling. That, then, it is not the nutritive potentiality is clear; for this movement is always for the sake of something and involves imagination and desire; for nothing which is not desiring or avoiding something moves unless as the result of force. Besides, plants would then be capable of movement and they would have some part instrumental for this kind of movement.

432^b19. Similarly it is not the faculty of sense-perception_K either; for there are many animals which have sense-perception_A but are stationary and unmoving throughout.

If, then, nature does nothing without reason and never fails in anything that is necessary, except in creatures which are maimed or imperfect, while the animals of this kind are perfect and not maimed (an indication being that they can reproduce themselves and have a maturity and a decline)—then it follows too that they would have parts instrumental for travelling.

432^b26. Nor is it the part concerned with reasoning_K and what is called the intellect that produces the movement; for the contemplative intellect contemplates nothing practicable, and says nothing about what is to be avoided and pursued, while the movement always belongs to one who is avoiding or pursuing something. But even when it contemplates something of the kind, it does not straight away command avoidance or pursuit, e.g. it often thinks of something fearful or pleasant, but it does not command fear, although the heart is moved, or, if the object is pleasant, some other part.

433^a1. Again, even if the intellect enjoins us and thought tells us to avoid or pursue something, we are not moved, but we act in accordance with our wants, as the incontinent man does. And in general we see that the man who has the art of healing does not always heal, this implying that there is something else which is responsible for action in accordance with knowledge and not knowledge itself. Nor is desire responsible for this movement; for continent people, even when they desire and want things, do not do those things for which they have the desire, but they follow reason.

CHAPTER 10

433^a9. It is at any rate clear that these two produce movement, either desire or intellect, if we set down the imagination as a kind of thought; for many follow their imaginations against their knowledge, and in the other animals thought and reasoning do not exist, although imagination does. Both of these, therefore, can produce movement in respect of place, intellect and desire, but intellect which reasons for the sake of something and is practical; and it differs from the contemplative intellect in respect of the end. Every desire too is for the sake of something; for the object of desire is the starting-point for the practical intellect, and the final step is the starting-point for action.

433^a17. Hence it is reasonable that these two appear the sources of movement, desire and practical thought. For the object of desire produces movement, and, because of this, thought produces movement, because the object of desire is its starting-point. And when the imagination produces movement it does not do so without desire. Thus there is one thing which produces movement, the faculty of desire_K. For if there were two things which produced movement, intellect and desire, they would do so in virtue of some common form; but as things are, the intellect does not appear to produce movement without desire (for wishing is a form of desire, and when one is moved in accordance with reasoning, one is moved in accordance with one's wish too), and desire produces movement even contrary to reasoning; for wanting is a form of desire.

433^a26. Intellect then is always right; but desire and imagination are both right and not right. Hence it is always the object of desire which produces movement, but

this is either the good or the apparent good; not every good but the practicable good. And it is that which can also be otherwise that is practicable.

433^a31. That therefore it is a potentiality of the soul of this kind, that which is called desire, that produces movement is clear. But for those who divide the soul into parts, if they divide and distinguish them according to potentialities, it transpires that there are many parts, the nutritive_K, perceptive_K, thinking_K, deliberative_K, and furthermore that concerned with desire_K; for these differ more from each other than do the parts concerned with wanting_K and passion_K.

433^b5. But desires arise which are opposed to each other, and this happens when reason_L and wants are opposed and it takes place in creatures which have a perception_A of time (for the intellect bids us resist on account of the future, while our wants bid us act on account of what is immediate; for what is immediately pleasant seems both absolutely pleasant and absolutely good because we do not see the future). Hence that which produces movement will be one in kind, the faculty of desire_K as such—and first of all the object of desire (for this produces movement without being moved, by being thought of or imagined)—though numerically there will be more than one thing which produces movement.

433^b13. There are three things, one that which produces movement, second that whereby it does so, and third again that which is moved, and that which produces movement is twofold, that which is unmoved and that which produces movement and is moved. That which is unmoved is the practical good, and that which produces movement and is moved is the faculty of desire_K (for that

which is moved is moved in so far as it desires, and desire as actual is a form of movement), while that which is moved is the animal; and the instrument by which desire produces movement is then something bodily. Hence it must be investigated among the functions common to body and soul.

433^{b21}. To speak in summary fashion for the present—that which produces movement instrumentally is found where a beginning and an end are the same, e.g. in the hinge-joint; for there the convex and the concave are respectively the end and the beginning of movement (hence the latter is at rest but the former moves), the two being different in definition_L, but spatially inseparable. For everything is moved by pushing and pulling; hence, as in a circle, one point must remain fixed and the movement must begin from this. In general, therefore, as we have said, in so far as the animal is capable of desire so far is it capable of moving itself; and it is not capable of desire without imagination. And all imagination is either concerned with reasoning or perception. In the latter then the other animals share also.

CHAPTER 11

433^{b31}. We must consider also what it is that produces movement in the imperfect animals which have perception_A by touch only—whether they can have imagination and wants, or not. For they evidently have pain and pleasure, and if these they must have wants also. But how could they have imagination? Or is it that just as they are moved indeterminately, so also they have these things, but indeterminately?

434^{a5}. Imagination concerned with perception, as we have

said, is found in the other animals also, but that concerned with deliberation in those which are capable of reasoning (for the decision whether to do this or that is already a task for reasoning; and one must measure by a single standard; for one pursues what is superior; hence one has the ability to make one image out of many).

434^a10. The reason why these animals are thought not to have beliefs is that they do not have beliefs derived from inference [but this has that]. Hence desire does not imply the deliberative faculty. Sometimes it overcomes and moves a wish; sometimes the latter does this to the former, like a ball, one desire overcoming the other, when incontinence occurs.¹ But by nature the higher is always predominant and effective; so that three motions are thereby involved. But the faculty of knowledge_K is not moved but remains constant.

434^a16. Since the one supposition and proposition_L is universal and the other is particular (the one saying that such and such a man ought to do such and such a thing, while the other says that this then is such and such a thing, and I am such and such a man), then either it is the latter opinion, not the universal one, which produces movement, or it is both, but the first is more static while the other is not.

CHAPTER 12

434^a22. Everything then that lives and has a soul must have the nutritive soul, from birth until death; for anything that has been born must have growth, maturity, and decline, and these things are impossible without nourish-

¹ Retaining the MSS. reading: νικᾷ δ' ἐνίστε τὴν βούλησιν' ὅτε δ' ἐκείνη ταύτην, ὥσπερ σφαῖρα, ἡ ὄρεξις . . .

ment. The potentiality for nutrition must then be present in all things which grow and decline.

434^{a27}. Sense-perception_A is not necessary in all living things; for those things which have a body which is simple cannot have touch [and without this nothing can be an animal], nor can those which cannot receive forms without the matter. Animals must have sense-perception_A (and without this nothing can be an animal), if nature does nothing without reason. For everything in nature exists for the sake of something or will be an accident of those things which are for the sake of something. Grant then that every body which can travel would, if it did not have sense-perception_A, perish and fail to reach its end, which is the function of nature. (For how would it be nourished? For stationary creatures get this from the source from which they have been born, but if it is not stationary but is generated, a body cannot have a soul and an intellect capable of judgement and not have sense-perception_A, [nor if it is ungenerated],¹ for why would it have it?² For this would have to be to the advantage of either the soul or the body, but in fact it would be neither; for the soul would not think any better and the body would be no better because of that.) No body, therefore, which is not stationary has a soul without sense-perception_A.

434^{b9}. Further, if it does have sense-perception_A, the body must be either simple or composite. But it cannot be simple; for then it would not have touch, and it must have this. This is clear from the following. Since the animal is an ensouled body, and every body is tangible, and it is that which is perceptible by touch which is tangible, the body of an animal must also be capable of touch, if the

¹ The words ἀλλὰ μὴν οὐδὲ ἀγένητον should probably be deleted; they interrupt the thread of the argument.

² Deleting the οὐχ.

animal is to survive. For the other senses₄, smell, sight, and hearing, perceive through other things, but anything which touches things will be unable, if it does not have sense-perception₄, to avoid some of them and take others. If that is so, it will be impossible for the animal to survive.

434^{b18}. For that reason, taste too is a form of touch; for it is concerned with food, and food is a tangible body. Sound, colour, and smell do not nourish, nor do they produce either growth or decay; so that taste too must be a form of touch, because it is a perception₄ of what is tangible and nourishing. These {senses}, therefore, are necessary to the animal, and it is clear that it is not possible for an animal to exist without touch. But the others are necessary for the sake of well-being and not for every kind of animal no matter what, although they must exist in some, e.g. those capable of travelling. For if they are to survive, they must perceive not only when in contact with an object but also at a distance. And this would be so if the animal is capable of perceiving through a medium, the latter being affected and moved by the object of perception, and the animal by the medium.

434^{b29}. For that which produces movement in respect of place produces a change up to a point, and that which has pushed something else brings it about that the latter pushes, the movement taking place through something intervening; the first thing that produces movement pushes without being pushed, and the last thing alone is pushed without pushing, while that which intervenes does both, there being many intervening things. So it is too with alteration, except that things are altered while remaining in the same place, e.g. if something were dipped in wax, the latter would be moved as far as the object was dipped; but a stone is not moved at all, while water is

moved to a great distance; and air is moved to the greatest extent and acts and is affected if it persists and retains its unity.

435^a5. Hence too in the case of reflection it is better to say not that vision issuing from the eye is reflected back, but that the air is affected by shape and colour, as long as it retains its unity. Over a smooth surface it does retain this; hence it in turn produces movement in the organ of vision, just as if the impression on the wax had penetrated through to the further side.

CHAPTER 13

435^a11. It is apparent that the body of an animal cannot be simple; I mean, for example, composed of fire or air. For without touch it cannot have any other sense-perception₄; for every ensouled body is capable of touch, as we have said. Now the other elements, except for earth, could become sense-organs, but all the latter produce sense-perception₄ by perceiving through something else and through media. But touch occurs by directly touching objects; that too is why it has its name. Indeed even the other sense-organs perceive by touch, but through something else; touch alone seems to perceive through itself. Hence none of these elements could constitute the body of an animal.

435^a20. Nor can the body be composed of earth. For touch is, as it were, a mean between all objects of touch, and its organ is receptive of not only the qualities which are distinctive of earth but also heat and cold and all the other objects of touch. And for this reason we do not perceive with our bones and hair and such-like parts—because they are composed of earth. For this reason too plants have no sense-perception₄, because they are composed of earth.

But without touch it is not possible for any other {sense} to exist, and this sense-organ is composed neither of earth nor of any other of the elements.

435^{b4}. It is apparent, therefore, that this is the only sense₄ deprived of which animals must die. For, it is not possible for anything which is not an animal to have this, nor is there any other {sense} except this which something which is an animal must have. And for this reason the other objects of perception, e.g. colour, sound, and smell, do not in excess destroy the animal, but only the sense-organs, unless incidentally, e.g. if a push or a blow takes place at the same time as the sound; by sights and smell too other things may be set in motion which destroy by contact. And flavour too destroys only in so far as it happens to be at the same time capable of coming into contact. But an excess in objects of touch, e.g. hot, cold, or hard things, destroys the animal. For excess in every object of perception destroys the sense-organ, so that in the case of objects of touch it will destroy touch, and by this the animal is determined as such. For it has been shown that without touch it is impossible for an animal to exist. Hence, excess in objects of touch not only destroys the sense-organ, but the animal also, because this sense₄ alone it must have.

435^{b19}. The other senses₄ the animal has, as we have said, not for its existence, but for its well-being, e.g. it has sight in order to see, because it lives in air and water, or, in general, because it lives in something transparent; and it has taste because of what is pleasant and painful, in order that it may perceive these in food and have wants and be moved accordingly; and hearing in order that something may be indicated to it [and a tongue in order that it may indicate something to another].