CHAPTER 4

The Flesh and Bones of Perception

4.1 What Is Achieved in Perceiving

If it is correct that Aristotle's first general account in *An.* 2.5 lays out the programme of his inquiry into perception and its first principles, as I have argued thus far, then this has two implications. By capturing, on the most general level, what kind of phenomenon perception is, the chapter effectively circumscribes what a successful account of its first principles would have to provide. But while offering an indispensable orientation about the goal of the inquiry, it falls short of reaching that goal in several respects (underlined in Sections 1.1 and 3.7). In *An.* 2.5, Aristotle tells us, in the most general terms, what perception is, but without saying anything specifically about the involvement of the perceptive body, or about the way in which the perceptive soul should be understood to account for the phenomenon of perception. Indeed, *An.* 2.5 on its own may easily give rise to doubt about whether perception, as it has been characterized here, is *possible* at all; and many of Aristotle's predecessors and contemporaries would surely have been sceptical.[1] The aim of the remaining four chapters is to address these looming questions by exploring how the programme laid out in *An.* 2.5 is carried out in *An.* 2.6–3.2.

Before introducing the wider context of Aristotle's inquiry into perception in *An.* 2.7–12 and the key factors that are supposed to make perception, as understood by Aristotle, possible (in Sections 4.4 and 4.5), and before raising the questions concerning the respective roles played in perception by the perceptive organs and the perceptive soul (in Sections

[1] As noted by Caston 2018: 35–6, Aristotle's perceptual realism is certainly not naïve in the sense of representing a prelapsarian phase of thinking overcome by the modern scientific revolution. Rather Aristotle's perceptual realism is already a response to sceptical approaches to perception represented by Parmenides, Protagoras, Democritus, and to some extent Plato (cf. Lee 2011). Many of his interlocutors would object that Aristotle expects too much from perception. For further discussion of this context, see Section 6.2.

4.6 and 4.7), it will be worth pausing to reflect on how much exactly Aristotle thinks is achieved in perception. I have argued that his first general account of perception in *An.* 2.5 as a complete passive activity is already aimed at contrasting continued perceiving from having a mere after-image (or acquiring a blind spot), and at capturing, on the most general level, the specific object-directedness characteristic of perception. It is essential for the activity of perceiving *X* that the perceiver (already) has a likeness of *X* in herself, while (still) being affected by *X*; and this is possible only because the likeness of *X* in the perceiver does not become a quality of the perceiver herself – rather, it seems to be present in her exactly as a quality possessed by *X* that is an object in the external world. This account, as we shall presently see in more detail, encapsulates a specific kind of direct realism according to which perceivers have an unmediated access to external objects whose qualities they receive and which they cognize, in principle, as they truly are on their own.

This characterization contains two main points that call for explication and defence. (1) I maintain that Aristotle's account of perception as a complete passive activity aims at capturing the way in which perceivers access the external bearers of modal-specific qualities – without presupposing anything like an additional synthetic act and/or assuming that the bearers are perceived only coincidentally.[2] (2) I maintain that perceivers have, in principle, access to the very qualities that the outside objects bear independently of whether they are being perceived or not.[3] This contrasts with the view that, according to Aristotle, outside objects possess, on their own, the modal-specific qualities (like colours) merely on the level of a first fulfilment – that is, they only possess *powers* for producing these qualities upon encountering a perceiver. In addition to these two points, I shall seek to show later (in Section 4.6) that (3) the directness of Aristotle's realism cannot be accounted for in terms of any *static representation*.

The first two points (developed in Sections 4.2 and 4.3, respectively) raise questions that are beyond the scope of the present inquiry. I limit

[2] Indeed, this implies that no act of synthesis is needed for perceiving an object that is, for example, both hot and red or both red and blue, either (cf. Section 6.6). This goes directly against Kant's idea that 'we cannot represent [that is, also, perceive] anything as connected in the object (*im Objekt verbunden*) without having connected it ourselves' (*Critique of Pure Reason*, § 15). Aristotle's account of perception, in contrast, presupposes objective connections on the level of the most primitive, purely receptive, cognitive acts.

[3] I say 'in principle' to make clear that this second point is distinct from Aristotle's infallibilism. What matters here is only that, for example, the colours as we perceive them are real qualities of external objects belonging to them independently of whether they are perceived or not.

myself to what is crucial for the subsequent discussion, while remaining as non-committal as possible on what is not.

4.2 Perceiving the Bearers of Perceptual Qualities

In *An.* 2.5, Aristotle characterizes perceptual objects as 'particulars' existing out in the external world: 'the agents [of perceiving] are external, I mean the visible and the audible' (417b20–1); 'the perceptual objects are among particulars and external things' (417b27–8).[4] It is natural to take Aristotle here to be identifying perceptual objects with the bearers of perceptually relevant qualities, as he clearly does in his final summary (in *An.* 3.8) of the work he has accomplished in *An.* 2.5–3.7, where his example of an αἰσθητόν whose form is received in perception is 'a stone' (431b29–432a1).[5] However, perhaps the expressions in *An.* 2.5 can also be read as referring to the qualities themselves.[6]

That may be suggested by Aristotle's claim in *An.* 2.6 that only 'the exclusive objects (τὰ ἴδια) are perceptible in the primary sense (κυρίως)' (418a24–5). These were distinguished from the 'common' and the 'coincidental' objects and described as nothing other than *the qualities* defining each sense modality: 'I call exclusive (ἴδιον) [to each sense] that which cannot be perceived by any other sense and which does not allow for deception, as, for instance, sight is of colours, hearing of sounds, and taste of flavours' (418a11–13).[7] Interpreters often infer from here that, according to *An.* 2.6, the bearers of perceptual qualities are not only not perceptible 'in the primary sense' but are not even perceptible 'in their own right' (καθ' αὑτό); they can at most be perceived 'coincidentally'.[8]

[4] This seems to be implied already at 417a2–9 (cf. Sections 2.4 and 3.1), although Aristotle does not use the notion of 'perceptual object' there.

[5] See also e.g. *Sens.* 6, 446b17–26, where the examples of things perceived by hearing, smelling, and seeing are, respectively, a bell, a particular amount of frankincense, and a fire. Cf. *APo.* 1.31, 87b29–30 ('what is perceived must be a this (τόδε τι) here and now'); *APo.* 2.19, 100a16–17 ('what is perceived is a particular (τὸ καθ' ἕκαστον)', cf. *APr.* 1.27, 43a26–7); *Cat.* 7, 7b39–8a1 ('when perceptual object is taken away, body (τὸ σῶμα) is taken away, for body is among perceptual objects').

[6] Thanks to an anonymous referee for pressing this point.

[7] Cf. *An.* 2.6, 418a23–4.

[8] See e.g. Barnes 1993: 193 ('We see individuals incidentally; i.e. to see *a* is to see an *F* (where *F* is some sensible quality) which in fact is *a*'); Ebert 1983: 197–8, who recommends Aristotle's account of exclusive perceptual objects as a way of overcoming 'our belief that colours somehow "stick" to their objects' (cf. Price 1996: 300–1); Gregoric 2007: 139–40, 199–201, who treats 'physical objects' as 'paradigmatic accidental perceptibles'; Marmodoro 2014: 156–88, who identifies an abyss between Aristotle's account of modal-specific perception (i.e. perception of qualities themselves) and the 'perception of objects'; or Johnstone 2022: 162–3, 169, 173, who suggests that 'particular bodies' are 'the paradigm cases of incidental perceptibles'. Cf. Stein 2010: 25–33, who provides a

However, there are good reasons to think that this cannot be Aristotle's view.[9] Indeed, closer attention reveals that not even *An.* 2.6 excludes the bearers of perceptual qualities from being perceptible in their own right.

When spelling out the above-quoted claim that the exclusive objects do not allow for error, Aristotle says the following about the individual senses:

> Each of them κρίνει[10] about these [i.e. the exclusive, primary objects] and is not deceived about colour (ὅτι χρῶμα) or about sound (ὅτι ψόφος), but about what the coloured thing (τὸ κεχρωσμένον) is and where it is, or what the sounding thing (τὸ ψοφοῦν) is or where it is. (*An.* 2.6, 418a14–16)

It is admittedly not entirely clear how the expression 'about colour' (ὅτι χρῶμα) should be construed.[11] Still, the way in which Aristotle continues suggests that more than perceiving the qualities themselves is involved here. In order to commit perceptual error concerning where a coloured thing is located or what kind of thing it is, the perceiver already needs, arguably, to have perceptual access not just to the colour in question, but also to its bearer; otherwise, it is unclear how she could – more or less correctly – perceive *its* identity or *its* position, rather than merely the identity or position of the colour.

The quoted passage is admittedly non-conclusive. However, the assumption that we perceive the bearers in their own right comes out more clearly in Aristotle's characterization of coincidental objects, such as the son of Diares, a few lines later:

> [One] perceives this [i.e. the son of Diares] coincidentally (κατὰ συμβεβηκός), because it happens to belong (συμβέβηκε) to the white (τῷ λευκῷ) that [one] perceives [in its own right]. (*An.* 2.6, 418a22–3)

rich discussion of how Aristotle can 'fill the gap' between 'a representation of [white] in the perceiver' on the one hand and 'a perception to the effect that there is a white table in front of me' on the other. See also Gasser-Wingate 2021: 108–19 who, taking for granted that only the qualities themselves are perceived in the primary sense according to *An.* 2.6, rightly identifies a conflict between this account and what Aristotle says about perception outside the *De Anima*.

[9] For three different ways of making this point, see Charles 2020, Corcilius 2022, and Arsenault forthcoming.

[10] The question of how to translate κρίνειν in this particular passage is delicate and I return to it in Section 6.2. I render κρίνειν by default as 'discriminating', but see Chapter 6 for how exactly to understand that notion.

[11] It is unlikely that Aristotle means 'that the perceived quality is a colour' (he thinks that the senses are more reliable than that; cf. Johnstone 2015: 315). Instead, he may mean something like 'that there is a colour'. Yet, he could also mean, somewhat more specifically, 'that a certain colour belongs to what is perceived' or 'that what is perceived has a certain colour'. This last construal would make the transition to what follows much easier.

'The white' (τὸ λευκόν) here is unlikely to mean the white colour. It is something of which 'the son of Diares' can be predicated, and a colour is hardly a viable candidate for such predication. 'The white' seems rather to refer to the white *thing* out there in the world, of which I can meaningfully ask, 'Oh, isn't that the son of Diares?'[12] And that white thing is said to be perceived without qualification – that is, apparently, in its own right. This suggests that even in *An.* 2.6 Aristotle is unwilling to endorse the view that qualities themselves are perceived independently of their bearers and that perceiving the latter presupposes an additional step, such as an act of synthesis.[13]

It must be admitted that, throughout his discussion of individual sense modalities in *An.* 2.7–11, Aristotle repeatedly speaks of perceiving modal-specific qualities themselves.[14] This, however, need not mean that he takes these qualities to be perceived independently of their bearers. Indeed, the negative answer is suggested by the fact that Aristotle also freely speaks of perceiving the bearers of modal-specific qualities in a way that seems not to be just coincidental.[15] One such passage comes at the very outset of *An.* 2.7:

> For the visible (τὸ ὁρατόν) is colour and this is what is *upon* that which is visible in its own right (τὸ ἐπὶ τοῦ καθ' αὑτὸ ὁρατοῦ) – in its own right not in the sense of account (τῷ λόγῳ), but rather in virtue of having in itself the cause of being visible. (*An.* 2.7, 418a29–31)

[12] Johnstone 2022: 156, 161 speaks of the son of Diares 'coinciding with the color white' (cf. Gasser-Wingate 2021: 105: 'coinciding with some pale surface'), but it is hard to see what kind of coincidence this could be. Cf. also Cashdollar 1973: 163, who claims that in coincidental perception 'quality is … a subject … of which other categories [typically a substance] are predicated'. None of the passages on coincidental perception implies, however, that this kind of μετάβασις εἰς ἄλλο γένος is committed by perceivers. On coincidental perception, see Everson 1997: 187–93, Herzberg 2010: 137–55, Rabinoff 2015 (with Rabinoff 2018: 18–24), Polansky and Fritz 2018, Gasser-Wingate 2021: 111–19, Perälä 2022; cf. also Scheiter 2012: 261–4.

[13] Cf. e.g. Marmodoro 2014: 82–4, who offers a reading of *An.* 2.6 under which what the senses primarily perceive are simply 'instance[s] of the perceptible quality', which are themselves merely 'embedded in a spatiotemporal location'.

[14] See e.g. *An.* 2.7, 419a8–9, 419a22–3; 2.8, 420a27–9; 2.9, 421a13–15, 421b21–2; 2.10, 422a14–17, 422a23, 422b7–8; 2.11, 422b32–3, 423a8–9, 423a17–19, 423b27–9.

[15] See e.g. *An.* 2.7, 419a1–7 ('a mushroom, a horn, the heads, scales, and eyes of fish … the cause on account of which these are seen requires another discussion'); 2.9, 421b3–8 ('smelling is of the smellable and the non-smellable; some things are non-smellable because they can have no odour whatsoever, whereas others are non-smellable because they have an indistinct or bad odour'); 2.10, 422a10–11 ('the object of taste is a body in which a flavour is contained'); 2.10, 422a27–33 ('taste is of the tastable and the untastable, and the untastable is that which has an indistinct or bad flavour, or a flavour that is destructive of the taste'); 2.10, 422a34 ('the object of taste is wet'); 2.11, 424a12–15 ('touch is of the tangible and the non-tangible, and the non-tangible is that which has an entirely indistinct διαφορά of tangible qualities, such as the air'). Cf. 3.2, 425b18–19 ('what is seen is a colour or that which has a colour').

This must come as a surprise for those who read *An.* 2.6 as expressing Aristotle's commitment to the view that bearers of modal-specific qualities are perceptible only coincidentally. Aristotle clearly states here that besides colour itself, its bearer is also visible – and visible in its own right.[16] This is so, apparently, because it belongs to colour's visibility to make visible something else – namely, its bearer. I take Aristotle to be articulating the idea, presupposed throughout his treatment of perception, that what a modal-specific quality does to the perceiver receiving it essentially involves making her perceive the external bearer of it.

At the beginning of *An.* 2.8, building on the distinction between the perceptual object in capacity and the perceptual object in activity introduced at *An.* 2.5, 417a13–14,[17] Aristotle seems to have a similar idea in mind, although the case of sound turns out to be somewhat trickier:

> Sound (ψόφος) is of two kinds: one is something in activity (ἐνεργείᾳ τις) [or: an activity], the other is in capacity (δυνάμει) [or: a capacity];[18] for we say that some things do not have a sound (ἔχειν ψόφον), for instance, sponge or fleece, while other things do have a sound, for instance, bronze and all the things that are solid and smooth because they can sound (δύναται ψοφῆσαι). (*An.* 2.8, 419b4–8)

What 'can sound' is the bearer of a sounding quality, such as a bell. When it sounds, it produces a sound that, via the medium, comes to be present in the perceiver. From this, it is admittedly not yet clear that the bell itself belongs to what we hear in its own right. However, that this is the case is strongly suggested by how Aristotle further develops the model – and extends it to other sense modalities – at *An.* 3.2, 425b25–426a27, where he draws on his general analysis of agency from *Phys.* 3.3.[19] The claim here is that the sound in activity or 'the sounding' of that which has a sound coincides, in the perceiver, with her hearing. Sounding is the acting of the

[16] The construction (ἐπί with genitive) seems underdetermined as to whether it is the coloured body or its surface which is claimed to be visible in its own right. Aristotle, to be sure, does locate colours in surfaces (ἐν τῷ τοῦ σώματος πέρατι, see *Sens.* 3, 439a30–b1, b6–12) and surfaces may well be what he is referring to in our passage (note, though, that this can still imply that the coloured body is visible in its own right, too; cf. Arsenault forthcoming). However, he may also mean, more vaguely, the body upon which the colour exists by being located in its surface (just as something is ἐπὶ γῆς by having its downward surface located (more or less) in the same position as a part of the surface of the earth).

[17] Cf. Section 3.1.

[18] ἐνεργείᾳ and δυνάμει is the reading of manuscripts EC (and a few others in the latter case), whereas the remaining manuscripts read δύναμις and ἐνέργεια.

[19] See also *Sens.* 3, 439a6–17.

external object on the perceiver, whereas hearing is the perceiver's being affected by that object via the medium (425b26–8):[20]

> for there are beings that have the sense of hearing (ἀκοὴν ἔχοντα) but are not [actively] hearing, and objects that have sounds (τὸ ἔχον ψόφον) do not always [actively] sound; but when that which can hear (τὸ δυνάμενον ἀκούειν) is active and that which can sound (τὸ δυνάμενον ψοφεῖν) [actively] sounds, then hearing in the sense of activity (ἡ κατ' ἐνέργειαν ἀκοή) comes about together with sound in the sense of activity (ὁ κατ' ἐνέργειαν ψόφος); one can call the former hearing (ἄκουσις) and the latter sounding (ψόφησις). (. . .) So, the activity of that which can sound (τὸ ψοφητικόν) is a sound or sounding (ψόφος ἢ ψόφησις) . . ., for sound (ψόφος) . . . is of two kinds . . . (*An.* 3.2, 425b28–426a1, 426a6–8)

Aristotle's identification of the agent with the bearer of the sounding quality suggests that the bearer is, indeed, what the perceiver hears in its own right and no less primarily than she hears the sound itself.[21] The perceiver hears it owing to the sound of this bearer coming to be present – as *its* sounding or *its* sound in activity – in the perceiver and coinciding with her activity of hearing. This model dovetails with the idea that the quality received by the perceiver in perceiving remains a quality of the external agent and that perception consists in receiving forms that remain forms of the external objects.[22]

This analysis leaves many questions concerning Aristotle's account of αἰσθητά open.[23] What matters for our purposes here, however, is only that

[20] Cf. *Phys.* 3.3, 202b21–2. For a reading of *Phys.* 3.3 that commits Aristotle to numerical identity between acting and being affected, see e.g. Coope 2004. For a reading that takes acting and being affected to be numerically distinct, see e.g. Marmodoro 2007. For a reading according to which Aristotle remains, at least in *Phys.* 3.3, neutral on this issue, see Charles 2015.

[21] Cf. O'Callaghan 2020 for an overview of the contemporary discussion concerning the hearing of sounds vs the hearing of their sources. For a defence of the idea that we hear the sources of sounds no less primarily than the sounds themselves, see e.g. O'Callaghan 2007: 57–71, Kulvicki 2008, Scruton 2009, or Nudds 2010; see also the discussion in Kalderon 2017: 79–136.

[22] See Section 3.7 for the former and Section 6.4 for the latter. One can argue that sounds are immediately perceived as sounds *of* their sources, and yet allow, as most interpreters do, that in the media they take on more of a life of their own than colours do. For an interesting defence of a 'distal' interpretation of Aristotle's account of sounds against the usual 'medial' interpretation, see Johnstone 2013: 640–6. I return to a discussion of how sounds may differ from colours in the following section (see n. 30).

[23] To name just a few of them: (1) What exactly are the perceived bearers of modal-specific qualities? (Are they substances, as argued by Corcilius 2022, or are they rather 'bodies' in the category of quantity, as argued by Arsenault forthcoming?); (2) What exactly is the kind of relationship between perceiving modal-specific qualities and perceiving their bearers? (Can some kind of priority be ascribed to the latter, say, in terms of the bearers being perceived *by means of* their qualities? And does definitional dependency of qualities on bearers play an essential role here?); (3) Can the capacity to perceive bearers be ascribed to the individual sense modalities as such (as argued by Charles 2020) or only to the perceptual capacity as a whole (as argued by Corcilius 2022)?

the perception of the bearers of modal-specific qualities is an essential part of what perception achieves at the most rudimentary level of being a complete passive activity. If that is correct, then this finding reveals a facet that puts additional pressure on Aristotle to explain how perception so defined is possible at all.

4.3 Uncompromised Realism

Further light can be shed on what is at stake here by briefly reflecting on the kind of perceptual realism that Aristotle embraces. I limit myself to pre-empting one possible misunderstanding of the account developed in *An.* 3.2.[24] This account implies, as we have seen, that the activity of the external perceptual object and the activity of the perceiver always exist and cease to exist *together*. Yet – as Aristotle insists against the Protagorean approach of the 'ancient physiologists' – this is not to say that the existence (or the nature) of these perceptual objects depends on the existence of perceivers; rather, what depends on perceivers is only whether the perceptual objects are actively perceived or not.[25] In other words, what exists in the perceiver is merely the external object's activity of being perceived under the given qualitative aspect that (numerically) coincides with the perceiver's passive activity of perceiving it.[26]

Aristotle's point against Protagorean relativism here, however, has often been understood differently. It has been read as if Aristotle was himself effectively accepting a kind of 'moderate Protagoreanism' that conflicts with, or at least essentially tempers, the *realism* about perceptual qualities that he seems emphatically to endorse elsewhere. The idea is, roughly, that according to Aristotle what the external objects acting on perceivers possess on their own – in the absence of perceivers – are not full-blown colours, sounds, or flavours, as perceivers experience them, but only the *powers* to cause perception of these qualities when a perceiver comes into the appropriate relation with them.[27] That is, they merely have these qualities in *capacity* and come to have them in fulfilment only for as long as they are actively

[24] More on Aristotle's perceptual realism in Section 6.2.

[25] *An.* 3.2, 426a20–7.

[26] The same model is spelled out at *Sens.* 6, 446b17–26, where Aristotle analyses the error behind a similar Protagorean claim that two perceivers cannot perceive the same thing. He distinguishes between the first mover, which is the numerically identical object of perception for all perceivers, and the exclusive object (τὸ ἴδιον), which is for each perceiver numerically distinct. He analyses the latter as 'a kind of change and affection'. For a discussion of this passage, see Corcilius 2022: 130–2.

[27] See Irwin 1989: 313, according to whom Aristotle assumes here that 'the relevant actuality of the object is its becoming red, and so he concludes that its becoming red consists in its being perceived as red' (cf. Taylor 1990: 140–1). See also Gottlieb 1993: 115: 'What is actually being perceived

being perceived.[28] If this were Aristotle's point, we would expect him to discuss what constitutes the power of perceptual objects to cause perception. On account of which actual characteristics of the perceptual object is it capable of causing the perceiver to perceive these qualities? What is it that the perceiver is assimilated to when perceiving, for instance, a colour? What Aristotle actually says, however, shows how far he is from any interest in tempering his realism in *An.* 3.2. What causes the passive activity of perceiving (together with the productive activity of being perceived), he maintains, is nothing other than the colour or the flavour of an external object.[29] There is not even the slightest hint in this passage at the idea that what a rose is endowed with on its own could be anything short of the full-blown red colour as experienced by perceivers.[30]

What leads interpreters to read *An.* 3.2, 425b25–426a27 as Aristotle's adoption of a kind of (moderate) relativism, I take it, is the tacit assumption that Aristotle is using the notion of ἐνέργεια here as equivalent to ἐντελέχεια: as if perceptual objects were in fulfilment (or 'in actuality') coloured or flavoured only when they are actively seen or smelled; and as if, when not perceived, they were themselves coloured or flavoured only in capacity. But this reading runs roughshod over a key distinction that Aristotle has already

cannot exist if there is no perception', because it is only 'the causal bases of perception which exist independently of perception' (113). Cf. Marmodoro 2014, on whose account see more in n. 32; and Campeggiani 2020: 253: 'Properly structured sensory organs bring forth smells, sounds, and so forth, thus actualising material objects qua bearers of sensible qualities.' For further references and a critical discussion of moderately Protagorean approaches to *An.* 3.2, see Caston 2018: 48–58.

[28] Cf. also Ganson 1997, who thinks that Aristotle ascribes actual qualities like colours to external objects independently of whether they are perceived or not and makes them causally responsible for our perception of them, but that he denies the idea that these qualities exist on their own in such a way as we perceive them (i.e. what Ganson calls 'the transparency thesis').

[29] See *An.* 3.2, 426a14–15.

[30] Should we say the same about a lyre and the sound with which it is endowed? The case of sounds is clearly different in that their mediation presupposes a change undergone by the sounding object – a stroke. That raises the question whether the sources we hear are the bodies, the events (for a contemporary discussion of this, see Kalderon 2017: 87–94), or perhaps the bodies-undergoing-changes. Aristotle might well not have had a firm view on this, as perhaps attested by his hesitation between calling 'sound in activity' the activity of being heard in *An.* 3.2 and the mediating wave in the air in *An.* 2.8. If activity in the latter case is taken to be equivalent to fulfilment, then it is natural to take 2.8 as implying that what we hear in its own right are only sounds in the media and not their sources (cf. e.g. Charles 2021: 192). However, there are good reasons to resist this equivalence and to conclude that, according to Aristotle, we hear not only sounds, but also their sources, in their own right. These should quite possibly be conceived, unlike the bearers of colours, as being more like events or bodies-undergoing-changes. The crucial point here is that this would not bring Aristotle any closer to even a moderate relativism (cf. Section 7.1). The main point will still hold that, according to Aristotle, these events or bodies-undergoing-changes are in principle exactly such as we perceive them. (Thanks to an anonymous referee for pressing me on this question.)

drawn in *An.* 2.5[31] and it, effectively, abandons a basic tenet of Aristotle's first general account of perception. What we learnt in *An.* 2.5 is that perceptual objects are perceptual in capacity (i.e. 'perceptible') *only as already being what they are in fulfilment*, for only as having colours or flavours in fulfilment, independently of whether they are perceived or not, are they capable of acting on perceivers, assimilating them to themselves, and so making themselves actively perceived.[32] The distinction between perceptual objects in capacity and in activity that Aristotle is spelling out at *An.* 3.2, 425b25–426a27 was introduced in *An.* 2.5 clearly as concerning objects that already are what they are in fulfilment, independently of whether they are perceived or not. If these objects did not possess colours or flavours in fulfilment they would precisely lack the power of making themselves perceived – just as nothing can heat anything else if it is itself not already hot.[33] The entire discussion of *An.* 3.2, 425b25–426a27 concerns the activity (ἐνέργεια) of perceptual objects (ἐντελέχεια is never mentioned); and what some interpreters thought was being qualified here, namely the claim that this activity already presupposes fulfilment on the side of perceptual objects, is, rather, duly presupposed throughout.

If this is correct, it further underscores the significance of the task of showing just how perception in this demanding sense can be realized *in concreto*.[34]

[31] See Sections 2.4 and 3.1.

[32] Marmodoro 2014: 91–102, 125–41 applies the distinctions of *An.* 2.5 to Aristotle's account in 3.2, but in a rather surprising way that leads her to qualify Aristotle's 'objective realism' as being 'subtle'. First, she recognizes a ('first') fulfilment of perceptual objects independent of their activity of being perceived, but she identifies it with their acting on the media (as if the 'powers' characteristic of perceptual objects were merely 'first capacities'; cf. Kosman 1975: 513–14). Second, she takes the activity of perception to have as its content not the qualities that belong in fulfilment to external perceptual objects independently of whether they are perceived or not, but a certain fulfilment of the 'powers' possessed by perceptual objects that does not exist beyond the activity itself, claiming that 'for Aristotle perceptible qualities are in the world such as we perceive them, *but only while we perceive them*, because they require a perceiver in order to reach their fullest actualization'; 'the world is truly colorful, but only if – and as long as – we are looking at it' (Marmodoro 2014: 102, 153, my emphasis). Cf. e.g. Freeland 2021: 161–2.

[33] See also *Metaph.* Γ.5, 1010b30–1011a2; cf. *Phys.* 8.5, 257b6–10. Some scholars want to resist the Protagorean interpretation by insisting that a rose, before being perceived, is already red in actuality (ἐντελεχείᾳ/ἐνεργείᾳ), but is not yet in actuality αἰσθητόν. That is surely correct. But it doesn't seem to be the kind of contrast Aristotle is drawing on in *An.* 3.2: 'sounding' (ψόφησις) isn't a good name for the actuality of a sound *qua perceptible* (that would rather be 'being perceived'). Fortunately, the contrast between the actuality (ἐντελέχεια) of a perceptual object (e.g. having a certain sound or being red) and its activity (ἐνέργεια) in the perceiver (e.g. sounding or its nameless analogue in the case of colour, cf. 426a12–15) can do the same job. In the case of distal senses, to be sure, this activity needs to pass via a medium and so can apparently also take place independently of perception (e.g. an object can be sounding in the air even though nobody hears it, cf. *An.* 2.8, 419b5–13).

[34] For an insightful overview of some of the difficulties involved here, see Charles 2020: 33–8.

4.4 Perception and Mediation

In *An.* 2.5–6, Aristotle remained silent regarding two key factors essentially involved in perception and, thus far, I have done so as well. The first of these factors is introduced immediately after the sentence from the beginning of *An.* 2.7 quoted above, and it would be no exaggeration to describe it as the main topic of *An.* 2.7–11 as a whole: *mediation*. One reason why the media are important is obvious given Aristotle's rejection of any *actio per distans*: clearly, perceivers smell and hear and see objects that are distant (and sometimes *very* distant); so it is obvious that there must be something in between the perceptual object and the perceiver *mediating* the agency of the former on the latter. However, there appears to be a deeper reason why Aristotle takes media to be indispensable, which leads him to extend the notion of mediation to the contact senses. Hence Aristotle's prima facie surprising claim that the perceptive organ of tasting is not the tongue, and the perceptive organ of touching is not the skin or the flesh; rather, in both cases, it is something deeper within – namely, the heart.[35] Unfortunately, none of the passages where Aristotle argues that media are indispensable quite spells out what this deeper reason is. It seems that media play an essential part in realizing perception as a presence of a quality of its external bearer in a perceiver affected by it or as a reception of forms without the matter, but we are left to speculate about what exactly their role consists in here.

The task is difficult partly because, towards the end of *An.* 2.7–11, Aristotle introduces the second key factor in the realization of perception whose relation to mediation is far from obvious: *the discriminative mean*. The thought is, roughly, that discrimination (κρίνειν) is an essential ingredient or essential characteristic of perception that is performed by – or on account of – the mean (μεσότης) between the two extremes defining each sense modality. It is no clearer than in the case of the media what exactly this mean is or what role it plays.

Be that as it may, there is a remarkable symmetry within the structure of *An.* 2.7–11. *An.* 2.7, on the one hand, introduces the notion of a medium,

[35] This claim is announced at *An.* 2.7, 418a30–1 and is properly argued for at *An.* 2.11, 422b34–423b26. It is rather striking that there is no trace of the claim in *An.* 2.10; on the contrary, Aristotle speaks throughout this chapter as if the tongue were the perceptive organ of taste.

whose existence (albeit not its role) is obvious in the case of sight (and the remaining two distal senses of hearing and smell), and it announces the need to extend this notion to the contact senses. The final section of *An.* 2.11, on the other hand, introduces the notion of a discriminative mean, primarily for touch (in whose case, apparently, it is most obvious), and extends this notion immediately to the remaining four sense modalities. When Aristotle, in *An.* 2.12, again picks up the task of saying, in the most general terms, what perception is, the main progress that he takes himself to have made since *An.* 2.5 seems to consist exactly in introducing these two key factors.

However, the precise roles of each are something that we shall need to explore, beginning with the notion of mediation. It is telling that *An.* 2.12 closes with a puzzle about the way in which the media are affected, suggesting that Aristotle himself found the question of what exactly the media *do* in perception to be a difficult one. We shall come to that difficulty presently; but let us start from a more general worry that arises immediately on turning from *An.* 2.5 to *An.* 2.7.

The concept of preservative πάσχειν (as reconstructed in Chapters 1–3) naturally raises the following doubt: how could *X* be already assimilated to *Y* while still being affected by *Y*? The notion of the transparent medium introduced in *An.* 2.7 might seem to contain an answer. Colours are characterized as being that which can move what is transparent in fulfilment (418a31–b1) and the transparent is characterized as that which is not visible in its own right but, rather, owing to the colour of something else (418b4–6). It is itself colourless and, as such, is capable of receiving the colours of other things (418b26–7). Indeed, it can somehow receive the colour of the coloured object that acts on it (419a13–15, 27–8) without acquiring any colour of its own; and so it can be further affected by the same, or indeed any other, colour. So, in his account of the transparent media, Aristotle might seem to be giving us a concrete example of preservative πάσχειν.

However, what at first appears to be a helpful illustration turns out to be more of a problem. Aristotle speaks here about non-living bodies that are external to perceivers,[36] and it would mark a flagrant failure if his general account of perceiving were to apply to mere mediation. The danger, in other words, is that the media are asked to do too much, so that it is not

[36] A similar account will hold for the media of hearing and smelling (418b26–7, 419a25–30).

obvious why they themselves fall short of perceiving.[37] In fact, the same kind of worry may be provoked by Aristotle's treatment in *An.* 2.8 of 'sounds in activity' as present in the medium: we have seen that, in *An.* 3.2, 'sounds in activity' are said to coincide with the activity of hearing (as, indeed, one would expect from *An.* 2.5, 417a9–14); so it could seem from *An.* 2.8 that the auditory medium itself must hear.[38]

This kind of worry may seem too absurd to be taken seriously, but it is a worry very similar to the one that Theophrastus, as we have seen, raises for Empedocles and that is echoed in *An.* 1.5.[39] Nobody wants to say, of course, that a glass of water sees the coloured objects around it,[40] but Aristotle and Theophrastus seem to have found a useful test here for putative accounts of perception: if an account implies something like this, it is clearly not sound. Now, there is a reason to be concerned about whether Aristotle's own account perhaps has such an unintended implication; and we will see that the worry he raises at the end of *An.* 2.12 can be read as articulating exactly this kind of concern.[41]

However, let me first emphasize one thing that will become important later (in Section 4.7). It may seem that there is a straightforward solution to the canvassed worry: the glass of water does not perceive because, clearly, it does not have a perceptive soul. It is important to realize, though, that no such solution is available to Aristotle, as it is, in effect, circular. First of all, if such a solution were available, it would also be available to someone like Empedocles and there would be no point in raising this kind of objection against other thinkers' accounts. The reason why it is not available is intimately connected to the very nature of Aristotle's endeavour in the *De Anima*: the basic parts or capacities of the soul are meant to be defined as the first principles of the respective phenomena of life; and

[37] This danger is registered for example by Shields 2016: xxxviii. Aristotle's insistence that something can be perceived only through a medium is, of course, not sufficient to settle the worry: a glass of water is affected by coloured objects through the surrounding air.

[38] Cf. n. 30 and 33.

[39] See Section 2.3. Cf. also a similar objection against Democritus at *Sens.* 2, 438a10–12 and against Diogenes in Theophrastus, *Sens.* 48–9.

[40] With the apparent exception of Parmenides ridiculing the common intuitions about knowing (Theophrastus, *Sens.* 4).

[41] The same kind of concern, as was raised above for the account developed in *An.* 2.5, could also be raised for the account of perception as a reception of forms without the matter in *An.* 2.12 (discussed in Section 7.4). It is not, at least prima facie, obvious exactly why this description does not apply to what happens in the media. On some existing interpretations, the account clearly *does* apply to it (see e.g. Silverman 1989: 286 or the literalist interpretation as developed by Everson 1997: 99–101), and this may also seem to be implied by *An.* 3.12, 435a2–4, where the wax metaphor from *An.* 2.12 describes the way in which perceptual objects affect both media and perceivers.

Aristotle is very explicit in *An.* 2.4 about the fact that one cannot define such a capacity without first defining the respective activity.[42] Hence, if the putative definition of perceiving turns out to imply that the media themselves perceive, there will remain no room for denying that they themselves possess perceptive souls. That said, it is obvious that the presence of the soul is, indeed, what makes the difference. The point is that we must first understand the difference itself, as a precondition of understanding how the soul (being the kind of entity it is) can make this difference.

It is usually tacitly assumed that Aristotle's account of perception successfully passes this test. However, on closer scrutiny, it turns out that there are (and have been since antiquity) very different intuitions about what kind of solution his position really offers. In a first approximation, we can see the main differences articulated in three different understandings of how Aristotle is addressing the final puzzle of *An.* 2.12.

Aristotle's initial question is 'whether something incapable of smelling can be affected by an odour' and similarly for the other (distal) senses (424b3–5). If, for instance, odour is understood as being what is smellable, then it would seem that being affected by odour is nothing other than smelling (424b5–9). However, this equation is obviously fallacious at least in the case of tangible qualities, such as heat: these clearly act on non-living things as well as on perceivers (434b12–13). Accordingly, we should not be deterred from allowing this to happen in the case of distal senses, too. And it is not difficult to deduce why this is the case: Aristotle's account of perception has ascribed a very important role to mediation, and even if it did not, it is clear that seeing, hearing, and smelling involve some kind of being affected by colours, sounds, and odours that is *not* yet a case of perceiving – namely, the kind of being affected undergone by the media. Aristotle urgently needs to distinguish this kind of being affected from the kind that defines perception, especially since the former conspicuously resembles the latter.

In the final lines of *An.* 2.12, Aristotle provides at least a few hints towards his intended resolution of this worry:

> Or is it the case that not all bodies can be affected by odour and sound, and those [among the non-living bodies][43] which are affected by them are indeterminate and do not remain, as for instance the air (for it only has an odour as a result of a certain affection)? What is the smelling then besides

[42] See *An.* 2.4, 415a14–23 (responding to 1.1, 402b11–16). [43] Cf. 424b12–13.

> being affected in a way? Or is it so that while smelling is [[also]] perceiving, the air, instead, when it has been affected, easily becomes perceptible?
>
> ἢ οὐ πᾶν σῶμα παθητικὸν ὑπ᾽ ὀσμῆς καὶ ψόφου, καὶ τὰ πάσχοντα ἀόριστα, καὶ οὐ μένει, οἷον ἀήρ (ὄζει γὰρ ὥσπερ παθών τι); τί οὖν ἐστι τὸ ὀσμᾶσθαι παρὰ τὸ πάσχειν τι; ἢ τὸ μὲν ὀσμᾶσθαι [[καὶ]][44] αἰσθάνεσθαι, ὁ δ᾽ ἀὴρ παθὼν ταχέως αἰσθητὸς γίνεται;
>
> (*An.* 2.12, 424b14–18)

As it stands, Aristotle's answer is ambiguous. When he says that smelling is something '*besides* being affected in a way', he could have any of the following three positions in mind:

[COMPOSITION] smelling is somehow composed of 'being affected in a way' *plus* something else as two distinct elements;
[ISOLATION] smelling is something else altogether than 'being affected in a way';
[SPECIFICATION] 'being affected in a way' is on its own an insufficient characterization, and if we are to define perceiving, such as smelling, then we need to specify *what kind of* 'being affected' it is.

Composition would suggest itself as perhaps the most intuitive reading were we to accept the καί at 424b17 (although, textually, this is a dubitable choice; see n. 44). If this reading is correct, it would imply that, according to Aristotle, something can perceive only when it is affected, but perceiving is not just a kind of being affected. Rather, for perception to take place, something else *in addition to* πάσχειν must be combined with it.[45]

[44] This καί has been identified in the second recension of Parisinus 1853 (E) by Bussemaker and accepted into the text by Torstrick, followed e.g. by Ross 1956. The original recension of Parisinus 1853 (E) contains an additional αι in the place of this καί (. . .ὀσμᾶσθαιαιαἰσθά|νεσθαι. . .), which led to the idea that the καί in the second recension was in fact a correction of this redundant αι (so Kosman 1975: 509–511). Despite this argument and the silent drop of the καί in Ross 1961, the καί continues to be broadly accepted (see. e.g. Shields 2016, Reeve 2017, Miller 2018). Now Förster reports in his apparatus that Bussemaker was in fact mistaken in his report of the second recension. And, indeed, what we find in the manuscript seems to be just a comma – albeit an exceptionally large one. Presumably, the comma is used simply to separate the subject and the predicate. (I owe this analysis to Justin Winzenrieth.) Hence all we have is the redundant αι in the original recension, which is immensely more likely to have originated as a dittography than by a drop of κ. The interpretation of 424b14–18 defended below fits naturally the text without καί, but it could also accommodate a text with καί, so that even if the καί were to remain an open issue for some readers, it doesn't really matter for the present purposes.

[45] This understanding goes back at least to Philoponus, *In An.* 444.11–445.12 (although he, of course, doesn't read καί), and we shall see in Section 5.3 that it may well have been Alexander's understanding, too, if he did not endorse *Isolation*; cf. e.g. Torstrik 1862: 161–2. There have been attempts to find decisive support for this understanding in the παρά at 424b17, for which see Sorabji 1992: 219–20 (cf. Sorabji 1974: 68). But Johansen 1997: 279 n. 30 seems to be right that this preposition itself cannot decide the issue; cf. also Burnyeat 1992: 24. Scaltsas 1996: 35 spells this reading out in terms of smelling being composed of encoding motions in the medium, on the

Isolation may, on the other hand, seem attractive to the spiritualist.[46] However, this reading admits of being developed in different ways that are less friendly to spiritualism, because saying that smelling is something quite different from being affected – namely perceiving – does not imply that it involves no ordinary affections.[47]

Be that as it may, these are not the only possible readings of the last two quoted sentences. With or without καί, these sentences can also be read in line with *Specification*.[48] What does 'smelling' mean besides 'being affected in a way'? Well, 'smelling' (also) means 'perceiving', and this is not the way in which media are affected. On this view, a distinction must be drawn between these two kinds of being affected that can seem so similar. Support for this third reading may be found in the first quoted sentence: the non-living things that can be affected by odours, sounds (and presumably colours) – that is, effectively, the media – are affected in a way that bears the mark of their *indeterminacy* and *instability*. Presumably, it is exactly in these two respects that the preservative πάσχειν – capturing the essence of perceiving – differs.

I believe that *Specification* is, indeed, the preferable reading. However, I do not think that the question can be decided on the basis of the present passage alone. Rather, in preferring one of the readings over the others, general considerations about the kind of explanatory account Aristotle intends to develop for perception begin to come into play, and these will have to be evaluated in a wider context. I shall take up this task in Section 4.7.

4.5 The Operation of the Media

Regardless of this larger question, the quoted passage provides valuable clues concerning Aristotle's understanding of the operation of the media.

one hand, and perception, on the other. Cf. Caston 2002: 755–6 and Caston 2020: 32, who insists that the kind of being affected and receiving forms without the matter described in the first half of *An.* 2.12 'only constitutes a necessary condition of perception, not a sufficient one'.

[46] See Burnyeat 1992: 25 (following Kosman 1975: 509–11 in dropping the καὶ), who takes the text to support his view that perception does not involve any ordinary change.

[47] So e.g. Scaltsas 1996: 35, according to whom saying that smelling is something different from physical change does not exclude that it involves 'encoding motions' in the medium.

[48] Themistius *In An.* 79.21–6 seems to read the passage in this way. Aryeh Kosman argues explicitly against *Isolation* and *Composition*, and he suggests a reading along the lines of *Specification* (without καί), which, however, he spells out in staunchly 'materialist' terms as *identifying* awareness with bodily affections (Kosman 1975: 518–19). We shall see that this is certainly not the only version of *Specification* available. Charles 2021: 118–93 develops a more promising way of spelling out Aristotle's account of perception along these lines, insisting that to perceive some object just *is* for the perceiver to be affected by it in the appropriate – inextricably psycho-physical – way. But inextricability is not a necessary implication of *Specification*, either.

Besides the mention of indeterminacy and instability, Aristotle also says that, when the air has been affected, then instead of perceiving, it 'easily becomes perceptible'. This latter description, apparently, concerns the case of odours (i.e. the case when the air has come to 'have an odour'). It seems that what Aristotle is describing here is, effectively, *a failure* of mediation: once the air acquires an odour *of its own*, it ceases to be capable of *mediating* this – or any other – smell; rather it itself becomes an object of smelling.[49] Aristotle does not say whether some analogue of this failure can also occur in the case of sounds or colours.

Be that as it may, the characteristics of indeterminacy and instability were clearly introduced as being more general: they were explicitly said to concern sounds too, and there is no obvious reason for not taking the point as concerning colours, as well. Presumably, these two characteristics determine what happens in the case of a *successful* mediation. Themistius understood them as implying a contrast between the essentially *flowing* and *evanescent* nature of the media's affections, on the one hand, and the *persisting* assimilation of the perceiver (even if just for a few seconds) on the other hand.[50] As far as I can tell, this is a reasonable interpretation, although it raises questions about the persisting quality acquired in perceptual assimilation – questions that will need to be addressed later.[51] Setting them aside for now, however, the passage seems to capture a – or maybe *the* – characteristic feature of how the media are affected by perceptual objects: when affected, the medium *immediately* sends the impulse further. Before the relevant quality of the object could come to

[49] For a contrast between acquiring the quality in question as its own (here flavour) and mediation/perception, see also *An.* 2.10, 422a10–15.

[50] See Themistius, *In An.* 79.21–6, claiming that perceiving is characterized by 'the form without the matter coming to be present in that which perceives and remaining in it for some time (μένειν χρόνον τινά)' (cf. *In An.* 57.8). Themistius, however, spoils the contrast by adding 'even if that which has acted upon it has gone away'. This addition makes the kind of enduring in question apply indiscriminately to continued perceiving and retaining a *phantasma*.

[51] It should be noticed that Aristotle is remarkably consistent in avoiding any talk of the media (when functioning properly) having been affected by, and assimilated to, perceptual objects, or acquiring a certain quality: his descriptions are limited to a talk of capacities (e.g. being receptive of colours) and present tenses (e.g. being moved by a colour). This contrasts with the repeated emphasis on the perceiver having been affected by and assimilated to perceptual objects and being like them. The contrast is surprisingly denied by Everson 1997: 97–8, 129, 131, 136, despite the fact that it seems perfectly compatible with literalism. Apparently, what leads Everson to do so is a reflection on Aristotle's general account of acting according to which the agent must already possess the quality in question in fulfilment (see Everson 1997: 136). By taking only this constraint into account, however, he leaves aside the other, no less pivotal concern coming from the same general account – namely, that to continue being affected by the perceptual object, and so to continue mediating it, the medium must remain unlike it. Aristotle's account of the media must somehow negotiate between *both* constraints.

be present in the medium as a quality of the medium itself, the medium imposes this quality on something else – most often another portion of the medium, which does exactly the same, and so on.[52] In other words, when functioning well, the media are – more or less perfect – *qualitative conductors*. I shall say more about the degree of their perfection in Section 4.6.

The qualitative conductivity of the media helps us to see how they are capable of being further and further affected by the same or any other quality of a given range, or other ranges, in which they are conductive.[53] However, it also helps us to see how this kind of being affected differs from the preservative πάσχειν capturing the nature of perception and, thus, why this conductivity of the media cannot amount to perceptivity. It is, strictly speaking, never true about the media, if they are functioning well, that they *have been* affected by, and assimilated to, the perceptual objects acting on them – that is, that they *are like* these objects. The quality of the perceptual object acting on a medium is never *present in* the latter; rather it is always being *transmitted through* it – as long as the medium is functioning well.[54] Furthermore, we know from the case of odours what happens when the media cease to function well: the quality of the perceptual object comes to be present in the medium, but not as a quality *of* the perceptual object acting on it; rather, the quality comes to be present in it as a quality *of the medium itself*, and that is not a case of perceiving on the medium's part, but simply a failure to mediate.

This being said, one can press the question of what exactly is happening within the medium when it is functioning as a qualitative conductor. A potential answer is that the qualities are *encoded* in it, either in the sense that their defining ratios are embodied in a different pair of contraries,[55] or in the sense that they are 'encoded in the movement of

[52] Cf. Aristotle's discussion of echoes at *An.* 2.8, 419b25–33 and his suggestion that this phenomenon is always involved in the mediation of sounds – and not only sounds, but also colours (and possibly odours, too). The idea seems to be that, when the impulse arrives at a point of contact between the medium and something else that is neither a medium nor the respective perceptive organ, what happens is that the last bit of the medium only changes (i.e. reverses) the direction of mediation (or, alternatively, the mediated quality simply gets lost, if the boundary is not capable of 'echoing' it).

[53] The same portion of the medium must be capable of simultaneously forwarding one affection in direction d_1 and the very opposite affection in direction d_2.

[54] Contrast Bradshaw 1997: 154, who argues that instead of 'sensible forms' being present in the medium, 'supra-sensible' or 'higher-level' forms are present in it. This idea, however, shares most of the difficulties with the spiritualist account of mediation (further discussed in Section 4.6).

[55] This seems to be the idea of Silverman 1989: 280–2. See also Shields 1997: 319–20 and Johnstone 2012: 177–8. For Aristotle's account of perceptual qualities in terms of ratios, see Sorabji 1972 (who does not presuppose any encoding), Barker 1981, Ward 1988, or Bradshaw 1997.

the medium' rather as, according to Aristotle, the human form is encoded in the movements of the sperm.[56] The latter, however, is in danger of explaining *obsurum per obscurius*. It seems hardly acceptable to think that a colour or an odour is encoded by a literal locomotion of the air; and if 'movement' is given a more relaxed interpretation, it is far from clear how the second option differs from the first one. However, assuming that the quality is encoded in a different pair of qualitative contraries seems, from a theoretical point of view, to be entirely idle: it contributes in no way to *explaining the qualitative conductivity* characteristic of the media.[57] It thus seems wiser to simply take this conductivity to be a primitive feature of the media that cannot be explained (away) by encoding or anything else.[58]

This is not to deny that some encoding may be involved in certain kinds of mediation. Aristotle may well have empirical reasons for thinking that it is. Among the distal senses, hearing seems to be the most obvious candidate for such an encoding. The varying speeds of the wave motions, which according to Aristotle mediate sounds, are naturally understood as effectively encoding them. Here, the qualitative conductivity seems to be, effectively, analysed in terms of 'vibrations' (i.e. apparently, forwards and backwards spatial movements).[59] However, if the proposed reading of the final lines of *An.* 2.12 is on the right track, then this cannot be a universal principle: there seems to be no encoding in the case of smell, because otherwise the quality acquired by the air when mediation goes wrong would have to be something other than odour, contrary to the fact and to what Aristotle says. By analogy, there seems to be no reason to assume any encoding for colours, and the same holds for the hot and cold. The only other sense for which the

[56] As suggested by Scaltsas 1996: 33–6 (cf. Glidden 1984), followed by Marmodoro 2014: 149–53 and Corcilius 2022: 141–3. Cf. e.g. *GA* 2.1, 734b34–735a4, which starts from the model of an art whose λόγος is present in the movements of the artisan's tools. For encoding in general, cf. Baumrin 1976: 258, Ackrill 1981: 66–7, or Bynum 1987: 176–7.

[57] Encoding cannot explain the fact that the medium can continue being affected by the same perceptual object – for, if it really came to embody the ratio of that object in a different pair of contraries as a quality of its own, then it would become unable to be further affected by it in the same way.

[58] Victor Caston, for one, does not presuppose any encoding in the media; rather, he seems to be committed to a literalist understanding of mediation. He interprets the account of perceiving as receiving forms without the matter (in *An.* 2.12) exactly in terms of receiving the same ratio in a different pair of contraries, while insisting that this applies specifically to perceptive organs in contrast to the media, see Caston 2005, 315.

[59] See *An.* 2.8, 420a25–6. For an insightful discussion of the mediation of sounds, see Johnstone 2013: 632–40.

assumption that an encoding of some sort takes place seems attractive, if not necessary, is taste – at least as long as we take for granted Aristotle's teaching (from *An.* 2.7 and 11) about the heart being the proper organ of touch and taste: what happens on the tongue appears to be a *transformation* of the affection that is further mediated by the flesh in an encoded form. But even this is no more than an educated guess, and we cannot be sure that Aristotle consistently adopted that idea.[60] The point is that he could only have empirical reasons for assuming an encoding for some specific kinds of mediation but not others, while having theoretical reasons to prevent this move as far as possible,[61] particularly because his general account of mediation seems at any rate committed to something like the idea of qualitative conductors.

So much for the operation of the media. Let me now restate the main question that our discussion of the closing lines of *An.* 2.12 led up to in the preceding section: if Aristotle's suggestion is, indeed, that the media, when functioning well, are qualitative conductors, how exactly should we understand the way in which the quality of the perceptual object *remains* in the perceiver throughout the duration of her perceiving that object? This question seems to be at the heart of the recent controversy surrounding Aristotle's account of perception. But, in fact, the debate has mostly concentrated on just one aspect of this more general question, namely on how *the body* of the perceiver is involved. Is the organ literally assimilated to the perceptual object? Or does it embody the ratio defining the relevant quality in a different pair of contraries? Or does it, rather, undergo no material (or physiological) alteration whatsoever? In Section 4.6, I sketch out what light can be shed on this question by the proposed interpretation of Aristotle's first general account. In Section 4.7, I then formulate an even more pressing, and more fundamental, question about the way in which qualities of perceptual objects are present in perceivers. This other question focuses, in turn, on the role of *the soul* in perception: on how exactly the soul makes the

[60] A part of the problem here is that, as noted above (n. 35), *An.* 2.10 is strikingly innocent of the idea announced in *An.* 2.7, and defended in 2.11, according to which the tongue is not the organ of taste. The same seems to hold of *Sens.* 4 (see especially 441b19–23). See also *PA* 2.8, 653b24–6, where Aristotle clearly takes flesh to be more than a medium. For more on what happens in the case of the tongue, see Section 6.4.

[61] If some encoding takes place, it raises an additional uneasy question for Aristotle's account as to why, upon the arrival of the affection at its destination in the perceiver's body, it should produce a perception of the original quality *F* rather than of the encoding quality *G*. Cf. Corcilius 2022: 146 for this kind of concern.

difference, according to Aristotle. This will become the central question of the following chapters.[62]

4.6 Beyond Spiritualism and Materialism

Let me begin with a brief reflection on the difficulties raised by the closing lines of *An.* 2.12 for the spiritualist account of mediation.[63] According to this account, 'the medium takes on the quality of the sense-object only insofar as the quality appears to a perceiver'; it is only changed *phenomenally*.[64] This idea is entirely different from the concept of qualitative conductors; indeed, it seems that the spiritualist needs to presuppose that media are some very special kind of qualitative conductors in addition to this idea.[65] Moreover, if what is transmitted through the medium is merely a phenomenal change, then it is hard to see what a failure to mediate this change could mean other than coming *to perceive* the perceptual object acting on the medium. So, on the spiritualist account, no such failure is possible. But what is then Aristotle talking about at *An.* 2.12, 424b16 and 18? The spiritualist answer is striking: it is something entirely different from, and indifferent to, mediation. A piece of fried bacon acts on the surrounding air simultaneously in two disconnected ways: it changes the air phenomenally insofar as I perceive the smell, and it changes the air literally insofar as the air, for a while, acquires an odour of its own.[66] Besides violating *lex parsimoniae*, this interpretation makes Aristotle, strikingly, deny that there is any intrinsic relation between the phenomenal strength of the perceived odour and the likeliness that the air will come to

[62] These chapters will also fill in the picture of the role of the body sketched out in Section 4.6 (see especially Sections 6.4 and 7.4); but this will no longer be the central concern.

[63] See Burnyeat 1992, Burnyeat 1995, and Burnyeat 2001; cf. Broadie 1993. For a full spiritualist account of mediation, see Johansen 1997: 116–47.

[64] Johansen 1997: 146.

[65] Once it is insisted that the change undergone by the media is not merely a relational change (see Johansen 1997: 136–45), the question reoccurs as to just how the medium can continue being changed by the perceptual object: if at time t it already *is* F (even if just 'phenomenally'), it seems that at t it can no longer be affected by the perceptual object F in the relevant way, and so the mediation fails.

[66] See Johansen 1997: 273–4 and Burnyeat 2001, 134–9. This dualism of the effects that perceptual objects have on the media is sometimes also embraced by interpreters who do not endorse spiritualism, see e.g. Marmodoro 2014: 152, who insists that 'the same body may be both affected qua body by the perceptual form and "disturbed" qua medium by that form'. But it is difficult to understand how this could happen simultaneously (see, for a similar point, Scaltsas 1996: 33).

possess that odour itself. This is a disquieting outcome.[67] However, it is neither the only nor the main reason to reject spiritualism.[68]

If, against spiritualism, we accept the idea that, for Aristotle, there is an intrinsic connection between the mediating role of the air and the case of it coming to possess an odour of its own (as a failure to mediate), we can ask whether this is not intended to serve as a model example of a much more general, but usually not *observable*, phenomenon. Perhaps Aristotle envisioned smaller or larger vibration-like *oscillations* occurring throughout the train of the perceptual affections. I see no principled reason why he should exclude the possibility that what ostensibly sometimes happens in the case of strong odours for a time observable by the senses happens regularly (or at any rate fairly often) in the case of all sorts of perceptual qualities in the external media and/or in the body of the perceivers, but only for much shorter periods, like a fraction of a second – perhaps as the maximum/minimum of a quasi-sinusoidal (qualitative) process – so that the event is not observable by the senses and has no effect on the quality of one's perception. The amplitude and the period of these oscillations would simply manifest the relative *imperfection* of the media as qualitative conductors, meaning that, at a micro-level, not noticeable by the senses, the media regularly *do* acquire the mediated qualities as qualities of their own – but only for a tiny fraction of a second and non-statically (they never cease acquiring/losing these qualities), which makes the oscillations harmless with respect to the media's operation. Clearly, there would be great differences between various external media (and bodily parts like the flesh) concerning the nature of these oscillations. It could well turn out

[67] See Sisko 1996: 142–8 for a similar analysis of the agency of the intense perceptible objects. Cf. Broackes 1999: 91–6, 104–10, who defends the idea that media are affected in the same way irrespective of whether any perceiver is present or not. I worry that the inextricabilist interpretation in Charles 2021 turns out to be all too similar to spiritualism. If I understand correctly, the idea is that the affection of the medium cannot be defined without a reference to perception as its ultimate goal. This claim is, on its own, striking, as it commits Aristotle to analysing the changes undergone by the air when something is sounding as definitionally inseparable from perceiving, even when the sound is not heard by anybody. But the difficulty becomes, again, most pressing in the case of odours (and, *mutatis mutandis*, the contact senses). The event of something coming to possess the odour of something else is surely a purely physical event that can be described without any reference to perceivers. Yet, if this is so, it seems to commit the inextricabilist interpreter (no less than the spiritualist) to there being two simultaneous processes involved in the air being affected by an odour that an animal perceives.

[68] For a set of reasons, see Caston 2005: 265–92. For a detailed analysis of smelling (and mediation of smells) arguing convincingly that it essentially involves material changes, see Johnstone 2012. I shall add one more substantial reason below.

that the only *perfect* conductor is a perfectly transparent medium.[69] But none of this would change anything about the overall picture of the media's operation as qualitative conductors. It would, rather, make their operation less mysterious and would underline what is in any case suggested by Aristotle's mention of the air becoming odorous, as well as by his description of the processes of smelling and tasting – namely, that this working is a thoroughly material and perceiver-independent process, distinguished from other processes primarily by the exceptional throughput (i.e. the remarkable conductivity of the substratum). This is what might make it *seem* that no material process is taking place, although this impression turns out to be mistaken even in the case in which the conductivity appears to be perfect.

All of this has a direct bearing on the notorious question of what happens in the perceiver's body when the affection, transmitted by the medium, arrives at her organs. Do they take on the quality in the literal sense of becoming, for instance, red or fragrant? Or do they come to embody the ratio defining that quality in a different pair of contraries? Or is all that happens simply a case of perceiving that cannot be analysed any further? I want to argue that, if the interpretation of Aristotle's first general account of perception offered in Chapters 1–3 is on the right track, then none of these answers can be quite right. While spiritualists unjustly deny the material nature of *the processes* that lead to perception, the critics of spiritualism tend to reify *the likeness* resulting from these processes in a successful perception.

Victor Caston's paper 'The Spirit and the Letter' has rightly been considered to contain the most authoritative summary of the so-called spiritualist-literalist debate, together with providing an attractive alternative. I wish to argue that although this paper does an excellent job in showing that 'spiritualism' and 'literalism' are far from monolithic positions, and that, moreover, they are far from jointly exhaustive of the interpretative options, it tacitly excludes one promising set of options. Caston shows convincingly that Burnyeat's disjunction between

[69] Indeed, it is even *more* than a perfect conductor, because, on Aristotle's account, it can mediate the action of colours over any given distance *in no time at all*. Still, even in the case of colours, Aristotle seems at least open to the idea of a failed mediation, especially when the light is weak and the medium is dense; compare the phenomena discussed in *Meteor.* 1.5. At the other end of the spectrum, we find heat and cold, whose mediation often fails to such an extent that it does not allow for a genuine perception: when, for instance, my hand has been touching a snowball for some time, it has itself become colder than it was before, and I am now likely to be feeling the coldness of my own hand, or simply feeling cold, rather than properly perceiving the coldness of the snowball.

spiritualism and literalism is all too narrow. However, in doing so, he confronts us with another disjunction. Either we accept the so-called Broad Church Reading ('If a subject *S* comes to perceive a perceptual quality *F* at time *t*, then *S* undergoes some physiological change in the relevant organ at *t such that it becomes like F*'),[70] or we are condemned not just to High Church Spiritualism, which denies that 'natural changes are a necessary condition for perception',[71] but directly to Burnyeat's New Age Spiritualism, which denies that material or physiological changes can be involved in perception *at all* ('S does not undergo any physiological change in the relevant organ at t, or indeed any real alteration, but only "quasi-alteration"').[72] That is, on Caston's view, either we accept that at the time of perceiving *F* the organ is materially like *F*, or we are condemned to denying that any material or physiological process is involved whatsoever.[73]

Clearly this disjunction would constitute a genuine *tertium non datur* only if one's allowing for a material (physiological) change or process involved in perception meant, *eo ipso*, accepting the idea that at the time of perceiving *F*, the relevant organ *is* like *F* in a material (physiological) sense. To be sure, Caston's paper is persuasive in showing that being materially *F* does not necessarily mean being literally *F*: it can also mean embodying the same ratio (say, the ratio defining red colour), in a different pair of contraries (say, the pair of being viscous and being runny), that is, being literally *G*, and only in that sense being like *F* – receiving *F*-ness in a *transduced* form.[74] But do we really need to commit Aristotle to a material likeness, in order to avoid the pitfalls of spiritualism? If the proposed analysis of mediation in terms of qualitative conductors is on the right track, it suggests that this is not necessary: the transparent air through which I see a red rose *is being continuously affected and changed* (κινεῖται) by its red colour without ever coming to *be* red in the sense of acquiring the red colour as a persisting quality of its own.[75]

[70] Caston 2005: 264 (my emphasis). [71] Caston 2005: 259.

[72] Caston 2005: 263. The medium, as we have seen, does not undergo any material change, on the spiritualist account, either.

[73] Cf. Caston 2000: 168–9 where spiritualism is presented as the only alternative to the assumption, shared by the literalist and 'representationalist' (i.e. analogical) interpretations, that the perceptive organ 'literally exemplifies' the perceived characteristic.

[74] See Caston 2005, 303–7 and now also Caston 2020, 29–34 (cf. Caston 1998: 254–7). For the example, see Caston 2005: 314. Cf. e.g. Freeland 2021. Caston's account has affinities to earlier 'structuralist' alternatives to literalism and spiritualism, as found in Silverman 1989, Ward 1988, Price 1996, or Bradshaw 1997.

[75] The same holds for the rose's fragrance: when the air acquires the fragrance as a quality of its own, as it sometimes seems to do, I shall no longer be smelling the rose but rather the redolent air.

Furthermore, not only is it the case that material likeness is not implied, but, rather, its possibility seems to be excluded; for if the air came to *be red* at *t*, it would cease to properly function at *t* as the medium of vision. And what holds about the medium will hold *mutatis mutandis* about the organ of vision: if it came to *be* materially red at *t*, it, too, would cease to be capable of *being* materially *affected* by red at *t*, and so it would cease to be capable of *perceiving* red at *t*. For if the organ were materially red at *t*, this would mean losing the perceptual contact with the object that was acting on the perceiver in causing this likeness, but that could no longer act on her. What is happening at *t* would at most be a case of having a *phantasma* of the object in question (or having an acquired blind-spot for it), but not a genuine case of perceiving it.

The 'analogical reading' proposed by Caston, as ingenious as it is, changes nothing about this predicament. If the material effect of the transparent medium on the organ consists in changing it towards *G* (say, the ratio defining red colour embodied in the pair of being viscous and being runny) then, once the organ has come to *be G* at *t*, it will no longer be capable of being affected and changed towards *G* by the medium at *t*, and so it will no longer be capable of perceiving red at *t*: the perceptual contact will be lost.

Another way of making this point would be to say that Caston's objection against Canonical Literalism[76] can, in fact, also be turned against the position that he himself recommends. The objection is that Canonical Literalism presupposes an actual replica of the perceptual object existing at the time of perceiving in the perceiver,[77] but that Aristotle rejects this kind of replica in his polemic against the traditional *LKL* position. I think this is perfectly correct. However, if the analysis of Aristotle's involvement with *LKL* provided in Chapter 2 is on the right track, it follows that the reason for rejecting the traditional version of *LKL* applies equally well to the view advocated by Caston exactly because, like literalism, it commits Aristotle to the claim that at the time of perceiving *F* the organ *is* materially like *F*, the only difference being that the likeness is spelled out in terms of *G* embodying the same ratio as *F*.[78] The problem is that if we assume that, for a perceptual object *F*, assimilating the perceiver to itself means making it *G*, then once the perceiver's sensory organ already *is G* it cannot be

[76] Caston 2005: 293–5.

[77] '[I]t becomes true to say that the organ is *F* in just the same sense that the object is – it contains another instance of *F*' (Caston 2005: 295).

[78] Cf. Caston 2005: 303–4.

further affected by the perceptual object *F* in the specified way and continued perception becomes impossible, or at least indistinguishable from having a *phantasma*.

This line of argument[79] is likely to be resisted by readers who approach Aristotle with the assumption that perceiving *F* must involve some kind of standing material *representation* of *F* in the perceiver.[80] If this assumption were correct, then my argument would simply be asking for the impossible. However, this assumption is exactly what I intend to call in question. If the reconstruction of Aristotle's first general account of perception provided in Chapters 1–3 is correct, then it strongly suggests that Aristotle's account does not allow for any standing material representations, for these would mark exactly the end of perceiving.

Let me emphasize that, if the kind of argument sketched in the preceding paragraphs against the *materialist assumption* characteristic not only of literalism but of the Broad Church Reading as a whole is cogent, then it certainly does not support spiritualism. Against spiritualism, I have agreed that the media and the perceptive organs are, according to Aristotle, materially affected and changed by the perceptual object; and I have emphasized that these affections may even have the form of imperceptible oscillations and that they fairly often result in the media or the organs *being* materially like the perceptual objects for a certain period of time. I have only insisted that this material likeness cannot be what mediation and, a fortiori, perception are *grounded in*; rather, such a likeness is a mark of imperfection and, if it is not to turn mediation and perception into a failure, it must not last for more than a fraction of a second.

Moreover, the argument made above seems to apply, *mutatis mutandis*, to spiritualism no less than it applies to materialism. If the media and the organs of perception are only affected and altered 'phenomenally' or 'spiritually', one can raise the very same concern about this phenomenal affection. If the organ, upon being phenomenally affected by *F*, comes to

[79] Further developed in Sections 6.4 and 7.4.

[80] For a pronouncedly representationalist alternative to literalism and spiritualism, see e.g. Stein 2010, who argues that Aristotle's theory 'describes perceptions as a kind of representation which are nonetheless the result of causal interaction with external particulars' (Stein 2010: 24). The role of causality here seems close to Caston's idea of 'the backing of the world' or the 'seal of reality' characteristic of perceptual representations (see Caston 2005: 307 and Caston 2020: 38–44). Caston 2000: 168–9 labels his analogical reading 'representationalism'. A representationalist reading of Aristotle is also defended e.g. by Modrak 1987: 99–107, Everson 1997: 193–203, or, recently, Ganson 2020 (contrast Kalderon 2020); cf. also Robinson 1978 (who goes as far as ascribing sense data to Aristotle). For contrast, see Broadie 1993, Esfeld 2000, Kalderon 2015, or Charles 2021: 173–4, 187–93.

be phenomenally *F* at *t*, then, apparently, it cannot continue *being* phenomenally *affected by F* at *t*, and so it cannot be *perceiving F* at *t*, because the perceptual contact with *F* has thereby been lost.

In any case, my present aim is not to insist that I have here produced a knock-down argument against the three reputable positions in the scholarly literature (i.e. literalism, spiritualism, and the analogical reading). Rather, I contend, more modestly, that these three positions do not exhaust the logical space of possibilities and that there is an attractive alternative directly suggested by the reading of *An.* 2.5 developed in Chapters 1–3, which is intelligible and sustainable independently of the complexities of Aristotle's first general account of perception.[81]

The thought can be summarized as follows. There is a grain of truth in spiritualism that has not been sufficiently appreciated by its opponents: (a) the way in which a perceiver *is like* the perceptual object she is perceiving cannot be captured in terms of a material or physiological likeness (whether literal or analogical). Indeed, (b) there is an important sense in which Aristotle's account excludes any such likeness, for the perceiver can *be perceptually assimilated* to the perceptual object only if she continues *being affected* by it (otherwise the likeness could at most constitute a *phantasma* or a blind spot), and this presupposes that the perceiver remains in the relevant respect *unlike* her perceptual object. The problem of spiritualism, as developed by Burnyeat and Johansen, is its radicality in denying not only material *likeness* but also any material (physiological) *affection and change*. What all three positions have in common, I submit, is an all-too-static conception of the likeness in question. We need an account explaining how something along the lines of 'phenomenal likeness' comes to be present in the perceiver, dynamically, as a result of material (physiological) affections *instead of* these resulting in a material (physiological) likeness. Such an account would allow us to understand how the perceiver can be like the object she is perceiving in the requisite way and can at the same time continue being affected by it owing to her preserved unlikeness. This is possible exactly because the relevant organ

[81] Charles 2021: 118–93 (further developing the analysis offered in Charles 2009) argues for a similar conclusion. However, there are important differences. For one, Charles 2021: 147 admits that although perception neither is nor involves a 'destructive' affection resulting in an 'ordinary' assimilation of the perceiver to the perceptual object (that is, what he calls a '[Type 1] change', referring to *An.* 2.5, 417b2–3), it 'can be described accidentally in [Type 1] ways'. If so, then the same pattern of argument, raised above against both the materialist and the spiritualist approaches, can be reapplied to Charles' inextricabilist account: while being inextricably psycho-physical, the perceptual likeness appears to be still conceived in an all too static way (cf. n. 67; for additional differences, see Section 4.7).

remains materially unlike the perceptual object, as the material affections are turned in it into a phenomenal likeness – a dynamic presence of the perceptual object's quality.

The key question, then, is how exactly this can happen. This concern contains the query about how the operation of the media is supposed to help in producing phenomenal likeness – that is, why it could not be produced if perceptual objects were directly acting on perceptive organs.[82] However, the core of the question is what exactly happens in the perceptive organ and what allows the material (physiological) affections to be turned into a phenomenal likeness in it.[83]

4.7 Discrimination and the Role of the Perceptive Soul

This last question is, in fact, just a special instance of a more general issue faced by *any* interpretation of Aristotle's causal account of perception: how do the changes or affections transmitted from perceptual objects by the media to perceivers – whatever they are – cause or occasion the activity of perceiving these objects? This is, effectively, the same question that we have already encountered at the end of *An.* 2.12, where Aristotle asked what smelling is 'besides being affected in a way' and replied that 'while smelling is [[also]] perceiving, the air, instead, when it has been affected, easily becomes perceptible' (424b16–18). As noted in Section 4.4, two prominent ways of understanding this reply, and of construing Aristotle's account as a whole, are based, respectively, on *Isolation* – treating the smelling (and perceiving in general) as being an additional element over and above being affected by perceptual objects – and on *Composition*, treating perception as being composed of being affected plus an additional element. The shared idea between both these interpretations is that Aristotle's account of being affected by, and assimilated to, perceptual objects takes us, at most, to a necessary condition or one ingredient of perceiving. Very often, this necessary condition or ingredient is then understood as a certain kind of material/physiological likeness present in the perceptive organ (whether conceived literally or analogically).[84] This approach is then open to the objection raised in the preceding section

[82] This query is taken up in Sections 7.1 and 7.2.

[83] I take these to be perfectly legitimate questions worth pursuing. Accordingly, what I am recommending is very far from the Neo-Scholastic position according to which intentionality 'is something *sui generis*, which cannot be further analysed or explicated', against which Caston 2020: 17 (cf. 28) protests.

[84] See e.g. Caston 2020: 27–8.

against the 'materialist' interpretations of Aristotle's account. However, *Isolation* and *Composition* can also be fleshed out in a way that is immune to that objection: 'being affected' can be understood as being thoroughly *mediative*, meaning that no body involved in perceiving – the media and the organs alike – ever comes to *be like* the perceptual object; rather, the sole role of the body in perceiving is to *mediate* the agency of perceptual objects.[85]

The alternative to *Isolation* and *Composition*, as we have seen, is to understand Aristotle as insisting that smelling (and perceiving in general) is *a different kind of being affected* from the one undergone by the media (*Specification*). Prima facie support for this alternative is the frequency with which Aristotle maintains in the *De Anima* that perceiving *is* a kind of being affected – a claim that is extended to thinking in *An.* 3.4.[86] The approach to the role of the perceptive organs canvassed in the preceding section can be understood as a first step towards developing this reading of Aristotle's reply: the kind of being affected undergone by perceivers differs from the one undergone by media in that it does *result in a likeness* – namely, a phenomenal likeness: a dynamic presence of a quality *of* the external perceptual object in the perceiver.[87]

In order to make progress in clarifying and evaluating these options, I submit, we must get to grips with another major characterization of perception encountered in the *De Anima* – namely, as a case of κρίνειν. It has been convincingly argued by Theodor Ebert that κρίνειν must not be translated as 'judging', and that it rather has to do with discriminating/discerning, singling out, or telling things apart.[88] We shall soon need to determine the meaning of perceptual discrimination more precisely (in Sections 6.1–6.3, and 6.6) and to analyse the passage (*An.* 2.11, 423b31–424a10) where Aristotle introduces the key notion of the discriminative mean (in Sections 6.4 and 6.5). For now, however, it will be sufficient to recall one of Ebert's insights, namely that, unlike 'judging', κρίνειν is for Aristotle a success verb.[89] It is a key characteristic of what is achieved in perception, capturing its veridical nature (cf. *An.* 2.6,

[85] This seems to have been the understanding of Alexander of Aphrodisias (cf. Section 5.3).
[86] For perceiving as a kind of being affected, see references in Section 0.1, n. 4.
[87] The difference between this reading and the one sketched out at the end of the preceding paragraph may, at first, seem negligible; but we shall see in the following chapters that it has weighty consequences, especially when it comes to the role of the perceptive soul.
[88] Ebert 1983: 183–90. As I have done above, I continue using 'discrimination' as the established label for κρίνειν but without thereby subscribing to the details of Ebert's (or any other) account.
[89] Ebert 1983: 184. This assessment seems to be right and important for the *De Anima*, although it is not true without qualification. Elsewhere, Aristotle occasionally talks of incorrect κρίνειν (see e.g.

418a14–16): in perceiving, animals reliably discern things or tell those that are *F* from those that are non-*F*, at least with respect to their modal-specific qualities.

One issue that will need to be explored is how this characterization of perception relates to the one that dominated Aristotle's first general account – that is, the claim that perception is a kind of being affected by a perceptual object. One way of approaching this question is along the lines of *Isolation* or *Composition* as against *Specification*: it may seem that Aristotle's characterization of perception as a case of discrimination captures exactly the other element over and above 'being affected'.[90] Some such approach has often been adopted by scholars since at least Alexander of Aphrodisias – despite the fact that the underlying assumption (particularly if understood in terms of *Isolation*) is in a prima facie tension with Aristotle's repeated claim that perceiving *is* a kind of being affected and although it leads, as we shall see (in Section 5.3), to other considerable difficulties.

In any case, this is certainly not the only way of understanding Aristotle's talk of κρίνειν. It can be (and has occasionally been) taken, instead, as a way of contrasting the kind of being affected experienced by perceivers with the kind of being affected undergone by the media (and indeed by all imperceptive beings), along the lines of *Specification*.[91] On this reading, that which can perceive is, unlike the media, affected by perceptual objects in a 'discriminative' way so that its being affected by them *is* a case of discriminating them.[92] This would be just an alternative way of spelling out the same difference as has already been described above in terms of, on the one hand, being affected without determinacy and stability (i.e. merely as qualitative conductors) and, on the other hand,

Pol. 3.9, 1280a13–14) and at *Insomn.* 2, 460b22 he uses κρίνειν in a sense very close to false judgement.

[90] The classical formulation of such a view is Ebert 1983: 181–2, who suggests that we should understand discrimination in terms of 'what is done in perceiving' over and above 'what may be undergone' in it (a 'use' of the perceptive capacity as something over and above its 'exercise'); cf. Bernard 1988. See also Corcilius 2014: 31 who introduces perceptual κρίνειν as 'an active doing', an 'ingredient' of perception over and above its 'passive components' (cf. pp. 37 and 48).

[91] The classificatory question of whether κρίνειν is something over and above πάσχειν should be distinguished from the explanatory question whether perception, according to Aristotle, needs to involve a non-passive activity on the side of the perceiver. More on this in Sections 5.5, 6.4, and 7.2.

[92] See Johansen 2002: 181, who offers an account of how 'a passive affection' can 'also be described as an act of discrimination'. Cf. e.g. de Haas 2005: 336 (cf. 341): 'Reception and discrimination are one and the same event, though the being of each is different.' Or Charles 2021: 118–93: 'To discriminate such an object is to be materially affected in such a way that we are perceptually aware of its redness' (p. 135 *et passim*).

being affected in a way that results in a continuing 'phenomenal' likeness – that is, a dynamic but continuous presence of a quality *of* the external perceptual object in the perceiver. The key passage for evaluating the merits of these interpretative options is, arguably, the final part of *An.* 2.11 (discussed in Sections 6.4 and 6.5), where Aristotle's account of the discriminative mean is introduced in a direct connection to his claim that perceiving *is* a kind of being affected by and assimilated to perceptual objects (423b31–424a2).

If we leave aside for a while the question of whether discrimination is better treated as an additional element over and above being affected or as the distinguishing feature of how perceivers are affected by perceptual objects, one thing is clear: under this description, perceiving is already characterized unambiguously as belonging to living beings endowed with a perceptive soul.[93] In other words, when perception is described as a case of discrimination, there is no danger anymore of unwillingly ascribing perception to non-living things, such as the media. However, an explanatory account of perception will also have to say how perception qua discrimination is possible, and that means spelling out (at least on the most general level to start) how it fits into the assimilation model of perception, as outlined in *An.* 2.5. Without this, one would risk falling back into the Anaxagorean difficulty as described at *An.* 1.2, 405b19–23.[94] In other words, discrimination is a useful label for what Aristotle thinks is achieved in perception; the question is now *what exactly* discrimination consists in and *how* it is achieved – that is, just how it comes to be that perceivers discriminate perceptual objects, rather than merely being turned into similar perceptual objects by them or becoming qualitative conductors of their agency. This question is intimately connected, if not identical, to the question of what difference the perceptive soul makes, and how.

This question which will be central for the following three chapters is different from, albeit not unrelated to, the notorious question about the role of the perceptive organs in perception. Answers to the latter question usually presuppose some basic assumptions concerning the status and the role of the perceptive soul, and the other way round: the understanding of the perceptive soul and its role that we arrive at is likely to determine the way in which we take the perceptive organs to be involved. Most

[93] It is exactly the absence of a discriminative mean that Aristotle uses at *An.* 2.12, 424b1–2 as the reason that explains why plants cannot perceive (cf. Section 7.4).

[94] See Sections 2.2 and 2.7 on Anaxagoras, and Section 5.3 on the new threat.

notoriously, perhaps, Myles Burnyeat has insisted – against what he saw as a noxious fashion of assimilating Aristotle's conception of soul to modern functionalism – that 'to be truly Aristotelian, we would have to stop believing that the emergence of life or mind requires explanation'.[95] What he meant is that the only thing Aristotle can say about why, for instance, perceptive beings are perceptive is exactly that they are perceptive – that is, endowed with a perceptive soul – period.[96] This position leaves as little room for spelling out the role of the perceptive soul as it does for spelling out the role of the perceptive organs. The opponents of spiritualism have mostly concentrated on defending the claim that Aristotle is willing to say more about what happens in the perceptive organs than the spiritualists allow for (i.e. that these organs are what perceivers perceive by).[97] But comparably little attention has been paid to the perceptive soul.[98] As if, after spelling out the kind of material/physiological changes in the perceptive organs, the only thing Aristotle could add was: 'and these constitute perception because the organs are endowed with a perceptive soul'. That, however, leaves the relation of perceptual awareness to body and bodily processes no less mysterious than on the spiritualist interpretation – as long as no account of how exactly the former should 'supervene' on the latter is available.[99]

These results are surprising, given that what we are studying is Aristotle's treatise *On the Soul*, for which a key task is exactly determining as far as possible the way in which the soul is the principle of life and

[95] Burnyeat 1992: 29. [96] Cf. Caston 2020: 18–19 for a cogent criticism of this approach.

[97] The claim that the idea of a 'Priority of the Inanimate' is simply foreign to Aristotle (Broadie 1993: 148–50) cannot be sustained, because it is one of the ideas he is responding to (see Caston 2005: 275–80).

[98] One notable exception is Lorenz 2007, who advocates the *Psychic Interpretation* of *An.* 2.5 based on the idea that what Aristotle defines here is exactly the way in which the perceptive part of the soul is affected by and assimilated to perceptual objects.

[99] Cf. Charles' cogent criticism of non-reductionist materialist accounts (akin to Jaegwon Kim's criticism of non-reductive materialism, as developed in Kim 1989, Kim 1992, Kim 1998: 1–27, or Kim 2005: 7–69) as being in danger of 'collapsing into a version of spiritualism': 'Aristotle must have thought, if the non-reductionist account is correct, that [Type 1] purely material changes ground the perceiver's awareness of flavour. How do they do so? There is no obvious sign that Aristotle attempted to answer this pressing question. We are confronted … by an unnerving silence at just the point where, as interpreted by the materialist, a theory is most required' (Charles 2021, 149). There is, I would add, a very good reason why the kind of answer expected on the existing non-reductionist accounts is never provided by Aristotle: if the organ was allowed to be assimilated in the ordinary way to the perceptual object, not only would there be no way for this assimilation to ground perceptual awareness but, moreover, perceptual awareness would become impossible because the perceptual contact would be lost. That said, I think that Charles' talk of 'silence' is somewhat exaggerated. I shall argue that Aristotle does provide an account of how the kind of being affected undergone by the media is turned into the kind of being affected that is perceiving.

its characteristic activities, including perceiving. The question cannot be simply discarded by pointing to Aristotle's famous – allegedly 'Rylean' – doctrine that it is not the soul itself that perceives, but the animal endowed with a soul.[100] Just as this doctrine does not forbid us from asking about the nature of the changes occurring in the ensouled body, so it does not forbid us from asking about the nature of the soul's involvement, either; what it forbids, arguably, is only understanding this involvement in terms of the soul *itself* perceiving, and so being moved by perceptual objects. In fact, as we shall see, this famous passage only highlights the need for spelling out the soul's involvement in a non-circular and informative way: to understand perception, we must understand what difference it makes for the 'changes' or 'motions' transmitted through the body to extend 'up until the soul' (without, apparently, becoming changes or motions *of* the soul itself), as this is exactly what constitutes the difference between perception and mere mediation. Aristotle cannot succeed in defining the perceptive soul, as the first principle of perception, without spelling out, at least in the most general terms, both this difference and the way in which the soul accounts for it. Nor, however, is this an easy task.[101]

One can, again, compare Aristotle's treatment of nutrition.[102] While it would surely be absurd to say that the nutritive soul, as the first principle of nutrition, is itself nourished or that it nourishes itself, Aristotle finds nothing absurd in ascribing to the nutritive soul a fairly precise role in nutrition: it is *that which nourishes* (τὸ τρέφον) the body by the nutriment.[103] Aristotle's comparison with carpentry (416b2–3) signals that the nutritive soul is an agent of a very special kind; it is one of 'the agents that do not have the form in matter', and so are impassive.[104] This gives us an informative account of *how* the nutritive soul is supposed to

[100] See *An.* 1.4, 408a34–b18 (quoted and discussed in Section 5.2).

[101] One can worry that Charles' inextricabilist interpretation of Aristotle's account as a 'simple theory' of perception tends to trivialize this task, as if the only thing Aristotle has to say was exactly that perception is an inextricably psycho-physical kind of being affected by perceptual objects. One concern is that this approach risks leaving behind Aristotle's stated commitment to the definitional priority of activities over capacities (see *An.* 2.4, 415a14–23 and in general *Metaph.* Θ.8, 1049b12–17). Is it possible to capture, on the inextricabilist account, the difference between the ways in which, say, the air on the one hand and the perceiver on the other are affected by perceptual objects without already referring to the perceptual capacity present in the latter but not in the former? Another concern will be spelled out in Section 5.3, pertaining to Charles' commitment to the idea that the perceptive soul is itself affected by perceptual objects.

[102] Cf. Sections 0.3, 1.1, and 3.7.

[103] *An.* 2.4, 416b20–3 (cf. *PA* 2.7, 652b11–12).

[104] See *GC* 1.7, 324b4–6 and 1.10, 328a18–22; cf. Section 2.1.

play the role of the first principle of nutrition (although the details are not entirely easy to tease out).[105]

Now, what corresponds to this account in the case of perception? The question here is significantly more difficult, and one reason for this is the following.[106] Aristotle seems to define perceiving as a kind of being affected by and assimilated to perceptual objects; but in *An.* 1.3–4 he determinately opposed the assumption, adopted by virtually all of his predecessors, according to which the soul is responsible for animal locomotion – and apparently also cognition – on account of it itself undergoing the relevant kind of changes (either moving itself or being moved by perceptual objects). It is not difficult to see how Aristotle's account of nutrition is consistent with this denial – he can draw on his account of unmoved movers and impassive agents already developed elsewhere. But how can he make his account of perception as a kind of being affected by and assimilated to perceptual objects similarly consistent? That is far from obvious. Indeed, this question leads to a dilemma that, arguably, lies at the heart of Aristotle's inquiry, or is at any rate closer to it than the notorious question about the role of the body. This worry asks: how can the perceptive soul be the first principle of perceiving as a kind of being affected by, and assimilated to, perceptual objects, while itself remaining unmoved?[107]

This question will be explored in the following chapter, and it will provide the framework for the subsequent inquiry into Aristotle's account of perceptual discrimination and reception of forms without the matter in Chapters 6 and 7.

[105] I return to the question in Section 7.3. [106] Cf. Section 0.3.

[107] The difficulty is well-captured by Witt 1992: 183: 'does his [i.e. Aristotle's] explanation of psychological processes assign the primary causal role to soul, while at the same time leaving soul unaffected by them?' Lorenz 2007: 211–19 finds the key to this dilemma in the notion of preservative πάσχειν and assimilation introduced in *An.* 2.5 – a strategy that can, as we shall see (in Section 5.4), be traced back to antiquity. A very different solution (to be discussed in Section 6.5), based on *An.* 2.11, 423b31–424a10, is proposed by Corcilius 2014 (cf. Corcilius 2022: 143–6). No paper has brought the question to such a sharp relief as Menn 2002, emphasizing Aristotle's general commitment to the impassivity of the soul (on the challenges that this contains for Aristotle's account of perception, see especially pp. 128–37).