

PERCEIVING WHITE AND SWEET (AGAIN): ARISTOTLE, *DE ANIMA* 3.7, 431a20–b1

In chapter 7 of the third book of *De anima* Aristotle is concerned with the activity of the intellect (*nous*), which, here as elsewhere in the work, he explores by developing parallels with his account of sense-perception. In this chapter his principal interest appears to be the notion of judgement, and in particular intellectual judgements about the value of some item on a scale of good and bad. In this paper I shall argue, firstly that there is in fact a coherent structure and focus to this chapter, which has therefore unjustly been criticized as disorganized or corrupt;¹ and secondly that, in the light of such a coherent understanding of the chapter as a whole, we can resolve the difficulties in interpreting the central passage concerned with cross-modal perceptual judgements, and thereby also throw some further light on the related passages in the second chapter of *De anima* 3, which had been directly concerned with that topic.²

1. THE UNIFIED THEME: THE UNIFIED FACULTY OF JUDGEMENT

Without at present going into details, we may start by observing that *De anima* 3.7 can be broken down into seven bits as follows: Aristotle starts with (i) a claim that *knowledge* actualized is the same thing as the object of knowledge (431a1), though allowing that the two can be, at least in some respects, distinguished as potentialities in virtue of chronological considerations. He then immediately introduces (ii) some considerations about *perception* concerning the nature of the change or alteration in cases of perception (431a4–5), leading on to (iii) a distinction between mere perception of an object, and the perceptual value-judgement that results in pursuit or avoidance of that object (431a8–10). (iv) In the next section (431a14–17) something similar is suggested, this time for value-judgements made *intellectually*, and a fraught and problematic central section of the chapter (which is my main concern in this paper) appears to introduce (v) an account of how *perception* judges the objects of different sense-faculties (431a17–31b1). The next section (431b2–12) gives (vi) a fuller account of the nature of *intellectual judgements* of value and truth-value, again relating them to similar capacities in the *perceptual faculty*, and to explanations of motivation. Finally (vii) the last part of the chapter (431b12–19) returns to the notion that actual *knowledge* is identical to its objects, and raises the issue of conceiving of abstractions that are not separable in reality.

It is noticeable that throughout the chapter there are recurrent moves back and forth between the current subject of discussion, namely the *intellect*, and some related capacities of the *perceptual faculty* which are taken as familiar from the earlier discussions in *De anima* 2 and 3.1–3. These moves from intellect to sense-perception

¹ 'This chapter is a collection of fragments', D. W. Hamlyn, *Aristotle's De Anima Books 2 and 3* (Oxford, 1968), p. 145. See also Torstrik's verdict, quoted by Ross in the apparatus on 431a1.

² *De anima* 3.2 was the subject of my earlier paper ('Aristotle *De anima* 3.2: how do we perceive that we see and hear?', *CQ* 33 [1983], 401–11). Here, as there, I seek to resolve some difficulties of interpretation in the light of a coherent reading that unifies the topic of the whole chapter. In so far as this forms a companion piece to the earlier paper, I intend that the two should be mutually supporting.

and back again do not, in themselves, make the chapter fragmentary, for it is clear that the intellectual capacities are intended to be elucidated by reference to material already established in relation to the perceptual faculties. Similarly if we seek a single thread to the chapter it is not hard to find, for the central sections all concern the way in which the intellect can be said to make additional judgements about the thoughts that it has, without thereby presupposing a second faculty standing behind to make meta-judgements on the objects of thought. This concern to maintain a single, unified, faculty of judgement, one faculty that both thinks the thoughts and passes judgement on them—thereby accounting also for motivations of pursuit and avoidance—has to be defended in the light of the claim that the intellect when actually thinking is not distinct from the thoughts, or objects of thought, that are actualized in its thinking. Hence the ability to actualize those thoughts *and* pass judgement on them implies two separate tasks, two tasks that Aristotle nevertheless holds belong to one single faculty. He therefore wants to stress both (a) that the objects of thought are the internal objects actualized in the act of thinking, as in abstracted mathematical objects, and not the external material objects, nor real separated forms; and (b) that the judgements passed on those conceptions concerning their truth and value are separate distinct judgements, but made nevertheless by one single intellectual faculty, the same one that is also responsible for conceiving and actualizing the thoughts themselves.

2. THE PARALLELS BETWEEN THOUGHT AND SENSE-PERCEPTION

In the course of the chapter Aristotle draws several explicit parallels between perception and thought. (i) The claim about the identity of *knowledge* and actual object at the beginning of the chapter is itself reminiscent of the earlier discussions that had shown the identity of the actualities of *perceptual* object and perceiving faculty (43a1; cf. 425b26ff). (ii) Aristotle then proceeds to identify the notion of change that is involved in *knowledge* by reference to what is true in *perception*, in which the object brings what is potential, namely the sense faculty, into actuality. As I read this comment, it draws a *parallel* between sense-perception and thought, and asserts that both involve a ‘different kind of change’, neither being a case of alteration or subjectivity.³ An alternative interpretation takes Aristotle to be drawing a *contrast* between the change in perception and that in intellection.⁴ On either interpretation Aristotle is thinking through the similarities between thought and sense-perception, and comparing capacities that are in some sense correlated.

The third and fourth bits of the chapter (431a8–17) make a similar move with regard to value-judgements in thought and in sense-perception. Here the parallels are sixfold: (a) to elucidate value-judgements in *sense-perception* a complex parallel is drawn between sense-judgements and language, such that (i) the mere perception is equivalent to a non-assertoric use of language (431a8)⁵ and (ii) the evaluation

³ That is, even in perception the actualization of the sense is not passive, instigated by an object that simply affects it, but is active, an activity of the sense itself.

⁴ This interpretation has been presented by Michael Frede in discussion, but not to my knowledge in print. His notion that there is a contrast depends upon supposing that the mind is not related to its *phantasmata* as a sense is related to its *aisthemata*, despite the similarities Aristotle suggests at 431b2–10.

⁵ This might be a use of language such as naming that does not make any assertion because it is not a proposition, or it might be mentioning a proposition without asserting it. In either case the relevant point is that, by contrast, a judgement is equivalent to assertion that such and such is so.

concerning the perception—finding it pleasant or painful—is equivalent to a statement asserting or denying something (given in the phrase *ὅταν δὲ ἡδὺ ἢ λυπηρόν, οἶον καταφάσσει ἢ ἀποφάσσει*, 431a9–10); furthermore (iii) a perceptual motivation to pursue or avoid something perceived as pleasant or painful is the same judgement as the evaluative judgement, but under a different description (431a9–14); (b) to elucidate *intellectual* value-judgements a corresponding complex parallel is implied between intellectual judgements and language such that (iv) merely thinking of something is equivalent to a non-assertoric use of language—this step in the argument is not stated at 431a15, but is evidently to be understood,⁶ and (v) judging something good or bad is equivalent to asserting or denying (assumed in the phrase *ὅταν δὲ ἀγαθὸν ἢ κακὸν φήσῃ ἢ ἀποφύσῃ*, 431a15–16); similarly (vi) intellectual pursuit or avoidance attends on the corresponding intellectual value-judgements (431a15–16). Thus we can set out the parallels in tabular form as follows:

Language	Perception	Thought
Mentioning or naming	(i) Perceiving	(iv) Having a thought
Asserting or denying	(ii) Finding pleasant or painful	(v) Judging good/bad
	(iii) Pursuing or avoiding	(vi) Pursuing or avoiding

Thus just as my *seeing* this as pleasant or painful is equivalent to my asserting something, so my *thinking* of something that I consider good or bad is also equivalent to asserting or denying, and this asserting or denying amounts in this case to pursuit or avoidance of the item in question (431a14–16).⁷ In this connection we are told that what serve the intellect in place of the sense-perceptions (*aisthemata*) that are evaluated in perception are the *phantasmata* that the mind contemplates and evaluates (431a14–15).

In the first half of this chapter, then, four parallels or comparisons between sense and thought are invoked or implied: (i) the identity of the actualities of faculty and object; (ii) the kind of change, initiated by the object, in the faculty;⁸ (iii) the status of evaluation and its connection with assertion/denial and with pursuit/avoidance; and (iv) the objects of non-evaluative perception and thought, which are *aisthemata* in the one case and *phantasmata* in the other.

In the latter part of the chapter, 431b2–12, a further comparison is made between perception and intellectual thought, again in relation to evaluative judgements in the two faculties. Again we are told that the mind thinks about *phantasmata*, even apart from perception, in much the same way as the perceptive faculty is moved by perceptual input (431b2–5); it judges *phantasmata* that are in the soul, ‘as if seeing’ (431b7), and it too declares certain things pleasant or painful (431b6–9);⁹ furthermore

⁶ It is possible that this point is at least alluded to in the note at the end of chapter 6 (430b26–9), which is unfortunately somewhat obscure.

⁷ There are some difficulties, of course, with the link here between evaluative judgement and pursuit or avoidance, which emerge in connection with the passage in chapter 9, 432b26ff.

⁸ As far as I can see Aristotle assumes in this chapter that thoughts are initiated by *phantasmata*, which provide their objects, in much the same way as perceptions are initiated by *aisthemata*, which are their objects. There is no reference to the agent-intellect.

⁹ The example seems to allude to our ability to think of future consequences and compare them with present perceptions, and choose which of the two to pursue, even in the absence of the actual items or events that are in the future. The example makes good sense if we read *ἐκεῖ* (431b9) as meaning ‘there in the future’, and *ἐνταῦθα* as ‘here and now’, such that we judge the good and choice-worthy event to be future (i.e. out of sight) but act immediately to attain it.

a similar account is to be given for judgements of truth and falsity (which are not related to action, as the evaluative judgements that lead to pursuit and avoidance are) (431b10).

3. THE CENTRAL SECTION OF THE CHAPTER (431a17–b1)

Given this general line of argument it appears that the fraught and problematic section of text in the central part of the chapter should be pursuing a similar strategy. There is a cross-reference, at 431a20, to the analysis of how perception judges the objects of different senses in comparison to one another, which had been developed at some length in chapter 2 (see especially 426b8–17, though that passage too is not without its own difficulties), and it seems clear that, in the context of the present chapter, the work done earlier on the topic of *perceptual* judgement across faculties is now being rehearsed in an attempt to enlighten us about some parallel function of the *intellect*. It seems to me, therefore, that if we could first grasp what function of the intellect is being elucidated in chapter 7, we should then have a better chance of understanding what exactly Aristotle is saying here about the corresponding ability to compare different kinds of perceptual experience; indeed then we might perhaps also be in a position to solve some of the remaining puzzles relating to the passage in *De anima* 3 chapter 2, which was Aristotle's proper treatment of this subject.¹⁰

What topic is Aristotle trying to explain?

The passage in question falls between the two sections concerned with the intellect's capacity to evaluate items and judge them worthy of pursuit and avoidance. Hence if we suppose that the problematic passage on inter-faculty sense-judgements belongs where it appears, and that Aristotle's procedure in constructing this chapter was, as I am suggesting, rational and not arbitrary, it follows that we should read this passage as a contribution to the same topic, namely how the intellect can evaluate something that it is contemplating and thereby judge it good or bad.

What, then, is the supposed problem, such that it is to be elucidated by comparison with the activity of the unified sense-faculty? Perhaps Aristotle's thought is this: just as the sense faculty, in seeing and tasting its objects, at the same time, in virtue of the same activity, also discriminates between them, judging this sweet and that white, so the intellect both thinks its thoughts and at the same time, in virtue of the same activity, also judges them on an evaluative scale. In both cases two distinct judgements are made, measuring the item on two distinct scales or spectra, but the second-order judgement, which *appears* to be passing judgement on objects of the first-order cognition, is not to be ascribed to a second distinct faculty.

This observation fits in with Aristotle's train of thought in this section. We have just noted, in 431a8–16, that to think of something is not the same thing as to judge whether it is good or bad; for just as affirming or denying is a distinct activity from merely saying something, so finding something pleasant or painful is distinct from merely seeing it, and thinking something good or bad is distinct from merely

¹⁰ This is of course the reverse of Aristotle's procedure, since he intends us to find the work on perception enlightening in understanding the intellect, and I am suggesting that we, now, might come to understand the comments on perception in the light of his account of intellect.

thinking of it. Aristotle does not necessarily mean, in either case, that we could merely say, or merely see, or merely think of something, but we can make a conceptual distinction between the first-order activity (saying, seeing, thinking) and the second-order activity (affirming, seeing it as painful, thinking of it as good) which is accompanied by or expressed in a third kind of activity (pursuing or avoiding) which is also, again, conceptually distinct. But we should not infer, in the case of *intellectual* judgements of good and bad, that the second-order judgement is performed by a distinct faculty of the mind, because that does not follow in the *perceptual* case either. In the case of perception, being pleased or pained is an exercise of the perceptual faculty,¹¹ and so is the motivation to pursuit or avoidance, as Aristotle argues in 431a10–14. Thus we are not to posit additional faculties of appetite and dislike that make judgements on the perceptual experiences. The whole lot is done in virtue of perception.¹²

Aristotle's interest, here in 3.7, is in drawing the same conclusion for the parallel case of intellectual evaluations. Of course it cannot be *perception*, here, that has the evaluative role, but as with perception, so here in the case of intellect, we again do not want to invent a new faculty of evaluation that makes judgements of good and bad, or truth-value, on the objects of thought. The mind will need to operate in some way that is analogous to the way that the perceptive faculty evaluates its objects, so that, in thinking its thoughts, it also judges those thoughts on an evaluative scale. How, then, does it register both at once, the mere thought and the thought that it is, say, good? This question turns out to be similar not only to the question how perception responds to a perceived item as pleasant or painful, but also to another question about perception doing two things at once, namely when it is aware of a single object as falling under two different perceptual descriptions, that is degrees on different spectra—when, for example, we register its whiteness and sweetness together, whiteness being a point on the spectrum of colours and sweet a point on the spectrum of tastes.¹³ This, I suggest, is the reason why Aristotle casts back at this point to reopen the discussion of how perception performs those two tasks simultaneously, which had initially been explicated in chapter 2; his hope is that the proof offered there to show that one judging faculty must do both tasks as an indivisible unit will now be relevant to the issue of how the intellect can think of an item with whatever ordinary properties it might have, and also, at the same time, judge it on a spectrum of value, as good or bad.

Perhaps at this stage we can attempt a translation of the problematic passage, starting at 431a17, on the basis of this interpretation and see if it makes sense. I shall intersperse the suggested translation with discussion of the difficulties involved.

¹¹ The reference to exercise with respect to the perceptual mean, 431a11, seems to imply that being pleased or pained is a kind of perception that involves the same perceptual faculty, the same mean, as the rest of perception treated as a whole.

¹² Since Aristotle sometimes elsewhere refers to the 'appetite' (τὸ ὀρεκτικόν) as though it were an explanatory factor in behaviour, this passage should probably be taken as an elucidation of what that language means: in other words appetite is not another faculty but just a way in which perception operates when it perceives pleasant or painful things as such.

¹³ There is a dissimilarity in that white and sweet both belong exclusively to separate modalities, while white and pleasant are respectively a proper sensible and one that belongs on a spectrum available to any sense modality. But this does not alter the fact that two distinct judgements are made in the course of perceiving that some one thing is both white and pleasant or both sweet and pleasant, just as in perceiving that it is both white and sweet.

(a) 431a17–20

But just as the air makes the inner eye to be in such and such a state, and then it in turn makes something else have that state, so also hearing does the same; however the ultimate thing is one thing and a single mean, but its being is diverse . . .

The sentence as punctuated by Ross has always appeared to be incomplete, with no apodosis answering to 'just as' at the beginning; however, punctuating with a stop after *καὶ ἡ ἀκοὴ ὡσαύτως* and taking *καὶ* as 'also', this problem disappears.¹⁴ The point is to suggest that *both* sight *and* hearing are referring data by their respective mechanisms to the same one last thing. The main claim is the uniqueness of this one 'mean',¹⁵ or one sense faculty, to which both sight and hearing refer their data—a faculty that must be diverse in its 'being' or essence,¹⁶ so that it can do several things at once, operating in different sense modalities together.

Indeed Aristotle is not, I think, here assimilating the *manner* in which the mind employs *phantasmata* (mentioned in the previous sentence) to any corresponding physiological processes of perception, but rather stressing the ultimate unity of the single discriminatory faculty to which the data are referred. It is this single ultimate judging faculty that is the point to be explored as a comparable feature of the two activities: judging or evaluating *phantasmata* in the mind, and judging perceptions in the percipient soul.

The *mechanism* of perception, as Aristotle describes it here, appears like a Heath-Robinson device that passes an effect on from one piece of equipment to another. The inner eye,¹⁷ is said to be affected in a certain way by the air, presumably in the act of perceiving an object of sight or a colour of some sort (which has evidently first caused something to happen in the air). The air makes the inner eye take on some state, thereby actualizing its potential to be in that state; but then the inner eye is said to have the same effect on some other piece of our equipment, again presumably actualizing the potential of that item, whatever it may be, to be in the state in question. If we suppose that the seeing of red renders the inner eye in some sense actually red, the implication seems to be that the next stage, at which the eye passes on its information, will also be a case of the next faculty or organ also being actualized in the same state. Ultimately, however, the sensation must be apparent to one single faculty that is

¹⁴ I am grateful to David Sedley for pointing out this way of taking the sentence. This seems to me to be the easiest of a number of possible ways of resolving the problem without supposing that the text is seriously incomplete. An alternative would be to take *ὥσπερ* δὲ as running on from the preceding sentence with no break and explicating what is said there.

¹⁵ The single 'mean' refers to the idea that each proper sensible is judged relative to a mean between extremes on a single scale, the sense-faculty itself being characteristically in the mean condition and hence judging its objects by their divergence from its own condition. The natural assumption is that there will be a characteristic scale and hence a distinctive mean for every distinctive sense-modality: e.g. one mean for the range between sweet and bitter and another for the range between black and white; but Aristotle's claim is that ultimately all senses are referred to a single faculty, which judges on one scale by comparison with one mean.

¹⁶ *τὸ δ' εἶναι αὐτῇ πλείω* (a19), cf. *ἀλλὰ τὸ εἶναι ἄλλο* (a14) and *τὸ δ' εἶναι οὐ τὸ αὐτό* (a29). These phrases seem to indicate something that falls under two distinct descriptions or definitions, but is nevertheless one and the same entity. It correlates with the notion that some one thing X that is both F and G can have certain capacities *qua* F and others *qua* G. In some cases the individual X might seem to be individuated by matter, but I think this need not be so, and X might be a single form.

¹⁷ *κόρη*. I have avoided translating this 'eye-jelly' since it is not clear what eye-jelly is. 'Vitreous humour' might be a better translation but I suspect that 'retina' would more closely capture the modern theoretical equivalent to what Aristotle has in mind.

capable of receiving information not only from the eye, but also from hearing and other senses. There is, we are told, 'one last thing', presumably the percipient soul in its central role,¹⁸ and one 'mean'.

The reference to one mean appears at first sight to imply that this ultimate faculty registers the input across one single spectrum, common to both vision and hearing, and that it does not discriminate along a distinctive spectrum for colours and a separate one for sounds. This would imply that the actualization of hearing in the ultimate sense faculty was of the same kind as the actuality of sight: that its actualized state was identical for both kinds of perception, differing only in degree. Then it seems that this ultimate faculty could not itself be actualized as red, if to be red is different from being high-pitched or otherwise affected by a sound. If this faculty is one mean, it seems it would be a mean between extremes on a single perceptual spectrum.

The possibility that we might need to register all the perceptual data along a single perceptual spectrum would, of course, explain why Aristotle thought it necessary to ask in *De anima* 3.2 how we can tell whether we are hearing or seeing, and how we distinguish the white from the sweet.¹⁹ These would indeed be very difficult problems, or rather a single difficult problem, if the single faculty simply registered degree on a single spectrum. It would also explain why he finds it necessary to return to that problem again here, for here he has directly raised the issue of what must be the mechanism by which the data are referred back to the single faculty. Given that the eye is potentially receptive of colour, which will determine its ability to receive colour and not sound, so it will not be in any way confused as to whether the input is sound or colour; but the single faculty *must* be receptive of both. Does it then become coloured by the input from the eye, and actualized audibly by the input from hearing, and discriminate a difference between these two different registers? Or does it respond to the colour and the sound in indistinguishable ways?

The suggestion that the one ultimate faculty is diverse in its being ($\tau\omicron\delta\delta'\epsilon\acute{\iota}\nu\alpha\iota\alpha\upsilon\tau\eta\eta\pi\lambda\epsilon\acute{\iota}\omega$, a19), seems to argue in favour of the first model, suggesting that the single mean can become, for example, both sweet and white, actualizing two distinct potentialities at once, and not disrupting the one by the exercise of the other. Hence I am inclined to think that this first model, and not the single indistinguishable spectrum of sense, is what Aristotle is trying to put forward in the obscure analysis of the process that he offers in this passage. Of course it remains unclear what makes the sense a *single* mean, if it is operating concurrently in a plurality of different spectra; but clearly its capacity to compare and relate those data depends upon some way of referring all the data to one non-compartmentalized judging faculty. This mean must be able to register all the spectra distinctly and also be capable of judging and comparing them together in virtue of being one: this capacity is expressed, though perhaps not explicated, in Aristotle's claim that there is a single mean that is plural 'in being' ($\tau\omicron\delta\delta\epsilon\epsilon\sigma\chi\alpha\tau\omicron\nu\epsilon\acute{\nu}$, $\kappa\alpha\iota\mu\acute{\iota}\alpha\mu\epsilon\sigma\acute{o}\tau\eta\varsigma$, $\tau\omicron\delta\delta'\epsilon\acute{\iota}\nu\alpha\iota\alpha\upsilon\tau\eta\eta\pi\lambda\epsilon\acute{\iota}\omega$, a19).

¹⁸ This interpretation takes $\tau\omicron\delta\epsilon\sigma\chi\alpha\tau\omicron\nu\epsilon\acute{\nu}$ as referring to the single faculty to which the data is ultimately transmitted; an alternative is that it says that the external object (to which both the colour and the sound belong) is one, and is registered by one mean, within the soul, to correspond to its objective unity.

¹⁹ I have already argued for the connection between these two questions raised in 3.2: see n. 2. The present chapter suggests that these questions cause Aristotle some recurrent difficulties.

(b) 431a20

Continuing with the interpretation of the problematic passage, the next section (431a20–4) might be translated thus:

But although it was said previously what it is by which the soul discriminates what the difference is between sweet and hot, nevertheless the following needs to be said as well: for it is one thing, but in the manner of a limit, and these things (sweet and hot?), being analogously and numerically identical, have the same relation each to the other as those other things have to each other.

The reference back to a previous discussion is plainly to *De anima* 3.2, notwithstanding the fact that the examples there were typically colour and taste (white and sweet) rather than sweet and hot as here. That chapter employed the analogy of a mathematical point for the single item that must judge both senses. This chapter now refers to it as a *ὄρος* (limit), but this is, again, an insignificant change of terminology. In both chapters Aristotle aims to capture the notion of an indivisible entity that ‘differs in being’—perhaps we should say it is identifiable under two different descriptions or serves two different roles concurrently: for example a boundary that is the limit of this area, and the limit of that area. The boundary can serve both these two roles without compromising its unity, and in the same way the perceptual faculty is supposed to register sights and sounds not in virtue of being two faculties, but as a single thing.

The identity of ‘these things’, *ταῦτα* in a22, and ‘those other things’, *ἐκεῖνα* in a23, is obscure, and some have resorted to suggesting that they refer to items mentioned in a portion of text that has gone missing at line 20,²⁰ or to amending the text in other ways.²¹ But if we are to maintain, as I think we can, that there is no serious problem with the flow of thought or the—admittedly elliptical—grammatical construction in the passage, and that the text can be read as complete, then we shall have to resolve these obscurities from what we have got. Let us suppose, then, that ‘these things’ are the sweet and hot mentioned in 20. Aristotle’s question will be how it is that the soul compares or judges ‘these things’ which are features of *different* kinds,²² such as sweet and hot, as opposed, perhaps, to opposite features of the *same* kind, such as sweet and bitter, or as the example given here by Aristotle, white and black (a25). These apparently cause no problem, for that is a task evidently carried out within a single modality by one sense, taste for sweet/bitter, sight for black/white—though as Aristotle proceeds we see that the question of how this is done is not entirely straightforward. On this interpretation, then, we might expect that ‘those things’, *ἐκεῖνα* in line 23, would be

²⁰ It would be natural for *ταῦτα* to mean ‘the latter’ and *ἐκεῖνα* to mean ‘the former’, but there are not, as the text stands, enough items mentioned in the vicinity for this to make sense. Hence the suggestion that some were mentioned in the lacuna. An alternative that would allow for the reading I develop here is that Aristotle alludes to a chart or diagram with the correlates in parallel columns, in which he points to ‘these items’ and ‘those items’ and indicates the relations of correlation and identity by analogy. This idea is supported by the allusive references later in this passage to items labelled A, B, C, and D (431a25–b1) which evidently must have been identified on a diagram in which their reference was explicit.

²¹ One possibility is to amend *ταῦτα* to *τούτο* and *ὄντα* to *ὄν*, so that the passage explains what is true of the one ‘last thing’ which relates to two things at once. This suggestion was put in discussion by Michael Frede, but there is no manuscript warranty and it is hard to see why such an easy reading should have been corrupted. Ross adds an extra *ἐκότερον* which is not required on Frede’s reading, but is not strictly necessary even retaining the manuscript’s *ταῦτα* on the interpretation I shall be offering.

²² Cf. *τὰ μὴ ὁμογενῆ* at line 24 which indicates what is significant about these things.

pairs of items of the latter kind, features that can be judged as variant degrees on the same distinctive spectrum by a single proper sense-modality.²³

We are told, then, that the two heterogeneous features, sweet and hot, are identical both analogously and numerically.²⁴ To say that they are *numerically* identical amounts to saying that the same *object* (e.g. the cup of hot chocolate) is both sweet and hot; there is just one thing—both attributes belong to a single substrate. Thus it is apparent that the particular task that Aristotle has in mind is judging the difference between two features belonging to one thing; and that is indeed the task we should expect him to address if the discussion is to bear on the question that I think is at issue: how we can judge an item in thought to be good or bad as well as having other features. The point here is that even if the two features belong to one and the same object, they may yet be distinct ‘in being’, and recognized as distinct by our perceptual faculty.

The claim that the two qualities, hot and sweet, are one by analogy is more difficult to interpret. It seems to suggest that they match as corresponding degrees on their respective spectra. Just exactly what is involved here depends a bit on whether we take the hot and sweet to be merely random examples (we could have had cold and sweet just as well) or whether it matters just which pair of features Aristotle has chosen for consideration. Is it that any two sensible attributes of heterogeneous sorts will always be analogously one? Or are certain attributes analogous to others but not to the opposites of those others?

It looks as though Aristotle’s basic question (how can we tell the difference between hot and sweet?) arises precisely because he holds the view that there is a one-to-one correlation, or indeed identity, between corresponding degrees on the scales of colour, temperature, taste, and so on. If sweet on the scale of bitter/sweet is the same thing as white on the scale of black/white, and hot on the scale of cold/hot, then how can the ultimate sense faculty, which is sensitive across all three scales but is a single mean, have any means of distinguishing between them? Surely, someone might say, it will be capable of registering ‘something at the hot/white/sweet end’, but not *which* of those qualities, severally, might be in play.

That Aristotle does think of the spectra of sense objects as correlated in some way is confirmed by parallel passages in the *De sensu* (447b26–448a2; 448a14–19). But it is important that there he also seems to say that, despite the matching positions of various features on their respective scales, the difference between the features on different scales is as great as, or greater than, that between contraries on the same scale:

²³ Alternatively *ἐκείνα* may be not opposites but similar items within a single spectrum, e.g. two cases of bitter, for the point that is being made is that sweet and hot are both at the *same* end of the common spectrum, and hence are analogously one (see further below) and thus related in the same way as two similar items at the same end of one of their respective spectra. Or they might be the opposite ends of the two spectra involved in ‘these things’, i.e. bitter and cold.

²⁴ There is a discrepancy in the manuscripts here, so that we may prefer to read ‘*or numerically*’ instead of ‘*and numerically*’. It seems that Aristotle is thinking primarily of occasions on which we perceive an object that is numerically one but has a plurality of heterogeneous sensible features. Neither its numerical unity nor any analogous unity of its sensible features prevent us from judging it as having distinct kinds of features. The stronger the unity of the hypothetical object, the stronger will be Aristotle’s case, and the more apt his suggestion that the faculty has a unity correlated with the unity of the numerically single object. Hence it is more appropriate to read the text with ‘*and*’, though the point is little damaged if ‘*or*’ is read instead. With ‘*and*’ the reasoning would constitute an *a fortiori* argument.

If therefore the things called correlates but in another class are yet more distant from each other and differ more than the things said to be in the same class (I call sweet and white, for example, correlates different in class), and the sweet differs yet further in form from the black than it does from the white, then it would [on the assumption that we cannot perceive contraries together] be even less possible for us to perceive those things together than for us to perceive things that are the same in class. So that if that is not true for the latter, it will be not true for the former too.

(*De sensu* 448a14–19)

This passage is an *a fortiori* reductio of the suggestion that we cannot perceive contraries simultaneously. Aristotle is refuting the claim that we could not perceive both sweet and bitter, or black and white together. He shows us that this must be absurd because it is plain that we *can* perceive the objects of different senses simultaneously, for example white and sweet. Furthermore we can perceive *black* and sweet, in the same thing, as well. But white and sweet, being correlates in different classes of sense-object, already differ from each other to a greater degree than the homogeneous contraries black and white. It will therefore follow that sweet and *black* must differ even more profoundly, being not correlates but contraries in different classes. It would therefore have to be inconceivable that we could perceive something both black and sweet together. But this is evidently not impossible, so *a fortiori* there is no reason to rule out simultaneous perception of contraries in the same class.

For this argument to work, Aristotle must himself be committed to the view that correlates differ to a greater degree than contraries in the same class, *and* that they are registered as distinct by the sense faculty. It is not just that the sense faculty would be equally at odds with itself registering black and sweet as it would registering bitter and sweet: it is *more* at odds when it registers the still greater contrast of black and sweet.

(c) 431a22–b1

With this in mind we should be in a position to turn back to the passage of *De anima* 3.7 and work through the maze of correlates invoked:

these things (sweet and hot?), being analogously and numerically identical, have the same relation each to the other as those other things have to each other.

If, as I suggested above, ‘these things’ are correlates in different classes, such as sweet and hot, and ‘those other things’ are different degrees within a single class, including the opposites shortly to be mentioned, black and white, Aristotle would be saying here that the heterogeneous correlates relate to each other in the same way as contraries within the same class do (not, as in the *De sensu*, differing more profoundly). Aristotle continues with a question that now makes sense if that is so:

for what is the difference between puzzling over how it judges things that are not homogeneous and puzzling over how it judges contraries, such as white and black? (431a24–5)

In other words, if we do not find it puzzling how discrimination of white and black is possible, we should no longer be puzzled by the discrimination of qualities in separate classes, for it is wrong to think that the sweet and the hot will be registered as identical by the single sense-faculty. They are just as different as the white and the black.

Aristotle proceeds to support the claim that the difference between heterogeneous sense objects is the same relation as that between homogeneous ones by means of a proportional analysis for which, unfortunately, we lack his vital blackboard diagram. Translating and unpacking it, it might go like this:

Let the relation between A (white) and B (black) be the same relation as that between C [sweet] and D [bitter].²⁵ It follows that the converse will be true, [A is to C as B is to D].²⁶ If then C and D [sweet and bitter] were attributes belonging to the same thing, the situation would be just the same as if it were A and B [white and black]²⁷—one and the same thing will have them but it will be not the same in being. And the others in the same way [A to C and B to D?]. But the same account would hold if A were sweet and B were white.

The point is apparently to show that an item in which two heterogeneous attributes belong must in some sense be both one and yet diverse in being. It needs to be different in being just as it would have to be if the attributes were contraries, because heterogeneous ones are distinct in a way analogous to the way in which contraries differ. The relations are all analogous, so that whether A and B are contraries (white and black) or heterogeneous (sweet and white) the same reasoning applies. Ross's emendation of the text at a27 and 28 (substituting 'C and A' for 'C and D', 'D and B' for 'A and B') was an attempt to avoid attributing contraries to a single thing. But this seems to be just Aristotle's point, that the compresence of heterogeneous attributes requires that the object differs 'in being' *just as much* as would the compresence of *contrary* attributes.

All this suggests that when Aristotle insists that it is a single thing, or indeed a single 'mean', that is responsible for discriminating the heterogeneous objects of different senses, he cannot mean that the single sense registers only one homogeneous kind of information and is unable to distinguish a certain degree of whiteness from the equivalent degree of sweetness. It is because it *can* tell the difference, and hence must be affected in *different* ways by sweet and white, despite the fact that they are correlates, that Aristotle needed (in 3.2) to introduce the idea of a point or limit. He needs to find some account of how an indivisible entity can be actualized in two different ways, by being conceptually diverse, different 'in being'. The single sense is said to be a single mean, but its awareness of sweetness has to be different in being from its awareness of hot or white. By being a single entity that differs in being, or serves two roles at once, in the manner of a point or limit, it is supposed to be possible for it to do both at once and not be divided.

As in chapter 2, where it appears that how we tell the difference between seeing and tasting is the same thing as how we tell the difference between white and sweet, so here we find that the sense faculty is aware of white on the one hand and sweet on the other, and the two must be quite different kinds of awareness because they are quite different kinds of object, as different as, if not more so, than black and white. If sense can distinguish between black and white, it can be no problem, Aristotle thinks, to distinguish between white and sweet.

Underlying the whole account is an implicit parallel between the object of which we are aware, say the hot chocolate, and the sense-faculty that grasps it. Just as the perceived object itself can be both hot and sweet, while remaining a single entity

²⁵ Other alternatives have been offered by commentators for what C and D stand for, including the related perceptions correlated with white and black (Hamlyn). Sweet and hot were the last examples under consideration, but we cannot suppose that C and D pick up those, since then Aristotle would *posit* the claim that they stood in the same relation as contraries as his initial premise, whereas that appears to be what he has to prove. Rather he needs here a premise that is self-evident, and that seems to be satisfied by the claim that both AB and CD are opposites on their respective spectra. I am grateful to Reviel Netz for pointing out the implications of this.

²⁶ This scheme matches the discussion of correlates in the *De sensu* passage cited above.

²⁷ Ross in the OCT alters this sentence to read C and A, D and B, respectively, but the amendment is not necessary on this interpretation. It also involves reading both pairs in reverse alphabetical order, which seems improbable.

(although being sweet is a different thing from being white), so the unified sense can be a single thing and sensitive to both sweet and hot; for the sense corresponds in a fundamental way to the objects to which it is attuned, and while the special senses are specially adapted to their own class of the proper sense-objects, the sense-faculty as a whole is like the total object to which it is attuned, and it recognizes that object as a unity, in virtue of itself being such a unity with sensitivity to all the various classes of sensible qualities that the object possesses. Thus senses will be individuated in the same way as objects and their qualities are individuated; that is, we may consider objects as individuals, each possessing a number of different features, and that unity of the individual object corresponds to the unity of the sensory soul that perceived such objects as unities with all their features; but we may also distinguish the distinct features of the object, say colour, flavour, and hardness, as items distinguishable in definition or 'in being', though they are not physically separable from the individual object in which they are found. Similarly the distinct special senses, like the corresponding features of the objects, are definitionally and functionally distinct, and identifiable in virtue of the distinctive special objects to which they are sensitive, but they are not capable of operating independently of the overall unity of sense, any more than the features of the objects can be located without the individual object in which they occur.

Aristotle seems to be offering a direct attempt to justify this method of individuating the senses in a parallel passage in *De sensu* (449a8):

There must then be some one part of the soul, by which everything is perceived (as was said earlier), but different types by means of different things. Is it, then, that what is perceptive of sweet and white is one thing in virtue of being one in actuality, but when it becomes divided in actuality, then it is different? Or is it the case that what is possible in the things themselves is also possible in the soul: for what is numerically one and the same is white and sweet, and a whole load of other things, if these features are not separable from each other but each one is different in being. So in the same way we should suggest that in the case of the soul, what is perceptive of everything is numerically one and the same, but different in being and different from some in genus and others in species. So that it would perceive simultaneously with one and the same thing, but something that was not the same in definition (*λόγος*).

Although some of the points that Aristotle makes here are obscure, the general claim is clear: that Aristotle prefers the second account of the unity of the perceptual soul, which suggests that it is numerically one, in the same way that the object perceived is numerically one but different 'in being'.

4. JUDGING AND EVALUATING THE GOOD AND THE BAD

At 431b1 Aristotle's recapitulation of the 'point' doctrine of the unified sense faculty is complete. What has it added to the discussion in *De anima* 3.7? If I am right, the claim is that something similar is to be said of the intellect, which, like the sense-faculty, assimilates itself in some way to the objects it imagines. Aristotle goes on to say:

The intellectual faculty thinks the forms in its *phantasmata*, and it is moved when it is directed to the *phantasmata*, inasmuch as the object of pursuit and the object to avoid are distinguished for it in those things, even apart from perception. (431b2–5)

Two points of contact might be identified between what the intellect is doing here

with *phantasmata* and what the soul did with perception. One is simply in the claim that the intellectual faculty thinks the forms; perhaps to do this the intellect will need to be as diverse as the perceptual faculty, requiring a capacity to think the whole range of forms. But this is not really the central point of the chapter, and it makes more sense to see the connection lying in the next bit: objects of pursuit and avoidance are identifiable by the intellectual faculty in virtue of its thought, independently of perception. Not only the perceptive faculty, but the mind also, is able to make judgements about the value of something and whether it wants or is moved to have it. The analysis of how we compare two perceptible features that belong to different classes helps us to see how we can evaluate an object. Being pleased or pained by an object perceived by the senses, or evaluating an object of thought or *phantasma* in the intellect involves recognizing not only its features on spectra such as black/white, sweet/bitter, but also the value it has on the scale of pleasant/painful or good/bad. These features are not to be identified with any of the other perceptible features; they differ 'in being'—to identify something as pleasant or desirable is a different thing from tasting it as sweet. But the ability of the single perceptual faculty (the single mean) to perceive sweet and white together shows us by analogy that it is also possible for the same perceptive mean to register both sweet and pleasant together. Likewise the intellect will be able to register value alongside the other features in an object of thought. Thus the account of unified perception can be read as an illustration, ultimately designed to assist with the case of intellectual judgements of value and motivation (431b2ff.) by elucidating the case of perceptual evaluation and motivation (431a10ff.).

The suggestion is that Aristotle regards the judgements made on a scale of good and bad as distinct from other judgements on other scales, in the same way as the judgements of hot or cold and sweet or bitter, though made about the same object, are distinct. In both cases the fact that the same object is seen to display features of both scales shows that one and the same faculty can judge the features on both scales, though when it does so it is doing two different things. Hence Aristotle requires the intellect to be capable of making two *different* kinds of discrimination at once.

It might be claimed that the point of the comparison between intellect and perception is far from explicit in what Aristotle actually says, and that would be true. But I would claim that even if Aristotle does not say so, some such analysis as this will inevitably be required for perceptual judgements of good and bad, involving appetite and avoidance. These appear to be attitudes with regard to the whole object perceived which would involve an activity of perception as a whole, but it seems that sometimes perception must compare the sweetness and hotness, for example, as they occur in a single item, and judge the one feature desirable and the other bad. Such an analysis of perceptual evaluations will obviously be needed if, as Aristotle here grants, appetite and avoidance are not a separate pair of faculties but simply another example of the perceptual faculty different 'in being' (431a13–14).

Given such a description of perceptual evaluation, in a chapter whose primary aim is to elucidate the process of evaluation in the intellect, it seems plain that the point of the allusion to perceptual pursuit and avoidance is to elucidate the analogous function of evaluation in the intellect, and that the purpose of the analysis of a unified faculty of perception that 'differs in being' as it perceives distinct features of a single object is to show that the intellect can similarly be conceived as a unity as it fulfils the function of evaluating its objects of thought. Thus pursuit and motivation can all be explained without resort to further faculties that are separate or distinct in any way from the

faculties that perceive or conceive the objects of pursuit and avoidance and identify their other features.²⁸

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