ARISTOTLE ON THE COMMON SENSE AND THE UNITY OF PERCEPTION

by

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Abstract

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This dissertation addresses the common sense, which is the name commentators give to the perceptual capacity in Aristotle's psychology through which we are able to engage in sophisticated perceptual activity. The common sense is responsible for all activities of the perceptual faculty that go beyond the reception of the special objects by the special senses, including: the perception of the common objects; joint perception; discrimination; memory; sleep; and self-consciousness. I argue that all of these functions implicate a higher-order perception of the activity of the special senses, i.e. a metaperception. My account explains our ability to engage in these activities, which otherwise appear rather disparate, since each requires a single perceptual state with a complex content.

In Chapter One, I present Plato's theory of perception from *Theaetetus*. According to the view there espoused, perception is the unstructured uptake of special objects: complex contents are introduced by the mind. I show that Plato's view leaves Aristotle with the dialectical burden of accounting for the possibility of sophisticated psychological activities that are merely perceptual.

Chapter Two provides a novel interpretation of the opening lines of *De Anima* III.2. According to my reading, which I call the Common Sensing Reading (CSR), the discussion here is meant to discharge the obligation left by *Theaetetus*. In particular, I

contend that the metaperceptual apparatus he invokes ("Since we perceive that we see and hear") is introduced to account for perceptual complexity.

Chapter Three considers Aristotle's account of the perception of the common objects. I consider *De Anima* III.1 425a30-b3, where he argues that the perceptual faculty as a unity is able to account for in-itself perception of the common objects. My discussion here draws out the consequences that Aristotle's view has on the epistemology and psychology of perception more generally.

The final chapter considers further functions of common sensing. I here expand CSR and show that, by Aristotle's lights, all sophisticated perceptual activity can be accounted for by the metaperceptual apparatus. His empiricism is thus shown to be fully developed and internally consistent, thereby making it a viable alternative to the rationalism we find in *Theaetetus*.

Acknowledgements

This dissertation started as a seminar paper during a time when my research was oriented in a quite different direction. That I ended up enchanted by these questions is a testament not just to the richness of Plato and Aristotle's theories of perception, but also to the influence of my advisor, Iakovos Vasiliou. I am very grateful for his careful attention, which he bestowed on matters both as specific as sentence construction and as general as the orientation of my project. In particular, he suggested at a crucial stage of organization that I switch my second and third chapters, which consequently clarified my thinking overall. The project that follows benefited tremendously from his advice, as well as from his encouragement and support.

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I. Introduction

In *Theaetetus*, Plato calls attention to a constraint on plausible accounts of the perceptual system: if our senses were to operate independently of each other, our experience would be disjointed, as though there were several discrete individuals in one body. Socrates likens that possibility to the one that obtains in a Trojan Horse filled with soldiers. In order to account for the fact that we do not experience the external world in this way—information does not strike each sense in an isolated manner—it must be that the data that we get from perception is centrally integrated in some way. Plato takes this to show that the perceptual system takes in raw data that is subsequently interpreted by an act of mind, but Aristotle understands perceptual complexity as a function of the perceptual system alone. To account for this complexity, he claims that the perceptual faculty is fundamentally one in nature, or, similarly, that the senses can act as one.[1] The unified sense-faculty has come to be called the "common sense," but disputes abound as to its nature and the range of its functions. Resolving such questions is crucial to a correct understanding of perception in Aristotle, or so this thesis will argue.

Clearly one would hope that Aristotle has something substantive to say about how the senses come together—to simply assert that they are 'somehow' internally unified threatens to beg the question against those like Plato who think that perceptual integration requires judgment. In this thesis I provide a substantive

[1] *DA* 425a30-31; *DS* 449a16-20; *DSV* 455a12-22.

account of the common sense, one that understands Aristotle as seriously engaged with the problems introduced by *Theaetetus*.

In *De Anima* (*DA*) II.2, Aristotle agrees that general definitions are of little explanatory value. He says that his first pass at defining "soul" as the first actuality of a body merely states the conclusion rather than giving the explanation (*aition*) [413a18-20]. An informative definition, he continues, requires an individual investigation of each of the capacities of the soul [413a20-25]. An analogous point, of course, can be made about the definition of "common sense" as the unified activity of the sense-faculty. Accordingly, in what follows I provide the reader with just such an investigation of the capacity of common sensing.[2] But before I present my account, it will be helpful to grasp, in outline at least, Aristotle's understanding of the individual operation of the senses.

I.1 Aristotelian Metaphysics and Perception: An Overview

Much of *De Anima* and several treatises from *Parva Naturalia* (*PN*) discuss the faculty of perception.[3] Aristotle provides an account of the underlying metaphysics of perception in *DA* II.5-6 and II.12, and sandwiched between these chapters is a

[2] David Bronstein has suggested in conversation that it would be better throughout to speak of the activity of the common sense (i.e. common sensing) rather than of the capacity (i.e. the common sense). The latter way of speaking, he thought, would make it seem as though I understand the capacity to be distinct from the five special senses. He's right that the use of the substantive (*the* common sense) is *prima facie* interpreted that way, but I continue to talk of the capacity for ease of exposition. The reader should bear in mind, though—as I make clear in 2.5 (chapter 2, section 5), *passim*—that the common sense is nothing over and above the special senses, and the activity of common sensing is reducible in number, if not description, to the activity of one or more of those senses.

[3] As with most things Aristotle, his account of perception is roughly continuous across works. The basis for reading him this way will be provided when it is relevant or contentious, though I also take it that the success of my project, such as it is, will itself demonstrate the coherence of the two works.

detailed analysis of each of the special senses. Below I provide a case for the view that the next two chapters (*De Anima* III.1 and III.2) offer a substantive account of the unified sensory capacity that I have been calling the "common sense" (*aisthêsis koinê*), while specific functions of the common sense, including sleep, memory, and dreaming, are further discussed in *Parva Naturalia*.[4]

Aristotle's interest in perception is a product of the methodology he adopts. In the opening chapter of *De Anima*, he describes his project as one of trying to find a common account (*logos*) of soul (if in fact there is one [402b5-9]) and he goes on to say that he will pursue this task by inquiring into the parts of soul and their functions [402b9-13]. He singles out the specific functions of nutrition, perception, and understanding, and he later argues that plants are to be differentiated from animals in terms of the latter's possession of the faculty of perception [413b1-4], and that humans, but not non-human animals, have understanding (*nous*) and reasoning (*logismos*) [433a11-12].

But if lower animals cannot think or reason, Aristotle must interpret all of their behavior as due solely to the activities of perception and nutrition. This will, of course, require a rather sophisticated faculty of perception.[5] Indeed, it is clear that Aristotle notices this consequence himself: shortly after providing his taxonomy, he

[4] Some commentators dispute the functions attributable to the common sense. I discuss these views, and my response, in 3.1.

[5] Nutrition—shared as it is with plants—will not be very sophisticated. Of course, when it is combined in an animal with the higher capacities, it will present as a more complex faculty (see the phenomenon of molecular gastronomy), but not *qua* nutritive. Contrarily, as we will see below (1.2), Plato presents an argument that much of the psychological activities that we would want to ascribe to non-human animals requires the activity of reason.

claims that the perceptual faculty suffices for imagination,[6] and that it also includes the capacity to feel pain and pleasure, which in turn entails the ability to want [413b22-24].

In describing Aristotle's general view, I will limit myself to non-controversial claims. My objective is to get clear on the terminology that will be used throughout this project; controversies regarding the details of the theoretical apparatus will be addressed as they become relevant. Among the concepts to be reviewed are: matter; form; potentiality and actuality; the special senses and their objects; and the common sense and its objects.

In *Physics* (*Phys.*) II.1, Aristotle defines natural objects as those objects that have an internal principle of rest and motion or change. He accounts for this ability by claiming that natural objects contain their own end (*telos*)—it is for the sake of this end that the object moves and is changed. At this point, though, a question emerges as to what is responsible for the end; both natural and artificial objects are composed of matter (*hulê*), yet only the former contain their own impulse to change. Matter cannot, then, be the only constituent of natural objects.[7] Aristotle here exploits the analogy between natural and artificial objects, arguing that just as a maker imposes some form (*morphos* or *eidos*) on the designed object, so too natural objects are composed of form and matter. In the latter case, we can view nature as already pregnant with form; there is no agent in Aristotelian metaphysics that plays the role

[6] The nature of the imagination (*phantasia*) and its relation to the perceptual faculty is a fraught subject in Aristotle scholarship. For more on this, see Caston [1996]; Lorenz [2006]; Whiting [2002].
[7] There are other reasons that all objects, including both natural and artificial ones, cannot be exhaustively accounted for in terms of their material constitution, but for simplicity I here focus on just one such reason.

that the maker does in the case of artifacts. As such, the form contains the end of the substance, the "that for the sake of which" (*to hou heneka*).

The matter/form distinction dovetails nicely with Aristotle's distinction between potentiality (*dunamis*) and actuality (*energeia* or *entelecheia*). Matter is potentiality; only enformed matter is anything in actuality.[8] Natural forms are dynamic, and this dynamism explains how a natural object contains its own end, and, accordingly, its own principle of change and motion. For instance, a baby squirrel and a full-grown squirrel are both composed of squirrelly form and matter, and it is the dynamism of squirrelly form that explains the growth and maturation of the squirrel.

Aristotle defines the soul (*psuchê*) as the form of a natural body [*DA* 412a19], so it is the soul that turns the matter into an actual living object.[9] More refinement is needed, though, since psychological activity invokes distinct levels of actuality. For example, consider the example of knowledge and contemplation. All humans have the capacity to know, this being a potentiality to possess particular knowledge [*DA* 412a22-28]. Once I acquire knowledge, I can be said to have actualized that potential, so the possession of knowledge is a first actuality, but it is also a second potentiality, viz. the potentiality to use or manifest that knowledge. The exercise of knowledge,

[8] Aristotle notes that matter is relative to the substance for which it is the matter. So, for example, wood as matter is potentially a bed, but it is also actually wood, where wood is conceived of as the underlying elements of matter (earth, air, fire, and water) together with the wood form.

[9] At this point the analogy between natural and artificial objects becomes problematic. Though wood does exist before it is turned into a bed, natural bodies do not exist potentially before they exist in actuality. Strictly speaking, then, there is no potential matter just sitting around waiting to be enformed by a soul. For more on this problem, see Ackrill [1972-73] and Whiting [1992].

contemplation (*theôria*),[10] is the achievement of a higher-level actuality. For example, as a rational being I have the potential to know geometry, but this is a mere potentiality unless and until I learn geometry. Once I do so, I possess a first-level actuality, i.e., I actually know geometry. This actuality may also be thought of as a second-level potentiality, viz. the potentiality to produce geometrical proofs. My actual knowledge of geometry manifests itself as a potentiality to exercise geometry when I am asleep, watching television, or doing anything else that doesn't invoke geometrical knowledge. When I produce geometrical proofs, on the other hand, I come to exhibit second-level actuality, which stands to my knowledge of geometry as contemplation in general stands to its correlative instances of knowledge.

Thus, while the soul is form and therefore actuality, it is best understood as a first actuality since it also has the potential to be the bearer of higher-level actualities. The soul, then, stands to the potentially living body as a first-level actuality, i.e. as knowledge stands to a possible knower. *Qua* ensouled animal, I have the capacity for perception, but this is also describable as a first actuality: if my eyes are closed I am still a *perceiver*, though I am not *perceiving*. When I open my eyes and actually see, I am exhibiting a second actuality. But since I need not be actually seeing in order to be an ensouled animal, clearly it is the first actuality by which *psuchê* is defined.

To be an animal, then, suffices to make one a potential perceiver; the question of what happens when one actually perceives has yet to be addressed. Before we can

[10] While it seems to be required in other texts (most notably, *NE* X) and is therefore necessary for consistency, "contemplation" is an overtranslation in this context. What Aristotle means will be made clear by his explanations and my illustration.

see how this works, we must review Aristotle's general conception of change and his four kinds of cause.

After Aristotle's introduction of the form/matter distinction in *Physics* II.1, he proceeds in *Physics* II.3 to distinguish four ways in which we speak of causes. The Greek word here (*aition*) is a word for which English has no precise analogue. It is usually translated as "cause" when used in the Aristotelian sense but occasionally also as "explanation." In other contexts the word can mean "responsibility;" when its adjectival form is followed by a genitive, it means "responsible for."[11] Our modern use of "cause" is much narrower: contemporary philosophers and scientists generally think of causes as material states that are sufficient for their effects, which are also material states. When causes are understood in this way, they are extensional entities that exist prior to and independently of their effects. Aristotle's discussion here, on the other hand, is explicitly intensional—he is at pains to distinguish not different causes, but, rather, different ways we *speak of* causes.[12] Some modern philosophers have argued for causes as intensional entities,[13] but most retain the now-orthodox view.

Modern views notwithstanding, Aristotle discusses three kinds of cause or explanation. The first is material; it cites the matter, and it provides the sense in which the wood is the cause of the bed. The second sense is formal; it cites the form, which is the essence of the thing, and therefore provides the sense in which the soul

[11] For more on *aition*, especially as it connects with responsibility, see Frede [1989].
[12] See Annas [1983], Sorabji [1980].
[13] See especially Anscombe [1975].

is the cause of the animal. Third, causes can be spoken of as that which initiates change. This third sense is traditionally labeled the "efficient cause," and is often described as that which is must similar to our modern notion. Lastly, "cause" can refer to the final cause, in which case it is described as the end that is served, the "that for the sake of which."

Notice that, given Aristotle's definition of *psuchê*, in the case of living things, the formal, efficient, and final causes will all be the soul [*DA* II.4 415b8ff]. For remember that natural beings are defined as those that contain their own impetus for change (i.e. the efficient cause), which in turn is understood as a consequence of the soul as the natural being's form (i.e. the formal cause). This form, moreover, provides the *telos* for the animal, so it also supplies its final cause. Since the soul is defined as the form of the living animal, then, it will be the cause of the change in the latter three senses.

Aristotle defines change (*kinêsis*) as the actualizing of a potentiality [*Phys.* 201a16-18]. To return to the above example, when I come to learn geometry, I am changed in the sense that while I was once a potential knower of geometry, I am now an actual knower, which, I have explained, is both a first actuality and a second potentiality. Similarly, when I go from watching TV to exploiting my geometrical knowledge, I am changed from a potential geometer/actual knower of geometry into an actual geometer. This is a sort of change, but it is distinct in that it is a change from first actuality to second actuality. This is a different kind of change, he says, because it is the preservation (*sôtêria*) of the thing's potential rather than, as in the

previous case, the destruction (*phthora*) of the thing's former state [*DA* 417b2-5]. In *De Anima* II.5, Aristotle says that while there are no canonical terms used to distinguish the difference between these two types of change, we should call the transition from simple potentiality to first actuality an "affection" (*to paschein*), and the latter transition, from first actuality to second, we should call an "alteration" (*to alloiousthai*) [418a1-3].

Aristotle understands the activity of perceiving as analogous to the exercise of geometrical knowledge: both are second-level actualities. The sense faculty is part of the soul, and it is such in the sense that it is both a first-level actuality and a second potentiality: animals are actual perceivers and potential possessors of perceptual experience. Analogously, the sensible object exists in two ways, both as the actual perceived object and as the potential to be perceived as that object.[14] A sensory experience occurs when the soul takes on the sensible form of the external object without taking on the matter.[15] In such an activity, the second potentiality/first actuality of the perceiver and the sensible object's second potentiality to be perceived are jointly actualized. This second-order actuality occurs within the perceiver; it is a numerically singular event with two distinct descriptions, one in terms of the sensible object and the other in terms of the perceiver [*DA* III.2 425b26-28]. When one has a

[14] The sensible form of an object is not to be confused with the form of that object. While the sensible form is obviously part of the more general form, external objects cannot be understood solely in terms of their perceptible properties without reverting to a very unattractive metaphysics—a move that Aristotle is not making. On this, see Lear [1988], 101-102.

[15] The paradigmatic statement of this comes later in *DA* [424a17], but it is clearly the picture Aristotle is working with throughout the discussion. The qualification that it does not take on the matter seems to be designed to elucidate at least one difference between perception and other types of change. Precisely how the qualification is to be understood has been the subject of much discussion in the literalism/spiritualism debate. See Burnyeat [1995a] & [1995b]; Caston [2005]; Everson [1999]; Johansen [2007]; Sorabji [1975] & [2001].

perceptual experience, that activity fulfills each of the respective potentialities and embodies a higher actuality than the perceptible object and the perceiver are able to achieve alone.

So far, Aristotle's account concentrates on occurrent perception in general, but he goes on to distinguish among the senses by observing that each sense is especially concerned with particular sensible objects. Thus, sight is particularly equipped for experience with color, hearing with sound, and so on. He calls these objects the "special objects" (*ta idia*) of the individual senses.[16] Each sense perceives its special objects in-themselves (*kath' hauta*), but is also able to perceive other objects coincidentally (*kata sumbebêkos*) [*DA* 418a8-11].[17] He also mentions another type of perceptual object—the "common objects" (*ta koina*)—that are perceived in-themselves but are not special to any sense. As he canvasses the special senses, Aristotle is careful to consider their underlying physiology as well as the medium that operates between the object and the perceiver. In successive chapters of *De Anima*,[18] he considers sight (II.7), hearing (II.8), smell (II.9), taste (II.10), and touch (II.11). The particulars of these accounts—unsurprisingly fraught with scientific error—need not concern us. One example will suffice to demonstrate his method.

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[16] Aristotle uses an adjectival noun here, as is natural in Greek. I will thus generally speak of (special and common) perceptual *objects*, but I do not think much turns on this.

[17] It seems clear that Aristotle interdefines the sense modalities and their special objects (see esp. Sorabji [1971]), but the exact relation between the special senses and their objects—and its implications for the epistemology of perception—is controversial. Some commentators, e.g. Irwin ([1988], 317), understand perception of non-special objects (macro-level objects like desks, for instance) as a kind of second-class perception, one that would be best understood not as perceptual, but, rather, as inferential, and therefore understand the relation between a sense and its object as causal, e.g. Modrak ([1987], 62). These issues will be discussed in Chapter Three.

[18] Of course the division into books and chapters is the work of later editors.

So let us consider the first special sense he investigates: sight. His discussion there largely focuses on the transparent medium. He describes the medium as itself colorless, but as also possessing the potentiality to be light or dark [418b26-419a1]. Color, on the other hand, is defined as that which is visible in light [419a8]. Moreover, color is not visible without light, so he concludes that "this is color itself, to be able to set in motion that which is in activity transparent, and the activity of the transparent is light."[19] As further support for this conception of the essence of color, Aristotle notes that color is not visible when placed directly on the eye. Rather, he concludes, color sets the transparent air in motion, which in turn sets the eye in motion [419a11-15]. On Aristotle's view, then, a transparent medium is not only conducive to seeing, it is necessary for it. From consideration of the impossibility of seeing something placed directly on the eye, he concludes that it is impossible for that which can perceive to be immediately affected by the color. It is, rather, indirectly affected by the color in virtue of the intervening medium. Later, in *De Anima* III.1, he will claim that the eye is made of water: he seems to think that it is in virtue of the affinity between the transparent water of the eye and the transparency of the medium that sight is made possible [424b33-425a4].

As he continues through the other special senses, he takes it for granted that each must have a dedicated medium. Indeed, when he gets to touch, his argument for the view that the organ of touch is not the skin depends on the fact that otherwise there would be no medium. Instead, it must be that the skin is the medium, with

[19] [419a9-11]. All *DA* translations are mine, adapted from Hamlyn [2002].

some more central thing acting as the organ of touch [423b20-26]. For, as in the case of sight, perception is impossible when there is direct contact between the sense-organ and the sense-object [423b20-26].

To summarize, Aristotle's view of perception is modeled on change. Just as change occurs when a potential bearer of some form actually takes on that form, perception occurs when the soul takes on the (sensible) form of an object (without thereby also assimilating the matter). He contends, moreover, that certain physical conditions must obtain in order for perception to be possible. Specifically, the organ must be constituted by appropriate matter, and there must be a medium that can transmit the form.

To this point, Aristotle's account focuses on the special senses, each of which has a designated sense organ that has the relevant makeup. Since common sensing, unlike special sensing, is proprietarily responsible for a broad range of functions and lacks a dedicated organ,[20] the situation in regards to it will prove to be more complicated.[21] In particular, though it is granted (by most parties) that Aristotle understands activities like joint perception, perceptual discrimination, self-consciousness, and sleep as requiring no capacities beyond those supplied by the

[20] I add the caveat "proprietarily" because it will turn out that much of the activity necessary for the functioning of the common sense is done by the special senses. But while common sensing requires the activity of some special senses, it does not require the activity of any special sense in particular. As we will see in Chapter Three, the special senses, unlike the common sense, are not defined by their role in common sensing.

[21] In *PN*, the heart comes up for frequent discussion and is taken to be of special relevance to common sensing. That this is so, though, follows from the fact that the heart is central to perception more generally. It is not thereby the sense organ of the common sense: *DA* III.1 contains an argument for the claim that the common sense lacks an organ, and Aristotle never suggests that his *PN* view is inconsistent with that conclusion. Moreover, if the common sense had an organ, that would suggest that it is a separate, sixth, sense, which Aristotle is committed to denying.

perceptual system, there is no orthodox view as to *how* the perceptual system is able to ground these disparate capacities. Does Aristotle have anything informative and non-trivial to say about *how* the sense-faculty, as outlined above, is capable of more than just special sensing? The need for some substantial account of common sensing is sharpened when one considers Aristotle's general methodological principle against defining parts of soul trivially as those that actualize specific potentialities.[22] In the next section, I review responses to this question both from antiquity and from recent literature on the topic. Consideration of such views situates my account within the prevailing literature, though a full understanding of my view awaits, of course, the body of the project.

I.2 Interpretations of Aristotelian Common Sensing

Aristotle is clear, as we will see, that joint perception and related functions of the perceptual capacity require that the capacity itself be unified. As he puts it in his discussion of discrimination in *De Anima* III.2, perceiving the difference between sweet and white requires that "both must be evident to some one thing—for otherwise even if I perceived one thing and you another, it would be clear that they were different from each other."[23] And indeed, early commentators accept and reiterate the importance of this demand.[24] Alexander of Aphrodisias, for instance, concludes that one thing must apprehend (*antilambanein*) sensibles judged to be

[22] See *DA* 432a22-b6, and also *DA* 413a18-20
[23] This passage is discussed in detail at 4.1.
[24] In identifying the relevant passages from the Commentators, I relied heavily on the arrangements found in Sorabji [2005] & [2006b].

discrete. For, as he says in his commentary on *De Sensu*: "just as if one thing were hearing and another were seeing, it would not be possible to discriminate [the difference] of the thing heard from the things seen, in this way also the potentialities would be separated from each other by us."[25] Philoponus makes similar observations in his commentary on *De Anima*, as does pseudo-Philoponus (Hereafter '[Philoponus]').[26] As interpreters of Aristotle, each is correct to insist on this requirement, but none spell out how Aristotle's general account of perception suffices to account for the unity of the perceptual capacity.

Indeed, many commentators follow Theophrastus (if Priscian's account of his view is to be assumed) in thinking that the common sense cannot in actual fact be a perceptual capacity.[27] Philoponus, for instance, claims that *logos* is the ultimate judge of the difference between sight and hearing.[28] Similarly, pseudo-Simplicius (hereafter '[Simplicius]') argues that the senses cannot turn back on themselves due to their corporeality, and that, as such, the rational faculty is responsible for perceptions of

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[25] Alexander, *Sens*, [36,17-19] [*hôsper gar, ei allos men êkouen, allos de eôra, ouk hoion te ên krinein ton horônta ta tou akouontos, houtôs de kai eph' hêmôn apêrtêmenai an êsan ai dunameis allêlôn*]. See also Alexander, *De An*. [60,27-61,4], which he here references at [36,16].

[26] Philoponus *De An*. 136,15-17; [Philoponus], *De An*. 465,9-12). See also Proclus, *On Plato's Parm*. 957,40-958,9, where he claims that there must be a single thing in the soul that allows it to assert "I am perceiving," "I am reasoning," "I appetitively desire," and "I am willing" (*boulomai*). Accordingly, he has in mind a broader phenomenon than mere perceptual unity. Nonetheless, Proclus ties the unity more closely to the perceptual faculty than to other psychological capacities, for he describes that single thing as set over (*epi*) the common sense, and only "before" (*pro*) reasoning, appetite, and will. Similarly, Philoponus, *op. cit.* insists on the unity not just of the perceptual capacity, but also of understanding. For the connection between the two faculties, see Plotinus 4.3 30,5-16 as well as my discussion of Aristotle on self-consciousness in 4.3.

[27] See Priscian, *Metaphrasis* (*Metaphr.*) 22,20-21

[28] Philoponus, *De An*. 14,33-35. Note that in the context he is discussing the discrimination of the senses as faculties, but without any evidence to the contrary, the point would also seem to extend to the objects of perception.

our perceptions.[29] None ascribe this view to Aristotle: rather, insofar as each engages with his treatises, while they come to reject his view that the common sense could operate solely *via* the presence and unity of the perceptual faculty, they never question whether that is his view. Still, the fact that Theophrastus, Philoponus, and [Simplicius] start with broadly Aristotelian sympathies but ultimately conclude that his account of common sensing is untenable suggests that there is nothing self-evident about its coherence.[30]

When we turn to modern accounts of the common sense, two important facts emerge: (1) all recent accounts focus exclusively on one or both of the following issues: (a) the functions Aristotle attributes to the common sense; and (b) the consistency or lack thereof between the accounts Aristotle offers in the *DA* and the *PN*; and (2) accordingly, none of these authors offer a substantive account of the underlying mechanics of the unity that the common sense affords. Starting with (2), a canvassing of the interpretations of common sensing given by leading scholars illustrates the vague and programmatic nature of the contemporary discussion.

In the introductions to his translation of the *De Anima*, R.D. Hicks contends that "there has been much needless mystification" about the common sense, which he describes merely as "the common function of sense as a whole."[31] The sentient soul is a single entity, he says, and as one it performs a variety of functions; his list includes the perception of the common objects, self-consciousness,

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[29] [Simplicius], *De An.* 173,3-7; 187, 27-36.
[30] See, for instance, [Philoponus], *De An.* 464,30-X: "But more recent interpreters neither tremble at Alexander's frown nor pay heed to Plutarch, but, pushing Aristotle himself to one side, have devised a newer interpretation. They say that it belongs to the attentive [part] of the rational soul."
[31] Hicks [1907], lii.

"pronounce[ments of] judgments of identity and difference," and sleep. He is not troubled by what he takes to be the fact that the common sense is capable of performing functions that differ "in degree, if not in kind" from those that the special senses perform, for "in sense we have something that is more than the sum of its parts."[32] He does not elaborate on the "extra part," nor does he provide specific textual support for his conclusion.

In his editions of *De Anima* and *Parva Naturalia*, W.D. Ross translates *koinê aisthêsis* as "unspecialized perception," and he contends that it is nothing more than that which is common to all of the senses. "We must," he says, "think of sense as a single faculty which for certain purposes is specified into the five senses, but discharges certain functions in virtue of its generic nature."[33] He goes on to enumerate the different functions of the common sense, including the perception of both common and coincidental-objects, self-consciousness, perceptual discrimination, and sleep. But he fails to elaborate on the above-stated definition of the common sense—a definition that, though accurate, is not very informative.

David Hamlyn's recent edition of *De Anima* does not refer to the common sense in its introduction, but his commentary includes some passing remarks about its operation. Unlike Hicks, he thinks there is a distinction between the common sense, which is responsible for perception of the common sensibles and the unity of the senses, which is responsible for the other functions listed above, but he provides no

[32] Ibid.
[33] Ross, ed. ([1955], 35) and ([1961], 33).

detailed account of either perceptual capacity.[34] The former he describes as "a potentiality for perceiving objects which are perceptible by more than one special sense-organ and which are thus common to those sense-organs"[35]—little more than recapitulation. The unity of the senses is not defined, though Hamlyn appears to think that, with the exception of the perception of the common objects, all of the functions usually attributed to the common sense actually belong to this distinct unity.[36]

In the course of arguing for the developmental thesis that *Parva Naturalia* was composed after *De Anima*, Irving Block [1961] contends that the latter work makes no explicit reference to the common sense, though Aristotle does have "a vague notion of some kind of unifying sense," the function and nature of which is not fully worked-out until the *Parva Naturalia*.[37] This claim is an important one for Block's developmental thesis, but it is *prima facie* undermined by Aristotle's use of *aisthêsin koinên* at 425a27. But while most commentators understand this as a reference to the common sense,[38] Block thinks it is better translated as "common perception."[39] Of the account presented in *Parva Naturalia*, Block says only that the special senses must differ in aspect (*to einai*) from an otherwise single sense faculty.[40] That is, Block thinks that for Aristotle the perceptual system is fundamentally unified: its apparent

[34] Hamlyn [2002], 128-129. Hamlyn [1968] provides a defense of the view that the functions of common sensing should be narrowed, but it doesn't articulate any particular view about how those functions are accomplished. His argument in that paper (and, in general, the purview of common sensing) is discussed in 3.1.
[35] Hamlyn [2002], 118.
[36] Hamlyn [2002], 120, 122, 126, 128. See also Hamlyn [1968].
[37] Block [1961a], 68.
[38] See e.g. Hamlyn [2002]; Ross [1961].
[39] Block [1961a], 62.
[40] Block [1961a], 67.

divisions arise only in terms of the account one would offer of that faculty's various activities. Certainly, as we will see when we turn to *De Sensu*, Aristotle thinks that the perceptual faculty must be a genuine unity and not just a mereological sum of the special senses. But there is a large question that these accounts don't address, viz. in what sense is the perceptual faculty one, and how can the special senses, dependent as they are on their respective organs, merely be aspectual differences of one thing? For instance, how can visual data merge with auditory data: which general perceptual potentiality(ies) underlie the actual perceiving of complex perceptual content?[41]

Deborah Modrak's monograph on perception includes a chapter on the common sense, which in part addresses concerns about the functions ascribed to it. As she sees it, unless these different functions share some underlying commonalities, "Aristotle's conception of the common sense will be ad hoc at best and arbitrary at worst."[42] Ultimately she does identify what she takes to be a common feature, viz. that each function is capable of being performed only when the senses act as one.[43] But notice that "the senses acting as one" is a recapitulation of the explanandum: ultimately this amounts to the claim that what all of these functions have in common is that they must be performed by the common sense. It is surely the case that the best way to approach the question of what these diverse functions share is to first get clear on the underlying nature and mechanism of the common sense. But simply claiming that it is "the point at which the special senses converge" does not get us

[41] Entertaining complex contents is only one example, of course, of the functions of common sensing. Indeed, it is because of the variety among the functions that we stand in need of an account of common sensing which depends on general and fundamental perceptual potentialities.
[42] Modrak [1987], 62.
[43] Modrak [1987], 62-71.

any further into an understanding of how it is even *possible* for those senses to converge.[44]

In his book on Aristotle, Steven Everson follows Hicks in thinking that the common sense has capacities that go beyond those of the individual senses themselves.[45] The common sense, according to his reading of Aristotle, "is something which each sense possesses but not *as that sense*: it is a capacity it has in virtue of being part of the perceptual capacity as a whole and not of being that particular sense."[46] Everson explicitly contrasts his view with Modrak's: whereas Modrak thinks of the common sense as something that arises from joint operation of the special senses, Everson contends that it is "possessed in common by those senses and so is not specific to any."[47] Thus, for instance, sight can by itself perform some of the functions of the common sense, but when it does so, it does so not as sight, but as a capacity common to all of the senses. Everson repeatedly invokes this distinction between the sense acting as itself and acting as the common sense, but he does not elaborate on what this aspectual difference comes to.

Even Pavel Gregoric, the author of a recent monograph devoted to the common sense, doesn't develop an account of the metaphysical apparatus underlying its operation. He defines the notion of "common sense" that interests him as the

[44] Ibid.
[45] Everson [1997], 156.
[46] Everson [1997], 155 n. 26.
[47] Ibid.

"higher-order perceptual power emerging from the unity of the perceptual capacity of soul."[48] He describes perceptual unity as follows:

> I submit that the unity of the perceptual capacity of the soul is achieved in the same way in which the unity of the soul is achieved. We have seen that the soul is divided only conceptually, in the sense that we can analyse it into different parts or aspects according to the most salient activities of living beings, such that each part or aspect of the soul is responsible for one vital activity… Likewise, only at a lower level, the perceptual capacity of the soul is one single thing divided only conceptually, in the sense that we can analyse it into different senses according to different kinds of the special perceptible [sic], such that each sense is responsible for perceiving the special perceptibles of one kind only. However there is really only one single perceptual capacity of the soul, which ensures that it can operate not only as this or that individual sense, but also as one. (38-39)

Christopher Shields, in his review of Gregoric's book, claims that talking in terms of conceptual parts is "exactly right—if it is interpreted correctly. This proviso is necessary because Gregoric never makes clear what it means for a part to be conceptual."[49]

Similar objections, I contend, could be leveled at all of the commentators' conceptions of the common sense. Each of the definitions on the table are consistent with each other in implementation, and this is because none really commits itself to a substantive, falsifiable understanding of the activity of common sensing.[50] Rather, all of the above conceptions rely heavily on the use of theoretically-loaded vocabulary. Part of the dependence on jargon is due to Aristotle's own approach, of course. But

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[48] Gregoric [2006], 59.

[49] Shields [2009]. Notice that the talk of conceptual parts is reminiscent of Hicks's claim that the special senses differ only in being, as well as Everson's account, which makes a lot of hay out of the distinction between sight *qua* sight and sight *qua* common sense.

[50] This is not to say, of course, that there are *no* points of disagreement, especially on the topic of the functions of the common sense. These differences do not apply to the most general definitions each gives of the common sense.

each commentator uses language that mirrors the terms employed in his/her substantive views on Aristotle's general theory of perception, and the consideration of the common sense is at best an afterthought. In contrast, this thesis will demonstrate that it is both possible and desirable to do more than note conceptual connections found in Aristotle's theory. Moreover, delving into the underlying metaphysics of the common sense's operation will prove fruitful in resolving other issues concerning Aristotle's theory of perception, including its general plausibility. By the end of this thesis, I will demonstrate that Aristotle has an account of higher-level perceptual functioning that is both substantive and economical.

I.3 Outline of the Chapters

In Chapter One, I place Aristotle's discussion of common sensing into its proper context by presenting Plato's argument in *Theaetetus* that purports to show that higher-level perceptual activities require an act of judgment. I consider the dilemma the so-called "Heraclitean" view of perception creates for sophisticated perceptual activity. In the closing section of the chapter, I show how the problem that Socrates sets up for the Heraclitean view further threatens the Aristotelian theory of perception as presented in this Introduction and elaborated on in the first chapter.

I present my positive interpretive thesis in Chapter Two. In particular, I adopt what I call a "Common Sensing Reading" (CSR) of the opening lines of *De Anima* III.2: "since we perceive that we see and hear, it must be either by sight that one perceives that one sees or by some other sense" [425b12]. Orthodoxy takes the initial

expression—"since we perceive that we see and hear"—to allude to conscious awareness, but I argue that there are reasons both internal to the structure of the argument itself and to the flow of the *De Anima* as a whole which support my alternative view that the explanandum is common sensing more generally. After giving my positive account, I point out problems for the standard reading and show that Aristotle's remarks about joint perception in *De Sensu* 7 provide further support for CSR.

The third chapter addresses the role that common sensing plays in perception of the common objects. The common objects are those qualities—including magnitude, shape, movement, number, and time—that seem to be perceptible by multiple special senses. As we will see in Chapter One, Plato denies that these objects are *perceived* at all. Aristotle, on the other hand, claims that they are in fact perceptible. In one of the few places where the phrase *koinê aisthêsis* appears, Aristotle says that the common objects are perceived in-themselves by the "common sense" [*DA* III.1 425a27-8]. *Prima facie*, perceiving the common objects is rather different from joint perceiving. Nonetheless, I argue that Aristotle, following Plato, thinks that these two activities require the same type of psychological account. Moreover, I show that attention to his discussion of the perception of common objects provides support for a specific view about the nature of in-itself perception. In particular, I argue for a deflated sense of the in-itself/coincidental distinction. The account I give, which minimizes the epistemological significance of the contrast, is demanded by the

analogous requirement that common sensing also be deflated, for it cannot be thought of as a sixth sense.

I turn to other activities of the common sense in the final chapter. I argue that in each case Aristotle can be seen to encourage the interpretation presented in Chapter Two. For instance, perceptual discrimination requires much the same apparatus as joint perception does, as do sleep and self-consciousness. I review the relevant treatises' discussion of these topics, and show that, when Aristotle addresses them, he does so in a way that either implicitly or explicitly invokes the metaperceptual apparatus outlined in earlier chapters. I conclude that taking *De Anima* III.2, 425b12 as concerned with a broad notion of common sensing is encouraged by the texts taken collectively. We seen, then, that Aristotle does in fact provide a particular answer to the question posed by the dialectic found in *Theaetetus*, namely, is it possible to explain the unity of our perceptual experience without appealing to judgment? If so, how?

1. The Dialectical Burden of *Theaetetus*

In *Theaetetus*, Socrates sets up a challenge for any theory of perception that attempts to account for knowledge. Given certain assumptions to be discussed below, it does not seem possible for the senses to make claims about the way the world is: being and truth are not, according to these arguments, perceptible features. Since knowledge requires that the thing known be believed to be true, Socrates concludes that knowledge is a function of the soul by itself, i.e. insofar as it is considered apart from the body and the senses (186d).[1]

This argument for rationalism was no doubt well-known to Aristotle, so he must accept the conclusion or undermine it. Indeed, the challenge is especially acute for him since, I will argue, he adopts substantial parts of the physical account of perception that *Theaetetus* uses to generate its conclusion. It is not possible, though, for Aristotle to accept the conclusion and reject empiricism:[2] his psychological taxonomy requires that the behavior of non-human animals be explicable without

[1] While it is clear that the conclusion of the argument to be discussed below is that knowledge can't be perception, exactly what notion of "being" (*ousia*) is in play has been disputed. Thus, Cornford [1957] takes "*ousia*"—at certain critical junctures, at least—to be picking out the realm of Forms, and he accordingly reads the argument against empiricism as turning on the view that only Forms are the objects of knowledge. I discuss this view below, but for a thorough criticism, see Cooper [1970].
[2] Throughout I am using "empiricism" to refer to a rather broad view according to which it is at least possible to entertain content merely in virtue of perception and without appeal to discursive reason. I do not here address whether animals can have *knowledge* in particular—a claim that Plato and Aristotle would clearly deny. In general, the epistemological questions that loom large in this part of the *Theaetetus* (*Tht.*) are of interest to us only insofar as they serve to elucidate the commitments of the theory of perception that they assume.

appeal to reason.[3] In order to render his account consistent, it must be possible to construct, from Aristotelian resources, a refutation of the Socratic conclusion.

Understanding Aristotle's account of the common sense is crucial to reconstructing his response to this challenge. The common sense is the means by which the soul is able to perceive being and existence and, more generally, it is the capacity that unites perceptions in a single subject.[4] Accordingly, it will be useful to begin this study of the common sense by outlining its responsibilities as they are set up by the dialectic of *Theaetetus*. To do so, we should investigate the relation between Aristotle's own account of perception and the so-called "Heraclitean"[5] view on offer in the dialogue. I begin by discussing the Heraclitean theory, then turn to the dilemma Socrates presents for any such account. I then consider whether Aristotle's account of perception is subject to a similar objection, and briefly consider the role that the common sense plays in Aristotle's reply. Subsequent chapters will present Aristotle's positive doctrine in greater detail: by the concluding chapter, we will be in a position to consider the success of the Aristotelian response.

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[3] Aristotle commits to the view that living things are animals in virtue of having perception at *DA* 413b2; *Generation of Animals* (*De Gen. An.*) II.2, 736a29, and to the further view that humans are human in virtue of having reason at *NE* I.7, 1098a1-4.

[4] The common sense provides the whole story for the unity of the non-human animal's cognition. The story will, of course, be more nuanced in the case of humans, who can unite perceptual states with thoughts and other such activities of reason. In 4.3.1, I discuss *Nicomachean Ethics* (*NE*) IX.9, which I understand as an attempt to explain this more sophisticated unity.

[5] The view described below is clearly in the spirit of the Heraclitean flux doctrine, but there is no evidence that supports literally ascribing the theory to Heraclitus. Indeed, as Burnyeat [1990] notes (12-13), Socrates's description of the Protagorean and Heraclitean programmes contains his characteristic irony. Accordingly, though I will persist in calling the view "Heraclitean," this should not be read as an historical attribution.

1.1 The Heraclitean Theory of Perception

Socrates identifies Theaetetus's definition of knowledge as perception with the Protagorean view that each thing in fact is, for the subject, exactly as it appears to her to be.[6] Relativizing the content of knowledge claims is necessary, he says, if the definition is to be viable, since knowledge must be unerring (152cd). Socrates goes on to provide a metaphysical picture of perception that can ground this relativism. In order for our perceptions always to be true, he claims, it must be that everything is in a constant flux: nothing ever just is; everything is always coming to be (152e). If the external world extends beyond the ever-changing experience of perception, it will be possible to be wrong, which would violate the requirement that knowledge be infallible. But what underlying physical theory would make such constant change possible?

In addressing that question, Socrates introduces the Heraclitean account of perception. According to this view—initially ascribed to unnamed "subtle" people (*kompsoteroi*)—the constant motion that characterizes the world has two aspects or powers: the active (*poiein*) and the passive (*paschein*) (156a). There are no static objects that possess these powers. Rather, there are only motions that manifest these powers in their very motion, relative to other such motions. As Socrates later puts it, "nothing is in itself just one thing, but all things are always coming into being relative

[6] Socrates interprets the definition as meeting his typical requirement of specifying necessary and sufficient conditions. In other words, he understands the thesis as implying not only that all knowledge is perception, but also that all perception is knowledge. The argument for the Protagorean interpretation turns on the latter identification.

to something."[7] Though he acknowledges that he struggles with following the rule himself, Socrates says that one ought not to describe this picture using the verb-to-be:[8] the "state" of constant flux precludes any stability such as would be necessary for existence across any time whatever (157b-c).[9]

Now according to this view, when an active power meets a passive one, that unique combination leads to the becoming of further motions. These consequent motions are entirely determined by the motions, both active and passive, that interact in producing them. To demonstrate this feature of the theory, Socrates turns to the specific case of seeing. As described in 156d-157a, the force or process external to the perceiver is the active power that constitutes perception, and the perceiver's own sense-organ is the associated passive power.[10] There are slow localized motions, which are processes that originate from the perceived object (active) and the

[7] [157a-b]. All *Theaetetus* translations are mine, adapted from Levett's translation in Burnyeat [1990].
[8] I will similarly run afoul of this demand. Whether the picture is coherent even at this early stage—that is, whether anyone *could* avoid using words like "exists," "is," and "thing"—is beyond the scope of this chapter. In any event, it will be clear below (1.3) that Aristotle's view, unlike Heraclitus's, is comfortable with the persistence of objects.
[9] As it is presented at 157b, the focus seems to be on the existential aspect of the verb-to-be: since everything is in motion, there exist no objects of sufficient stability to actually count as objects. Contrarily, on many interpretations, the rejection of empiricism that we find at *Tht.* 184-187 turns on the predicative use of the verb-to-be. Kahn [1966b] presents evidence that those uses were not always distinguished in Classical Greek. See also Cooper [1970], 139-141. Shields ([2007], 53-55) describes Aristotle's hylomorphism as motivated by a realization that Parmenides errs in confusing generation and qualitative change, the former of which Shields assimilates to the existential use of the verb-to-be, and the latter as the predicative use (54). If Shields is read as suggesting that Aristotle is the first person to systematically-if-implicitly distinguish these two uses (a reading he encourages; see (53-54)), then he would have an explanation for the fact that Plato seems to vacillate between these two uses in *Tht.*
[10] Socrates speaks of the eye as the passive power that interacts with the external world in the production of a visual perception. He cannot, though, have the sense organ strictly-speaking in mind, since the organ itself, like all other things on this picture, cannot be truly said to have temporally-extended existence. Nonetheless, when we get to the Trojan Horse model (see 1.2 below), we will see that at least some of the immediate persuasiveness of the argument there does depend on the stable existence of the sense-organ, so Socrates must ultimately reject at least this feature of the model under consideration.

perceiver (passive), and swift intervening motions, which move through the space between the perceiver and the external object. To use Socrates's example: a stick or stone (slow active power) generates the motion of whiteness (swift active power) through the air at which point the whiteness runs into sight (swift passive power), which in turn strikes the eye (slow passive power).

The result of this interaction, Socrates says at 156b, is a "twin birth." The intercourse of passive and active forces will produce yet another pair of forces: a perception, on the one hand, and the object of perception on the other.[11] The perception—the passive power produced by the exchange—is not, Socrates says, sight,[12] but, rather, a seeing eye. The object of perception, in turn, is not whiteness,[13] but a white stick or stone (156e). Though he presents a theory according to which there is an intimate connection between the object perceived and the act of perception, Socrates does not claim an identity between them: to do so would sacrifice the theory's rejection of the verb-to-be.[14] The perception and percept are necessary products of the interaction, but, as the "twin" locution suggests, they are to

[11] One might be tempted, as Berkeley was in *Siris* §311, to read this as expressing a commitment to some type of idealism. But while Plato does say that the object of perception comes into being (read: becoming) at the same time and in the same activity as the perception, Burnyeat [1982] persuasively argues that Plato does not view the existence of the perceptible object as causally dependent on its being perceived. Instead, Plato seems to be disinterested in the causal or ontological dependence that might exist between the perception and the percept (13). Burnyeat goes on to discuss the Classical preoccupation with explaining how error in our thinking or perceiving is even possible, which is a primary concern in later parts of *Tht*. He contends that this worry renders Classical philosophers entirely unable to countenance the possibility that the external world is a wholesale illusion (19).
[12] As we have seen, sight has already been invoked as the swift passive power that generates perception, so it cannot then be what is generated.
[13] Whiteness similarly being the swift active power that led to the "twin birth."
[14] Kahn [1966b] does not agree that *einai* can be used to assert identities, but he notes this commitment only in passing (246). In any event, one of the ways that Burnyeat [1982] distinguishes Plato's position from Berkeley's is to note "where Berkeley insists that for sensible things *esse* is strictly identical with *percipi*, Plato says simply that a sensible item *est* if and only if *percipitur*, and he leaves it at that" (14).

be understood as distinct becomings. Even so, it is nonetheless true that neither the perception nor the object of perception could exist independently of the other.

From this it follows that when there is a seeing of white, there is an external whiteness to which that seeing corresponds. According to the Heraclitean picture, every perception has a corresponding object. Thus, the theory ensures that perception will meet the condition required of genuine knowledge, viz. that it be unerring (160d, cf. 152c). Moreover, since the object of perception similarly cannot exist without being perceived, necessarily all existing things are perceived. Accordingly, not only will all perceptions be of actual things: further, all actual things will be objects of perception. Since the Heraclitean picture entails both that all perception is knowledge and that all knowledge is perception, the empiricist thesis is shown to be implied by the above account of the metaphysics of perception.

In the exposition of Heracliteanism found at 156-157, then, two main theses are presented. First is the claim that perception is comprised by two activities: the perceiver's passive reception of the perception and the perceived object's active generation of the percept. Second, we find the rather extreme ontological claim that there are no stable objects that possess the passive and active powers described in the metaphysical account. As noted above, Socrates thinks that the latter assumption is necessary in order to guarantee veridicality: if there is a persisting object independent of our perceiving of it, we could be wrong about its nature.

All that remains to be done in defense of Theaetetus's definition of knowledge is to determine whether we ought to commit ourselves to Protagoreanism and

Heracliteanism. The first problem Socrates introduces is with Protagoreanism: how can it be true that things are always, relative to us, as they seem to us to be? We quite naturally take dreamers and mad men to misperceive their environment (157e-158a). If a dreamer claims to perceive that she has wings and is flying (158b), we are not tempted to agree with her. No one denies that it *seems* to the dreamer that she is flying, but in this case we reject the inference from how things seem to how they are. While it does appear to the dreamer that she is flying, that is not how things *are*, even relative to the perceiver—or so says common opinion. If that is correct, it must be possible to have false perceptions, in which case the Heraclitean picture, with its guarantee of veridicality, must be in error.

However, for the purposes of argument at least, Socrates is prepared to defend the picture he has developed. He insists that it is perfectly correct to say that things are as they seem to the madman or dreamer to be. His argument for the consistency and plausibility of this conclusion depends heavily on the Heraclitean picture that has come before. There are many obvious reasons to deny, e.g., that the dreamer is in fact flying. For instance, the dreamer herself will later insist that she was dreaming—that she did not in fact fly—though she will continue to maintain that that is how it seemed to her at that time. Moreover, she won't have wings in the morning, and it doesn't seem that a human being can spontaneously sprout and lose wings.

In effect, Socrates responds to the objection by noting that these considerations are counterevidence only under the assumption that the same person

and same body will be present during the later waking hours. The Heraclitean picture rejects this assumption: as Socrates puts it, the passive percipient power that comes into contact with the active power will be different in each case (159cd). There is, as we saw earlier, no underlying stable object that these powers inhere in. Rather, there is only constant and unstable change. As such, no single subject exists who remembers her very own dreams in the morning, nor is there a single body that undergoes (or fails to undergo) the sprouting and losing of wings.

He illustrates the point by distinguishing between two percipients: Socrates ill and Socrates well. Each Socrates, the example continues, comes into contact with wine. The interaction of the wine with a healthy Socrates produces both the perception of sweetness and the sweetness itself. Ill Socrates, on the other hand, introduces a distinct set of passive powers, and, accordingly, a different perception and object of perception. Rather than being sweet, in this case the wine is bitter. It follows, then, that both versions of Socrates are correct in their judgment of the wine's taste.

It is apparent that the analysis of this case is less controversial than its dream analogue. Socrates thinks he has demonstrated, though, that the explanation for the accuracy of the judgments in the Socrates well and ill cases implies that the judgment of the dreamer (based as it is on perception)[15] is equally accurate. Socrates's perceptual judgments about the wine are guaranteed to be correct because, as a

[15] Of course one may question whether the way things seem in dreams is a matter of perception, but Socrates does not. At *De Insomniis* 1, Aristotle argues that while dreams cannot be a function of perception properly so-called, the perceptual capacity is active in a way during dreams.

general matter, perceptual objects come into being in the same activity as the perception itself. This holds for one's own flying just as much as it does for the gustatory qualities of wine, and any appearance to the contrary follows from falsely believing that there is an underlying persistent object that flies (or fails to fly).

But while Socrates has until now focused on the passive percipient (as illustrated by the examples of Socrates well and Socrates ill), he turns at 160a to the object of perception. As we saw above, that object comes into existence as part of a twin birth, simultaneous with the perception itself. Thus, in the same way that a percipient comes to be as a result of particular motions, so too does a unique object of perception. As such, it must be impossible for two perceivers to perceive the same object: Socrates defends the plausibility of this consequence by noting that it sounds wrong to speak of an object as being sweet *simpliciter* (160b). Rather, such properties can only exist for a perceiver and relative to that perceiver. If the objects do not exist in any absolute sense, Socrates continues, truth will be similarly relative (160bc). In the case of the dreamer, the discomfort we feel in saying that the dreamer does fly is somewhat minimized—for, as Socrates elaborates, this amounts to the claim that it is true relative to the (transient) dreamer that she is flying. It does not follow that this will be true for other people, including the dreamer in her waking hours.[16] This is a third central consequence of Heracliteanism: perceptible qualities do not exist on this picture unless they are actively perceived.

[16] At 157c, Socrates accepts talk about persisting objects, just so long as these are understood as aggregated objects made up of unstable becomings. Some such aggregate will unite the waking person to the dreamer who could truly be said, relative to that dreaming self, to be flying.

The challenge that the dreamer presents gives Socrates the opportunity to spell out in greater detail the consequences of the Heraclitean account of perception. As he concludes his presentation of the view, he returns to its intimate connection with Protagoreanism. Earlier we saw that the metaphysical theory of perception is first introduced at 156a in order to explain how it is possible that our perceptions be unerringly true, which they must be, according to Socrates, if perception is to constitute knowledge. Socrates here concludes by showing that not only is Heracliteanism a sufficient basis on which to rest Protagorean relativism; it actually implies and is implied by relativism. As Socrates puts it: "we find that the various theories [empiricism, Protagoreanism, and Heracliteanism] converge to the same thing" (160e). According to this argument, Protagoreanism, and, later, Heracliteanism are not just *plausible candidate ways* of spelling out Theaetetus's definition of knowledge: they seem to be *the only possible ways* of developing that thesis.[17]

Since Socrates has concluded that the views jointly imply each other, he goes on to consider further objections to each. Most of the ensuing discussion addresses Protagoreanism rather than its Heraclitean sibling, but at 179c-183c he argues that the lack of stability in the flux doctrine would make all judgments of any sort and from any basis equally correct. Indeed, insofar as language presupposes some stability, Socrates contends at 183b, it seems that Heracliteanism cannot even be stated in languages like the one we (take ourselves to) have. Since the flux doctrine is

[17] I take it, then, with Burnyeat [1990] that Plato/Socrates thinks that Protagoreanism and Heracliteanism must be true if Theaetetus's thesis is to be defensible. Whether Plato himself endorses Heracliteanism is a separate question that I will not address, cf. fn. 20.

unstatable,[18] he concludes that it cannot ground the thesis that knowledge is perception. At the conclusion of the argument, he tells Theaetetus that another justification needs to be found for the empiricist thesis.

Traditional interpretations of these opening sections of *Theaetetus* understand Plato as himself committed to Heracliteanism about perception, and accordingly take the conclusion of 183c to be something less than a full-on refutation of that view. The moral drawn by commentators like John McDowell and Francis Cornford, for example, is rather circumspect. What Plato is rejecting on these readings is either a particular interpretation of the flux as it applies to the momentary act of perception[19] or a view about language.[20] In contrast, Myles Burnyeat has recently argued that the opening arguments of *Theaetetus* should be read differently: we ought not saddle Plato, at this stage of his intellectual development, with the view that the perceptible world is in a constant state of flux.[21]

On either reading, though, the main argument against empiricism is yet to come. Though Socrates has just presented a *reductio*, he also has a direct argument up his sleeve—one that is meant to show that perception has a much narrower scope than it is generally presumed to have. Given that Aristotle agrees with Heraclitus at least inasmuch as both think that the object and sense are interdependent, he will have to explain how their interrelationship is consistent with his wide conception of

[18] The contents of knowledge would, of course, be similarly unstatable, and this would be so in principle, not just in fact.
[19] McDowell [2004], 183-4.
[20] Cornford [1957], 92.
[21] Burnyeat [1990], 7-9, *passim*. He credits Bernard Williams with first suggesting this interpretation. Cf. fn. 16.

the range and functions of perception. The success of his defense against this Platonic challenge will depend on the breadth of the perceptual faculty. Before we see precisely how it is that the common sense—as the unified perceptual faculty comes to be called—is able to overcome the obstacles Plato introduces, we need to get an understanding of exactly what those obstacles are.

1.2 *Theaetetus* 184-187 and the Platonic Rejection of Perceptual Knowledge

If, as it is said at 183b, the Heraclitean flux doctrine implies that contradictory judgments are equally correct, it would seem that knowledge can't come from perception. Still, Socrates suggests, there may be other ways of stating the empiricist view—including, perhaps, ways that are not vulnerable to the charge of contradiction (183c). In order to forestall this possibility, he further contends that perception lacks the resources necessary for belief formation. As the point is developed, it becomes clear that Socrates understands perception as cognitively barren. He says, for instance, that we do not perceive so-called "common" qualities like number and similarity—objects that, if perceptible, would be perceptible by several sense modalities (185a). As such, he continues, the senses are themselves unable to engage in the comparison of sensory qualities that is necessary for knowledge (185e). By the end of the argument, at 186e, Socrates and Theaetetus agree that knowledge and

perception are not the same,[22] and the discussion turns to judgment-based accounts of knowledge.

But although the argument from 184-187 has been taken to be a direct refutation of the thesis that knowledge is identical to perception,[23] its soundness depends on rather specific views about the nature of perception. The aim of this section is to isolate those assumptions and theses, some implicit and others explicit, that Plato's Socrates is committed to, and to see how those claims necessitate his rationalist conclusion. In order for Aristotle to resist the strong form of rationalism found in *Theaetetus*, he will have to reject some of these central presuppositions.

Socrates begins his final refutation by asking Theaetetus to be precise in the way he describes the relationship between the sense-organs[24] and the activity of perceiving. Do we see *with* or *through* the eyes?[25] What looks to be a trifling grammatical issue is, he insists, philosophically significant. Socrates is trying to figure out who or what, properly speaking, does the perceiving: do the organs (or the senses) engage in perception, such that we see simply when the relevant organ or faculty does? Or does perception require something beyond a functioning sense or sense-organ?

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[22] Indeed, the conclusion is stronger, viz. that perception "has no share in knowledge" (*oud' ar* [*metestin*] *epistêmês*).
[23] See especially Burnyeat [1990], 53.
[24] While the question is initially formulated and developed in terms of the connection between the organ and the activity, at 185a he switches without comment to talking about the sense faculties themselves. We will return to this tendency to vacillate between the two topics below.
[25] On the question of how to determine what type of dative construction he has in mind and the contrast it implies with the *dia*+genitive that he uses in the "through" case, see Burnyeat [1976].

The explanandum here is the unity of the perceiving subject. For, Socrates continues, if we perceive *with* the senses rather than *through* them, our experience will be like that of a Trojan Horse, wherein a seemingly singular subject is actually several discrete ones. Since it is clear that we do not experience ourselves as fragmented in this way, it must be that our senses are somehow united within the soul.[26] All perceptible objects will be perceived by or with that point of convergence rather than by or with the individual senses—though of course the senses themselves will play an important role in allowing for perception, a role Socrates describes by saying that the senses are instruments or equipment (*organa*) *through* which we perceive.

By this stage of the argument, Socrates has abandoned the extreme form of Heracliteanism according to which the passive percipient lacks stable existence: since the Trojan Horse model is taken to be absurd on its face, he rejects the possibility of there being no persistent subject. As the discussion continues, he takes it for granted that the individual senses stay the same even as they come to perceive new things. For instance, he describes the eyes as seeing both white and black, and he holds that the same can be said for the other instruments of perception (184d7-e6). Each of the individual senses, Socrates claims, has a bodily instrument through which we perceive. The language here unambiguously implies that the individual *organs* persist across time: Socrates will have the same *tongue* whether he is well or ill. Moreover, since Socrates's overarching interest is in establishing a unified *subject* of perception, it is not just the organ that must persist, but the whole perceiver: Socrates is taken to be

[26] Plato is especially vague here, saying that the convergence point must be "some single character, or soul, or whatever one ought to call it" (*mian tina idean, eite psuchên eite hoti dei kalein*) (184d3).

the same *man* whether he is well or ill. Accordingly, we mustn't expect the validity of the argument from 184-187 to rely on extreme Heracliteanism and the attendant assumption that a numerically single object can't perceive more than one thing.

But this expectation comes under almost immediate strain. At 185a, Socrates and Theaetetus agree to the crucial premise of the ensuing argument, viz. that what is perceived by one sense can't be perceived by another (this premise will henceforth be called the "uniqueness condition"). Theaetetus seems to think the uniqueness condition is obviously true,[27] but the reasons for accepting it are not clear. Extreme Heracliteanism would certainly motivate the assumption: if the perceiver comes into existence along with the object, a new object would imply a distinct perceiver. But if Socrates does not accept extreme Heracliteanism, what reason would he have for adopting the uniqueness condition?

Further evidence that Socrates does not mean to be assuming extreme Heracliteanism is supplied by the examples of being, different, and number that follow. If Socrates thought that *no* two things could be perceived by the same power, one would expect the examples to reflect this stronger claim. Instead, he seems to have a picture whereby each sense has a particular range of objects to which it is sensitive: colors for sight, sounds for hearing, and so on. According to this view, while we may perceive both black and white through sight, we cannot perceive a musical note through that very same power.

[27]He says that he could "hardly" (*pôs*) deny it.

To assume that what is perceptible by one sense is not perceptible by another is reasonable enough when it is restricted to the range of objects to which each sense is especially sensitive. Unfortunately, since Socrates draws conclusions not just about the special objects, but also about our grasp of common objects like sameness and difference, it is apparent that the premise applies more generally. This introduces a problem: given that Socrates doesn't accept extreme Heracliteanism, why would he think that *all* perceptible features work like the special ones? For while it does sound odd to say that one can see a musical note, the same problem does not seem to arise with the claim that you can both see and hear number or being.[28]

Deborah Modrak develops this worry nicely. She distinguishes between a strong and a weak form of the premise. According to the weak form, similar to the restricted version described above, all that Socrates intends to say is that "the proper object(s) of a sense cannot be perceived through any other sense."[29] This weak form is too weak, however, for: "the existence of some objects that are not perceived by more than one sense is compatible with the existence of other objects which are perceived by more than one sense" (Ibid.). In other words, the restricted premise doesn't generate worries about the so-called common objects. Instead, Socrates must have in mind a stronger premise—one that implies that *all* perceptible features are of this special kind.[30]

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[28] One seems to hear number, for instance, when one hears two guitars being played in unison, and seems to see number when she sees the same two guitars.
[29] Modrak [1981b], 36.
[30] As Modrak puts it, the stronger premise holds that "neither the proper object nor the features of the proper object of one sense can be apprehended through another sense." (Ibid.) The problem with this, as she develops it, is that it is unclear what would count as such a feature. If the range of

Contrary to the above, Burnyeat claims that Socrates needs only the weaker principle.[31] In support of his reconstruction, he notes that Socrates is comfortable with speaking of seeing, touching, and hearing Theodorus (192d). By Socrates's own lights, then, Theodorus would seem to be an example of an object that is in fact perceptible by more than one sense. What Socrates is worried about in the argument at hand, according to Burnyeat, is how we are able to *compare* the objects of different senses.[32] This comparison clearly can't take place in virtue of one of the senses to the exclusion of the others. And indeed the inability to compare objects of different modalities by perception is entailed by the weak form. For according to the weak form, sight cannot perceive sound at all, so it cannot perceive that the colored object is also sounding. Similarly with hearing: hearing cannot perceive the being of a color, much less that that being is shared with a sound.

Burnyeat's reading is supported by the way in which Socrates elaborates on the original formulation. His very next example is concerned with a comparison of the objects of two different modalities, as in the illustration above: it is not by sight or by hearing, says Socrates, that we are able to compare a color with a sound (185a-c). Thus, Burnyeat concludes, the need for some non-perceptual faculty is already implied by the more plausible weak principle.

"features of proper objects" (a phrase also employed by Burnyeat [1976], 48; and [1990], 57; and Lorenz [2006], 77 & 77n16) were broad, then we would have a strong enough premise, but it would be unintuitive and under-motivated. If the range of features were narrower (including, she suggests, "relations and contextual features of the proper object" (Ibid., 37)), then it wouldn't entail the wholesale rejection of empiricism that follows. Since the expression is not Plato's, I bypass it in favor of my formulation of the strong premise. Moreover, in order to render consistent the translation of *idion* across Plato and Aristotle, I will generally use "special" where Modrak chooses "proper."

[31] Burnyeat [1976], 48; Burnyeat [1990], 57.

[32] Burnyeat [1976], 48.

But while Plato's first example is adequately motivated by the weak principle, later developments of his point are not. First, immediately after saying that neither sight nor hearing can grasp commonalities, he gives a contrary example using taste. Suppose we were to decide whether a color and sound were salty: we would do this, he says, through taste.[33] This is so, obviously, because saltiness is a special object of taste. But notice that the saltiness is, by hypothesis, a common feature of the color and the sound.[34] Thus, it is not simply in virtue of being shared by more than one special object that his earlier examples of being, likeness, difference, and number proved to be imperceptible.

Burnyeat seems to be misunderstanding the sense of "commonness" that Socrates has in mind. One sense of the term, which I argue is the one operative throughout 184-187, is for an object to be common in the sense that it is not proprietary to any individual sense—that is, it is common to the senses.[35] Being, likeness/difference, number, etc. are common in this way, since, if we are able to perceive those qualities at all, we are able to perceive them through multiple senses. As Socrates continues, he introduces further examples, including beauty and goodness (186a8). All of these objects fit the model of commonness as being neither

[33] Modrak [1983], 42-43 takes this passage as support for her view that Plato allows for simple perceptual judgments via the sense faculty. But he continues using the *dia*-construction throughout, so he is merely saying that we perceive saltiness through taste, not that taste perceives *and grasps* that saltiness.

[34]Burnyeat describes the envisaged scenario as impossible, but the text presents the scenario strictly as a hypothetical, not a counterfactual hypothetical (Burnyeat [1976], 48). Kanayama ([1987], 33), citing Goodwin ([1965], 188), argues that the use of the optative rather than the past indicative entails agnosticism as to whether it could be possible to perceive the saltiness of a color and sound. The point I am making here is that while it is clearly physically impossible according to Socrates, it need not be metaphysically impossible.

[35] Being common in this way, and its impact on the metaphysics of perception, is the theme of *De Anima* III.1 and will be discussed in Chapter Three.

proper nor proprietary to any individual sense. Under the second sense of "common"—the one stressed by Burnyeat—an object is common if it is shared by more than one kind of perceptible object—that is, it is common *to different physical objects*. Burnyeat focuses on cases of comparison precisely because he is thinking of the common objects as being common in virtue of being possessed by multiple *objects*. But this is a relatively uninteresting sense of commonness. Indeed, even special objects can be common in this second sense (as both a ball and a dog can be brown), though grasping these features does not require (at this stage of the argument at least) a non-perceptual mode of apprehension. Thus, Burnyeat does not seem to be right that Socrates's worry here is with acts of comparison in particular.[36]

Indeed, the conclusion drawn at 186e9-10 clearly requires that the commonness in question be of the first type. This is so because the conclusion is not merely that we cannot know by perception that, e.g., *two* objects are. Instead, Socrates concludes that perception is *never* sufficient for knowledge,[37] and this is so because perception cannot grasp the being (*ousia*) that underlies our ability to grasp truth. Thus, while the opening examples all involve a comparison of two sensibles, Plato must be committed to the view that just as I cannot see that both a color and sound are, *neither can I see that a color is*. For if I could, then I could perceive (some cases of) being, and therefore (some cases of) truth, which would allow for (some cases of)

[36] Cooper [1970], 128n8 makes a similar point against Cornford's interpretation of *koinon* as picking out a common name. He says there that he knows of no precedent in Plato for using the word in this way (i.e. to pick out "common" as opposed to "singular"), and he agrees that Plato must intend *koinon* to be contrasted with *idion*. He further notes that the sense of *koinon* that Cornford (and, I suggest, Burnyeat) has in mind would include the special sensibles. As such, it is clear that the issue Socrates raises here does not merely apply to comparisons.

[37] "Therefore, perception has no share in knowledge" (186e7).

knowledge by perception. But Plato does not allow for this. Burnyeat's weaker principle, which holds that the special objects are only perceptible by their respective special senses, is accordingly too weak to motivate the conclusion because it does not provide the grounds for claiming that being *as such* is not perceptible by one or more senses.

Socrates needs, then, the strong form of the principle, according to which the common objects (defined as those that are not special *to any sense*) are not perceptible *in their very nature*—that is, regardless of whether or not these qualities are being grasped as part of a comparison between two special objects. I have dubbed this "the uniqueness principle" since it is committed to understanding all perceptible objects as unique to one specific sense. But what underlying metaphysics of perception is being presupposed such that this strong premise is warranted? And, ultimately, how will Aristotle's account of perception not fall prey to this conclusion?

Modrak agrees that Socrates needs the strong thesis, and she contends that he gets it from his endorsement of a view that she calls "phenomenalism."[38] The central statement of the thesis occurs at 156d-e, discussed above, wherein the seeing of white is described as the outcome of an interaction between the eye and an external object whose structure is suited to the eye. On her view, though Plato rejects extreme Heracliteanism because he takes it that it renders language impossible (183a), he retains a commitment to Heracliteanism about the objects of perception. His refutation of the general thesis then allows for temporally-extended objects that exist

[38] Modrak [1981b], 38-41.

independently of each other. For instance, it follows from the Trojan Horse model, as we saw, that a single perceiver persists across time and is subject to varied perceptual experiences. Similarly, the objects "out there"—those that cause the motions that eventually reach our organs—persist and can be the bearers of our names. According to the phenomenalist view that Modrak ascribes to Plato, though, both the qualities perceived and our perceptions themselves remain subject to a Heraclitean analysis. On her reading, Plato has in mind a view whereby "the object that is grasped in perception, strictly speaking, does not belong to the extra-mental world, since its existence depends upon its being perceived" (40). Some such thesis must be maintained in the context, she says, in order to ensure that the perception is unerring.

To return to the model of 156d-e, while the rock and the eye exist independently of each other, Modrak's understanding of 184-187 takes it that the motions in between—those that constitute seeing on the one hand and the color seen on the other—continue to be subject to the twin birth analysis whereby their existence is intertwined. She sums up the phenomenalist theory as follows:

> Perception is the simple apprehension by the mind of an object that is the immediate result of an interaction between a sense organ and an external object. The character of the perceptual object depends upon the structure of the organ, the structure of the external object and other environmental conditions. Any cognition that extends beyond the simple apprehension of an object of this sort is not perception. (41)

Only certain features of external objects will be of a type that causes motions capable of affecting the organs. Moreover, those features capable of affecting the eye will

presumably be unable to affect the ear, given its different constitution. Thus, the phenomenalist conception of perception would seem to imply the uniqueness principle.

However, while Plato may very well have accepted phenomenalism had he been presented with it, there is no textual evidence to support the attribution of the particulars of this theory to Socrates in 184-187; in particular, nowhere there does he return to the twin birth hypothesis. Indeed, the only thing he says about the special objects is that they are perceived through the body (184d7-e7). The discussion of the common objects proceeds by contrast with the case of the special objects: while there is an obvious part of the body to appeal to in accounting for how we perceive colors, sounds, and so on, there is no such part for the perception of objects like being, similarity/difference, and number (185b7-c2), and beauty/ugliness and goodness/badness (186a8). Intuitively, the body is that through which we perceive the special objects. For instance, no one can perceive color unless she has eyes that are suitable for the task, and the same holds for the other senses and their special objects. It is natural to conclude from this fact that the eye is materially constituted so as to be especially sensitive to the physical quality in the object that is responsible for its color. Moreover, since the eye seems to be structured quite differently from, e.g., the ear, it is equally natural to think that ears will not be sensitive to the same objects as eyes are, and so on for the other senses and their bodily organs.[39]

[39] See also *Timaeus* 45b-e47e on the physical underpinnings of sight and hearing. Plato there focuses on differences and does not suggest any overlapping structure.

These kinds of considerations provide intuitive support for the uniqueness principle, but they also narrowly and exclusively focus on the body's role in perceiving. No reference to the twin birth doctrine is required, nor has anything been said that implies that the object of perception depends for its existence on being perceived.[40] Instead, it seems that Socrates takes the uniqueness principle to follow directly from the role the body plays in perception. That we are to understand his argument in this way is further suggested by considerations brought to bear in the immediately preceding exchange. There Socrates asks Theaetetus whether we perceive hot, hard, light, and sweet things through bodily instruments. He clearly has the sense-organs in mind, as does Theaetetus who quickly agrees that we perceive those things through the body [184e]. With that established, Socrates asserts the uniqueness principle. The motivation for the principle, then, seems to be the thought that each organ must be attuned to different objects in virtue of its distinct physical structure.[41]

The bodily nature of the five senses is repeatedly stressed as the discussion continues. Immediately after forwarding the principle, Socrates draws out the consequence that no one instrument could perceive two different kinds of special

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[40] Modrak takes it, as we saw above, that the object of perception must be parasitic on the act of perception in order for perception to stand a chance of meeting the condition presented at 152c5-6 as necessary for knowledge, viz. that of being unerring (Ibid., 40). While it may be that infallibility does require metaphysical dependency of the kind she describes, nowhere in this passage does Socrates bring this condition up. What we are interested in at this juncture—and what Modrak is concerned with when she introduces the phenomenalism that she understands as committed to this dependency—is the suppositions that motivate the uniqueness principle, not those that guarantee veridicality. For further reasons we might want to deny that Plato/Socrates adopts some form of interdependency here, see Burnyeat [1982].

[41] Plato has Timaeus elaborate on the physical nature of the objects of perception as they bear on the objects' ability to affect the sense-organs in *Timaeus*, see especially 61e-68e.

sense object. In particular, he continues, there is no single instrument through which we could perceive that both a color and a sound are. The particular worry here is the lack of a *bodily* instrument for such a perception. This is made clear by the contrast case discussed above: if we were to determine whether a color and sound were both *salty*, it is evident what sense we would use. Theaetetus agrees, and describes the sense in question as "the power [that operates] through the tongue" (185c3). In presenting the sense through explicit reference to its bodily instrument, he demonstrates that attention to the physical underpinnings is assumed throughout. There is, then, no *one* unique *organ* that could play the role of perceiving things like being, beauty, and goodness. But the uniqueness principle says that *nothing*, including of course the common objects, can be perceived by *more than one* organ. As such, neither one nor many organs can perceive the common objects. Therefore, it seems that they can't be perceived at all.

And indeed, that is the conclusion that Socrates gets Theaetetus to accept. He next asks Theaetetus to specify through what we perceive common properties. Theaetetus restates the question as asking: "through what [part] of the body [do] we perceive [the common qualities] with the soul?" (185d3-4). If we return to the premise that began the discussion, we see a striking parallel in the structure. At 184d2-5, Socrates says that there must be some one thing *with which* we perceive everything *through* the instruments of the senses. Now we see that the one thing *with which* we grasp those qualities is a part of the soul. But, given the uniqueness principle, there turns out to be no body part *through which* the soul grasps the common features.

At 185e, then, Theaetetus is led to conclude that the soul "investigates" (*episkopein*) these things through itself, i.e. not through the body.

Throughout this discussion, Socrates and Theaetetus move from talk of the sense to talk of the organ without comment. Perception is, on this model, thoroughly bodily: the use of organs in perception distinguishes its activity from that of thought and judgment. We need not, then, buy into the bolder portions of Modrak's phenomenalism in order to motivate the uniqueness principle. It will suffice to note the physical constraints placed on perceptual receptivity by the constitution of the organ: no larger claim about any ontological dependency between perception and perceived object need be assumed. If, as the examples suggest, we then restrict the common objects to those that seem to be perceptible by more than one sense, then the fact that the corresponding sense-organs cannot share sensitivity to the same objects will suffice to show that the apparent perceptibility of those objects is illusory. Instead, we get the conclusion that our grasp of common objects—including being, and, therefore, truth—comes not from perception through sense-organs, but from rational examination, through the soul by itself (i.e. *not* through the bodily sense-organs).

In summary, according to this line of argument, empirical considerations support the claim that all qualities are perceptible by at most one bodily organ. Those that seem perceptible by multiple senses, Socrates suggests, are actually grasped through our souls by virtue of non-perceptual activity. Attention to context will pay dividends here: Socrates comes to discuss the common objects only after a general

reflection on perceptual awareness. We experience our perceptual life as unified rather than fragmented—we are not Trojan Horses—and this fact needs an explanation in terms of some unified psychic capacity. But since Socrates is thinking of perception as strongly rooted in physiology,[42] it immediately becomes unclear how any part of the body could provide for the unity that we experience. Since the organs appear to be too physically distinct to be sensitive to the same features, awareness of apparently-common qualities cannot be perceptually-based. It follows that many seemingly perceptual activities—including the appearance of unity, the possibility of perceptual judgment in general, and perception of common objects—are not features of perception at all! Instead, they are products of the soul in itself, albeit ones strongly influenced by the lower-level perceptual activity of the senses.

Aristotle cannot adopt such a narrow view of the role of perception. Since non-human animals only possess the nutritive and perceptive capacities, if they are to be made aware of common properties like size and number, it must be without the benefit of a rational faculty. Those capacities must, then, *pace* Plato, be perceptually-based. But the argument of *Theaetetus* complicates matters: Aristotle has to provide an account of the perceptual faculty that is able to explain how it alone can perceive the common objects, and more generally how it can unify perceptual activity. In this section, we have seen that Plato is driven to his rationalistic view as a result of attention to physiological features. We have, moreover, observed that extreme

[42] By "strongly rooted in physiology," I mean to point to the fact that what things are perceptible depends entirely on the constitution of the physical organs. Perception is still a psychological phenomenon, obviously, in the sense that it is a function of the *psuchê*, so whether perception can be thought of as strictly physiological will depend on the relationship between the body and the *psuchê*. Luckily, settling this matter is not necessary for current purposes.

Heracliteanism, and the interdependence of sense and object that it entails, also supports the uniqueness principle and thereby implies the same conclusion. In the next section, we will consider the extent to which Aristotle accepts the one or the other premise, and the burden that *Theaetetus* places on his wide view of the scope of perception.

1.3 Aristotle's Position in the Dialectic

Socrates's argument proceeded via reflection on the material constitution of the sense organs: as we saw, the uniqueness principle is motivated by the reasonable supposition that the organs will not be sensitive to the same external features. But once the uniqueness principle is in place, Socrates takes it to follow that the common objects are not objects of perception. Importantly, the sameness that is grasped in cases of cross-modal joint perception must then be said to be grasped by the soul by itself—not by or through the sense organs. Joint perception, it turns out, will be subject to the same cognitive processes as those which underlie the grasping of the other common objects.

Aristotle, by contrast, explicitly claims that the common objects are properly considered objects of perception. In his enumeration of the sense objects in *De Anima* II.6, he includes not just the special objects of perception, but also common objects as well as incidental objects, like the son of Diares. Indeed, Aristotle discusses the perception of the common objects at length in *De Anima* III.1, which will be the subject of Chapter Three below. Moreover, like Plato, Aristotle sees joint perception

as closely related to the perception of common objects, for while he does not mention sameness in his list of common objects, he follows the discussion of common objects in *DA* III.1 with the case of joint perception.[43]

Aristotle, then, rejects the uniqueness principle. He does not address it in so many words, though: he takes common objects to be perceptible without argument.[44] A strategy of avoidance runs the risk of being question-begging, however, unless we can reconstruct, from Aristotelian premises, a way around the concerns that generate the uniqueness principle. This effort is complicated by the fact that Aristotle also focuses on the material constitution of the sense-organs. Moreover, his metaphysical theory of perception shares at least some features with moderate Heracliteanism: as we will see, Aristotle claims that one activity constitutes both the perceiving of an object and that object's being perceived [425b26-27]—which does imply that the object and the perception are in some sense interdependent. Moreover, he does agree to the weaker form of the uniqueness principle, according to which the special objects are not perceptible by the other special senses.[45] Aristotle, then, faces two roadblocks in his rejection of the uniqueness principle: (1) his own view commits him to a type of ontological dependence between a perception and the object of

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[43] In 3.1 I will present an interpretation of Aristotle's line of thought that makes sense of the interconnection between joint perception and common object perception.

[44] Aristotle accepts an "objects-first approach," whereby faculties are analyzed by means of their characteristic objects. Thus, the delineation of perceptual objects in *DA* II.6 is the edifice on which the rest of his picture of perception is built. Plato, on the other hand, discusses the Heraclitean theory of perception and begins to present his own account *before* he determines what will count as objects of perception. For a discussion of the "objects-first approach" and what it means for Aristotle's analysis of perception, see 3.3.

[45] *legô d' idion men ho mê endechetai hetera aisthêsei aisthanesthai* [418a11-12]. It is crucial to the plausibility of Aristotle's overall position, then, that the argument from *Theaetetus* 184-187 requires the stronger uniqueness principle.

perception; and (2) he does agree with Plato that what is perceptible is heavily constrained by physical features of those objects and the attendant organs. In this section, I develop each of these worries in turn, but I ultimately seek to neutralize them. By the end of this chapter, we will have a clearer understanding of Aristotle's theory of perception as it relates to the problems suggested by *Theaetetus* 184-187. Specifically, we will be in a position to conclude that Aristotle need not be committed to the uniqueness principle. In subsequent chapters, I develop the positive view that Aristotle's theory not only does not commit him to a narrow understanding of the purview of perception, but in fact requires him to adopt the *opposite* conclusion, viz. that perception has a large domain and is alone responsible for many higher-level psychological activities.

First, let's consider Aristotle's metaphysical understanding of perception in relation to extreme Heracliteanism and the twin-birth doctrine. As described at *Theaetetus* 156ff, the act of perceiving and the object of perception cannot be said to exist independently of each other. Instead, both come about as a result of intervening motions. The extreme version of Heracliteanism also claims that those mutually dependent "objects" never settle into stable being. But that latter commitment is not necessary: for even if it is rejected, the other commitment of extreme Heracliteanism—that the perception and the object do not exist independently of each other—by itself implies that each individual interaction tokens a unique sense-object, and also that each sense-object corresponds to a unique act of perception. If one accepts the twin-birth doctrine, then, every perception, regardless of sensory

modality, requires a unique perceiver and a unique sense. Metaphysical commitment to a view of this sort, then, implies the uniqueness principle. Indeed, it actually entails an even stronger principle, to the effect that no two things are *ever* perceptible by the same sense, even when they both seem to be special objects of the same sense.

Aristotle does not subscribe to the full twin-birth doctrine, but his theory does share some of the structural features that commit the view to the troubling uniqueness principle. For instance, the cornerstone of the twin-birth doctrine is the interaction of different powers: active and passive, fast and slow. Similarly, as we saw in the Introduction, Aristotle defines perception as the second-level actuality of two powers, viz. the passive potential of the perceiver to perceive and the active potential of the external object to be perceived. Both views recognize the need for a fit between the world and the faculty of perception, and one that emphasizes the passivity and receptivity of the faculty in the interaction.

Moreover, Aristotle says that there is only *one* activity that realizes those distinct potentialities [425b26-27].[46] Given that commitment, the token perception would seem to be just as, if not more, dependent on the token perceived object. It is clear, for instance, that in at least some sense, the perception cannot exist without the object: the perception as an activity is also the activity of a sensed object, so since activities require that the thing in that activity exists, the perceptible object is implied by the passive perception [417b19-26].[47] In other words, some external object exists

[46] This point will be crucial in explaining the unity of perception via the common sense. It will be discussed at length in the next chapter, see 2.5.

[47] It is of course consistent with this way of describing Aristotle's view that the perception be capable of misleading us as to the nature of the existent object. See [418a14-16].

whose potentiality is actualized within the perceiver when a perception takes place. Similarly, the potentiality to be perceived that is possessed by those objects requires that there be sentient beings who are capable of perceiving: on Aristotle's view it makes little sense to say that an object is perceptible if as a matter of principle nothing could perceive it [425b27-426a1]. Moreover, in the case of an *actual* (as opposed to potential) perception, some particular sentient being must be actualizing its potential to perceive that object. As such, neither the actual object nor the perception can exist without the other. If this is right, though, it seems that Aristotle is forced to accept the even stronger principle discussed above, viz. that no two objects are ever perceived by the same sensory power, whether or not they seem to share a modality. Since it implies the uniqueness principle (which holds that no objects are perceptible by more than one senses), he would correspondingly seem to be committed to that as well, at least until it is demonstrated otherwise.

But according to Aristotle, the Heraclitean approach speciously collapses token perceptions and token perceptible objects with the powers that make them possible. As we saw, Socrates describes the Heraclitean as thinking that the perceiver's existence is dependent on the perceived object: it is for this reason that he says that Socrates ill will be a different man than Socrates well [159b-c]. Aristotle, on the other hand, is careful to distinguish the *activity* of perceiving from the *potentiality* actualized in that act. As we saw in the Introduction, he analogizes the relationship between the senses and occurrent acts of perception to that between knowledge and contemplation. In order to know something, it is not necessary that I activate that

knowledge at any specific time: rather, if I have knowledge I engage that knowledge when triggered appropriately. Similarly, to have the sense of sight (for example) does not require that I always see: rather, it requires only that I will see when I am in an appropriate environment and context. Being a perceiver does not require, then, that one actually be perceiving at any given time.

Moreover, the same perceiver will have the potential to perceive different objects. Just as one body of knowledge could lead to contemplation of different aspects of that knowledge, so too my sense of sight can underpin many different acts of seeing without need for multiple iterations of the sense of sight. The same point holds more broadly across sensory modalities: the perceiver's possession of a normal perceptual part accounts for the perceiver's potential both to hear sounds and to taste flavors, *inter alia*.

The same applies *mutatis mutandis* to the objects of perception. According to Aristotle, to be red requires that an object have the potential to appear red to a suitable subject in a suitable environment. An object can still be red in a way even if it is not actually being perceived just so long as it has the potential to be seen that way. He explicitly draws this conclusion in *DA* III.2 and differentiates it from the view he ascribes to unnamed "theorists of nature"—including, it seems, the Heraclitus of *Theaetetus*:

> Since the activity of the perceptible object and that which perceives is one, though their being is different, it is necessary that the hearing and sound which are spoken of must be simultaneously destroyed and simultaneously preserved, and thus flavor and taste, and the others likewise; but this is not necessary for the things spoken of as potential. But the earlier theorists of nature (*phusiologoi*) did not state the matter

> well, thinking that there is nothing white nor black without sight, nor flavor without tasting. For on the one hand they were right but on the other not right; for perception and the object of perception are spoken of in two ways (as potential and as actual), and the statement holds of the latter, but does not hold of the former. But they spoke unqualifiedly concerning things which are so spoken of not unqualifiedly. [426a15-26]

The Heraclitean view presented in *Theaetetus* makes this very mistake: the swift and slow powers emanating from the object and perceiver are taken not just to underlie the perception, but to constitute it. At 156e-157a, Socrates says:

> And of course these things may apply thus, to hard and hot and everything else. We must understand these in the same way: that none of them is anything in itself (as indeed we were saying before), but all things of all kinds are coming to be through intercourse with one another, as a result of motion. [156e8-157a2]

According to Aristotle, while it is in a way true that actual hardness and hotness "come to be through intercourse with" actual touching, he would not generalize the point in the way Socrates does here.[48] In the theorists-of-nature passage, Aristotle claims that the while *actual* hotness and hardness are dependent on actual perceptions, *potential* hotness and hardness are not. Thus, the extension to "everything else" is unwarranted on Aristotle's view, for there are external objects that exist independently of acts of perception. As such, the same sense will be able to perceive more than one object, and, moreover, the same perceiver will be able to perceive more than one kind of object. The sense as is understood as potentially affected by

[48] In fact, Aristotle would identify the hardness and hotness with the touching, so "coming about through intercourse" actually implies further distance between those qualities and the act of perception than Aristotle would allow.

myriad objects that could also be perceived by more than one sense. Thus Aristotle is not committed to the Heraclitean premise that implies the uniqueness principle, viz. that no object can be perceived by more than one sense.

Nonetheless, though the uniqueness principle would follow straightforwardly from the twin birth doctrine, one need not accept that particular *metaphysical* story in order to feel an obligation to account for the *physical* possibility of inter-modal objects of perception. For since Aristotle's physical account, like the moderate Heraclitean view that motivated the uniqueness principle, concentrates attention on the material constitution of the organ and the medium, Aristotle does owe us a story as to how it is physically possible for different senses to share objects. In other words, though the theorists-of-nature passage implies that objects *could* be perceived by more than one sense, we still stand in need of a reason for thinking that the possibility obtains.

And in fact it is clear that Aristotle is aware of this obligation: for while, like Plato, he explicitly ties the senses in with their paradigmatic objects, Aristotle also commits early on (*DA* II.6, 418a8-11, see above) to the view that the senses are able to perceive other objects. Accordingly, he denies the strong version of the uniqueness principle at the same time as he emphasizes the physical requirements that perception places on perceivers and on the world. How does he accommodate both?

Much of the story will be given in the remainder of my thesis, but I do want to observe, by way of closing this chapter, that a preoccupation with the argument of *Theaetetus* 184-187 makes good sense of the opening arguments of *De Anima* III.1

[424b22-425a13]. There Aristotle argues, rather curiously,[49] that not only are there no other *actual* senses or sense organs beyond the familiar five, but, indeed, there are no other *possible* ones either. Why would Aristotle seek to demonstrate such a thing? Why is it not enough for his purposes that we do not *as a matter of fact* happen to have any additional senses? I suggest that returning to *Theaetetus* will help here. In particular, let's examine the answer Theaetetus gives to the question of what part of the body is used to perceive the common objects. He says: "it seems to me that for these things there is no special instrument, as there is for the others. It appears to me that the soul itself, through itself, investigates the common qualities of everything" (185d-e).

As argued in the last section, the motivation for accepting this conclusion is empirical: it is by reflection on the physical constitution of the organs and the sense-objects that we come to the view that no one body part is sensitive to all objects.[50] And indeed it does seem a contingent matter whether there are objects that escape our notice because we are not constituted in a fitting way.[51] It thus seems curious that Aristotle opens *DA* III.1 with an argument meant to show that the existence of such objects is impossible. In actual fact, he claims, everything that *could be* perceptible *in fact is* perceptible by animals with a fully-functioning set of senses.[52]

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[49] Hamlyn [2002: 115] calls it "obscure."

[50] If this is right, it constitutes another piece of evidence against the Cornford reading that understands the problem with empiricism to be that the objects of knowledge are non-perceptible transcendent Forms. cf. fn. 1 and below.

[51] As Hamlyn notes in his commentary. See [2002], 115.

[52] Aristotle is careful to qualify this by saying that there can be no more than five senses unless there came to exist new bodies and properties [425a11-13]. To this extent, at least, the conclusion here is vulnerable to empirical refutation—if confronted with evidence that there are other kinds of body than earth, air, fire, and water, he would need another argument to establish his conclusion.

Notice, though, that Socrates presents no argument against the thesis that beauty, etc. *could be* perceptible if we had a suitable physical organ. Instead, he considers the organs that we have and concludes that none is *the* proprietary organ. Now it would initially appear reasonable to suppose that a common object like beauty would therefore be perceptible by all (or at least several) of the senses. After all, we are aware of beauty, and it seems at least plausible that the way we become aware of things in general is by perceiving them. Indeed, it is an empiricist hypothesis of this type that is under consideration in the passage. The natural conclusion to draw at that juncture, then, would be that we become aware of beauty by seeing it in our loved ones, hearing it in arias, smelling it in flowers, and so on. But in the context of *Theaetetus*, since Socrates and Theaetetus are committed to the uniqueness principle, which says that nothing can be grasped by multiple senses or multiple organs, that picture is taken to be wrong. Moreover, because no one of the special senses seems to grasp beauty in a more fundamental way, it also cannot be the case that we grasp beauty by just one of those senses. It is concluded that we perceive beauty neither by many senses nor by one. In other words, beauty is not perceived at all. Given, though, that we are aware of beauty, it must be that we grasp it in some other (non-perceptual) way, as Socrates asserts at 185e.[53] And so on, of course, for the other common objects.

What the argument here shows is that there are other ways of grasping things than by perceiving them. It doesn't even *claim* to establish that it would be impossible

[53] See also *Phaedo* 100d; though note that nothing in my account of the *Tht.* passage has required a commitment to Forms of the type expressed in that *Phaedo* passage.

for there to be an organ that was capable of grasping beauty and the other common objects that we are now, according to Socrates, aware of non-perceptually by the soul through itself. That's where the argument that opens *De Anima* III.1 comes in, for it purports to show this very thing—that everything that is *possibly* perceptible is *actually* perceptible by animals with all five senses.

The details of the argument, depending as they do on a scientifically dubious conception of the fundamental elements of the universe and of the sense-organs, need not concern us. But what Aristotle takes himself to have shown by 425a13 is that "if there is not some other body and no affection not had by the bodies existing here and now, then no sense can be left out." Now given the more than reasonable assumption that perceptible bodies currently in existence have qualities like beauty and shape, and stand in relations like sameness and difference, it will follow that those qualities are in fact perceptible, *contra* Socrates's stated conclusion that those qualities must be grasped non-perceptually.

It is important in this context to observe that the Socrates of *Theaetetus* thinks that the common objects are affections of bodies. Some interpreters (notably Francis Cornford [1957]) argue that Plato is committed to the theory of Forms in *Theaetetus*. In essence, they claim, the dialogue is meant to show yet again that knowledge is only of Forms, and that our knowledge of those Forms cannot come from perception. According to this reading, when Socrates says that we must be able to perceive that objects have being (*ousia*), he means to reference the realm of Forms, which Plato occasionally refers to as the realm of *ousia*. But *ousia* has a more general sense;

grammatically, it derives from the feminine participle of the verb to be. As one would expect, the word is incredibly common is writings of the time, and Plato often uses it in a non-specialized way.[54] Given that the argument makes good sense without assuming an implicit reference to the Forms, the burden would seem to be on Cornford and company to show that Plato expects to be understood as alluding to them. Moreover, on their reading, Socrates is made to speak very elliptically about a supposedly central metaphysical commitment—not a good dialectical strategy. Finally, why would Socrates give the argument of 184-7 if a straightforward rejection of the perceptibility of the objects of knowledge were available to him?

For reasons such as these, the Cornford reading has fallen out of favor. But not only is there little reason to think that Plato has the Forms in mind here, there are good reasons for thinking he doesn't. For instance, Socrates introduces the argument by presenting a hypothetical: "if therefore you were thinking something about both [perceptible objects]," and he goes on to provide a more concrete example:

> Soc: Now concerning a sound and a color. First, don't you think the same thing about both of them: that they both are?
> Tht: I do.
> Soc: Then that each is different from the other but the same as itself?
> Tht: Of course.
> Soc: And that both are two, and each is one?
> Tht: That too.
> Soc: Therefore are you also able to consider whether they are like or unlike each other?"
> Tht: Yes, in like manner. [185a8-b6]

[54] Including in *Tht.* As Cooper [1970] states, following Campbell [1973]: "Throughout the argument so far *ousia* seems to have meant existence: at its first introduction in the context (185c9 cf. a9 and c5-6) it seems to mean this and it does not appear to alter in meaning thereafter." (139). It is used nine times before the argument in question and four times after, in all of which cases it clearly has its ordinary meaning. See especially 160b6 & c8; 207c3.

It is clear that these common objects, including being, number, and similarity, are all taken to be qualities that are possessed by perceptible objects like colors and sounds. Given that Forms are precisely *not* the kinds of things that could be affections of perceptible objects, these common qualities cannot be Forms. Instead, Plato clearly agrees that it is everyday ordinary bodies that possess these qualities. But according to the argument that opens Book III of *De Anima*, if they are properties of ordinary bodies, it follows that we must be able to perceive them.

As I have presented the conclusion, Aristotle takes himself to have shown that we have a sense or senses capable of perceiving every property of material bodies: no physical objects or qualities are such that they couldn't be grasped perceptually. If Plato were in a position to respond to this argument, he could either deny one of the premises,[55] or decide that the common objects are not properties of objects. But if he chose to do neither, Plato would be forced to give up the view that the common objects are not themselves perceptible but are, rather, grasped by the soul through itself. For, according to the Aristotelian argument, no affections are such that they are had by perceptible objects but are not themselves perceptible.[56] If we read the opening of *De Anima* III.1 as motivated by *Theaetetus*, then, we can see that this seemingly strange argument is Aristotle's attempt to show that Plato's ultimate position is untenable: it can't be that we could have had the ability to perceive these things but it just so happens that we don't.

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[55] I did not present any of the premises above, since what interests us here is the conclusion, not how Aristotle motivates that conclusion. Some of the premises will be discussed below.

[56] This may strike us as an implausible view. It's likely for this reason that the idea of addressing the completeness of the senses *via* a deductive argument seems problematic. It is nonetheless clear, given 424a12-13, that Aristotle takes himself to have established this conclusion.

So Aristotle thinks that common objects must be perceptible if they are real. He does agree, though, that what is perceptible is severely constrained by the physical constitution of those objects and of the sense organs. Moreover, he takes himself to have shown that there cannot be more than five senses, so common objects won't have a dedicated sense that is specially attuned to them. As such, different senses will have to be capable of being sensitive to some of the same objects. Thus, Aristotle must show that the physical constraints imposed by the organs are not such as to eliminate the possibility that they can share objects.

And in fact if we look at some of the details of the argument that opens Book III, it is clear that the same evidence undermines the gravity of the physical considerations.[57] Consider, for instance, 424b31-4: here he not only leaves open the possibility that perceptual objects of different kinds *may be* perceptible by more than one sense, but he also suggests a scientific basis for thinking that two particular objects (sound and color) *are* objects of this kind. He says:

> And so it is such that if two things differing in kind from each other are perceptible through one thing, then those having this kind of sense organ must be able to perceive both (e.g. if the sense-organ is [made] of air, and air is [used] for both sound and color).

The illustration makes clear that the difference in kind Aristotle has in mind is not a difference among particular instances of a sense's special object (like black and white), but rather among different kinds of special object (like color and sound).

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[57] Commentators don't often discuss the particular reasons he gives here, largely because, as Hamlyn notes, "the argument…[is] obscurely set out" ([2002], 115). It has the added problem of involving scientifically dubious claims. The relationship of these considerations to the conclusion that we have all possible senses is not important for my purposes—whatever he thinks he's saying, it seems motivated by a focus on similarities among the senses.

Claims like this emphasize the similarities among the organs rather than the differences. Indeed, Aristotle goes on to make similar points about the extensive commonalities that obtain among mediums [424b34-425a3]. Thus, all told, it is clear that he thinks that the physical differences among the organs and the objects of perception play *some* role in determining what is perceptible by what bodily power, but not the decisive and exclusionary role that Plato takes them to play.

At this stage of *De Anima*, then, Aristotle takes himself to have shown that the common objects must be perceptible. He dulls the Platonic discomfort with that possibility by alleging a wide range of physical similarities among the sense-organs and their objects. He has not yet, though, explained how the common objects are perceived. This is a problem because, as noted above, he is already committed to thinking that common objects are perceptible in-themselves (*DA* II.6, 418a8-11). If there are only-and-at-most five senses, and none has the common objects as its proprietary object, how can they be perceptible in-themselves? Given that we only have five senses, each of which stands in a special relationship to its object, its organ, and its medium,[58] the perception of the common objects must somehow be reducible to the activities of those senses, and the contours of this reduction have yet to be established.

This is not the only outstanding problem left for Aristotle to resolve. Even if the senses can perceive a variety of objects—including each other's objects and any

[58] The kind of special relationship that obtains between the sense and its object may be different from the kind of special relationship that obtains between the sense and its organ and medium. Indeed, the latter relation is likely material in nature, while the former, I will argue, is teleological (see 3.5).

objects they may share in common—that does not immediately explain how Aristotle's non-rational animals manage to avoid becoming Trojan horses. Whatever relationship obtains among the senses such that it is possible to perceive the common objects, that same relationship must underpin a unity among the senses that allows the information from distinct modalities to intermingle. As Plato already noticed, it is the convergence of sensory information that allows for a unified subject, and also provides the resources for comparison among perceptual objects.[59] If Aristotle can demonstrate that that convergence is itself a function of the perceptual faculty, he will show that non-human animals are able to achieve psychological unity even though they lack the faculty of reason.

In the next chapter, I argue that Aristotle has more specific and detailed things to say about this problem than has previously been realized. In particular, I contend that he attempts to demonstrate, in *De Anima* III.2 and elsewhere, that the separate senses converge in virtue of their shared possession of one particular perceptual potentiality, viz. the potential to perceive that we perceive. This is a potentiality, I will argue, that each individual sense has, though not in virtue of being the special sense it is. Since perceptions and their contents are jointly actualized, higher-order states will not invoke numerically distinct activities. It is here, or so I will argue, that Aristotle thinks he has an answer to the question of how perception, made as it is of many distinct special senses, provides its own principle of unification.

[59] See the Trojan Horse discussion in 1.2.

2. Perceiving that We Perceive and the Formal Definition of Common Sensing

The Trojan Horse analogy succinctly illustrates a pitfall that any theory of perception must avoid. If the senses are understood as entirely distinct from each other, it will not be possible to account for the unity of perceptual experience from within perception itself. Aristotle does accept a principle much like the uniqueness principle that grounds the dilemma, for he insists that each sense stands in a privileged relation to a specific range of objects. But he stops short of maintaining the strong uniqueness principle, according to which no objects are perceptible by more than one kind of sense. It is, of course, perfectly consistent to maintain that the senses differ from each other in one respect while being similar in others. Indeed, we have already discussed one such similarity, viz. in the constitution of the organs and their sensitivity to particular media. To that extent, Aristotle claims, against Plato, that different senses may be sensitive to similar information.[1] But when separate senses *are in fact* active—for instance when we perceive that the brown dog and the barking dog are the same[2]—on what perceptual common ground will those contents meet? In other words, how does Aristotle accommodate the convergence that the Trojan Horse dilemma requires on a purely perceptual basis? That is, how does he accommodate joint perception without invoking an act of mind?

[1] Much more will be said about this in Chapter Three.

[2] In what follows, I will refer to perceptions of this type—perceptions like the one Plato focuses on at 185bc—as instances of "joint perception" or "perceptual binding."

Aristotle here appeals to what we have come to call the "common sense," which is some kind of perceptual capacity that can take in data from disparate senses. But as Plato notes, we cannot compare a color and a sound *qua* color and sound by either sight or hearing *qua* sight and hearing (185bc). At the very least, then, it follows that comparison requires an activity that is not *descriptively* reducible to the activity of one or more special senses. It remains possible, though, that the activity is *ontologically* reducible to that activity. If so, we will be left with a purely perceptual account of the unity of perceptual experience. In this chapter, I argue that Aristotle explicitly endorses a view of this type, viz. that the perceptual faculty is internally unified in virtue of perceiving its own activity. While this chapter will focus on the role of the metaperceptual apparatus in the explanation of joint perception, I argue in later chapters that Aristotle takes these metaperceptions to be the root of our capacity for perception of the common objects (3.1), memory (3.2), discrimination (4.1), sleep and waking (4.2), and self-consciousness (4.3). As such, Aristotle provides what Plato lacks, viz. a unified and purely perceptual account of these capacities.

De Anima II.5 through II.12 has not yet equipped Aristotle with the means to establish that the senses make up a unity. The formal definition of perception as the taking on of sensible form without matter is at too high of a level of generality. Moreover, Aristotle's account of each special sense doesn't address how the perceptual faculty manages to be more than a mereological sum of discrete senses. The question that confronts us, then, is: how exactly *does* Aristotle, given his account of the individual senses, manage to provide for the unified perception of a brown

barking dog? It is clear that the distinct potentialities the external object has, e.g. the dog's potentiality to be perceived as brown and to be perceived as barking, have to be jointly actualized in a single activity of the perceptual faculty. But thus far Aristotle has spoken only of activities that actualize one potential, be it seeing brown or hearing barking. Nonetheless, just as the numerically singular dog can possess these distinct potentialities, so too there must be some single activity in the perceptual faculty that possess the soul's complimentary potentialities. How, given his underlying account of perception, is such an activity possible?

Aristotle introduces the problem immediately after he discusses the perception of the common objects. Take, for example, a case where "perception of the same object happens simultaneously, for example of bile that [it is] bitter and yellow" [425a31-b2] At a minimum, the explanation of such a case must invoke a numerically singular state, as we have said. In Aristotle's terms, "it is not [the job] of a further [perception] at any rate to say that both are one" [425b2].[3] Here he claims that joint perception (i.e. perception of the bile as both bitter and yellow) requires a single activity. If there were a further perception, it in turn would have to be united with the perception of the yellow and the bile in order for all three to be said to be of the same object.[4] But how is it possible that qualities as distinct as yellowness and bitterness (or brownness and the noise of barking) are perceptible in a single activity,

[3] The proper referent of *heteras* (further) is ambiguous. It is in the feminine, but beyond that it does not specify what the further thing is that is not needed. While I have chosen "perception" and will go on to argue that a numerically single perceptual state is responsible for the binding, it could also be taken to refer to the sense. Hamlyn [2002] uses "perception" (which he argues for in [1968], 200), but Hicks [1907] and Ross [1955] choose "sense."

[4] Aristotle has a clearer statement of this in the case of perceptual discrimination, see 4.1.

and how should we understand the activity itself? That is, what is the form of the unified perceptual experience that we are calling common sensing?

It is my contention that Aristotle addresses these questions in the text immediately following the set-up of the problem.[5] Specifically, I argue that common sensing is referenced in our master passage at *De Anima* III.2 425b12, where Aristotle says:

> **[A]** Since we perceive that we see and hear, it is necessary [that it is] by sight that one perceives that one sees or by another [sense]. **[B]** But [then] the same [sense] would be of sight and of the color that is the subject [of sight], with the result that either there will be two [senses] for the same thing, or [the sense] itself will be of itself. **[C]** Yet if the sense for sight were indeed different [from sight] either there will be an infinite regress or some sense will be of itself. So we should admit this of the first [in the series]. (425b12-17).

According to my reading, "since we perceive that we see and hear" is Aristotle's chosen way of glossing or describing the activity of common sensing in general. This description is purely formal. To return to the perception of a brown barking dog, there are (at least) three different ways to "cash out" this single activity at the level of form: in terms of (1) the faculty of sight seeing the brown; (2) the faculty of hearing hearing the bark; and (3) the perceptual faculty as a whole perceiving the seeing and hearing. It is only in (3) that we address the problem of the Trojan-Horse; so, though each description is accurate as a description of the underlying activity, the third provides the fullest description.

[5] Contrast Kahn [1975] who says "[s]trictly speaking, the *De Anima* expounds no doctrine of a 'common sense'" (7).

I call my interpretation, according to which common sensing in all of its instances is the explanandum of our master passage, the "common sensing reading," or "CSR." Contrarily, most interpreters take this passage to be concerned with accounting for some type of awareness.[6] Since my objection to these interpretations turns on the opacity that is implied by talk of conscious awareness, the diversity among different "awareness readings" (abbreviated "AR") is mostly beside the point and will be discussed only when relevant. I defend CSR in 2.1 and 2.7. In 2.1, I elaborate on and develop my alternative—rendering it plausible as an account of the passage in question—and in 2.7 I argue against the dominant rival interpretations. By the end of the chapter, then, I hope to have shown not just that the traditional interpretation of the master passage is in error, but, more importantly, I will also have established that Aristotle provides a substantive account of common sensing as it applies to joint perception. In other words, and contrary to orthodoxy, Aristotle does have a detailed response to the challenge of the conclusions of *Theaetetus* 184-187, which shows how it is possible, given his perceptual apparatus, to account for the phenomena that Plato denies to perception and places in the domain of *nous*.

[6]Arguments for versions of AR are given by Aquinas [1999]; Caston [2002]; Johansen [2002]; Kosman [1975]; and Osbourne [1983]. Caston [2002] and Kosman [1975] take perceptual consciousness to be at issue, while Johansen [2002] takes it to be self-consciousness. Osbourne [1983] might be thought to be an exception, since she takes the explanandum to be our awareness that we are seeing *as opposed to hearing*, but note that this is still a form of awareness, albeit one that hasn't concerned many contemporary philosophers of mind. Gregoric [2007] takes a similar line, reading the passage to be concerned with awareness of the whether the senses are in operation. AR is assumed by Alexander of Aphrodisias [1994], Everson [1997]; Kahn [1975], and Modrak [1981a] & [1987].

2.1 Aristotle's Formal Account of Common Sensing

I will start by making three qualifications. First, I argue in this chapter that there is a defensible reading of the opening parts of *De Anima* III.2 that takes the explanandum to be common sensing in general and joint perception in particular.[7] I postpone addressing traditional interpretations of this passage until later in the chapter (2.7): it would needlessly complicate my positive account, which is independently motivated, to mix it with a separate critique of the traditional readings.

Second, by "common sensing," I mean to refer to the activity of what I have chosen to call the "common sense." As previously noted, the term "common sense" is non-ideal since it seems to imply that Aristotle uses *koinê aisthêsis* in a univocal way. To make such a claim would be a mistake because he sometimes talks broadly about a unity of the senses when he means to refer to the faculty that interests me.[8] Nonetheless, since "the senses acting as one" doesn't roll off the tongue, and since I aim to discuss the same phenomenon that commentators have denoted with "common sense," I persist in using this phrase.

Third, I contend that Aristotle here provides a formal account of common sensing. It is a datum that accounts of form differ depending on the level of description: what is matter in one context can usually be further analyzed into form and matter in its own right. Moreover, it is clear that more than one potentiality can be actualized in any one object: since our focus here is on mental states, we can

[7] Since joint perception is the subject of the immediate context, it will be discussed in this chapter. Memory and perception of the common objects is the subject of the next chapter, and perceptual discrimination and self-consciousness are discussed in the last chapter.
[8] Most notably at *DA* 425a30-31.

narrow this point and claim that more than one potentiality can be actualized in a single mental activity. It follows that a numerically single, and therefore ontologically unified, activity of the perceptual faculty can have a complex content: that is, it can actualize the potentialities to be perceived of several external objects.[9] My general claim is that when Aristotle talks about the senses acting as one, he contends that they are able to do so insofar as the perceptual faculty has the capacity to perceive its own perceptions (some of which are special sensings) in a single activity. If we want to understand *how* the senses can act in concert given the diversity of their objects, the answer to this is that in addition to perceiving external *objects*, the senses[10] also perceive the *contents* themselves; it is for this reason that Aristotle describes the activity in question as "perceiving that we see and hear." When multiple contents are presented in a single activity, that activity further presents those contents as unified, and therefore they are perceived as bound into a unity.

Since this is a formal account, it does not require that more than one mental state be implicated in common sensing—in fact, we will see that it is essential to its success as an explanation of the phenomena that common sensing consist of only one such state. In general, formal accounts of the type that interest me here provide explanations of actualities in terms of potentialities, and they do so by isolating the particular potentiality in virtue of which the relevant activity is made possible. Consider an example: suppose that I am trying to explain my perception of an

[9] The sense in which the external objects can be multiple and the sense in which they can't will be discussed in 2.8.

[10] Or the perceptual faculty as a whole—whether the common sense belongs to the perceptual faculty as a whole or to each sense individually depends on the resolution of the *aporiai* in our master passage and will be discussed in 2.5.

orchestra playing. This perception includes a wide array of perceptual information, including many different shapes, sizes, colors, and sounds. What requires explanation is how I am able to be aware of this array as a unitary phenomenon. Aristotle's answer to this question, I will argue, is that the perceptual faculty, in addition to perceiving those shapes, colors, sounds, etc., also has the potential to perceive those perceptions. I undergo, at a certain level of description, countless seeings of diverse colors as well as hearings of particular sounds, and so on. But I also have the ability to unite those countless perceptions in a single unitary act, *an act that is itself a perception and therefore ought to be described as a perception of perceptions*. This metaperception will be realized by a single activity, which is identical to the activity of each of the individual lower-order perceptions.[11] The activity in question, we might say, is one in being but diverse in account. The singleness of the activity is what provides for the requisite unity, i.e. it explains how I am aware of this scene as a unified whole.[12]

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[11] In order for the view to be plausible, Aristotle must not be thinking of physical change in the organs as constitutive of sensing, for in that case seeing red and hearing middle C would be in different parts of the body and therefore would obviously be non-identical. Nonetheless, to reject that constitutive claim does not, it seems to me, commit Aristotle to denying the presence of any physical change in the organ. In fact, a qualitative alteration of the organ could be correlated with an act of perception. Further, given our particular material constitution, that alteration might even prove to be a necessary condition for a successful perception. Thus, CSR can afford to remain neutral as to whether there are any such physical changes for Aristotle, though it is committed to denying that any such alteration *just is* the act of perceiving. For views that do not remain neutral, see Burnyeat [1995a], [1995b], [2001]; Caston [2005]; Sorabji [1975].

[12] See especially *De Sensu* 7 [447b24-25]. It may be objected throughout this thesis that the numerical identity (the singleness of being, if not of account) of the metaperception and the lower-order perception does not actually necessitate that the perception present itself as a unity. In general (that is, not just in the case of perception), it seems entirely possible for what is actually one thing to be interpreted as being multiple things. For example, materialism suggests that particular neural firings and the experience of say, feeling pain, are numerically identical. Nonetheless, the fact that this (if true) is a scientific discovery suffices to show that *actual* numerical identity does not ensure *apparent* identity (for reasons having to do with controversies surrounding any particular instance of reduction, it will not be possible for me to choose an uncontroversial example: if the reader does not like this one, she may choose her own). This seems a fair objection, for the reasons illustrated by the

So, then, it is our ability to perceive (because that is how the perceptual faculty does everything) our seeings and hearings (because those particulars are the contents of the unified state) that explains joint perception. Or so I shall argue in what follows.

2.2 Preliminaries

I have already provided *prima facie* evidence that our master passage addresses the general issue of common sensing. First, it begins just after Aristotle discusses a function of what I have been calling the "common sense," viz. joint perception. The introduction of consciousness, on the other hand, would seemingly come out of left-field.[13] Second, I have just argued that "perceiving that we see and hear" is a natural and intuitive way to pick out the activities of joint perception. Last, as we will see below, CSR makes better sense of the *aporiai* that Aristotle finds himself addressing immediately after claiming that we perceive that we see and hear;[14] and it provides a unity to the chapter, which, on my reading, proceeds to discuss problems that may seem to arise from the implicit conclusion of 425b17[15] before turning to another function of the common sense, viz. perceptual discrimination.[16] We will also see that CSR coheres nicely with remarks from *Parva Naturalia* and *Nicomachean Ethics*.[17]

Let's examine our master passage more closely:

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case of materialism. However, as an issue of textual exegesis, this passage demonstrates that the objection is one that should be directed at Aristotle, not at CSR.

[13] I suggest that the unexpectedness of the topic of consciousness is part of what causes Hamlyn ([2002], 121) to say that *DA* III.2 is a "rambling" chapter.

[14] cf. 2.4 & 2.7.

[15] cf. 2.5.

[16] cf. 4.1.

[17] cf. 2.8; 3.2; 4.2-4.3.

> **[A]** Since we perceive that we see and hear, it is necessary [that it is] by sight that one perceives that one sees or by another [sense]. **[B]** But [then] the same [sense] would be of sight and of the color that is the subject [of sight], with the result that either there will be two [senses] for the same thing, or [the sense] itself will be of itself. **[C]** Yet if the sense for sight were indeed different [from sight] either there will be an infinite regress or some sense will be of itself. **[D]** So we should admit this of the first [in the series]. (425b12-17).

On CSR, [A] would be best understood as alluding to any one of the following: (1) "Since we perceive that the orchestra is black and loud;" (2) "Since we perceive that we see and hear the shape of the orchestra," or, more generally; (3) "Since we perceive that an object is a unity of distinct perceptible properties."[18] Aristotle goes on to investigate how this can be possible given his perceptual apparatus: it is this worry that leads him to introduce the two *aporiai*, [B] and [C], to be discussed below. Once he resolves at [D] that it is by a single faculty that this metaperception occurs,[19] he proceeds to defend the possibility of a single activity of that faculty that would actualize and unify these myriad potentialities (425b17-426a15) and to show that the same formal mechanism can account for another kind of common sensing, viz. perceptual discrimination (426b8-29). At 426b29-427a9, Aristotle expresses a discomfort with the completeness of 425b17-426a15 and so returns to these topics in

[18] Gregoric [2007] considers and rejects the idea that the "other sense" referred to at 425b13 is the common sense (176, 179). According to CSR, it is the first part of the sentence ("since we perceive that we see and hear") that refers to the common sense: no matter which alternative Aristotle chooses (that sight sees itself or that another sense does), what the resolution establishes is how the common sense operates within the confines of the perceptual apparatus as presented in II.5-II.12.
[19] Caston [2002] presents an alternative translation of the passage, rendering most references to *aisthêsis* as "perception" rather than "sense." He accordingly takes our master passage as concluding that there is one *perception*, not one faculty, that is responsible both for perception and for the perception of that perception. He calls his reading the "activity reading." I here choose to go with tradition; I will address his arguments in 2.6.

the difficult final passage of the chapter (427a9-14), after which he declares his account of perception complete (427a14).[20]

2.3 CSR and Consciousness

The claim that the master passage has implications for consciousness is consistent with CSR: if conscious experience is a function of common sensing, then an account of common sensing will *ipso facto* be an account of consciousness. What is crucial to CSR is that the metaperception described in III.2 plays an explanatory role in the understanding of *all* activities of the common sense. CSR is committed, then, to the view that Aristotle does not have consciousness specifically, let alone exclusively, in mind when he introduces this metaperception and considers its underlying structure.

While consciousness as a phenomenon has a long history of recognition in philosophy, consciousness as a *problem* is not prominent in the classical period.[21] Aristotle does acknowledge conscious awareness in a variety of places, but he does not seem to see it as introducing added difficulties to his psychology. In *Metaphysics* Λ.9, for instance, he says that knowledge, perception, and thought are "about themselves on the side" (*autês en parergôi*) (1074b36). While it is not certain that he has consciousness in mind here, that interpretation presents no particular problems for

[20] The later parts of *DA* III.2 will be discussed in 4.1.
[21] Certainly there is no precedent in Plato for viewing consciousness as a problematic feature of psychology. See also Hardie [1976]; Kahn [1975], 22-3.

CSR.[22] More explicitly, in *Physics* VII.2 244b15-245a1, Aristotle notes that animate creatures, when altered in respect of the senses, are not unaware of being affected (*to* [*d'*] *ou lanthanei paschon*), and he goes on to claim that such creatures may be unaware of being affected if those affections are not alterations by means of the senses. The introduction of modality in the latter case—non-perceptual alteration *may* escape our notice—suggests an analogous commitment in the former case: perceptual change *must not* escape our notice.[23] Thus, according to Aristotle, awareness of a perception is a necessary condition for being a perception in the first place.

In a well-known and much-discussed passage, *De Anima* II.12 424b16-18, Aristotle asks what constitutes smelling beyond its being an affection (*ti oun esti to osmasthai para to paschein ti;*). He presents one (and only one) possible answer, viz. that smelling is perception (*hê to osmasthai aisthanesthai*).[24] Given that the *Physics* passage above distinguishes perceptual affections from non-perceptual ones in virtue of the fact that the former do not escape our notice, it would seem he is here indicating that the difference is one of awareness; smelling is not a *mere* affection because we are aware we are smelling. Moreover, Aristotle seems to think that describing smelling as a *perceptual* affection suffices for distinguishing it from unconscious types of affection. Since he takes this response as an adequate answer to the underlying question, it is unlikely that he thinks of consciousness of our perceptions as an additional fact over-

[22] Moreover, Kahn ([1975], 29) objects to this interpretation on the grounds that the passage occurs in the context of god's mind and so has little direct bearing on human knowledge, perception, and thought.
[23] This way of expressing Aristotle's point was suggested to me by Gary Ostertag.
[24] Or, accepting the Torstrik emendation, *hê to osmasthai kai aisthanesthai*. It makes no difference to my overall point.

and-above their being perceptions. As such, we have grounds to conclude that his account of perception *just is* an account of conscious perception; there is no reason to think that Aristotle views perceptual consciousness as a distinct phenomenon that stands in need of its own explanation.[25] Indeed, the only passage where he is even alleged to give an account of awareness is the passage in question, and, I argue, there is no compelling reason to read the master passage in this way.[26]

That being said, Aristotle views common sensing, like consciousness, as accompanying all perceptual activity. It is possible, then, that he thinks our awareness is accomplished not by the special senses, but, rather, by the common sense.[27] If this is the case, then since CSR holds that our master passage gives an explanation of common sensing, there will also be an account of awareness in the offing. But, crucially for CSR, to the extent there is such an account of conscious awareness, it is only implicit, and is present only insofar as consciousness is taken to be a function of common sensing.

2.4 The Constraints Introduced by the *aporiai*

The *aporiai* that follow the opening phrase of our master passage can be motivated by a broad concern with common sensing. I argue that the fact that CSR

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[25] Note the qualification "perceptual." Self-consciousness and the joint awareness of both perceptions and thoughts may raise special problems. See 3.3.2.

[26] [Simplicius] (*De. An.* 188,4-5) describes Aristotle as thinking that perceiving that we see and hear follows from our consciousness (*ek tês hêmeteras sunaithêseôs*), which suggests that he also interprets Aristotle as thinking of consciousness as more foundational than metaperceptions are. For if [Simplicius] thought, along with modern representatives of the awareness reading, that metaperceiving accounts for consciousness, we would expect the opposite dependency, viz. that consciousness follows from perceiving that we perceive.

[27] Though this view is not, I think, asserted in the text or implied by it.

can motivate these *aporiai*, while AR cannot,[28] gives CSR a distinct advantage over AR. The first *aporia* is labeled "[B]" above, and reads as follows:

> [Since we perceive that we see and hear, it is necessary that it is by sight that one perceives that one sees or by another sense.] But [then] the same [sense] would be of sight and of the color which is the subject [of sight], with the result that either there will be two [senses] for the same thing, or [the sense] itself will be of itself.

Aristotle is here understood as concerned with the faculty that is involved in the metaperception. If it is sight that sees what is seen, then sight will have to see itself, but if it is not sight, then both sight and some other sense will perceive the color. This latter possibility seems to be precluded by *De Anima* II.6, where Aristotle introduces the special objects as those which are not able to be perceived by the other special senses [418a11-12] and claims that those senses are essentially concerned with the perception of their special objects [418a24-25].[29]

The worry here follows from the assumption that the metaperception will also take on the object of the lower-order perception. Many commentators have been unable to understand why Aristotle would make this assumption. As Hamlyn says:

> It is not clear why Aristotle supposes this consequence to follow. He seems to assume that if I perceive by sense Υ that I see X, I must therefore perceive X by Υ… [O]ne can clearly be aware that one is seeing without being aware of what one is seeing. (Hamlyn [2002], 112)

[28] The claim that AR cannot account for the *aporiai* will be presented in 2.7.
[29] The intimate connection between sense and sense-object will be discussed in detail in the next chapter.

Notice that Hamlyn's worry here trades on understanding the explanandum of this section to be reflective awareness, leading him to take the introspectively-accessible fact that I can be aware of a perception without being aware of what it is a perception of as evidence that Aristotle is mking an error here. All AR readings start from this assumption.

According to CSR, however, Aristotle is right to take it that the metaperception must contain the content of the lower-order perception. Since we are seeking an explanation of the unified perception of the various perceptible properties possessed by, e.g., an orchestra, that explanation must contain those properties. If the metaperception doesn't include the shapes, colors, and sounds of the orchestra, it will not provide any sort of account of the unified perception of those shapes, colors, and sounds. Just as the formal account of seeing has to include reference to color, so too the formal account of common sensing must include reference to the percepts of common sensing. The connection is so obvious that it doesn't demand defense—which explains why Aristotle doesn't provide any.[30]

> The second *aporia*, labeled "[C]" above, reads as follows:
>
> > [Since we perceive that we see and hear,] if the sense for sight were indeed different [from sight] either there will be an infinite regress or some sense will be of itself.

While Hamlyn's commentary notes that this *aporia* is "better" (122), it has struck many commentators as problematic. First, notice that no regress threatens unless it is

[30] Some commentators (Caston [2002]; Gregoric [2007]; Sorabji [2006]) take the first *aporia* to be motivated by Socrates's remark at *Charmides* 167c that sight cannot see itself without also seeing color. CSR is not in direct conflict with that observation: it merely states that this concern would arise independently had Socrates not used that example. There are further difficulties with reading an allusion to *Charmides* into this passage, which I present in 2.7.

a necessary fact that we perceive our perceptions. If we "just so happen" to have a perception that we see and hear, there will be no reason to expect a perception of our perception that we see and hear, much less a perception of our perception of our perception that we see and hear. Of course Aristotle must resolve this *aporia* by denying that a regress actually does ensue (regresses are to be avoided, after all), which he does in the next line. But why does he think there is a threat of regress in the first place? A regress only threatens when the existence of the thing in question (in this case a psychological state) *requires* another thing of the same kind, which in turn requires yet another, and so on.

For example, the regress regarding wishing that opens *Nicomachean Ethics* (1094a18-21) only threatens because of Aristotle's antecedent commitment to the claim that, of necessity, everything we wish is wished for the sake of something. Clearly we must also wish the end that our wish is for the sake of. So, for example, if I wish for X, I must wish it for the sake of something, say Y. Since I also wish for Y, I must in turn wish *it* for the sake of something, and so on.

Applied to the case at hand, then, no regress threatens if it is merely a contingent fact that we perceive that we see and hear. In other words, the threat of a regress is predicated on the presupposition that *all* perceptions, not just lower-order seeings and hearings, must themselves be perceived: in order for the perception to exist, it must rely on another thing of the same type, i.e. another perception. Why would Aristotle assume that all perceptions must themselves be perceived?

CSR again provides a straightforward justification for this assumption. Since our perceptual experience of the world invokes higher-order perceptual activities such as binding, the common sense must operate whenever we perceive. But if there were multiple simultaneous activities of the common sense, the metaperception would not provide the requisite unity, which would introduce the need for another higher-order perceptual state that unifies the disparate activities of the common sense, and so on.

2.5 The Resolution of the *aporiai*

At the end of our master passage, Aristotle concludes that, since some sense must perceive its own activity, it is best to claim that the first active sense does so. According to CSR, then, this means that common sensing is an activity engaged in by the special senses. But Aristotle's view is not quite so straightforward, as is clear when he elaborates on his position using the example of sight:

> But this presents a difficulty, for if to perceive by sight is to see, and if one sees color or that which has color, then if one sees that which sees, that which sees primarily will have color. *It is clear then that to perceive by sight is not one thing*, for even when we do not see, it is by sight that we discriminate darkness and light, though not in the same way. (425b17-22, emphasis added)

The common sense operates through the special senses, but not by those senses doing their paradigmatic work. It is by *sight* that we perceive that we see, but it is not

by *seeing*.[31] Instead, sight is acting in a way that is different from what it does when it is seeing. For when sight is seeing, on the one hand, color is among the things seen.[32] But when one perceives darkness, on the other hand, one is *not*, it seems, seeing any color at all. Yet clearly one's perception of darkness (or light) is dependent on the capacity for sight more than it is on the capacity for, say, hearing. So too with metaperceiving. As Aristotle resolves the *aporiai*, he notes that perceiving that I see is not *just* the act of perceiving color, for it is also, at a minimum, perceiving the activity of the sense itself. As in the case of perceiving darkness, the fact that the metaperception takes in something other than color implies that it is not simply an act of seeing. Nonetheless, the perception that I am seeing is dependent on sight, and as such, it is correct to say that the perceiving that I see is a function of sight, even though it is not strictly an act of seeing. While this reliance is apparent, Aristotle also independently motivates it by means of his resolution to the *aporiai*.

Thus, unlike interpretations that focus on the convergence of the special senses and thereby assume that common sensing is not accomplished by the

[31] Aquinas [1999] argues that it is seeing strictly so-called that perceives seeing (§590). The case of perceiving darkness by sight is, he says, a species of judgment (§588). He begins his discussion of *DA* III.2 by claiming that Aristotle will now talk about two things: (1) perceiving that we see and hear; and (2) discriminating among special sensibles. Both of these activities, he says there (§584), do not seem to belong to any particular sense, but, instead, they appear "to spring from some general power." It is unclear how to reconcile the expectation of a general power with (at least in the case of (1)) the conclusion of §590, nor does he make any effort here to discuss the seemingly contrary conclusion found in *De Somno* (*DSV*) II 455a12. I will discuss the *DSV* passage in 4.2.

[32] Sight also sees common objects like shape and size, but Aristotle describes sight as seeing color "in-itself" and seeing other qualities "coincidentally." Whether coincidental perception is inferior to its in-itself counterpart will be the subject of Chapter Four.

individual senses,[33] CSR contends that Aristotle argues for common sensing as an activity of the special senses. It is true that the special senses don't participate in virtue of being the special senses that they are, but to deny them a proper role encourages the misconception that the common sense is a distinct, sixth, sense.[34] While no single sense has a specific responsibility for common sensing, the upshot of the master passage, given CSR, is to claim in the clearest terms that instances of common sensing are reducible to instances of special sensing. *Qua* joint perception, or (later) *qua* discrimination, memory, or sleep, these activities are not felicitously *described* as acts of seeing or hearing, but they are *ontologically reducible* to activities such as seeing or hearing—that is, they are nothing over-and-above seeings and hearings.[35] We have, then, an account of how the senses can converge without requiring a

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[33] For this view, see Everson [1987], 141-57; Kahn [1975], 10-11; Modrak [1987]. Gregoric [2007] thinks that the common sense is the union of perception and imagination, so he would deny that it belongs to either the individual senses or to the unity of them.

[34] In his review of Gregoric's book, Hendrik Lorenz [2009] analogizes the role that sight plays in perception of the common objects (a function I will ascribe to common sensing in the next chapter) to the role that being isosceles plays in accounting for the sum of an isosceles triangle's interior angles. Here Lorenz would seem to be alluding to *Posterior Analytics* (*APo*) I.23, where Aristotle says that it is because of something they have in common (*kata koinon ti huparchei*) that both isosceles and scalene triangles have internal angles equal to two right angles [84b6-9]. It is not in virtue of being isosceles that the interior angles sum as they do, so the triangle's isosceles-nature will not be operative in the explanation of this fact. Nonetheless, Lorenz suggests, the common figure that accounts for the sum is part of what it is to be an isosceles triangle (and also part of what it is to be a scalene triangle), and as such having interior angles that sum to 180 degrees follows from the generic nature shared by all types of triangle. Indeed, it is likely because of this shared nature that we find, in the next chapter of *APo*, that there is a demonstration from a triangle's being isosceles to its having interior angles equal to two right angles. Though the universal demonstration, which proceeds from something's being a triangle to its angles equaling two right angles, is said to be a better demonstration, the particular demonstration is still an instance of a demonstration [85b7-13]. Similarly, while sight does not see shape in virtue of being the faculty of sight, it nonetheless follows that being able to perceive shape is part of what it is to be sight, for being sensitive to the common objects is a capacity that follows from the generic nature of perception as it holds across modalities. To extend the analogy that Lorenz presents, I suggest that the following two explanations are equally true but nonetheless incomplete: (1) a triangle's internal angles equal two right angles because it is isosceles; (2) I am aware of the motion of that car because I saw it.

[35] Priscian reports that Theophrastus had a similar view in *Metaphr.* 22,18-23.

distinct sixth sense, and that account proceeds *via* the invocation of a metaperceptual apparatus.

But it does not suffice to conclude that metaperceiving requires no capacity beyond those that follow from some activity or other of the special senses. For as he illustrates with the case of bitter yellow bile in *De Anima* III.1, joint perception depends on there being only one activity. As such, the claim that sight in a way perceives that it sees needs to be supplemented with the further claim that it perceives that it sees *in the very same act* as it does the lower-order seeing. This introduces a further problem: how can it be that metaperceptions are identical to their lower-order counterparts? Initially, it would seem that perceptions of our perceptions would be numerically distinct from those perceptions themselves;[36] yet if Aristotle is to provide an explanation of joint perception, he has to reject that appearance. And indeed he does just that, for he next evinces a general commitment to the view that the activity of the sense is the self-same activity as that of the object that is sensed.[37] In this way, then, the perception of my seeing will be numerically identical to the seeing itself, and also to the being-seen that attaches to the perceptible

[36] Indeed, the Commentators were known to object to the idea that a sense can perceive itself precisely by denying that a sense can get the proper remove from itself. This was thought to be true in virtue of the bodily nature of the senses, and the inability of a spatially extended thing to stand at a remove from itself. See, for instance, [Philoponus] *De An.* 466,18-29; [Simplicius] *De An.* 173,3-7. Aristotle would presumably deny that both the sense itself and its activity are bodily: while the sense relies on an organ, that organ is not identical to the sense. Similarly, in the activity of perception, the organ might undergo some qualitative alteration, but that alteration shouldn't be understood as constitutive of perception. Both of these claims are controversial, see Burnyeat [1995a]; Caston [2004]; Sorabji [1975] & [1992]. In any event, Aristotle does not seem to have considered this type of objection.

[37] This was discussed above, cf. 1.3.

object.[38] Only one actuality underpins the actualizations of these distinct potentialities. This point bears repeating: it is precisely because there is only one perceptual state that constitutes the perception and the metaperception that the contents come to be experienced as a unity.

2.6 Caston's Activity Reading

I have thus far ignored a substantial disagreement about the appropriate translation of our master passage. Victor Caston [2002] argues that it should be translated as concerned not with the senses themselves but with their activities, i.e. with token perceptions. He provides the following translation of our master passage:

> Since we perceive that we see and hear, it is necessarily either by means of the seeing that one perceives that one sees or by another [perception]. But the same [perception] will be both of the seeing and of the colour that underlies it, with the result that either two [perceptions] will be of the same thing, or it [sc. the perception] will be of itself.[39]

The issue that opens III.2, according to this translation, is not the number of faculties implicated in the metaperception at issue, but, rather, the number of states. The conclusion on this reading, then, is not that it is by sight that I see that I see. Instead, Caston claims, Aristotle concludes that there is only one state that both perceives and perceives that we perceive. He refers to his translation as the "activity reading," and the alternative (standard) interpretation he calls the "capacity reading." Caston has a

[38] That is, given the transitivity of identity, if the perception and the perceived object are jointly actualized, and the perception of the perception and the perception are jointly actualized, then the perception of the perception and the activity of the perceived object are also jointly actualized.
[39] Caston [2002], 769.

defensible position: "perception" is a viable alternative translation, and, as we will see in the next section, a concern with the number of states implicated would suffice to motivate Aristotle's immediate concern with the metaperception sharing the content of the lower-order perception.

I argue reject the activity reading for two reasons: (1) it is orthogonal to the issues I am discussing, given my purposes, since we go on to find out that the sense perceives itself in a single act anyway [425b27]; and (2) it doesn't make as much sense of the lines following the master passage, quoted in 2.5.[40] The only reason Aristotle would want to distinguish different sorts of seeing would be if he felt himself antecedently committed to the claim that sight does something besides its paradigmatic work. Given the orthodox translation, CSR makes perfect sense of Aristotle's motivation: the conclusion just reached is that sight can somehow participate in common sensing, but it can't do so *qua* sight. When we judge darkness and light, the implication seems to be, we do not do so by taking on the form of any color (which is what it would be to see by sight *qua* sight). Rather, it is accomplished in some other way.[41] He does not elaborate on this other way. Nonetheless, he seems

[40] It is not frequently noted in the literature that the apparent conclusion of 425b17 stands in some tension with Aristotle's earlier assertion that there is no perception of the senses themselves (*tôn aisthêseôn autôn ou ginetai aisthêsis*) [417a2]. This might seem to be a problem for the capacity reading, but *aisthêseôn* is a vague term that could refer to the sense or to the perception itself (indeed, it is the vagueness of *aisthêsis* that Caston uses to render his translation possible). The activity reading, then, is in the same boat, for 417a2 could just as well be read as saying that we do not have perception of perceptions themselves. Both the activity and the capacity readings must interpret the plural genitive reference to *aisthêsis* in the above passage as meaning something other than what *aisthêsis* means at in our master passage. For my part, I suspect it is being used at 417a2 to refer to the organ (though this use is rare and Greek has a special term for the organ), in which case Aristotle is making the commonsensical claim that we don't see our eyes.

[41] Gregoric [2007] argues that we perceive darkness by sight when we have a higher-order perception of the inactivity of the special sense. In these cases, we would have a higher-order perception without

to think that the discrimination of darkness and light is an unproblematic instance of this other kind of sight, which by his lights suffices to show that perceiving by sight does not always implicate sight as a proper sense.

The difference between Caston's translation and the traditional one does impact one point of contention. If we adopt Caston's activity reading, the conclusion (that it is by a single act that we both perceive and perceive that we perceive) does not guide us one way or the other in determining whether the special senses individually participate in common sensing—for it may be that a special sense and a separate common sense are responsible for the activities that comprise that single state. [42]

2.7 Awareness Readings and the *aporiai*

Though I allow that our master passage *may* have implications for consciousness, CSR holds that it is the general phenomenon of common sensing, not the narrow case of conscious awareness, that is under consideration there. In further support of my reading, I argue below that AR provides inadequate motivation for the first *aporia* and is entirely unable to account for the second.

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a corresponding lower-order one (184-190). He thus thinks that he has a grasp on the way sight perceives darkness. However, he ascribes higher-order perceptions to the common sense and to the heart (187), so if the way we become aware of darkness is by the common sense perceiving that there is no activity in the special sense, it is unclear to me in what sense it would be true to say that we perceive darkness *by sight*. Moreover, his account risks suggesting that the common sense is a sixth sense, which engages in activities over-and-above those engaged in by the special senses.

[42] cf. 2.5. If we reflect on the case of worms, and any other animals there may be that only have the sense of touch, we find another reason to think that the individual senses participate in common sensing. Since worms only possess one sensory modality, if they have a common sense (and Aristotle never denies this), the distinction between the common sense being a property of the perceptual faculty as a whole and it being a property of the special sense will collapse. Indeed, not only will it collapse, but it seems to collapse into the latter; that is, saying the common sense was possessed by the worm's perceptual faculty as a whole would be tantamount to saying it was possessed by the sense of touch. Thanks to Jakub Deuretzbacher for leading me to reflect on the case of worms.

Let us remind ourselves of the first *aporia*. Aristotle contends that, if we see that we see:

> the same [sense] would be of sight and of the color which is the subject [of sight], with the result that either there will be two [senses] for the same thing, or [the sense] itself will be of itself.

AR theorists have several accounts of the motivation for the assumption that the metaperception will have the content of the lower-order state as part of its content.

First, it has been noted that the *aporia* is reminiscent of a claim in *Charmides*.[43] At 167c, Socrates problematizes Charmides's claim that temperance is simply self-knowledge—knowledge of knowledge and nothing else—by asking whether, in an analogous case, there could be vision that sees itself but doesn't see color. It is accepted by all parties in the dialogue that this would be absurd, and so, it is concluded, temperance cannot be this fairly empty kind of self-knowledge.

But while the parallel likely did not escape Aristotle's notice, the superficial similarity of the two cases cannot adequately motivate the *aporia*. To see this, recall the dialectical structure of *De Anima*. When the *aporia* is introduced, Aristotle has yet to conclude that the sense perceives itself: that conclusion awaits the resolution of the second *aporia*. As such, Aristotle hasn't established that whatever it is that perceives vision must itself be a type of vision. The worry in *Charmides*, though, trades on reflexivity. Plato does not express a general concern with the idea of some faculty that takes seeing but not color as its object. The problem is that *sight* cannot perceive itself without seeing color. This follows, as Sorabji notes, because senses are specified by

[43] Caston ([2002], 772); Gregoric ([2007], 176); Sorabji ([2006], 202).

their objects, so if there is no perception of color, we do not have an instance of seeing.[44] If Aristotle has yet to conclude that it is sight that (in a way) sees that it sees, then the *Charmides* worry cannot yet arise.

And even if we bracket that problem, there are important differences between Plato and Aristotle's views on perception, some of which make it unlikely that the same type of problem would arise for Aristotle. In particular, while both partially define the senses in terms of their objects, Aristotle thinks we can coincidentally see things that are not color. As such, there could be—in principle at least—(coincidental) seeings that did not involve color. To be sure, it may be that Aristotle thinks—along the lines of the assumption that underlies Plato's worry in *Charmides*—that all seeings must at least *include* color even if they also involve seeings of other perceptible properties.[45] If so, and if one can establish that the rest of the visual content cannot be stripped away from the color-content, then the *Charmides* problem will follow. I know of no textual support in Aristotle, however, for these latter two claims. Thus, it is not even clear that Aristotle cannot allow for seeings that are not seeings of color. If he wants to preclude that possibility, we should expect him to do so explicitly.

Victor Caston offers an alternative explanation of the first *aporia*. He argues that while Hamlyn is right to insist that we could be self-conscious without being

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[44] Sorabji ([2006], 202).

[45] Alexander of Aphrodisias seems to think this; he says: "for seeing is nothing other than being in activity by sight concerning visible objects" (*ou gar esti to horan allo ti hê energein têi opsei peri ta horata* [*Quaest.* 3.7, 92.6-7]). If this is to motivate the first *aporia*, we must interpret "visible things" (*ta horata*) as referring specifically to colors. It is clear that he expects to be so interpreted, since the previous sentence asserts that the things the activity of seeing is about are colors (*peri ha hê energeia hê kata to horan, esti de tauta ta chromata* [*Quaest.* 3.7, 92.5-6]).

aware of the content of our perceptually conscious states, such a possibility is beside the point. If we understand Aristotle here as trying to provide an explanation of perceptual consciousness rather than self-consciousness, it will follow that the contents of lower-order perceptions will have to be constituents of the metaperception. It is for this reason, in Caston's account, that Aristotle assumes the metaperception will take on those contents. [46] This is, I think, the most promising avenue for AR to take. It is similar to CSR's account in that it holds that what Aristotle is explaining here necessitates, in a straightforward sense, that the lower-order content be taken on by the higher-order perception.

Recall that, according to CSR, the requirement follows from the fact that Aristotle is providing an account of the perception of similarity and difference: we cannot engage in joint perception without perceiving those things that are joined, nor can we discriminate without perceiving those things that are distinguished.[47] Caston's account here proceeds in a similar fashion: for we also cannot consciously see a dog without being conscious of that very dog.[48] Accordingly, there is no decisive objection to this reading. I argue, though, that CSR is preferable to Caston's account because it enlarges the scope of the phenomena being explained; as I claimed in 2.3, it

[46] Caston ([2002], 771).
[47] Discrimination comes under discussion in 4.1, but it should be apparent that any satisfactory explanation of that phenomenon will have to meet this condition, viz. that the things being discriminated be somehow jointly presented. As we saw above (2.4), it is an advantage of CSR that it can justify the *aporiai* by pointing to obvious facts like these: given that the *aporiai* are presented immediately after the description of the phenomenon ("since we perceive that we see and hear") and therefore are not explicitly motivated, its tacit motivation should be uncontroversial.
[48] Rosenthal ([2005], 3 *passim*.) calls this the "Transitivity Principle."

is consistent with CSR that an explanation of perceptual consciousness be in the offing.

Some commentators attempt to account for Aristotle's first *aporia* by appealing to his later claim that the actuality of the sense-organ is identical to that of the sensed object.[49] If the perception itself is constituted by the actuality of the sensed object's potential to be perceived, then perceiving the perception will be the same thing as perceiving the actuality of its object. This response appears inadequate, though, for Aristotle does not express a commitment to this identity until several Bekker lines *after* the *aporia*.[50] CSR proposes that we read that subsequent commitment as a response to a general worry about the multiplication of states that would seem to follow from the metaperception in question. To the extent that it is preferable to interpret subsequent claims as resting on former ones rather than the other way around, then, CSR has a superior account of the first *aporia*.

While appealing to *Charmides* or to the numerical identity of the activity of the sense and the sensed object fails to account for Aristotle's first worry, Caston's version of AR provided sufficient justification. Turning to the second *aporia*, though, we will see that Caston's view—along with all other awareness readings—fails to motivate fear of a possible regress. A regress only threatens, as we observed in 2.4, if

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[49] Gregoric ([2007], 178); Johansen ([2005], 9); Kosman ([1975], 514); Osborne ([1983], 403-404). Kosman takes the *aporia* to follow only for the second disjunct; that is, he takes it that only if another sense is responsible for the metaperception will it follow that that sense will take as its object both sight and the lower-order perceptual object (500), whereas Johansen (8) and Osborne (401) both take the *aporia* to follow no matter what faculty is responsible for the metaperception.

[50] Also, the identity Aristotle proposes later on in III.2 is identity in being, not in account. Since the AR view takes the metaperception to explain awareness, and awareness introduces an intensional framework, it would seem identity in account would be necessary to motivate the worry Aristotle is expressing here. Caston ([2012], 46) directs a similar objection at Kosman's view.

Aristotle assumes that all perceptions are, of necessity, the subjects of a further metaperception. Let's call this the "necessity principle." Now it turns out that the reasons one would adopt a metaperceptual account of conscious awareness would themselves militate against adopting the necessity principle. To see this, recall that all AR views, despite substantial disagreement on the details, hold that the metaperception is the mechanism by which we are made aware of some particular perception, a perception that would not otherwise be conscious.[51] According to the AR view, then, Aristotle is concerned in this *aporia* with cutting off a regress that would effectively make us aware of an endless series of perceptual states. Furthermore, according to AR as conjoined with the necessity principle, he is concerned to do so because he assumes that being aware of any perception would somehow *require* us to be aware of these endless states.[52] The implausibility of such a conclusion undermines the reasonableness of the initial assumption: in other words, why wouldn't Aristotle choose to deny the necessity claim rather than accept the possibility that the regress opens up?

Caston suggests that while we can find no compelling independent reason for the worry, it is clear that Aristotle is committed to the general principle that we perceive all of our perceptions. In any event, he says, "Aristotle may view it … as an acceptable generalization of the opening of the chapter, when he claims that we

[51] If it were thought that the state would be conscious even if it were not the subject of a metaperception, then that metaperception couldn't possibility explain our conscious awareness of that state.

[52] Johansen [2007] sees the regress problem as a problem even though he interprets Aristotle as thinking that the metaperception is contingent, but Kosman [2007]'s reply rightly notes, for reasons similar to those discussed in 2.4, that contingency provides insufficient motivation.

perceive that we see and hear."[53] For support he turns to *Nicomachean Ethics* IX.9 1170a29ff, where Aristotle claims that there is something in us that perceives all of our activities. Caston does not explicitly endorse the generalized claim as found in our current passage (indeed, he notes that it is "obviously controversial"),[54] but he does take it as a sufficient response to the question of what would motivate Aristotle to accept the premise.[55]

The first claim Caston makes here—that it is an acceptable generalization—has already been addressed.[56] For while it may at first have struck Aristotle this way, the absurdity of this consequence of accepting the necessity principle ought to have led him to reject it in its generalized form. On the contrary, it must be that Aristotle is independently committed to the principle. That commitment is sufficiently motivated by CSR: joint perception requires that a single perceptual state actualize all of the contents that are perceived jointly. If there were multiple states, those would need to be joined by a further perception of those (distinct) perceptions—and then *that* perception would have to be numerically singular. The metaperceptual apparatus must bottom out in a single state: insofar as that state is meant to supply unity, a regress threatens until that unity is achieved.

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[53] Caston ([2002], 774).
[54] Ibid., 775.
[55] For further difficulties with Caston's attempt to motivate the second *aporia*, see Sisko [2004].
[56] In addition, note that as a generalization it seems false. As Plotinus observes, we are not always conscious of engaging in psychological activity (1.4 10,21-29): while it seems plausible to suppose that we are always perceptually conscious, it is much less reasonable to assume that we are always reflectively-conscious. But if that is right, then we have subjective grounds for rejecting the necessity claim—grounds that are, moreover, independent of the practical ones adduced above.

It certainly is true, as we have seen, that Aristotle accepts the necessity principle; the *Nicomachean Ethics* passage further illustrates that commitment. But I suggest that it is Aristotle's adoption of the necessity principle in *De Anima* III.2 that motivates his broadening of that principle in *Nicomachean Ethics*: not, as Caston would have it, the other way around. Indeed, as we shall see, I take the *Nicomachean Ethics* passage as providing further support for CSR.[57]

2.8 Joint Perception in *De Sensu* 7

The closing chapter of *De Sensu* returns to the question of how it is possible to perceive a complex visual scene, one that includes a variety of special objects.[58] Aristotle frames the discussion by asking "whether or not one can perceive two things at once" [447a12-14].[59] His answer is in the negative, but, as we have seen

[57] See 4.3.

[58] Such a scene would also include common objects, but these do not come up explicitly in the discussion. Gregoric [2007] explains Aristotle's failure to discuss common objects in this context as following from the fact that "there is nothing problematic about the simultaneous perception of a special perceptible and a common or accidental perceptible, simply because common and accidental perceptibles are by definition perceived together with special perceptibles" (129-130). Two observations: (1) neither common nor special objects seem to be defined relative to *each other* (instead, both seem to be defined relative to the sense, cf. *DA* 2.4 415a14-22); and (2) if Aristotle were committed to a definitional connection, that would merely sharpen the problem—for it is one thing to say that it must be true that common and special objects can be perceived together, and another to say *how it is that it gets to be true*. As we will see below, there were arguments popular at the time of *De Sensu* (*DS*)'s composition that purport to show that joint perception is a result of multiple things being perceived at distinct times that are subjectively indistinguishable. Such an argument would suffice to "save the phenomena" in the case of binding of special objects, but, if Gregoric is correct, it would be insufficient to explain how we are able to perceive the common objects. One would expect, in that case, that one of Aristotle's arguments against this alternative view would turn on the unique status of common objects vis-à-vis special objects. That he doesn't present such an argument suggests that Gregoric's account of his silence about common objects in this chapter is not explained by any definitional dependency. The account I develop in this chapter applies *mutatis mutandis* to joint perception of common and special objects.

[59] Gregoric [2007] interprets all of *DS* 7 as focused only on the special senses. He accordingly reads this question as asking whether we can *see* (or hear, or taste, etc.) two things at once. He thinks there is nothing problematic about the common sense (understood as the sense-faculty as a whole)

from *De Anima* III.1 and the case of bitter, yellow bile, he does not deny the phenomenon that we would tend to describe in this way. While he rejects the idea that what is really being perceived is two or more things, he nonetheless does acknowledge that we are able to perceive complex visual scenes in one and the same moment.

To this end, Aristotle first argues that simultaneous perception of special objects that are the same in kind is only possible insofar as they form a mixture [447b6-14].[60] For, he claims, if they are understood as discrete objects perceived simultaneously, their respective motions (*kineseis*) would cancel each other out [447a29-b6].[61] Next he claims that simultaneous-but-numerically-distinct perception

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perceiving more than one thing at a time. This interpretation, though, ignores the obvious fact that Aristotle appears to be talking throughout of perception *tout court*. He does not use the verbs that capture the operation of the special senses: instead using the generic *aisthanesthai*.

[60] The contention that the special objects of one sense are only co-perceptible insofar as they form a mixture has been taken by some to mean that black and white, e.g., must unite to form a new color in order to be perceived together (see esp. Ross, *De Anima*, 229-230). We must bear in mind different kinds of mixture, though. One type of mixture, like a cake mixture, occurs when disparate elements irreversibly combine and form something new. We also talk, though, of mixing things by putting them in different structural combinations—combinations which may be reversible, as in trail mix. LSJ supports this ambiguity: its second definition of *meignumai* is: 'generally, join, bring together, in various ways'. I contend that it is more felicitous to think Aristotle has this broader sense in mind (H. Lorenz, '[untitled]', review of P. Gregoric's *Aristotle on the Common Sense* ['Review'], *Rhizai* VI.2 (2009), 225-231 interprets Aristotle similarly). For otherwise, to use Gregoric's example, I would be unable to see a chess board, since the black and white squares are not mixed in the former sense. It certainly seems improbable that Aristotle would be insensitive to the kind of perception exemplified by the chess board. Given the understanding of 'mixture' I just suggested, it can be seen that this fact is consistent with Aristotle's overall point. It is true that in Gregoric's case we do not get a mixture in the cake batter-sense. But we do get a mixture in the trail mix sense. One may rightly describe the board as being made of two colors, just as one may distinguish the banana chips from the sunflower seeds in a bag of trail mix. Similarly, in the cross-modal case, one may break up the color of the tree from the feel of the bark. As we shall see when we get to the conclusion of *De sensu* 7, each of these claims is true because the being of the components are different. Nonetheless, they are unified in the sense that all are parts of one unity, be it one bag of trail mix, or, in the perceptual case, as one object of simultaneous perception. For, while we have distinct potentialities, they are jointly actualized in a single activity of the perceptual faculty.

[61] His meaning here is not altogether clear, nor is it obvious whether he has strictly physical motion in mind.

is also impossible in the case of perception of objects of different senses. For, he says, since objects of different genera are even more different than contraries of a single genus, it follows that they too cannot be separately perceived [448a13-19].

So simultaneous perception of disparate objects is not possible according to Aristotle, and this is so regardless of whether the objects are special objects of the same sense or special objects of different senses. He goes on to consider the view propounded by some (unnamed) students of music that "notes do not reach us together but only seem to do so, and that this escapes our notice by [occurring] over an imperceptible time" [448a20-21]. The idea behind this suggestion is familiar enough. Couldn't it be the case that we perceive a variety of objects at different times which we then synthesize *via* some act of mind? While we clearly do not experience our perceptions as disjointed, isn't it possible that time does pass between different perceptions, but the time lapse is so swift that we don't perceive its passage?

Aristotle rejects this view, however, for he claims that there cannot be imperceptible moments of time. His argument here [448a24-30] requires that we recall the solution to Zeno's paradoxes that he provides in *Physics* IV. There he says that while time is *potentially* infinitely divisible, it also exists as a continuum. As a continuum, all parts of it are perceived and no parts are unperceived;[62] accordingly, there are no imperceptible points in time. So since this rival explanation depends on

[62] *Phys.* IV.11, 218b27-9. Coope ([2005], 37-41) denies that Aristotle should be interpreted here as claiming that all passage of time is in principle perceptible, but she also notes that this is the usual reading (40). Her argument against the default interpretation turns, moreover, on her claim that Aristotle is nowhere else committed to the impossibility of imperceptible time lapses. The present discussion—not addressed in her book—explicitly expresses just such a commitment at 448a24-25 (*oud' endechetai chronon einai anaisthêton oudena oude lanthanein*) and 448b16-17 (*hoti men oun outheis esti chromos anaisthêtos, ek toutôn phaneron*).

the actual existence of imperceptibly short periods of time, it cannot get off the ground.

In any event, the most parsimonious solution to the problem of joint perception would seem to be one that allows for genuine simultaneous perception—not one that says I have several discrete perceptions in one and the same time, nor one like that just discussed, which claims that discrete consecutive perceptions are subsequently brought together. That Aristotle prefers the simplest resolution is already clear from *De Anima* III.1, where he says that no further perception is necessary to say that the bile is both yellow and bitter.

Indeed, for Aristotle, there are independent methodological reasons to reject both views. If there were multiple simultaneous perceptions, Aristotle says that there would be an unacceptable multiplication of faculties, for discrete-but-simultaneous activities would require distinct potentialities. If I simultaneously-but-separately perceive two colors, for example, their being separate would require that different "parts" of me were responsible for each perception.[63] Thus, I would have one part that potentially sees one color, and another part that potentially sees the other. Moreover, since that which has the potential to see white also has the potential to see black, it will follow that I have several specifically-identical but numerically-distinct faculties [448b22-25]. Such a view would clearly conflict with Aristotle's general commitment to parsimony in nature.

[63] Needless to say, these parts would not have to be spatially-divided; to call them "parts" is merely a *façon de parler*.

On the other hand—putting the questionable rejection of imperceptible time lapses to one side—if Aristotle were to countenance the existence of multiple sequential perceptions, he would likely end up saddled with an intellectualist view like the one Socrates adopts in *Theaetetus*. If the activities by which I apprehend the whiteness and blackness of the chessboard were discrete, it would be an open question how I apprehend their unity in the chessboard itself. Socrates is addressing a similar problem in *Theaetetus* when he concludes, as we saw, that such apprehension requires "consideration." For reasons already rehearsed, this solution is unattractive to Aristotle.

In fact, the ellipticality of his comments in *De Anima* III.1 might be explained by the fact that Aristotle discusses the problem in detail in the chapter now under consideration.[64] It is a recurring theme in *De Sensu* 7 that a unified perception asserts the unity of its object.[65] His clearest statement occurs at 447b24-5, where he says "For it seems the soul says [the object] is one in number in no other way but by [being perceived] simultaneously." Here again we see Aristotle supplying an ontologically- and intellectually-spare explanation of a psychological capacity. For Aristotle, our ability to recognize different types of sensible object as belonging to a single external object is nothing but a facet of our perception of that object.

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[64] Of course, this would require that *DS* be either composed or revised before the bile passage in *DA*. As to the relation between *DA* and *PN*, I adopt Kahn's ([1975], 20-21, *passim*) view that the works were probably repeatedly revised in concert, and that we should expect the treatises to be mostly consistent but that nothing definite can be concluded as to their exact ordering. If the reader has a different view on the matter, she may reject this suggestion on my part without much impact on the overall point of this section.

[65] 447b14-5; 447b24-5; 448a8-11.

And indeed, if we bear in mind exactly what Aristotle means when he says that simultaneous perception asserts that its object is one, we see that he is committed to this claim for reasons that far outweigh the considerations presented thusfar. Later on in *De Sensu* 7, Aristotle asks, regarding these cases of simultaneous perception, what one thing it is that is being perceived [449a5-8]. He concludes that the unity of that thing must arise from the unity of the perceptual faculty: "for these objects are not one" [449a8]. Here he is saying that the *external objects* perceived as bound together are not, considered independently of their being perceived, numerically identical. In some cases, the external objects can actually be separated, as in the case of a visual image of trees and flowers. In other cases, as in yellow and bitter bile, the qualities can be considered apart from each other, even if they are actually inseparable from each other in the bile.

Thus, the thing asserted to be one in a simultaneous perception is not the external object or objects whose perceptible form is being actualized in our soul. It is not the trees and flowers that are taken to be one: indeed, insofar as the external objects could be separated from each other, they aren't one thing. Rather, it is the *activity*—whether described as me perceiving the nature-scene, or that nature-scene being perceived—that is taken to be unified. Indeed, joint perception requires the presentation of a scene as unified in precisely this way. When I take in a whole garden in one moment, I take it in not as one *physical object*, but, rather, as one *object of perception*. While I as the perceiver would readily acknowledge that the trees, in their full nature, are different from the flowers, I would not be tempted to say that same

about my perception of each: my seeing of the trees *is very same thing* as my seeing of the flowers. It is the unity of that scene that is asserted by the perceptual faculty when there is a single act of perception, and there is a single act of perception when my potential to perceive is actualized in one moment.

So Aristotle claims that we can only have one perception at a time, and that perception presents its object as unified *qua* perceptual object, not *qua* external object. As we have seen, he also describes the single perception that presents the object as unified as requiring the presence of a single common potentiality [447b17-24]. What could this potentiality be? It cannot be just the potentiality to see white, or to see black, or to hear middle C, for these are clearly distinct potentialities, albeit ones that are jointly actualized when we listen to an orchestral performance. Returning to CSR, the answer becomes clear. While the single perception coincidentally actualizes myriad potentialities possessed by the special senses, it is most-thoroughly and -informatively described as the actualization of the single, shared potentiality of our perceptual faculty: the potential to perceive our seeings and our hearings. Since the metaperception is numerically identical to the lower-order perception, there will be just one activity, and, as such, Aristotle is able to explain how the perceptual system can jointly perceive without requiring the intersession of the rational faculty.

To be sure, binding will not have been explained unless my potential to perceive includes the potential to perceive complex tableaux in a single activity—not just complex along a single sense, but also across senses. Aristotle accounts for this in

his typical style, viz. by ascribing the complexity to the sophistication of the perceptual faculty. He elaborates on his resolution at 449a8-20, where he says:

> It is necessary, then, that there is some one [faculty] of the soul by which it perceives everything, as said before, but [it perceives] different kinds through different [parts]. Is it that when actually undivided it is one thing that perceives white and sweet, but when actually separated two? Or does the position about the soul correspond to the one about the objects?—for numerically one thing is white and sweet, and also many other things. For even if the affections are not separable from each other, each is different in being. The same should now be assumed concerning the soul: the sense faculty that perceives all is numerically one, but its being differs, in some cases generically and in others specifically.[66] Thus [we] can perceive simultaneously with one and the same [faculty], but its account is not the same.

Here Aristotle considers two options, and he implicitly adopts the second alternative. He contends that his metaphysics, with its commitment to non-transcendent forms immanent in matter, can explain binding in the same way it accommodates complex mind-independent objects. In the case of a white and sweet sugar cube, the cube exists as a single thing, even though its perceptible qualities, which are a consequence of various formal properties, may be considered individually. What it is to be white is

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[66] Here Aristotle suggests that the perceptual faculty as a whole is strongly united, and is only divided after the fact: sight and hearing (along with the other senses, of course) are really one thing. Recall the methodology presented at the beginning of *DA*: the soul is one, but it is nonetheless best investigated by attending to its discrete functions [402b9-16]. This approach leads him to countenance three "parts"—the nutritive, perceptual, and rational faculties—but while these three are divisible in account, they are not actually divided from each other in any creature that possesses them. In Book II of *DA*, Aristotle applies the same methodology to the narrower case of the perceptual faculty: we see that just as the soul is one and divided only in account, so too the perceptual faculty is one but may be divided into senses for the purposes of providing an account of its discrete functions [415a16-22]. This amounts to a deflation of the distinction among the senses. Of course each sense will be defined in relation to its special object and will also be especially dependent on a particular organ. Nonetheless, their commonalities precede their differences, for, as Aristotle here articulates, the senses themselves are one in being and differ only in account. For more on a deflated conception of the senses and their objects, and the corresponding distinction between in-itself and coincidental perception, see Chapter Three.

different from what it is to be sweet: indeed, there are many objects that have one of those properties but not the other.[67] Nonetheless, the sugar cube itself exists as a unity in a strong sense: it is one object. In the case of the perception of a garden, while the trees and flowers themselves are not unified in the way the white, sweet sugar cube is, *my seeing* of the garden is unified in just this way.

It is Aristotle's considered stance, then, that the perceptual faculty is fundamentally unified. It is not constituted by five discrete senses coming together into a mereological sum: rather, it is a single thing that is then divided for explanatory purposes into parts. As with a sugar cube actively being perceived, these parts are not separable from the whole: the instance of white in the perceived sugar cube is not separable from its perceived sweetness. In other words, everything is perceived, *through* the special senses, *by* a numerically singular perceptual faculty. As we saw in *Theaetetus*, we speak as though different parts of us perceive different types of thing (sight sees color, hearing hears sounds, etc.), but each one of those special senses is an aspect of the perceptual faculty as a whole. While sight and hearing, for example, are numerically identical with the perceptual faculty, what it is to be sight (and what it is to see) is different from what it is to be hearing (and what it is to hear), and so on: thus, while they are the same in number, they differ in account.[68]

One may wonder how a single perceptual act could include content from different modalities. Indeed, it is this concern that motivates the entire chapter of *De*

[67] The existence of such objects is not necessary, of course, for the properties to be different, but the existence of actual cases does suffice to show that the properties are different.
[68] Aristotle would also hasten to add that the senses considered singly stand in a special dependency relation to their respective organs.

Sensu under discussion. The "students of music" that Aristotle discusses at 448a19ff deny that it is possible and accordingly contend that there are discrete perceptual acts that take place at imperceptibly different times. While it is outside the purview of this thesis to consider the success of Aristotle's response, it is nonetheless clear how Aristotle thinks he gets out of the difficulty. In particular, he denies the actuality of imperceptible time differences,[69] and so claims that any perceptual data that *seems to have been* perceived simultaneously *is in fact* perceived simultaneously. Moreover, he contends that only one perceptual act can occur at a time—and this perceptual act will be actualized by the primary or common part of the perceptual soul. As such, this simultaneous perception is also numerically singular.

I have argued above that the best way to understand how it is possible that joint perception involves a numerically single state that actualizes more than one potentiality is by the model of perceiving our perceptions that opens *De Anima* III.2. In resolving the *aporiai* that follow there, Aristotle explicates the sense in which the state is single while it nonetheless admits of a numerous inequivalent descriptions. The breadth of phenomena explained by that locution has, I have argued, been underappreciated by those commentators who interpret that model as applicable only to an account of awareness. In the next chapter, I will consider how this account applies to the initial subject of Plato's uniqueness principle, viz. our grasping of the so-called common objects. As in *Theaetetus*, Aristotle only turns to the joint

[69] While I do not discuss the details of this objection here, Gregoric ([2007], 131) does contend that Aristotle's argument is seemingly susceptible to refutation by modern science, and, in particular, the development of modern scientific instruments.

perception discussed above after he has touched on the way in which we grasp the common objects. Whereas we saw that Socrates ascribes our awareness of those objects to the soul-by-itself (that is, not through the senses), Aristotle ascribes it to perception strictly so-called. Moreover, he claims that our perception of those objects, while it can also be performed coincidentally by the special senses, is in-itself a function of the common sense. As such, the account I have given above of common sensing will have to be shown to apply to the grasping of those objects, and it must do so in a way that satisfies our desire to understand what unites the functions of joint perception and awareness of the common objects. The next chapter will address each of these concerns.

3. Common Sensing and Perception *kath' hauto* and *kata sumbebêkos*

Since Aristotle accepts Plato's claim that each sense has its own special objects, the challenge posed by *Theaetetus* 185a-c concerning how it is possible to perceive objects that are not special to any sense is especially acute. As we have seen, Plato resolves the difficulty by claiming that such objects are not perceived through the senses but, rather, considered (*episkopein*) by the soul through itself (*ê psuchê di' autês*). Aristotle, though, denies that non-human animals can engage in non-perceptual acts of mind. How, then, are these animals able to be aware of common objects like shape and motion, given Aristotle's taxonomy?

In fact, Aristotle claims, *contra* Plato's strong version of the uniqueness principle, that the common objects (*ta koina*) are rightly considered to be perceptible. On his view, as presented in *De Anima* II.6 and developed in III.2, the common objects are perceived coincidentally (*kata sumbebêkos*) by the special senses and in-themselves (*kath' hauta*) by the common sense (*koinê aisthêsis*). In this chapter, I argue: (1) that *kath' hauta* perception of the common objects should be understood as a function of the common sensory apparatus that was presented in the last chapter; and (2) that proper attention to the relevant passage in *De Anima* shows standard accounts of the *kath' hauto*/*kata sumbebêkos* distinction to be in error. Specifically, I show that Aristotle's theory of perception cannot accommodate the popular contemporary view that *kath' hauto* perception occurs iff the external object materially affects the organ in virtue of being the kind of object it is. Instead, I adopt a deflationary view of the

distinction, which has a consequence that *kata sumbebêkos* perception is just as real and substantial as its counterpart. My account, then, runs counter to those found in Irwin [1988] and Modrak [1987], which view the *kath' hauto*/*kata sumbebêkos* distinction as continuous with the direct/indirect distinction found in modern theories of perception.

In fact, it should be apparent that the demands of coherence would require that Aristotle have a deflated notion in mind. For he insists on the following two claims: (1) the common sense perceives some things *kath' hauta* that the special senses perceive *kata sumbebêkos*; and (2) (from §2.5) the activity of common sensing is ontologically reducible to the activity of special sensing. But how could the common sense *not* be distinct from special senses if it is taken to stand in a materially-privileged relation to the common objects? Indeed, it's clear that it could not. Still, the second premise in this sketch assumes that the not separate-sense discussed in relation to sophisticated perceptual capacities like joint perception should be understood as the same capacity by which we perceive the common objects in-themselves. Some interpreters have doubted this, so before I can present my case for a deflated distinction, I will first demonstrate that Aristotle provides a single explanation of these seemingly-different perceptual activities.

4.1 The Breadth of Common Sensing

Since David Hamlyn's 1968 article on the common sense, the reach of common sensing has been a subject of controversy.[1] Prior to his article, W.D. Ross, following orthodoxy, understood the common sense as responsible for all perceptual powers that go beyond the reception of the special objects by their respective senses. Ross's list includes: "(1) the perception of the 'common sensibles'; (2) the perception of the 'incidental sensibles'; (3) the perception that we are perceiving; (4) discrimination between the objects of different senses; (5) … the inactivity of all the senses which is found in sleep."[2] Hamlyn, on the other hand, argues that the common sense properly so-called underlies only for the first function mentioned above, viz. the perception of the common sensibles. He first observes *koinê aisthêsis* rarely appears in Aristotle.[3] The *locus classicus*, discussed in 3.3, ascribes in-itself (*kath' hauto*) perception of the common sensibles (*ta koina*) to the common sense. The phrase also appears at *DM* 1 450a9-14 (see 3.2), but the passages that discuss the functions reviewed in the last chapter and the next chapter employ multiple phrases, including: 'common potentiality' (*koinê dunamis*),[4] 'primary sense faculty' (*prôton*

1 Hamlyn was also influenced by Block [1961a].
2 Ross [1955], 35. (4) and (5) will be discussed in the next chapter.
3 Hamlyn [1968] observes three technical uses: *DA* 425A27; *DM* 450a10; and *PA* 686a27. Gregoric [2007], Part II, goes through every case where *koinê* modifies *aisthêsis*. He finds six such cases where most commentators find actual reference to the common sense in only three or four. One (*DA* 431b5) is in a possibly corrupted passage, and there are good reasons for ignoring the other two (*HA* I.3 489a17 and *Meta.* I.1 981b14). For as Gregoric himself notes (64-65), both passages discuss senses that are common to different creatures, not capacities that are common to the senses of a numerically single creature. For discussion of the problems with many of these attributions, see Shields [2009]; Whiting ([2010], 51).
4 *DSV* 2 455a16.

aisthêtikon),[5] and 'the sense faculty of all things' (*aisthêtikon pantôn*).[6] Hamlyn uses this linguistic variability to argue that the latter terms do not pick out the same capacity as that referred to in *De Anima* III.1. Accordingly, he denies that there is a common account of all the functions mentioned by Ross.

In his monograph, Gregoric takes a similar line. He argues that *koinê aisthêsis* should not be read as a technical term picking out an array of sophisticated perceptual capacities. Instead, he claims that *koinê aisthêsis* in *De Anima* III.1 would be more accurately translated as a common "sensibility" or "sensitivity:" on his reading, the perception of the common objects is strictly accomplished by the special senses themselves, independently of each other, of the features common to them all, and of the sense faculty as a united whole.[7] According to this view, other perceptual abilities, including joint perception discussed in the last chapter and discrimination discussed in the next, follow not from the *koinê aisthêsis* as it is employed in *De Anima* III.1, but, rather, from the activity of two faculties: the perceptual and the sensory. The particulars of Gregoric's reading of *De Anima* III.1 will be discussed below: at this point it suffices for dialectical purposes to observe that he follows Hamlyn in distinguishing between the "common sense" of that passage from the higher-order perceptual ability that accounts for the latter four of Ross's five functions.

It certainly does seem counterintuitive to think that the metaperceptual apparatus that explains joint perception, discrimination, sleep and waking, memory,

5 *DM* 1 450a12.
6 *DS* 7 449a17-18.
7 Hamlyn says much the same thing, see [1968], 206-7.

and self-consciousness would also account for the perception of the common objects, for, while all of these functions go beyond the perception of the special objects by the special senses, they share no other apparent similarities. As Deborah Modrak [1987] puts it, if we are not presented with any further commonalities among these diverse functions, "then Aristotle's conception of the common sense seems ad hoc at best and arbitrary at worst"(62).

But whatever modern sensibility suggests, it is clear that Plato and Aristotle, for their part, assumed that perception of the common objects and perception of similarity and difference are interrelated phenomena. In *Theaetetus*, as we saw, Plato uses similarity and difference as examples of common objects. Moreover, while Aristotle does not include similarity and difference on his list of common objects, he does discuss the case of joint perception in the same breath as that of the common objects in *De Anima* III.1, and also in the passage from *De Memoria* to be discussed immediately below.

In fact, Aristotle leaves suggestions as to why he thinks that perception of the common objects and joint perception will share an account. In the concluding passage of *De Anima* III.1 [425b4-11], for instance, he says that perception of the common objects would be harder if we had only one sense. As things stand, since they are perceptible by more than one sense, we are able to see that the common objects are different from the proper objects that invariably accompany them. Putting this together with his claim at the end of *De Anima* III.2 that the common sense is

responsible for perceptual discrimination,[8] we can see how the common sense facilitates perception of those common objects. It is insofar as I can both see and feel a shape that I am able to grasp shapes as well as I can: in the usual case, it is by first perceiving that I am seeing and feeling a square that I am able to perceive squareness.[9] Second, Aristotle's discussion of memory in *De Memoria* explicitly connects sophisticated activities of perception with the perception of the common objects in a way that requires that they share an account. Indeed, this latter passage decisively shows that Ross's broad view of common sensing is the better-motivated interpretation. Since my argument for a deflated conception of the *kath' hauto/kata sumbebêkos* distinction rests on the broad view, I first consider the *De Memoria* passage. Given my purposes, the goal of the next section will not be to provide a detailed interpretation of the particular view presented there. Rather, my aim is more modest: I demonstrate that any plausible reading of Aristotle's remarks there must take it that: (1) he views time as a common object of perception; and (2) he assumes that whatever perceives time also is identical to the common sense he there takes to be responsible for the presentation of images.

[8] This will be discussed in 4.1. For now, it suffices to anticipate that he will argue for a similar account of perceptual discrimination as he gave for joint perception, already discussed.

[9] Of course some creatures only have one sensory modality, touch, yet they are presumably able to perceive squareness. I say "presumably" because, given the entire lack of sophistication possessed by the animals in question, it would be reasonable for Aristotle to deny that they perceive the common objects. Nonetheless, he never does deny that (though he doesn't affirm it either). It admittedly seems odd to say that the worm perceives squareness in virtue of his perceiving his own feeling rather than just saying that the worm perceives squareness in virtue of feeling it. But remember that there is only one state that can be described in these two distinct ways.

3.2 *De Memoria* 1: The Role of Time and Imagination in Memory

3.2.1 The Argument for a Unified Account

In *De Memoria*, Aristotle is concerned, among other things, with showing that the perceptual faculty alone can account for the ability to remember. If the perceptual faculty were insufficient on its own, it would follow, given his taxonomy, that non-human animals are incapable of remembering. Yet again, then, we find Aristotle attempting to explain how a moderately-sophisticated psychological capacity can be referred solely to the perceptual faculty. As with other advanced perceptual activities, Aristotle here subsumes memory under the general category of common sensing. He presents his argument in the first chapter of *De Memoria*, where he says:

> But magnitude and change must be grasped by [the same faculty] as time, so it is clear that knowledge [of them] is by the primary [faculty of] sense. But memory, even that of the intelligible objects, is not without an image (*phantasmatos*), and an image is an affection of the common sense, so that though [memory] is coincidentally [an act] of mind, it is in-itself [an act] of the primary sense faculty.[10]

The argument that the perceptual capacity suffices for memory is complete at the last line of the above passage: while in creatures like us reason can play a role in remembering, its role is coincidental to the remembering. There is no doubt that reason is sometimes implicated in remembering, as, e.g., I may remember deducing the Pythagorean Theorem. In these cases, I do use my rational capacities. But the

[10] 450a9-15. Manuscripts differ as to where they place the crucial reference to *koinê aisthêsis*. I translate it into the later part of the passage, as Ross does, because the *de* that occurs in the context of the claim that memory involves an image would otherwise make little sense. In any event, my reading of the passage will in no way turn on the precise location of the reference.

thing that makes it *remembering* the proof (rather than, say, generating the proof) is that I am aware of having deduced it at another time. Since it is a memory of a deduction, this particular memory coincidentally uses reason, but it is in-itself a function of perception since the thing that makes it a memory is the perception of time.

It is clear that awareness of time (specifically, a previous time) is the distinguishing characteristic of memory. Thus, the argument for the conclusion that memory is a function of the perceptual capacity turns on establishing that our awareness of time is perceptually-based. It is that fact which Aristotle seeks to establish at the beginning of the current passage. He demonstrates perception's role in the awareness of time by calling attention to the similarities among magnitude, change, and time. Since the primary faculty of perception accomplishes awareness of the first two properties, he claims that we must also grasp time through that same faculty.

The manuscript contains an explicit reference to *De Anima* just above this passage [449b30-31], so there should be little doubt that this "primary faculty" is the same as the faculty responsible for perception of magnitude and change in *De Anima* III.1. In *De Anima*, Aristotle employs the phrase *koinê aisthêsis* in his description of that faculty, and he here again uses that phrase, but in this case it refers to the faculty within which images reside. By far the most straightforward reading of this passage, then, takes it that the subject matter does not change from one sentence to the next:

the primary faculty that perceives magnitude, change, and time is the same as the common sense that is here said to be the seat of the imagination.[11]

Still, it is not immediately apparent how the first and second sentences relate to one another. Some manuscripts, sensing this tension, excise entirely the sentence on imagination. Others move it up, putting it between the claim that time is perceived by the same thing as magnitude and change and the assertion that it is by the primary faculty of sense. On my reading, Aristotle is indeed making two distinct points: one that time is perceived by the same thing as magnitude and change, and another that memory requires an image, which is also the product of the common sense. But both are here taken to require that the same faculty, viz. the common sense or primary sense-faculty, accounts for our capacity for memory. In sum, remembering is seen here to require two different abilities: (1) the ability to grasp time; (2) the ability to entertain images. Presumably the thought is that the image should be entertained as an image of a past event, and entertaining the image in that way will require awareness of time. Aristotle is elliptical on the grounds for taking these two capacities to be necessary and sufficient, but it is nonetheless clear that he does so take them, and that he here argues that both capacities depend entirely on common sensing.

I will now turn to Gregoric's interpretation, but first it will be helpful to schematize what is happening in this passage according to my interpretation:

Arg. 1
(I) Memory essentially involves a grasp of time (449b24-30).
(II) Time is grasped by the thing that grasps magnitude and change.

[11] Gregoric concedes this. See 101, n. 7. But, as we shall see, he denies that the primary faculty of sense that grasps magnitude, change, and time is the same one discussed in *DA* III.1.

(III) Magnitude and change are grasped by the common sense (from *DA* III.1).

(C) Memory is an affection of the common sense

Arg. 2

(I) Memory requires an image.

(II) An image is an affection of the common sense.

(C) Memory is an affection of the common sense.

3.2.2: Gregoric's Alternative Interpretation

Since he does not accept that the faculty responsible for the perception of magnitude, et al. is implicated in the exercise of the imagination, Gregoric cannot adopt this natural reading of the passage.[12] According to his interpretation, the 'common sense' of *De Anima* III.1 refers to a general sensitivity to the common objects that each of the individual senses has on its own and in virtue of being that very sense. Thus, Gregoric is committed to the view that magnitude and change are *not* perceived by the *koinê aisthêsis* as the term is employed in this passage from *De Memoria*. In other words, he rejects premise (III) of 'Argument 1' above. In his discussion of this passage, Gregoric presents what he calls the 'standard interpretation,' which follows along the lines of the argument I just presented. He gives three objections meant to show that such a reading is untenable, and he later

[12] I will discuss his argument as it pertains to *DA* III.1 below. For now, it is sufficient to know that he is so committed, and to look at how he tries to render that commitment consistent with this passage. If he fails to accommodate it, as I will argue he does, that will show that the *DM* passage provides us with evidence, contrary to Hamlyn and Gregoric, that the common sense of *DA* III.1 is the same faculty as that discussed in this context, and is also the faculty described in the last chapter. In the next chapter, moreover, the common sense's functions will expand to include perceptual discrimination (4.1), sleep and waking (4.2), and self-consciousness (4.3).

develops his own interpretation, consistent with his view that the power to perceive the common objects is different from that which provides for imagination.

Gregoric's first problem with the traditional reading is that it entails a commitment to the claim that time is a common object. He says that time 'does not seem to be' a common object because it 'is not the sort of thing that is perceived in itself.'[13] As support for this claim, he cites Charles Kahn's assertion that 'if a property is to be a common sensible as defined in *De An.* II.6, it must first be the object of at least two special senses. … Time, however, is not directly perceived by any external sense, much less by more than one.'[14] But plenty of commentators have explicitly adopted the view that time is a common object, and they have done so in full knowledge of what it means to be such. While it is of course true that Aristotle does not list time in *De Anima* III.1, there is no evident basis for Kahn's claim that time is not perceptible. Indeed, Aristotle takes time to be parasitic on magnitude and change,[15] so wouldn't I see time when I see change? Wouldn't I hear the passage of time as a plane loudly passes overhead? It is certainly true that I can never observe *just* time, but the same is true of all of the common objects, and, indeed, all of the special objects. After all, I can't observe just size without some color or other, and vice versa.

Secondly, Gregoric notes, as I did above, that the standard interpretation is in conflict with his reading of *De Anima* III.1. This objection only has bite, of course, if

[13] Gregoric ([2007], 104).
[14] Ibid., Kahn ([1975], 8n23).
[15] See *Phys.* [218b21-23] & [219a10-12], *passim*.

there is a compelling reason to think that his unorthodox account of III.1 is correct. But, as we will see, his reading is incompatible with the natural reading not just of *De Anima* 425a14-30, but also with this passage from *De Memoria*. So if we have good reason to interpret *De Memoria* as I sketched above and will argue below, then we will similarly have a motivation for rejecting Gregoric's reading of *De Anima* III.1.[16]

Indeed, Gregoric's reading of *De Anima* III.1 makes it difficult for him to explain Aristotle's slide in this passage from the fact that time is perceived by the same thing as magnitude and change to the conclusion that it is perceived by a common or primary faculty of sense. For the standard reading, the explanation is clear. Aristotle presumes that the reader will be familiar with his discussion of the perception of magnitude and change in *De Anima*, so it will be obvious that if time must be perceived in the same way as these objects are, then it must be perceived by the common sense. But Gregoric cannot avail himself of this straightforward explanation, so he is forced to present another. He attempts to motivate the inference by adopting a different version of the manuscript. First, his translation, based on the traditional manuscript (I have italicized the passage that he locates differently):

> But it is necessary to grasp magnitude and change by the same thing as time, *and the image is an affection of the common sense*; so it is clear that the grasp of these is due to the primary perceptual capacity of the soul; and memory, including that of objects of thought, is not without an image; hence memory will belong to the thinking capacity of the soul accidentally, but properly to the primary perceptual capacity of the soul.

[16] I will discuss Gregoric's interpretation of *DA* III.1 in 3.5.

Then he notes:

> Observe that Aristotle does not exactly say that it is necessary to grasp magnitude, change, and time by the same thing, but rather that 'it is necessary to grasp magnitude and change by the same thing as time'. That is, he presupposes that there is a certain capacity by which time is grasped, and then magnitude and change are said to be necessarily grasped by the same capacity.[17]

Gregoric is making the following claims. First, he argues that, for Aristotle, while magnitude and change must be graspable by the same thing that grasps time, the thing doing that grasping need not be the common sense of *De Anima* III.1. The idea here seems to be that while magnitude and change are *perceptible* by the common sense (as *koinê aisthêsis* is employed in *De Anima* III.1, so confusingly *not* as it is used here), they must also be *graspable* by some other perceptual faculty as well, and it is that faculty which Aristotle discusses in our present passage.[18] But Aristotle has not chosen his words well if this is what he intends to communicate, for, as earlier noted, he explicitly mentions *De Anima* at 449b40, just above the passage in question (as, indeed, he does throughout the treatises that make up *Parva Naturalia*). It would be misleading, then, for Aristotle to list off the two most obvious common objects, pair those objects with the terms *koinê aisthêsis* and *prôton aisthêtikon*, and yet expect his

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[17] Gregoric ([2007], 105).

[18] Since Gregoric will go on to argue that it is primarily the sensory capacity as a whole that grasps time, I find it helpful to think of the issue as somewhat turning on Aristotle's use of *gnôrizein* rather than *aisthanesthai* in the above passage (note, though, that Gregoric does not put it this way, and that it is possible I am misinterpreting him). In other words, the common sense of *DA* III.1 is what *perceives* magnitude and change, but that does not preclude another faculty from *grasping* magnitude and change. What is crucial to Gregoric's interpretation is that Aristotle does not explicitly say that time is *perceived* by the same thing as the common objects, just that it is *grasped* or *recognized* by the same thing. That thing will turn out to be importantly connected to the perceptual capacity, but it will not be reducible to it, for Gregoric defines the sensory capacity as a conceptual composite of perception and imagination.

reader to understand that time is not in fact perceived in the way the common objects are.

But even if we accept this emendation and interpretation, I contend that Gregoric is nonetheless unable to explain why Aristotle brings up time, much less why he also mentions magnitude and change. Gregoric claims that the move from the need for a shared grasping faculty to the implication of the common sense proceeds via the introduction of images.[19] Grasp of time requires images, Gregoric contends, and images require the imagination, so all three are grasped by the union of perception and imagination.[20] But on this reading, what reason do we have to think that grasp of time *requires* the use of images, as Aristotle here claims?

Gregoric cites two discussions. The first immediately precedes the quoted passage. Here Aristotle says: 'The question of why we cannot think of anything without magnitude, or of timeless things without time, requires separate consideration" [450a7-9]. Gregoric says that we are here "told that imagination introduces temporal dimensions, which already suggest[s] that the grasp of time is closely connected with imagination."[21] But at best this shows that particular acts of imagination require a grasp of time, not the inverse claim that the grasp of time is dependent on imagination. To see this, consider an analogous case. Just as we cannot think without time, Aristotle also says that we cannot think without magnitude

[19] Note that this fact makes Gregoric's reading dependent on the accuracy of the manuscript he uses. My reading is consistent with his manuscript as well as with the alternative adopted by Freudenthal [1869], and, later, Ross [1955].
[20] Gregoric puts it this way: "the image which is said to be an affection of the 'common sense,' I take it, is the image by means of which we grasp time." (Gregoric ([2007], 106)). Thus, he thinks that the image is not just necessary for grasp of time, but, rather, constitutive of it.
[21] Gregoric ([2007], 106).

[450a7]. It clearly does not follow, though, that awareness of magnitude depends on images: indeed, Aristotle is abundantly clear that magnitude is perceived. On this point Gregoric has to agree. How, then, can the perfectly analogous case of time fare any differently?

The second passage Gregoric cites is *De Memoria* 2 452b23-29, where Aristotle says:

> So when the movement of the object and that of time keep pace, memory occurs. It is possible to think one is remembering when one is not, but impossible to remember without knowing that one is remembering; the very remembering was the knowledge. If the movement of the object occurs without that of time, or vice versa, one does not remember.

Gregoric accurately glosses this passage as claiming that "we remember when the image of a thing occurs together with the image of time."[22] Here, though, Aristotle is merely reiterating his view that remembering requires a grasp of time. In particular, he here elaborates on the kind of grasp of time that remembering necessitates. Accordingly, what this passage shows is: (1) that we can have an image of time; and (2) such an image is necessary for memory. This is a claim about what *memory* requires, not what a grasp of time does. In other words, Aristotle is not making a general claim about our grasp of time as it functions in contexts that do not involve remembering.

Thus, I do not think Gregoric succeeds in showing that it is impossible to grasp time without the imagination. Moreover, his account provides no explanation for why

[22] Gregoric ([2007], 106). Note that, as my translation makes plain, Aristotle doesn't speak of "images" but of "movement" (*kinêsis*). Gregoric reads *kinêsis* as referring to images and cites a variety of other commentators who concur. I will grant him this interpretation.

Aristotle mentions magnitude and change. On anyone's reading of the passage, Aristotle explicitly states that a grasp of time is necessary for memory, and that images are an affection of the common sense. If images are necessary for grasping time, as Gregoric suggests, then Aristotle's point will be proved. Why bring in talk of magnitude and change in the first place?

While Gregoric does not address this challenge, he does pose a similar objection to the proponent of the standard interpretation. Readings like mine, he argues, cannot account for Aristotle's discussion of images. For, Gregoric asks, if the standard reading is correct to take our awareness of time as a function of the common sense simply in virtue of sharing its basis with magnitude and change, why the extra argument?[23]

It is quite clear, though, why Aristotle brings up images. Indeed, he explains himself in the very passage under consideration. First, Aristotle argues that one is not remembering something when one is currently perceiving or thinking it [449b15-17], and as such, he concludes that memory is neither perception (strictly so-called) nor judgment [449b24]. This suggests that Aristotle will assimilate it to the imagination, for he tends to recognize only three cognitive faculties: perception, reason, and imagination.[24] He follows through on this expectation in our passage when he says, "memory, even that of intelligible objects, is not without an image" [450a12-13].[25] Since memories require the grasp of time together with an image of the thing being

[23] Ibid., 105.
[24] Cf. *DA* III.3. This is oversimplified, but the complicated relationship between imagination and perception is too fraught to address here.
[25] See also 450a22-23 (where he says that memory belongs to imagination) and 452b23-39, discussed above.

remembered, it does not suffice to show that we apprehend time by the common sense: Aristotle must also demonstrate that images are perceptually-based. While he doesn't here provide an argument to that effect, he does express a commitment to that conclusion.

I do not find Gregoric's arguments against the traditional reading successful. But while we disagree on the path Aristotle takes to get there, we do agree on the moral that Aristotle draws. For Aristotle, memory intimately involves images, and he here ascribes those images to the perceptual faculty. Gregoric interprets *koinê aisthêsis* and *prôton aisthêtikon* in this passage as references to a broad sensory capacity, which includes both perception and imagination as proper parts. Clearly he is right to note that both imagination and perception are at play here: in the passage at hand, Aristotle moves freely from talk of the one to talk of the other. Indeed, he draws conclusions about the common sense and the aegis of the perceptual faculty from claims about the role of imagination in memory. At no point does Aristotle suggest that he is equivocating, and given the inadequacy of Gregoric's interpretation, it seems Aristotle's argument would not have been valid if it turned out that he were changing referents when he used *koinê aisthêsis* and *prôton aisthêtikon*.

But whereas Gregoric concludes that "[f]or Aristotle, such joint work goes beyond perception in the narrow sense, but it remains within the boundaries of perception in a wider sense,"[26] I see this passage as definitive evidence that Aristotle understands the *koinê aisthêsis* of *De Anima* III.1 to have the wide range of functions

[26] Gregoric ([2007], 109).

that Ross ascribes in his commentary. With that demonstrated, let us turn to that *De Anima* passage. We will see in what follows that Aristotle's dual commitments to the view that the common objects are perceived in-themselves by this very common sense and his claim that common sensing is reducible to the activity of the special senses require that he have a deflated notion of the in-itself/coincidental distinction.[27]

3.3 *DA* III.1 425a14-b3: In-Itself Perception of the Common Objects

First, the passage, in full:

> But again it is not possible for there to be some special sense-organ for the common objects, which we perceive by each sense coincidentally, e.g. movement, rest, figure, magnitude, number, unity. For all these things we perceive by movement, e.g. magnitude (and thus figure, for figure is some [kind of] magnitude), what is at rest by lack of movement, number through negation of continuity, and also through the special objects (for each sense perceives one thing). Thus it is clear that it is impossible for there to be a special sense for any of these, e.g. movement; for in that case it would be as we now perceive the sweet by sight, and this we happen to do because we have a perception of both, as a result of which we recognize [them] at the same time when they fall together. If not, we would perceive [them] in no other way than coincidentally (e.g. [as we perceive] the son of Kleon, not because he is the son of Kleon, but because he is white, and the white thing happens to be the son of Kleon). But we have already a common sense for the common objects, not coincidentally. There is, then, no special [sense for them]; for if so we would perceive [them] in no other way than as stated (as we see the son of Kleon). The senses perceive each other's special objects coincidentally, not as they [the senses] [are] in themselves, but as a unity, when perception of the same object happens simultaneously, e.g. of bile that it is bitter and yellow (for it is not the task of another [perception] to say that both are one.

[27] For the ontological reduction of common sensing to special sensing, see 2.5.

This is a problematic and controversial passage, but, at least in broad outline, Aristotle's motivation is clear: he is elaborating on a distinction in sense objects that he drew in *De Anima* II.6. In addition to the special objects of each sense (*ta idia*), which were discussed at *De Anima* II.7-11, there are also common objects (*ta koina*), objects perceptible by more than one sense and accordingly not unique to any, as well as coincidental objects (*ta aisthêta kata sumbebêkos)*, which he here presents as being of two different types. First, there are coincidental objects of the type exemplified by the son of Diares, objects that are partially constituted by special objects but not exhausted by them (or at least not by any single sense object, e.g. color). Second, there are objects of the type exemplified by perception of the sweet by sight: objects that are the special objects of one sense, but which nonetheless appear to be coincidentally perceptible by other senses. Aristotle thinks it clear that perception of the common objects is different from the perception of either type of coincidental object. The common objects, then, must be perceived in-themselves, and so there needs to be some power of the perceptual system that perceives these objects non-coincidentally. However: (1) it cannot be a sixth sense, since he has just argued that there cannot be any other senses ([424b22-425a14], see 1.3); and (2) it cannot be any of the special senses since each perceives its non-special objects coincidentally. Accordingly, Aristotle concludes that "we have already a common sense for the common objects, not coincidentally."[28]

[28] Note that *ou kata sumbebêkos* at 425a28 appears to be modifying the having of a common sense (*tôn de koinôn êdê echomen aisthêsin koinên ou kata sumbebêkos*). Aristotle is here referencing not coincidental *perception*, but the coincidental *properties* of the *Physics* and *Metaphysics*. In other words, a non-literal translation of a 425a27-28 would go as follows: "For the common objects, it is not an accidental

Ross ([1951] and [1955]), Hamlyn [2002], and Hicks [1907] all agree that Aristotle is here asserting that the common objects are perceived *kath' hauta* by the common sense.[29,30] According to the standard picture, Aristotle begins this argument with the claim that the special senses perceive the common objects *kata sumbebêkos*.[31] This claim stands in *prima facie* tension with his later assertion that the common objects are perceived in-themselves, which has led some commentators to want to follow Torstrik in adding an *ou* before the *kata sumbebêkos* in 425a15.[32] In fact, however, the tension can be eliminated so long as the relation between the common objects and the special senses is different from that between the common objects and the common sense. The puzzle here is how the common sense could stand in a different relation to the common objects if it (i.e. the common sense) is not a sixth

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property of ourselves that we have a common sense." It is correct to infer from this that the common sense perceives those common objects in-themselves, but it is wrong to assert, as most commentators do, that the passage in question explicitly makes this latter claim.

[29] Hicks translates *aisthêsin koinên* as "common sensibility," but in his commentary he is clear that he understands the referent to be the common sense. His choice of terminology is a result of what he takes to be the modern associations of the term "common sense."

[30] Block [1961a] claims that the reference to *aisthêsin koinên* at 425a27 is not a reference to the common *sense*, but rather, to some sort of generic common *perception*. But while the noun *aisthêsis* can refer either to the faculty (i.e. the sense) or to the perception itself (cf. 2.6), it seems clear that the faculty is meant throughout this passage. Aristotle is here concerned with distinguishing coincidental perception from the way in which we perceive the common objects, and the *kata sumbebêkos* relation is a relation between a sense-object and a sense, not between a sense-object and a perception.

[31] At *DS* 437a5-8, Aristotle seems to give sight a more substantial role in the perception of the common objects than the other senses; he says: "For the power of sight informs [us] of many distinctions, because all bodies are colored, so it is by that that [we] perceive the common objects." But here he does not assert that sight perceives the common objects in-themselves. Rather, he seems to be making the empirical claim that we tend to perceive the common objects more often by sight than by the other senses.

[32] Kahn [1975] takes a different approach. While he thinks that the special senses perceive the common objects in-themselves (and not coincidentally as Ross, et al. and I would have it), he does not adopt Torstrik's emendation, saying: "that 'which we perceive incidentally by each sense' at a15 is part of the hypothesis which Aristotle is rejecting" (9n24). Ultimately, though, Kahn's argument turns on thinking that if common objects are in-themselves objects of perception at all, then they must be perceived in-themselves by the special senses. The most straightforward reading of the passage takes it that common objects are perceived coincidentally by the special senses and in-themselves by the common sense.

sense. The resolution of this tension requires that we clarify both the ontological status of the common sense and the distinction between coincidental and in-itself perception.

3.4 The Material Account of the Distinction

A common modern interpretation of the *kath' hauto/kata sumbebêkos* distinction takes it that perception is *kath' hauto* if the sense-object is the direct agent of change in the sense organ. Thus Deborah Modrak writes:

> Certain features of the external object cause changes in the sense organ… These features also produce the awareness of other concomitant sense objects. Because they play a direct causal role, the former are perceived *kath' hauta*; because they do not, the latter are perceived *kata sumbebêkos*.[33]

Note that when Modrak talks of "direct causal roles," she has efficient causal roles in mind. For her, then, in-itself perception occurs when the perceived object is of the type to directly/efficiently cause a change in the relevant organ. Steven Everson continues to develop this general line as follows:

> In each case, the natural constitution of the sense organ is determined by its needing to be able to be affected by the relevant object so as to 'become like' it—to 'receive its form.' It should be clear from this why the proper sensibles are perceptible *kath' hauta*. For, given that the sense organs are precisely constituted to be able to be affected by their proper objects, the proper sensibles will bring about perception in virtue of being what they are: they are intrinsically such as to produce the relevant changes in the organ.[34]

[33] Modrak ([1987], 77).
[34] Everson ([1997], 29).

Here too Everson stresses changes in the *organ*, not the *sense*, as determining whether a perception is an in-itself perception. Coincident to this line is a commitment to the claim that a material change in the relevant sense-organ underlies all perceptions. As such, I call views of the type adopted by Modrak and Everson "material accounts." These accounts rest their plausibility on the truth of some sort of underlying material change view. The reverse does not hold, for one can accept that Aristotle views some material change as necessary for a perception without thinking that facts about that change are what distinguish *kath' hauto* from *kata sumbebêkos* perception.

This line is initially plausible, and proponents of it like to cite the consistency of this story about perception with Aristotle's account of in-itself and coincidental properties and causes in his other works.[35] But, as we will see, it runs into difficulty explaining the train of thought being developed in the passage under consideration. Aristotle repeatedly asserts that the common sense is not some sixth sense; it is nothing over-and-above the fives senses, etc. But if so, how can the common objects act directly on the common sense but *not* act directly on the special senses, as would have to be the case, according to the material account, if the special senses perceive those objects coincidentally while the common sense perceives them in-themselves?

Indeed, in the passage at hand, Aristotle explicitly denies that the common sense has its own organ (*alla mên oude tôn koinôn hoion t' einai aisthêtêrion ti idion* [425a14]). It is natural, given comments throughout *Parva Naturalia*, to slip into

[35] Modrak ([1987], 203-204); Everson ([1997], 36-45). Of course, Aristotle uses *kath' hauto* and *kata sumbebêkos* in a variety of ways, as evidenced by the fact that Hamlyn [1959] and Sorabji [1971] also find precedent in the physical works for an altogether different account of the distinction. I consider Sorabji's account below.

thinking of the heart as the organ of the common sense. While it is true that he there describes the heart as the central sense-organ, he does so in a way that stresses that the heart is common to all senses.[36] He nowhere claims that it is the sense-organ of the common sense in the way that, e.g., the eye is the organ of sight, nor does he think that any genuine perceptual affections originate in the heart in the way that they do, e.g., in the eye jelly. Rather, perceptions always start in the specialized sense-organ and only then travel on to the heart. If, contrary to all available evidence, Aristotle were to think of the heart as the specialized sense-organ of the common sense, he would certainly be abandoning not just the view that opens our passage (that the common sense lacks an organ), but also his deeply-considered view that the common sense is not a sixth sense.

Of course, if there is no sense-organ dedicated to the common sense, then there can be no changes to that (nonexistent) organ, yet both Modrak and Everson claim that in-itself perception occurs when the sense object is the direct cause of changes in the sense-organ. One might want to claim that though the heart is not, strictly speaking, the sense-organ of the common sense, it is nonetheless especially relevant in discussions of the activity of common sensing. Thus, perhaps underlying material changes in the heart *can* explain in-itself perception of common objects. But all perceptions travel through the special sense organs to the heart, so any change in the heart will be parasitic on changes to those special sense-organs. It is physiologically impossible for the common objects to cause a material change in the

[36] cf. *DS* 455a21; *DJS* 469a12.

heart without similarly causing changes in a special sense-organ. Accordingly, while the material account may seem plausible when we exclusively consider the special objects, it fails to provide an adequate explanation of Aristotle's views on the common objects.

Everson recognizes this incompatibility, and he tries to resolve it by claiming that there are two different types of in-itself perception. In the passage of his that I quoted above, Everson defines in-itself perception of the special objects. The situation with in-itself perception of common objects is, Everson thinks, somewhat different. Clearly it is the case that all special objects must have some underlying common sensible property or other (e.g. a red thing must have some shape), and, moreover, this fact is consistent with those special objects having any one of a variety of possible common sensible properties. In order to be perceived as square, the object has to be some color or other, but it doesn't matter which. But to be perceived as square, the object must, in the usual case, *be* square. In other words, while there is always a unity between special and common objects, that unity will be coincidental. Accordingly, squareness is perceived coincidentally by the special senses, but—because everything must have some shape or other—that squareness will also be perceived in-itself, by the common sense. As Everson puts the point: "it is in virtue of being [square] rather than some other [shape] that the affection in the organ has the shape it does."[37]

[37] Everson ([1997], 153).

There are a number of possible objections to this distinction in kinds of in-itself perception and its concomitant account of the nature of this difference.[38] First and most obviously, there is no textual evidence to back up the distinction he draws here.[39] More importantly, however, since it alleges that squareness affects the sense organs, the account is incompatible with Aristotle's claim that the special senses perceive the common objects only coincidentally. Everson tries to explain away this inconsistency by noting that the special senses are defined by their capacity to be affected by the special objects.[40] But earlier in the monograph, he refuses to make the relationship between a special object and its sense a conceptual one.[41] Rather, he claims that it is an empirical matter what objects are the special objects of each sense: one that would presumably be resolved by determining which properties directly cause a change in the relevant organ.[42] But as we saw above, Everson claims that the common objects *are* direct agents of affections in the organs; it is this that secures the in-itself perception of the common objects by the common sense.[43] Everson's account is therefore unable to accommodate the fact that the special senses perceive the common objects only coincidentally.

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[38] In what follows, I am indebted to Vasiliou [1996] and [1999].
[39] Everson thinks that he finds some evidence in Aristotle's claim at *DA* 418a24-25 that the special objects are "properly" (*kuriôs)* the objects of perception, but this consideration seems insufficient warrant for his conclusion. The passage will be discussed below.
[40] Everson ([1997], 154-155).
[41] Everson ([1997], 30-36).
[42] "…Aristotle himself elucidates the relationship between the senses and their objects in a quite different way. The proper objects of sight are said to be visible *kath' hauta* because they are able to bring about changes in the eye: 'The visible, then, is color, i.e., that which lies upon what is *kath' hauto* visible—*kath' hauto* visible not by definition [logos] but because it has in itself the cause of its own visibility' (418a29-31)." (32).
[43] Vasiliou [1999] puts the point as follows: "[W]hy should an eye not be defined by its relationship to space, if, as Everson claims, one determines the definitions of the senses empirically in terms of what causally affects a sense organ?" (282).

The general problem here should be understood as follows: any account of the *kath' hauto/kata sumbebêkos* distinction that takes efficient causation (i.e. being the direct agent of change) as necessary and sufficient for in-itself perception will render Aristotle's comments at 425a15 and a27 inconsistent. At a14-15, Aristotle is making two primary assertions: (1) there is no sixth sense organ, and (2) the common objects are coincidentally perceived by the special senses. But at a27, Aristotle asserts that the common objects are perceived in-themselves by the common sense. If a difference between coincidental and in-itself perception depends on effects in the sense-organ, then the only way that the common objects could be perceived coincidentally by the special senses but in-themselves by the common sense is if the common sense had its own organ subject to such effects, which Aristotle denies. A close look at the text here undermines any attempt to identify the difference between in-itself and coincidental perception as dependent on a difference in the way the objects affect the relevant organ.

In fact, there is a more fundamental problem with the material account. Many commentators argue that coincidental perception that this white thing is the son of Kleon, or that this white thing is sweet, would be best understood as a kind of inference.[44] This view, though, fails to attend to the motivation that Aristotle has when he says that these things are perceived coincidentally: attention to the dialectical burden left in the wake of *Theaetetus* reveals that Aristotle must be committed to the view that coincidental perception is *genuinely* perceptual. For otherwise Aristotle

[44] See, e.g. Block [1961a]; Hamlyn [2002]; Irwin [1990]; Kahn [1975]; Ross [1961].

would not have an account of how animals can have the kind of information that is only supplied, on Plato's view, by an act of mind. Of course this doesn't suffice to show that Aristotle is right to assimilate these to cases of perception, but it does mean that he is strongly committed to the genuine perceptibility of coincidental- and common objects. One needs a real argument, then—and not mere assertion—to show that he is wrong to understand coincidental perception as a genuine species of perception.[45]

Unfortunately for the material account, its analysis of coincidental perception and its commitment to a material account of the underlying physiological mechanisms responsible for perception render it incompatible with viewing coincidental perception as genuine perception.[46] For the physiological component says that perception is constituted by, or at least supervenes on, material changes in the organ. But the material account alleges that coincidental perception effects no change in the organ. It follows that, on this view, coincidental perceptual objects make no difference to the underlying physiological state. Given that material accounts also assimilate genuine perception to physiological alteration of the organs, coincidental objects like the son of Kleon would not strictly-speaking be perceptible. Rather, according to the material account, what is perceived is a variety of special objects; my awareness of the coincidental objects must come from somewhere else,

[45] Cashdollar ([1973], 158-161) concurs, though I cannot agree with his particular conception of coincidental perception, which will be discussed below. Also see Vasiliou ([1996], 102-109, *passim*.).
[46] Gregoric [2007] interprets what he calls "standard accounts" as being committed to the view that the common objects "are not properly speaking perceived by the individual senses." (70). Though I disagree with much of what he says about this passage (see 3.5), the force of the considerations I adduce below suggests that Gregoric is right to think that material theorists should feel themselves so committed.

presumably inference and memory.[47] Thus, in addition to being incompatible with Aristotle's considered view that the common objects are perceived in-themselves, the material account must also deny that Aristotle has a view whereby coincidental objects are themselves perceptible. It is not immediately obvious, though, what alternative there is to the material view. One suggestion, forwarded by Iakovos Vasiliou,[48] suggests that we think of *kath' hauto* perception in a classically Aristotelian way, viz. as a teleological relation that holds between the sense and the object. This view, we will see below, has the virtue of providing a deflated interpretation of the in-itself/coincidental distinction, and it therefore is able to make Aristotle's remarks here consistent with his considered view that the common sense is not a sixth sense.

3.5 The Teleological Account of the Distinction

We have just seen that the material account, which claims that in-itself perception requires an efficient-causal impact to the sense-organs, is incompatible with the argument found in *De Anima* III.1 for the in-itself perception of common objects. Surely the use that Aristotle makes of *kath' hauto* and *kata sumbebêkos* in his physical works suggests that we should interpret the relation between a sense and its object to be causal, but a different type of causal relation would seem to be preferable. Indeed, there are strong reasons to think, or so I shall argue, that the connection between a sense and its object that distinguishes in-itself from

[47] Neither Modrak nor Everson accepts this conclusion, but that does not mean that they are not (inadvertently) committed to it. For more on this, see Vasiliou ([1996], 88-91).
[48] Vasiliou [1996].

coincidental perception is a teleological one. According to this interpretation,[49] a sense-object is perceived in-itself iff the sense perceiving the object is *for* perceiving such an object. Since the primary connection specifies the natural object of the sense, I will, following Vasiliou [1996], refer to this account as the "teleological account." According to the teleological account, sight perceives color in-itself because sight is for perceiving color, and the common sense perceives the common objects in-themselves because it is the common sensory capacity that is for perceiving those objects.

Several considerations favor the teleological account. Crucially, it provides a deflationary interpretation of the distinction, which we have noted would aid us in understanding how the common sense could perceive the common objects without requiring that it be a distinct sense. On this account, the common sense just is the power of the perceptual system taken as a whole to perceive the common objects. Since it is obviously accurate to say that animals can perceive the common objects, it trivially follows that there is such a thing as the common sense, and it perceives those objects in-themselves for an equally trivial reason, viz. because this power is the one that is directed at such objects.

On this reading of the *kath' hauto/kata sumbebêkos* distinction, it will be trivial *that* the common sense perceives the common objects, but, as the dilemma in *Theaetetus* makes plain, it is not trivial *how* the perceptual faculty is able to perceive the objects. In answer to the latter problem we find the metaperceptual account that I

[49] Sorabji [1971] similarly tries to deflate the in-itself/coincidental distinction, but he does so by assimilating the distinction to a definitional matter rather than an explicitly teleological one.

have given throughout this thesis.[50] It is in virtue of the identity between the perception and the metaperception that we have a single unified state that is responsible both for perceiving the common objects and for binding and discriminating a perceptual tableau.

Moreover, the teleological account, unlike the material one, is consistent with the claim that coincidental perception is a genuine kind of perception. According to this view, when Aristotle says that something is perceived coincidentally, all he means is that the sense does not stand in a teleological-cum-definitional relationship to the thing perceived. It does not follow that the sense does a second-rate job of perceiving that object. To use Vasiliou's example, though as a human being I am naturally directed toward thinking, that fact does not imply that I think in a fuller or more complete way than I, e.g., surf.[51]

To see this, think of a paradigmatically coincidental object of perception, e.g. an apple. Those who think that objects like this are not actually perceived take it that what I actually perceive when I "perceive" an apple is a collection of its special sensory properties. Thus, I perceive its color, odor, taste, consistency, and so on. I cannot in any real sense be said to perceive the apple: rather, I take my experience, combine it with those perceptions, and make the judgment that I am perceiving sensory objects that happen to inhere in an apple. In one sense, this conclusion is obviously correct: of course my judgment (that I am perceiving an apple) requires an

[50] Note that there is no tension between my argument that the common sense is for perceiving the common objects and the claim that he gives this distinct formal account that makes no reference to the common objects. The argument from Chapter Two amounted to an account of the faculty in question in terms of its *eidos*; in this chapter I provide an account in terms of its *telos*.
[51] Vasiliou ([1996], 99).

act of mind, and any creature that lacks the concept <apple> will not be aware of herself as having perceived an apple. But does her lack of awareness (consequent upon her inability to make that judgment) imply that she has not perceived an apple? After all, such a creature will no doubt have a similar sensory system to my own, and that system will stand in the same relation to the apple as my sensory system does. The difference between us is in our possession and use of concepts and reason. While the direct/indirect interpretation takes this to show that neither I nor the non-human animal can rightly be said to perceive the apple, it would seemingly be truer to the Aristotelian spirit to conclude that, though I come to a judgment and she does not, we nonetheless both perceive the apple (though not, of course, *as* an apple).

The apple, after all, is partially constituted by its perceptible properties, so perceiving the redness of the apple just *is* perceiving the apple itself—albeit not in its full glory, as it were. While we may say that, if I only perceive its color, I do not perceive as much of the apple as I could, it is odd to deny that I perceive the apple at all. And, indeed, Aristotle does not say this. Rather, he says exactly what it is natural to say, viz. that when I perceive the red I also (coincidentally) perceive the apple, and this because the instance of red happens to belong to the apple.

But in point of fact, many commentators don't distinguish between the perception of an apple and the consequent judgment that I am perceiving an apple. Deborah Modrak, for instance, claims that coincidental perception of the son of Kleon is only available to rational animals, and the reason she gives is that "the perception of this white as the son of Kleon…requires the awareness of a universal

concept."[52] Similarly, Stanford Cashdollar understands coincidental perception as requiring the predication of attributes: it is this that he thinks distinguishes it from in-itself perception. He also discusses the white thing that is the son of Kleon, saying: "This is exactly what is meant by [co]incidental perception: that the second term of the synthesis [the son of Kleon] is a cognized attribute of that which is perceived necessarily [the white thing]."[53] The focus in both accounts is on one's awareness/cognizance of the percept *under a certain description*.[54] Surely such a cognition requires an act of mind, but Aristotle is, as we have seen, very careful to give an account of perception that includes not just rational beings but also lower-animals. If I can perceive the son of Kleon, then surely so too can a non-rational animal. What the animal lacks is a *judgment* that is separate from the perception, and we should be careful, I suggest, to avoid assimilating coincidental perception to a type of judgment.

In this vein, Cashdollar rightly observes that Aristotle tends to describe perception as a type of assertion.[55] Similarly, Aristotle talks of perceptions as being true,[56] which also implies that perceptions are content-laden. But note that in these contexts the thing asserting is not the *perceiver* but the *perceived object*. Thus, it does not follow that the perceiver needs to be in a position to make the relevant assertion, nor that she be capable of understanding the content asserted by the world. Rather, a

[52] Modrak ([1981a], 413).
[53] Cashdollar ([1973], 162). Unlike Modrak, he does not clearly distinguish between coincidental perception of the son of Kleon and coincidental perception of the yellow (bile) as bitter.
[54] Notice, for instance, that Modrak talks of perception of the white *as* the son of Kleon rather than perception of the white son of Kleon
[55] Ibid., 161.
[56] *DA* 427b12-13; 428a10-14; *Meta.* 1010b1-4.

perception will be true just in case it accurately represents the external state of affairs: it is not necessary that the perceiver be in a position to express what is represented to her.

I conclude, then, that the teleological account is superior to the material account in the following respects: (1) it provides Aristotle with the means to allow for perception of the common objects, *contra* Plato's conclusions at *Theaetetus* 185a-c; and (2) it allows for *genuine* coincidental perception. It does, though, run into problems addressing some bits of text. First, there are particular passages that Modrak, Everson and others believe to support the material account, which will need to be considered. Second, since the teleological account understands the *kath' hauto/kata sumbebêkos* distinction in a reductive way, it does have to explain why Aristotle seems to give the distinction an epistemological significance. I will address each of these problems in turn.

3.6 Objections to the Teleological Reading

Both Modrak and Everson cite *De Anima* II.6 418a20-25 as strong support for the material account. Let's look at the text:

> An object of perception is spoken of as coincidental, for example, if the white thing should be the son of Diares, for this is perceived coincidentally, since this which you perceive is coincidental to the white thing. Hence too you are not affected by the object of perception as such (*dio kai ouden paschei hêi toiouton hupo tou aisthêtou*). Of the objects which are perceived in-themselves it is the special objects which are especially (*kuriôs*) objects of perception, and it is to these that the essence of each sense is naturally relative (*pephuken*).

Aristotle focuses here on the coincidental objects of perception, which should be carefully distinguished these from the larger class of objects that are perceived

coincidentally. Coincidental objects of perception, like the son of Diares, are always perceived coincidentally, but not everything perceived coincidentally is a coincidental object of perception. Common objects, for instance, are not coincidental ones, though they are nonetheless perceived coincidentally by the special senses. Similarly, special objects are perceived by the other senses coincidentally, but that does not reduce them to mere coincidental objects.[57]

When Aristotle says, then, that the coincidental *objects* of perception, considered as such, do not affect the perceiver, he does not make a general claim about all types of coincidental *perception*. It is apparent, on the one hand, that the son of Kleon does not affect me in virtue of being the son of Kleon. It is much less apparent, on the other hand, that he does not affect me in virtue of being, e.g., two meters in height. In any event, Aristotle never makes this second claim. Accordingly, this text gives us no reason to think that *all* objects perceived coincidentally have no (efficient-causal) effect on the perceiver, and therefore it does not show what the material account needs it to.

In fact, this passage supports the teleological account, for the concluding line has Aristotle making what seems to be a teleological point: the special objects are especially (*kuriôs*) said to be objects of perception because the special senses are

[57] Whether the special senses perceive each other's objects is something that Aristotle seems to vacillate on. At *DA* II.6 418a11-12, he defines special objects as those that it is not possible to perceive by another sense, but at *DA* III.1 425a30-31 (see 3.3) he says that they perceive each other's objects coincidentally. However one falls on that issue, the common objects can clearly be perceived either in-themselves or coincidentally, and therefore can be coincidental objects of perception (on this, see too *DA* III.3 428b22-24, quoted below).

naturally (*pephuken*) directed at them.[58] This may initially suggest that Aristotle is backing off his claim that both common and coincidental-objects are genuinely perceived, but *kuriôs* is here used to emphasize the uniqueness of the special objects, not their exclusivity. What Aristotle says is that the special objects—since they are the objects that the special senses are defined relative to—have a unique significance. Presumably Aristotle doesn't extend this significance to the common objects because the common sense is not a distinct sense, and there is no distinct special sense directed at them. On balance, then, this passage not only does not support the material account: it actually supports the teleological one.

There is a deeper challenge facing the teleological account: Aristotle seems to think that the *kath' hauto/kata sumbebêkos* distinction has epistemological significance. The clearest statement of this is at *De Anima* III.3 428b18-25, where he says:

> Perception of the special objects is true or that which has the least falsity. Secondly, [there is perception] of those things which are coincidental to these objects of perception, and here now it is already possible to be in error, for [the sense] does not err that there is white, but whether the white object is this thing or some other thing it can err. Thirdly, [there is perception] of the common objects and those following upon the coincidental-objects to which the special objects belong (I mean, for instance, movement and magnitude, which are coincidental to the objects of perception). About these it is already most possible to be mistaken concerning the perception.

Here Aristotle distinguishes among different types of perception in terms of how accurate each is, and it looks like he thinks that their accuracy is a consequence of the kind of object being perceived. Special object perception is especially accurate, then that of coincidental-objects, and, finally, that of common objects. What could

[58] This point is due to Vasiliou ([1996], 89-90).

Aristotle's motivation be in asserting this hierarchy if he doesn't think of coincidental perception as a lesser kind of perception?

One thing to note about this passage is that it doesn't actually dovetail with the *kath' hauto/kata sumbebêkos* distinction.[59] As we have seen, perception of the common objects, which is here said to be least reliable, can be of the in-itself variety, and the most reliable kind—perception of the special objects—can be coincidental.[60] Indeed, nowhere in this passage does *kath' hauto* appear, and *kata sumbebêkos* only occurs in the context of coincidental objects of perception, which, as we saw, does not exhaust the types of objects that are perceptible coincidentally.

Those who interpret this passage as implying that in-itself perception is more accurate than coincidental perception, then, have to do a lot of reading into the passage. They owe us, moreover, an account of why Aristotle places perception of the coincidental-object that is the son of Kleon above perception of the shape of that man. After all, his height can be perceived in-itself, so the epistemological point here does not strictly follow the *kath' hauto/kata sumbebêkos* distinction.[61] For his part, Vasiliou suggests that Aristotle is making the sensible claim that perceivers are not great judges of the size, distance, etc. of things.[62] In support of this interpretation, he points to Aristotle's remark that the last perception of coincidental- and common objects "may be false…especially when the object of perception is far off" (428b28-

[59] In what follows I am substantially indebted to Vasiliou [1996].
[60] Perhaps Aristotle is thinking only of in-itself perception of the special objects. Not much turns on this.
[61] Hamlyn ([1959], 15) also notes this, and he observes that little has been said by commentators on this point.
[62] Vasiliou ([1996], 111). See also Hamlyn ([1959], 15) who also provides an empirical and deflationary motivation for the hierarchy.

30). This qualification suggests that Aristotle is making a commonplace observation, and not committing himself to a substantive philosophical thesis.

Moreover, it could well be argued that even if Aristotle did give the in-itself/coincidental distinction epistemological significance, this would not show that the material account is correct. In discussing the teleological account, I borrowed Vasiliou's example of surfing. Vasiliou claims that the fact that I am teleologically-oriented towards reasoning and not surfing does not imply that I think better than I surf. While this does sound right to us, someone committed to a robust natural teleology (like, of course, Aristotle) could very well think I do perform my characteristic functions better or more fully than I perform others. Accordingly, even if there were solid evidence of an epistemological difference that mirrors the perceptual (a claim that I have put into doubt), such evidence would still be consistent, given these additional assumptions, with the teleological account.

There is one other passage to consider. At *De Sensu* 4 442b5-10, Aristotle says: "For size, shape, roughness and smoothness, sharpness and bluntness in bodies are common to the senses, or if not all, to sight and touch. That is why (*dio*) [we] are deceived about these but not deceived about the special objects: for example sight about color, or hearing about sounds." Of particular concern in this passage is the *dio* indicating that the fact that we are able to be deceived about the common objects is a consequence of their being perceptible by more than one sense.[63] Here it should be

[63] He also here distances himself from the claim that all of the senses perceive the common objects. He does not, however, disavow it entirely. Moreover, if he were to explicitly deny that, e.g. taste, could perceive the common objects, I doubt that it would have any significance. The fact that the common objects are perceptible by more than one sense, but not merely in the way that the

noted that nowhere in *De Sensu* does Aristotle refer to in-itself or coincidental perception, but if we choose to import the distinction into the text, we again find that in-itself perception of the common objects is seemingly more liable to error than the in-itself perception of the special objects. The difference between the veridicality of one and the non-veridicality of the other cannot, then, be directly accounted for by the in-itself/coincidental distinction.

3.7 Gregoric's Account of *De Anima* III.1 425a14-b3

Pavel Gregoric's interpretation is different from both the material account and my preferred teleological account. Indeed, not only does he side with Hamlyn in thinking that the *aisthêsin koinê* of 425a27 does not refer to the same thing as the *koinê aisthêsis* of *De Memoria*, but he goes further, for he also denies that the term is employed here in any doctrinal sense whatever. Instead, he suggests that *aisthêsis* picks out a general sensibility or kind of awareness in this context, not a faculty or activity of perception, and that the *koinê* occurs in predicative position in order to indicate that the sensibility is one shared by all of the (special) senses.[64] He explicitly contrasts his view with what he calls the "standard views," of which Modrak and Everson are exemplars. Gregoric interprets the standard views as being committed to thinking that the common objects are not strictly-speaking perceived by the special senses. He takes the challenge that faces them as one of:

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coincidental-objects are, is sufficient to show that some general sensory-capacity is necessary, even if some special senses did not share in it.

[64] We earlier saw that John Cooper accuses Francis Cornford as erring in his reading of *koinon* in *Theaetetus* in exactly this way. See Chapter One, fn. 36.

> show[ing] that the individual senses are engaged in the perception of the common perceptibles to the extent which is, on the one hand, sufficient to classify the common perceptibles as things perceived in themselves, and on the other hand, insufficient to assert that the common perceptibles are thereby *actually perceived* by the individual senses, since the crucial role in the perception of the common perceptibles is taken to belong to the common sense.[65]

As I read them, Everson and Modrak do not wish to deny that the individual senses are able to perceive the common objects. Instead, what they take *De Anima* III.1 to be saying is that the common objects are not perceived *in-themselves* by the special senses.[66] It could be that Gregoric is interpreting coincidental perception as not being "actual" perception.[67] Indeed, I suggested above that Modrak and Everson's use of "indirect" as a gloss on coincidental perception lends itself to such an understanding.

But we also saw there that Aristotle *must* think of coincidental perceptions as genuinely perceptual, so Gregoric's recapitulation of the standard view cannot quite do justice to the particular dialectical stance that material theorists take. If we replace "actually" in his quotation above with "non-coincidentally," we do find a restatement of the position that I take the material theorists to be in. I agreed above that such a

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[65] Gregoric ([2007], 72), emphasis added.

[66] For instance, in support his reading, Gregoric cites Everson ([1997], 156). There Everson states:

> It is not that we do not perceive the common sensibles through the operation of the individual senses (note that [Aristotle] has to restrict the proper objects of sight to white to make his point more sharply): when I see, I will indeed normally see shapes and sizes. The point is just that in doing so the sense is not operating *qua* sight but *qua* the common sense… It is because of this that the individual senses only perceive the common sensibles accidentally—but because the individual senses together with the controlling organ constitute the common sense, the perceptual capacity as a whole, that capacity is able to perceive them *kath' hauta*.

Contrary to Gregoric's understanding, it seems clear from this quotation that Everson thinks that sight sees the common sensibles ("when I see, I will indeed normally see shapes and sizes"). As I argued above, I am in general agreement that Gregoric (and Modrak) can't coherently think this given the material account, but that they nonetheless think it is clear.

[67] Gregoric does not discuss the distinction between in-itself and coincidental perception, but this seems a reasonable way to make sense of his interpretation of the commitments brought on by the standard interpretation.

position is untenable, and I offered the teleological account as a way out. According to the teleological account, the common objects are indeed perceptible by the special senses *and* the common sense is not a sixth sense that emerges from the joint operation of the individual senses. In giving his own reading of this passage, Gregoric reiterates that the common sense is neither a distinct sense nor a higher-order perceptual power. If "higher-order power" means one that is *emergent* from the *joint* activity of the special senses, then I of course agree with both of these claims.[68] But Gregoric does not consider an account like the teleological one,[69] and as such attempts to divorce this passage from Aristotle's subsequent discussion of binding and discrimination as well as his discussions of sleep and memory in *Parva Naturalia*. It is my contention that the teleological account, supplemented with the formal mechanics provided by CSR, is able to accommodate the requirement that the common sense not be a separate sense while still allowing that it is responsible for all of these functions.

On his reading, Gregoric takes the word order at 425a27 to be suggestive: the *aisthêsis koinê* is an *aisthêsis*, that is, a "perceptual ability," which is *koinê*, that is,

[68] I argued in 2.5 that common sensing can be discharged by an individual sense, albeit not *as* that individual sense, and I will return to that point in 4.2.

[69] Gregoric does make one suggestive comment that touches on a teleological reading: in describing what it would mean for there to be a special sense for the common objects, he says "Aristotle is suggesting a perceptual ability whose essence would be defined with reference to change as a type of common perceptible. Thus conceived, this perceptual ability would constitute an extra sense at the same level as the five individual senses, and it would have access to change in the same way as the individual senses have access to their special perceptibles" (78). Thus, he would likely think that the teleological account, which understands the common sense in terms of its object, is inconsistent with taking the common sense to not be a sixth sense. Gregoric doesn't elaborate on why he thinks this, though.

"common," to each of the individual senses.[70] Here he thinks that Aristotle is picking out one feature or ability possessed by the special senses, and that the sense perceives common objects in-themselves precisely because the ability to do so follows from the "proper functioning" of the individual senses.[71] Thus, no emergent sense is being implicated, and this type of perception does not require the joint work of several senses.

According to CSR, Gregoric is right to deflate the *koinê aisthêsis* in operation here. As discussed above, Aristotle could not be clearer that the common sense is not a sixth sense, so its functions must ultimately be reducible to the activity of the special senses. He does not, though, provide any account of what it is *about* the special senses that gives them the ability to perceive the common objects. CSR, however, argues that the feature which makes this possible[72]—a metaperception that is numerically identical to the lower-order perception—is the same as that responsible for the common sense's more scholastically-entrenched functions like consciousness, joint perception, and perceptual discrimination.

But Gregoric apparently does not feel a need to provide an explanation of our ability to perceive the common objects because he thinks the ability is quite pedestrian. He explicitly compares the common perceptual ability that allows for

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[70] Ibid., 79. It is crucial to note that when he says that the ability is common, he means that each sense *considered individually* has the ability in question.
[71] Ibid., 80.
[72] Since the special senses engage in common sensing, it would be better to say not that common sensing accounts for the *possibility* of perception of the common objects, but, rather, that common sensing eases perception of the common objects. Recall the concluding passage of *DA* III.1: it is because we perceive the common objects together-with and apart-from myriad special objects that we come to recognize that the common objects are different from the special objects.

perception of the common objects to a common perceptual ability that allows for perception of apples.[73] But an apple does not present a special case in the same way that the common objects do. Apples are paradigmatic coincidental-objects; as such they would not be in-themselves perceptible by either the special or the common sense. The reason we do not feel that the ability to perceive apples needs a special explanation is precisely because it decomposes into the perception of its color, odor, taste, texture, shape, and so on.[74] A similar reduction is impossible in the case of the common objects: perception of shape does not decompose into perception of color, odor, etc.

Gregoric seems to miss this. In distancing himself from Hamlyn's reading, he says that the *aisthêsis koinê* in this passage:

> is used neither as a proper name, nor as a description necessarily restricted to the ability to perceive the common perceptible. There is nothing about this description which would prevent it from being applied to other perceptual abilities shared by the individual senses. For instance, the ability to perceive the accidental perceptibles is also shared by the individual senses, since we can detect the son of Cleon both by sight and by hearing. Hence, it seems that the ability to perceive the accidental perceptibles could also be described as an *aisthêsis koinê*—a sensitivity to certain features in the world shared by the individual senses.[75]

But this reading is quickly shown implausible. Note the context of *aisthêsis koinê*. Aristotle says "we have already a common sense for the common objects, not coincidentally" (*tôn de koinôn êdê echomen aisthêsin koinên ou kata sumbebêkos*) [425a27-28]. On Gregoric's reading, variations on *koinon* appear twice in one sentence with two

[73] Ibid., 77.
[74] Of course it does not follow that the apple is not directly perceived, but, rather, is inferred, for, on my account, to see the color *just is* to perceive the apple, though not *as* an apple.
[75] Ibid., 80.

different meanings: it is once used to refer to the common objects that Aristotle has discussed throughout the passage then later used in its adjectival form to refer to any arbitrary common or shared ability. It is a strange coincidence of terminology, according to Gregoric (and moreover, one that is not remarked upon).

This strongly suggests that the reason Aristotle calls it an *aisthêsis koinê* is because it is an *aisthêsis* for *koina*. In other words, the sensory ability in question is defined in terms of its end, what it is for, namely the perception of the common objects. This is not to deny that the common sense has other important functions; after all, not only can sight see colors but it can also see apples, or so I have argued. Indeed, sight plays many other roles as well: it enables us to not walk into trees; to enjoy beautiful paintings; to laugh at physical comedy, etc. Analogously, the common sense—while teleologically for the perception of the common objects—provides for joint perception, as we saw in the last chapter, and, as we will see in the next chapter, it further allows for the possibility of perceptual discrimination, sleep, and self-consciousness. Just as joint perception and perception of the common objects did, these latter activities will rely on an appeal to metaperceptions that are numerically identical to their lower-order counterparts,

I conclude, then, that the teleological account is able to make better sense of Aristotle's distinction between in-itself and coincidental perception. I take this to be most clear insofar as the material account cannot explain Aristotle's discussion of in-itself perception of the common objects, which is accomplished by the common sense. I indicated in this chapter that we should understand the common sense as a

capacity defined by its natural object, viz. the common objects. That this teleological definition of common sensing complements the formal metaperceptual account presented and defended in the previous chapter was demonstrated by a consideration of *De Memoria* 1 as well as by the general assumption found in both Plato and Aristotle that the perception of the common objects includes perception of sameness (joint perception) under its aegis. In the next chapter, I look to other sophisticated perceptual activities that would seem to require the common sense, and I show that in each such case Aristotle introduces common sensing by first invoking a metaperceptual apparatus.

4. CSR and Further Functions of Common Sensing

The last chapter argued that perception of the common objects is facilitated by the fact that we perceive them as compresent-with-but-distinct-from the special objects. As such, I claimed that the common sense, since it is the potentiality in virtue of which we are able to jointly perceive, is teleologically oriented towards perception of those common objects. It was demonstrated that a reductive account of common sensing, like the one provided by CSR and its commitment to the numerical identity of acts of special sensing and common sensing, satisfies the requirement that the common sense not be a sixth sense. Moreover, this reductive explanation was shown to allow for a deflationary teleological account of in-itself and coincidental perception of the sort described above and required by the dialectic of *De Anima* III.1. However, while Chapter Two argued that joint perception is subject to a metaperceptual analysis, I have not yet considered perceptual discrimination, which makes us aware of the common objects' separation from the special objects, nor have I examined Aristotle's related remarks on the other higher-level perceptual capacities of sleep and waking and self-consciousness. In this chapter, I turn to these topics. I argue throughout that CSR, which is committed to the view that all common sensing proceeds *via* metaperception, gains further confirmation from those discussions.[1]

[1] The evaluation of these passages as they bear on CSR is complicated by questions about the relation between *PN* and *DA*. As noted in Chapter Two, fn. 52, I accept Kahn's view that many treatises of *PN* refer back to *DA*, but that nothing about the order of composition follows from this. What does follow is that we can expect *PN* and *DA* to be in agreement on the larger points of contention, including the nature of the common sense and its role in the perceptual faculty in general.

4.1 Perceptual Discrimination

Just as perception of similarity requires the unified operation of the perceptual faculty, so too does perception of difference. In *Theaetetus*, for instance, the perception of difference is given as an example of a perception that requires cross-modal unification: immediately after the parties agree to the uniqueness thesis, Socrates asks how we grasp that a sound and a color both *are* (i.e. joint perception), and then how we can tell that they *are different* (i.e. perceptual discrimination) [185a-b]. Applying CSR to the trajectory of *De Anima* III.2, we see that once Aristotle has assimilated joint perception to metaperception (and has further shown that his theory of perception allows those metaperceptions to be numerically identical to their lower-order counterparts), he then turns to perceptual discrimination. Much of the discussion of discrimination focuses on points of similarity between it and joint perception. In particular, we will see, Aristotle stresses that discrimination must be done instantaneously and by a single means. As we saw in 2.8, he makes the same claim about joint perception in *De Sensu* 7 [448a1-5], so it is clear that he expects the account he gives there and in *De Anima* to apply to discrimination in the same way as it does to binding.[2]

The discussion of discrimination that follows repeatedly invokes the verb *krinein*, which, though it generally means 'to judge,' is often used by Aristotle to refer to an activity of the senses, in which case it is usually translated 'discriminate.' The

[2] Kahn [1975], 11; Hamlyn [2002], 128; Hicks [1907], 445. Gregoric [2007], 149-152 tries to pry apart cross-modal discrimination from the way that special objects are discriminated from each other. It is only the former, he argues, that gets the same treatment as joint perception does in *DS* 7. I will discuss his view below.

reason the term takes on an idiosyncratic translation in these contexts is that, as in English, the word plausibly implies an act of reason. As such, Aristotle needs to argue that one can *krinei* the difference between sweet and white merely by perception, a view that Plato rejected in *Theaetetus*.[3] He leaves consideration of the case of discrimination for after he has set up the formal apparatus of common sensing, which itself is grounded in a consideration of the seemingly less problematic capacity for joint perception introduced in *De Anima* III.1.

Accordingly, after introducing his metaperceptual apparatus and showing that a single state can be responsible for actualizing these distinct perceptual potentialities, Aristotle goes on to argue that the apparatus also suffices to explain perceptual discrimination. Here is the passage in full:

> **[A]** Therefore each sense is concerned with perceptible objects, belonging in the sense-organ as sense-organ, and it discriminates the differences among the perceptible objects belonging to it, for example white and black for sight, sweet and bitter for taste; and similarly for the other senses. Since we discriminate both white and sweet and each of the perceptible objects in relation to each other, by what do we perceive that they differ? **[B]** Indeed, it must be by perception; for they are perceptible objects. **[C]** From which it is clear that flesh is not the ultimate sense-organ, for if it were it would be necessary for the discriminator to discriminate when it is itself touched. **[D]** Indeed, neither is it possible to discriminate by separate means that sweet is other than white, but both must be evident to some one thing—for otherwise even if I perceived one thing and you another, it would be clear that they were different from each other. But it is evident that one thing says that they are different; for sweet is different from white. Therefore the same thing says [this]; just as it says so it both thinks and

[3] For Plato, cf. 1.2. For more on *krinein* and the appropriateness of the translation "discriminate," see Ebert [1983]. Hamlyn [2002] translates it as "judge" for consistency, but nonetheless agrees that Aristotle *means* "discriminate" (126).

> perceives—**[E]** then it is clear that it is not possible to discriminate separate things by separate means. [426b8-23]

Aristotle indicates, *contra* Plato, that perception alone is responsible for perceptual discrimination at [B]. But notice here what it is that must be discriminated by perception, viz. perceptibles, *aisthêta*. Now it must be, according to [B], that I discriminate those *aisthêta* by perceiving them. So here Aristotle explicitly says that discrimination must involve the perception of percept*ibles*. These perceptibles may in fact be the very lower-order perceptions that ground the discrimination, for we have already seen that perceptions are themselves perceived, and therefore that they are perceptible. If so, Aristotle is here assimilating discrimination to the same metaperceptual process that is outlined in the opening of the *De Anima* III.2. That interpretation is not necessary, since we could take it that the perceptibles referred to in this passage are nothing more than perceptible objects like the white and sweet. Nonetheless, as we will see presently, Aristotle here claims that discrimination requires a unified perception, so it is preferable to account for discrimination in the same way as we accommodated joint perception. Accordingly the second chapter's argument for CSR reinforces my reading here. I argue, then, that it is by perceiving our *perceptions* that we are able to discriminate white from sweet.

In fact, this is not an especially controversial claim. According to standard interpretations, the capacity responsible for binding in *De Anima* III.1 (425a30-b4) and *De Sensu* 7 is the same as the one responsible for discrimination in *De Anima*

III.2.[4] Both require that our perceptual faculty be unified, but whereas binding involves recognizing similarity, discrimination involves recognizing difference.[5] Since these perceptual abilities require unity in both activity and time, it is apparent that the same general capacity will be implicated. Accordingly, most commentators agree that the current passage addresses what we have been calling the "common sense." What traditional interpretations lack, and CSR provides, is an understanding of this discussion as continuous with the earlier metaperception-focused part of the chapter.

Specifically, according to CSR, it is very natural for Aristotle to return to the subject of the common sense at this point: indeed, he never left it! First, the formal account of common sensing offered in our master passage is followed by the introduction of two problems about its implementation. The resolution of those problems at *De Anima* 425b17, that the metaperception takes place in virtue of the sense perceiving itself, introduces further complications. The first is that the special senses *qua* special senses cannot provide for common sensing, for though the common sense is not a distinct sense, it is also not one of the special senses, each of which is defined relative to its special object and only perceives common objects coincidentally. He resolves this difficulty by distinguishing sight *qua* sight from sight *qua* participant in common sensing. The second problem, more germane to the topic

[4] See, for instance, Hicks ([1907], 445); Hamlyn ([2002], 126-7).

[5] There is a disanalogy between joint perception and discrimination. Joint perception depends on the predication of one particular kind of sameness, for it requires that distinct sensibles be perceived as inhering in the same perceptible object. Discrimination, on the other hand, can involve not only the recognition *that* things are different but also *how* they are different, which allows for more variation. But recognition of how things are different would appear to require the application of concepts, and, therefore, the possession of reason, in which case non-human animals would be precluded from this more sophisticated type of discrimination. Indeed, it is presumably for this type of reason that discrimination appears to be a harder case, and is, further, the reason that Aristotle finds himself invoking judgment. In any event, Aristotle doesn't seem to have noticed this disanalogy.

of perceptual discrimination, is that the resolution at 425b17 doesn't suffice to provide the unity required for the joint entertainment of different perceptible objects. If the lower-order perception and the metaperception were numerically distinct, it would turn out (to use the language from Aristotle's discussion of bile) that a further perception would be necessary. Aristotle negates this concern by claiming that in fact there will be only one activity: though it actualizes distinct potentialities, it provides the required unity by being one in number.

Once Aristotle has established that a single state can be responsible both for perceiving and for perceiving that we perceive (which, according to CSR, amounts to saying that a single activity can be responsible for both special and common sensing), he goes on to apply this general account to the seemingly more problematic case of perceptual discrimination. He stresses at 426b8-23 both that it is by perception alone that we are able to discriminate and that we do so only insofar as the things being discriminated are united in the subject to whom they are presented and in time (426b23-29).[6]

I should pause to consider an objection. In his discussion of binding in *De Anima* III.1, Aristotle states the unity point negatively: he says that no other thing is

[6] Gregoric ([2007], 147n2) accuses Aristotle of making a mistake in saying that discrimination must take place in an undivided time. He cites William James's discussion of intramodal discrimination from *The Principles of Psychology*. James says that it is easier to perceive differences when properties are presented in succession—and this is so because there is then a "*sensation of difference*" (James [(1983], 469), emphasis Gregoric's). Gregoric ignores, though, Aristotle's subsequent discussion, which presents an explicit justification for the time constraint. At *DA* III.2 426b23-29, Aristotle says that the perception must be simultaneous in order to ensure that the things said to be different are different at one time: as he puts it, "when [the same thing] says that the one and the other are different the time when is not coincidental…but it so says both now and that [the one and the other are different] now." This is again perfectly analogous to the joint perception case in *DS* 7: the objects being compared must be said to be the same or different in one and the same now.

necessary to judge that the distinct sensibles are properties of the same object [425b2]. As we saw, the word supplied for 'other' there (*heteras*) is feminine, so it is clear that he is referring to either the perception itself or to the sense responsible for the perception. If we want to interpret this passage as referring to the same sort of capacity we saw in *De Anima* III.1, we might expect Aristotle to say that the different *aisthêta* must be evident either to the (special) senses or to the common sense. It is therefore surprising to see the masculine/neuter form of the numeral 'one.'

But the claim that it is by the common sense that we are able to discriminate among perceptible objects does not imply that the common sense itself does the discriminating. Rather, it is more accurate to say that it is *we* who discriminate *by means of* the common sense. That this is Aristotle's intention is clear from [D], where Aristotle talks about *people* perceiving.[7] The conclusion is a natural one to draw: even if it is by virtue of a single metaperception that I am able to engage in these discriminations, it is more accurate to say that it is *I* who *do* the discriminating. The Trojan Horse analogy, and the assertion that *we* see *through* our senses, makes a similar point.[8] It is we who see, not our senses. Indeed, even at 425b2, Aristotle does not say that the sense *perceives* that the yellow and bile are one; rather, he says that no further perception is necessary to do the underlying work.[9]

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[7] Also see *DA* I.4 408b13-15: "For equally it is better not to say that the soul pities, learns, or thinks, but that the human [does these] with the soul (*têi psuchêi*)."
[8] Plato eschews the use of the dative for the role of the sense in *Tht*, while Aristotle endorses the dative in the quotation from fn. 8. Nonetheless, while Socrates is made to think that much hangs on the rejection of the dative (cf. 1.2), there is no reason to think that Aristotle agrees, so it would seem that the point he is making at *DA* I.4 is the same general point as the one Plato is making in *Tht*.
[9] For more on the proper subject of perception in Aristotle, see Menn [2002].

By the lights of CSR, then, Aristotle has established that, given the formal account offered in our master passage, common sensing meets both of the conditions necessary for perceptual discrimination. First, the conclusion of 425b17 shows that perception alone can present discrete sensibles for comparison, and 425b26ff makes clear how perception is able to do this in a single unified activity. This unified activity will provide a not-separate means (*ouk kechôrismenois*) by which to discriminate separate things (*kechôrismena*), as [E] puts the conclusion.

Aristotle goes on to compare the not-separate means to a geometrical point. It has been claimed that the analogy casts more shade than light,[10] and it seems that any remotely plausible interpretation of Aristotle's comments on perceptual discrimination could develop the analogy in a manner consistent with that interpretation. Accordingly, a close examination of the analogy won't provide decisive support for any particular reading, including mine. Nonetheless, demonstrating precisely how it is consistent with my interpretation will serve to further illustrate exactly how my reading goes, and will also provide a means by which to distinguish my interpretation from the one Gregoric offers.

As Aristotle elaborates on his view, he first notes, as was already implied by *De Sensu* 7 [447a12-b6],[11] that different perceptions affect sense in different ways. His examples are: first, the intramodal case of sweet and bitter, which are said to cause "opposite" (*enantiôs*) motions; then the cross-modal case of bitter and white, which

[10] Hamlyn ([2002], 128) describes the analogy as "not perspicacious in its implications, to say the least."
[11] See 2.8.

are said to move the sense "differently" (*heterôs*) [427a1]. Aristotle goes on question whether a sense could *actually* be affected in opposite ways: while the same thing may *potentially* be opposites, it does not seem that it could *actually* be opposites at any one time [427a6-9]. Aristotle resolves this by revisiting the way in which the senses are said to be one in being but different in account. Here he compares the sense-faculty to a point, which is numerically indivisible but can nonetheless be used twice (as, for instance, in the case of the end of one line and the beginning of another) [427a9-14].

Up until now, Aristotle's concerns are the same as those that open *De Sensu* 7, where he claimed that the senses cannot embody opposites and therefore only perceive one object at one time. And indeed, he even provides a solution along the same lines. He resolved the apparent puzzle in *De Sensu* by claiming that the perceptual faculty is numerically one and divisible only in account; here is the similar resolution in *De Anima* III.2:

> But [the discriminating thing] is like what some call a point (*stigmê*), which is divisible insofar as it is one or two. Insofar as it is indivisible, then, the discriminating thing is one thing and [discriminates] simultaneously, but insofar as it is divisible, it uses the same dot (*sêmeion*) twice. Insofar as it uses the boundary (*peras*) twice, it discriminates separate things, since it is in a way separate, but insofar as it [uses the boundary] once, [it judges] one thing and in one time. [427a9-14][12]

The analogy is not especially helpful, but its outlines are clear. The discriminating thing (i.e. the common sense) is one in that it is (numerically) indivisible. Accordingly, it is, in a sense, only able to judge one thing at a time. But it

[12] A similar analogy can be found in *DA* III.7 [431a20-b1]. Since its invocation there also fails to illuminate, I here discuss only the one that occurs in the present chapter.

is also divisible in the sense that it may be distinguished in being or account. It discriminates in virtue of being distinct in that way, i.e. "by using the boundary as two."

Gregoric interprets this analogy as providing two accounts: one for intra-modal discrimination and another for the cross-modal case. He notes that points or dots can be thought of in (at least) two ways. First, there is the gloss I offered above, viz. with the point understood as the end point of one line and the beginning of another. This way of understanding the metaphor captures, on his reading, the way that a single special sense can perceive difference. For Gregoric's interpretation, it is crucial that the point divides a single line, for the one-dimensionality reflects the singleness in kind of a special sense.[13] Alternatively, the point/dot can be thought of as the center of a circle, where many lines intersect at different angles. Gregoric argues that this latter picture more accurately captures instances of *cross*-modal discrimination, where the different radii represent differences among the special senses that are implicated. In support of his reading, he notes that Aristotle changes his terminology halfway through the passage just quoted: Aristotle moves from talking of a point (*stigmê*) to speaking of a dot (*sêmeion*) and both are taken to have a corresponding boundary (*peras*). This shift has not previously been thought to be significant,[14] so interpreters have accordingly thought that the analogy was univocal. But Gregoric concludes that the change in terminology corresponds to a change in

[13] He does not say it in quite this way. See Gregoric ([2007], 152).
[14] At least not to the best of my knowledge, and Gregoric cites no precedent.

subject matter, and as such he concludes that Aristotle thinks that cross-modal perception implicates a more elaborate perceptual ability than the intra-modal case.

In support of his unorthodox reading, Gregoric observes that the dot and boundary are said to be "used" (*chrêtai*), presumably by the discriminating thing. The point, on the other hand, is directly compared to the discriminating thing, i.e. the point is not "used" by the discriminating thing. As already observed, though, Aristotle is occasionally cavalier about the subject of psychological states, and this is evidently true in the immediate context of the analogy.[15] When that observation is considered along with the fact that Aristotle does nothing to signal the significance of the linguistic shift, the most straightforward reading takes it that Aristotle is giving an (unhelpful) analogy that univocally covers discrimination in one modality and across modalities. And indeed, the simplified univocal reading is continuous with the account given of joint perception in *De Sensu* 7: Aristotle understands both joint perception and perceptual discrimination as potentialities that require no psychological faculty beyond the perceptual one, and he further takes both to require that the perceptual faculty be one in number but multiple in account. According to CSR, these desiderata are met by means of his metaperceptual apparatus. Since these metaperceptions turn out to be numerically identical to the lower-order state(s) that they take as their objects, it follows that there is a compresence of numerical identity and descriptive diversity. CSR, then, is able to account for the possibility of

[15] See, for instance, [C] in the present passage, where Aristotle talks of flesh as the discriminator. Also see [425a31] ("The senses perceive each other's objects…").

perceptual discrimination, and it does so in a way that furthers the continuity of *De Anima* III.1-2 and *De Sensu* 7.

4.2 *De Somno* 2 and the Dative of Instrumentality

> **[A]** Since each sense has something special and something common—for example, seeing is special to sight, and hearing to the sense of hearing, and the same way for each one of the other [senses]—**[B]** there is some common potentiality accompanying all of them by which one also perceives that he sees and hears **[C]** (for of course at any rate it is not by sight that one sees that one sees, **[D]** and certainly one discriminates, and is able to discriminate, that sweet things are different from white things neither by taste nor by sight nor by both, **[E]** but by some common part of all sense-organs; **[F]** for there is a single sense, and the proper sense-organ is single, but the being of the perception of sound is one genus and the being of the perception of color is another). [455a12-22]

At [E], Aristotle again ascribes perceptual discrimination to a common power accompanying all of the special senses. At this stage in *De Somno,* he is in the process of providing an argument that sleep and waking are controlled by the common sense: immediately preceding the quoted passage, he claims that all of the senses must be disabled in sleep [455a25-26], and he is here drawing out the conclusion that sleep must then be an affection of the common sense. The 'common potentiality' possessed by the senses at [B], then, is nothing other than the common sense.[16] It is accordingly suggestive that Aristotle immediately ascribes perceiving that one sees and hears to this common potentiality. For while traditional interpretations of this passage must take it that Aristotle is arbitrarily mentioning yet another function of the

[16] See, for instance, Ross ([1955], 259).

common power in question, viz. awareness of some kind,[17] CSR has a better understanding of the allusion.

According to CSR, it is not the case that Aristotle is merely mentioning an arbitrary function of the common sense. Rather, he is describing *how it is that this common power manages to perform all of its functions*. The fact that he uses an instrumental dative (*hêi kai hoti horâi kai akouei aisthanetai*) supports this interpretation. It is *by* perceiving that we perceive that common sensing occurs. The common sense is able to provide the means by which we discriminate—and sleep and wake—in virtue of the fact that it has the potentiality to perceive its own perceptions, and these functions are performed when that potentiality is actualized. When that potentiality lay dormant, on the other hand, we are said to be asleep.

Gregoric agrees that "perceiving that we see and hear" is not an arbitrarily chosen example. He notes that Aristotle calls this activity the "common function" of the common power, and he later says that this type of perceiving must be "something characteristic of waking, and its lack something characteristic of sleep" if the argument is to work.[18] Gregoric concludes that the criterial waking activity is simple awareness that our senses are in activity.[19] But it is far from obvious that this type of awareness is especially characteristic of waking life, nor is it obvious that a failure to

[17] Ibid.
[18] Gregoric ([2007], 165; 168).
[19] Gregoric gives the same account of "perceiving that we see and hear" in *DA* III.2 (174-189). In this, his view is closest to Osbourne [1983].

be aware that our senses are active is characteristic of sleeping.[20] Moreover, Gregoric has no account of why Aristotle mentions perceptual discrimination. Discriminating is certainly not criterial of being awake, for while it is presumably true that one does not discriminate when she is asleep, it isn't the case that one is always discriminating while awake.[21]

A preferable reading is the following: earlier in *De Somno* 2, Aristotle notes that, in sleep, all of the senses must be dormant simultaneously [455a9-12]. But if simultaneous inactivity is not a massive coincidence, the senses must be united in order that they can be turned on and off together. In the quoted passage, then, Aristotle points out that he has in fact already[22] provided for such a unity, in virtue of the sense faculty's ability to perceive that we see and hear. He illustrates this again by reference to perceptual discrimination. Here the point seems to be that since it is clear that we can discriminate, and since discrimination requires that we perceive that we see and hear (i.e. requires that we engage in common sensing), the senses must be unified. Accordingly, their unified inhibition in the context of sleep introduces no further complications. Aristotle concludes the quoted passage by giving his by-now characteristic explanation of the unified faculty: while the perceptual capacity is one in number, the individual senses are diverse in being.

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[20] I spend many waking hours attending to what I am seeing and hearing (Gregoric ascribes perceptual consciousness to the individual senses (170)), but not nearly as many attending to the fact that my senses of sight and hearing are active, and I suspect that my experience is typical.
[21] At least not in the way Aristotle has in mind, whereby one is aware of the differences among different perceptible objects.
[22] Earlier in the same *DSV* chapter [455a8-9]. Aristotle explicitly refers to *De Anima*.

Here we also find support for the view expressed in chapter two that the senses can individually participate in common sensing,[23] for at [A] he says that each sense has (*huparchei*) something common, and also that there is a common part of all sense-organs.[24] Nonetheless, it may be thought that there is a conflict between the conclusion of *De Anima* III.2 425b12-17—that the sense in a way perceives itself—and the claim at [C] above that it is not by sight that one sees that one sees. But here it is important to bear in mind the comments that follow the *aporiai* of III.2, where Aristotle distinguishes between two different kinds of seeing by sight [425b17-26]. This passage can be taken to mean that it is not by sight *qua sight* that one sees that one sees, which is exactly what he concludes at *De Anima* 425b20-22.[25]

One might object that Aristotle also uses the nominal dative construction in the *De Anima* passage when he says 'to perceive *by sight* is not one thing,' which suggests that on this reading of *De Anima* it *is*, in a sense, *by sight* that we see that we see. But even in this *De Somno* passage, Aristotle affirms that we (in a way) see that we

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[23] Cf. 2.5.

[24] This would seem to be a reference to the heart. While some have argued that the focus on the heart in *PN* suggests that there is inconsistency between *PN* and *DA* (see, for example, Ross [1955]), other scholars hold that *DA* is concerned with a formal account of psychology in general and so generally avoids discussing the physiological-cum-material underpinnings of perception (Kahn ([1975], 14-15)). Gregoric [2007] notes that Aristotle shifts seamlessly between talk of the senses and the organs in this passage: he says that this shows that "Aristotle seems to suppose that if a function is ascribed to a capacity, it can also be ascribed to the bodily part in which this capacity is located" (167). This marks another commonality between Plato's account of perception and Aristotle's, as I earlier stressed that Plato cavalierly shifts between the two, cf. 1.2.

[25] Similar accounts of the consistency between this passage and the *DA* one are provided by Caston ([2002], 779) and Kosman ([1975], 517-8), though both also argue that this passage supports the view that the common sense should be thought of as only arising from the joint operation of the senses and is therefore not possessed by the senses considered individually. Neither commentator addresses the fact that Aristotle here says that *each sense* (note the singular) has something common. Since the perceptual faculty is a strong unity, claiming, as Aristotle does, that the individual senses are able to participate in common sensing is not in any conflict with the thought that common sensing is an activity of the perceptual faculty as a whole.

see: while he denies that it is by sight, he does not quibble with the general claim that we see that we see.[26] Aristotle seems to have changed his mode of expression from *De Anima* to *De Somno*. In the former, he is comfortable with saying that common sensing happens by sight, but not by *seeing*, whereas in *De Somno* he asserts that common sensing involves seeing, but doesn't happen by sight. It does not seem that there is an inconsistency here of sufficient severity to motivate either the claim that Aristotle has changed his view,[27] or that, contrary to the evidence, he does not draw any definite conclusions in the opening discussion of *De Anima* III.2.[28] According to both passages, the sense itself is responsible for the metaperception, but it is responsible in virtue of some common or generic power rather than its special one. Viewed in this way, it is clear that the discussion in *De Somno* is not just consistent with CSR but in fact supports that reading.

4.3 Self-Consciousness

4.3.1 Perceiving that We See, Hear, Walk, and Think

Aristotle explicitly invokes a metaperceptual apparatus in one further text. In *Nicomachean Ethics* IX.9, he argues that the pleasure of living follows from the fact that

[26] Caston [2002], 779n59 claims that *horâi* (see) should not be read literally. Instead, Aristotle intends a "wider, epistemic use" of "see" that would not extend to, e.g., smelling that we smell. He is emphatically *not* saying, according to Caston, that we actually *see* that we see. If this is right, then the language is rather misleading—since the question at this juncture is "how does the sense faculty perceive its own perceptions?," and since Aristotle is here sensitive to the difference between the common and the special work of the senses, it would be surprising for him to be speaking so loosely. My interpretation has the virtue of understanding him as employing the term in its technical sense.
[27] See, for instance, Block [1961a].
[28] See, for instance, Hicks [1907], 434; Kahn [1975], 11.

we perceive ourselves in activity. He seems in this context to be referring to self-consciousness, i.e. one's awareness that it is *she* who is engaging in the activities that constitute life. Here is the text:

> **[A]** But if living is itself good and pleasant, **[B]** (and it would seem to be also from the fact that everyone desires it, and most of all decent and blessed people, for life is most choiceworthy for them, and their living most blessed), and **[C]** someone who sees perceives that he sees, and one who hears that he hears, and one who walks that he walks, and **[D]** similarly in other cases there is something perceiving that we are in activity, **[E]** so that if we perceive, [it perceives] that we perceive, and if we think[29], [it perceives] that we think.[30] **[F]** And [perceiving] that we perceive or think [is perceiving] that we are **[G]** (for existing is perceiving or thinking), and **[H]** if perceiving that one lives is pleasant in itself (**[I]** for living is good by nature, and **[J]** to perceive the good as being in oneself is pleasant), then **[K]** living is choiceworthy, especially for the good, **[L]** because for them existing is good and pleasant, **[M]** for they are pleased to perceive something good in itself together [with their being]. [EN 1170a25-b5]

Aristotle here accommodates the fact that perceptions are integrated with thoughts and other first-personal states. That is, I do not merely experience a scene as perceptually-unified: I also experience it as unified with my discursive thoughts about that scene, and with any movements I might make within that environment. When I simultaneously think that I am thirsty and perceive a glass of water, for instance, I do not have to piece together that the same subject is both perceiving the water and feeling thirsty. Examples of this type abound. As in *De Anima* and *Parva Naturalia*, Aristotle here accounts for the unity of our experience by positing a single perception

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[29] *noein* and its cognates are often translated "understanding." The reason for this is that *noein*, unlike "thinking," is factive. I nonetheless have chosen to translate *noein* as "thinking" because it better reflects what Aristotle means when he claims *to gar einai ên aisthanesthai ê noein* ("for existing is perceiving or thinking"). Note also that he uses *dianoia* ("thought") at 1170b12 in a way that seems continuous with his use of *noein*.

[30] Accepting the Bywater emendation, to be discussed below.

that ranges over otherwise-discrete activities. As such, this passage further supports CSR, for Aristotle yet again invokes meta-psychological perceptions when unification is at issue.

It might be suggested that *aisthanesthai* is here employed in a looser sense than that which has heretofore concerned us. There is some precedent for this: Plato in places uses *aisthanesthai* to pick out acts of noticing.[31] Nonetheless, it seems that Aristotle must here have its technical sense in mind. The term, after all, is used here in the context of perception and thought as the constituents of a human life. Given the psychological taxonomy he employs in distinguishing among plants, non-human animals, and humans, he is likely to be appealing to perception strictly so-called.[32]

The argument is extremely dense, so it will be helpful to unpack it. At [A], Aristotle claims that it is intrinsically good and pleasant to live (*to zên*). In understanding this claim, we should bear in mind precisely what he takes living to consist in. Just before the passage at hand, Aristotle takes care to lay aside consideration of lives that are vicious (*mochthêran*), corrupted (*diephtharmenên*) or pained (*en lupais*) [1170a22-23]. These lives, he claims, are indeterminate (*ahoristos*). Since he earlier asserted that life is good and pleasant insofar as it is determinate (*hôristos*) (1170a18-20), such lives will not be intrinsically good or pleasant.

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[31] For more on this, see M. Frede, [1987a].

[32] Moreover, even if this objection were well-founded, it would not affect the argument I have presented for CSR as an account of Aristotle's formal conception of common sensing. Instead, it would imply that the passage at hand is irrelevant to common sensing as discussed in *DA* and *PN*. Note especially that while it would make no difference to CSR, this objection would undermine Caston [2002]'s argument about the motivation for the second *aporia* in our master passage. If *aisthanesthai* is read loosely here, this passage provides no basis for ascribing to Aristotle the general view that all psychological states must be perceived, which is precisely what Caston uses this passage to do.

One argument for [A] is the metaphysical one adduced above, viz. life is good because it has determinate order, and order is proper to the nature of what is good. At [B], though, Aristotle introduces a new premise to support [A]. This premise relies on psychological considerations: the intrinsic pleasantness of life is manifest in our desire to continue living.[33] Since people who are not vicious, corrupted, or pained will desire what is pleasant, the fact that they desire to live is proof that living is pleasant.

At [C], the focus shifts to perception. The transition here is jarring: it is initially unclear how Aristotle takes [C] to relate to [A] and [B]. In trying to understand the flow, it will help to look at the internal structure of the argument from [C] to [F], then see how these steps, together with [A] and [B] contribute to the concluding portions of the passage.

[D] is clearly a generalization of [C]: for all activities of a human being, there is something that perceives that activity.[34] Aristotle's claim here is broader than the one he makes in our master passage: while he there speaks only of perceiving one's perceptions, he here asserts that one perceives all of one's activities.[35] Nevertheless,

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[33] Note that Aristotle also says that life is especially desired by decent and blessed people. Indeed, throughout this passage he applies the arguments not just to the average life, but also to the blessed one. The reason for this is that our passage occurs in Book IX, where Aristotle is addressing the value of friendship, and it is offered as part of an explanation of why the happy and blessed man needs friends.

[34] It is unclear whether Aristotle would think this holds just for humans, or for animals more generally. Given that it only appeals to the perceptual faculty, one might expect it to be true for all creatures with that faculty. But Aristotle's interest here is with humans, and in any event the use of the first-person plural throughout suggests that he is focused on humans. I think it best to conclude that this passage is non-committal when it comes to the perceptual activities of non-human animals, and I therefore exclusively discuss humans in what follows.

[35] Though he makes this claim in an unqualified form, charity requires us to add some qualifications. When one sunburns, her skin is in activity, but we wouldn't expect Aristotle to say that she of necessity perceives that activity. Walking, too, we are aware of insofar as it is an object of proprioception. As such, the claim he is making here seems to be that we always perceive our

most of the examples at [C] are of perceiving perceptions. The only exception is his claim that we perceive that we walk. He must have in mind here some kind of proprioception, for, to state the obvious, we are not always looking at, listening to, etc. our legs while we stride through the agora.[36] This fact is significant because it points to the difference in the way we perceive our own activities and the way we perceive others' activities: the latter always requires active functioning of one (or more) of the five special senses, while the former does not. Indeed, it is in virtue of the enlarged scope of [C] that not all of the meta-psychological perceptions in question will engage the five special senses and their organs. In our master passage, the activity of the common sense always implicated the activity of a special sense (though not necessarily as that sense); this was so because the meta-psychological perceptions under consideration there always took lower-level perceptions as their object. In contrast, this passage—with the examples of walking, and, later, thinking—implicates some meta-psychological perceptions that do not take lower-level

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psychological activities. Since some of these lower-level activities are non-perceptual, but all are psychological, I will refer to this more general type of metaperception as a "meta-psychological perception." The "metaperceptions" of III.2 should be understood as a special case of the more general claim Aristotle makes here. Metaperceptions are a special case of meta-psychological perceptions because being a metaperception is sufficient but not necessary for being a meta-psychological perception. It does not follow that the assertion at *DA* 425b12 gets its *justification* from this more general principle. Instead, the claim in our master passage can, and I have argued should, be taken to have an organic motivation from within the text of *DA*. Indeed, I argue below that an inverse relation is preferable: the extension to all psychological activities found here is motivated by the *DA* passage—specifically, a continued interest in psychological unity therefore leads Aristotle to a broadening of the psychological states that are themselves objects of perception.

[36] Someone might argue that we always feel our walking through the bottom of the foot. I think it perfectly conceivable that we could lack that tactile sensation yet still be able to tell that we are walking. In any event, Aristotle uses perceiving that we think at [E], and clearly that meta-psychological perception is not dependent on any of the five special senses.

perceptions as their objects. No special sense need be in activity when the subject is perceiving his non-perceptual psychological states.

I have argued throughout this thesis that common sensing occurs when meta-perceiving does, and I have defended my account by means of the numerical identity of the higher- and lower-order perceptions. Specifically, I claimed that that identity gives Aristotle the tools he needs to provide unity and to neutralize the appearance of a separate or emergent power that talk of a general or common perceptual power invites. While that suffices as an explication of common sensing as it operates in the various strictly-perceptual contexts we have considered to this point, it will not fare as well in this enlarged class of meta-psychological perceptual states. Given that thinking and our proprioceptive awareness of walking are not themselves perceptions, the perception of our thinking (or of our walking) will *not* be a perception *of a perception*. The most conservative adjustment of the apparatus provided by *De Anima* and *Parva Naturalia* would accommodate these cases by saying that they involve perception of some lower-order state or other. In cases of joint perception, discrimination, sleep, etc., the lower-order state that is perceived will itself be a perception. But in cases where perceptions are joined with thoughts, we will have perceptions of perceptions *and perceptions of thoughts*. This revision, then, will identify common sensing with any meta-psychological perception. And this is exactly what we see Aristotle suggesting here, which supports my view that Aristotle thinks of metaperceptions as having general efficacy in accounting for various kinds of psychological unity.

I have suggested that Aristotle adjusts his theory in a non-invasive way, viz. by simply broadening the class of psychological states that are perceived. That certainly is the view expressed in the discussion as I have presented it, but whether the passage carries that implication depends on the manuscript being employed. The translation above adopts an emendation originally suggested by Ingram Bywater in 1892. Specifically, at [E], Bywater changes what were originally indicative verbs into subjunctive ones, which allows him to read conditionals into the passage that then allow for an implicit *aisthanometha* before *nooûmen*. In other words, where the older manuscript says that we perceive that we perceive and *think* that we think, the Bywater emendation takes it that we perceive both that we perceive and that we think. Since its original suggestion, the emendation has generally been adopted.[37] Because it fits with his earlier general claim at [D] that something *perceives* that we are in activity, the emendation is internally motivated. Charles Kahn agrees, and further claims that the language of the Bywater manuscript is "more characteristically Aristotelian."[38] Conversely, Victor Caston claims that the emendation is unnecessary, and that, given its "profound doctrinal ramifications," it ought to be rejected.[39] But while the emendation does suggest a higher-order perception view of self-consciousness (a substantive doctrine to be sure), [D] already carries that implication, so it does not seem possible to read the passage in any less committal way. Given,

[37] See, for instance, Broadie and Rowe [2002]; Ross [1954]; Irwin [1999].
[38] Kahn ([1975], 28n82).
[39] Caston ([2002], 775n49).

then, that the Bywater emendation introduces no new commitments and increases internal coherence, I here adopt it.[40]

Thus far we have determined that [A] is the protasis of a conditional.[41] Moreover, Aristotle asserts it to be a true protasis, for both metaphysical reasons [1170a18-22] and psychological ones [see [B]]. At [C], Aristotle shifts to examples of metapsychological perceptions, which he generalizes at [D]. [E] serves as an elaboration of [D], but it also explicitly extends the thesis to thinking (*noein*). This extension proves significant, for Aristotle earlier argued that a human life is defined (*horizesthai*) by the capacity to perceive and think. Accordingly, to live properly (*kuriôs*), we must (actually) perceive (*aisthanesthai*) and think (*noein*) [1170a17-19]. He reiterates this conclusion at [G]. [G] and [E] together give us [F]: if existing is constituted by perceiving and thinking, then our perception of those perceptions and thoughts just is perception of our existence.

The move from [G] and [E] to [F] is puzzling, for it seems to be an instance of illicit substitution into an opaque context. At [F] Aristotle asserts not just that we perceive our perceptions and thoughts; rather, he asserts we perceive that *we* are perceiving and thinking. It will not suffice, then, for perceiving and thinking to be identical in number with existing: they will also have to be identical in account. To present this objection, though, is to have not taken the moral of 1170a17-19 seriously enough. There, as we saw, he *defines* being as perceiving or thinking. For a human,

[40] I argue for the Bywater emendation here because it supports my reading of the tight connection Aristotle sees between unity and metaperception more generally. Note, though, that adopting the emendation is crucial to the challenge I pose for Aristotle in the next section.

[41] The apodosis is [H⊃K], but more on that below.

then, perceiving or thinking is identical to existing in the strongest sense, viz. it is identical in both number and account. As such, substitution is allowed, and perceiving that one perceives or thinks *just is* perceiving that one exists.

[H] is a second protasis, and the truth of the protasis is grounded in [I] and [J]. Perceiving that one lives is pleasant because living is good and perceiving the good in oneself is pleasant. The use of *en heautôi* in [J] is noteworthy, for it is the first explicit reference in this passage to the self. It is here introduced to resolve a possible ambiguity. The conclusion at [F] is that we perceive that we are, but this can be taken in two different ways. Firstly, it may be that we perceive existence but need not identify that existence as being *our* existence. On this interpretation, the force of the claim that we perceive that we are is on the "are"—it is existence that is being perceived. In that case, the perception that we exist will be on the model of other perceptions, just as I perceive that a tree exists when I perceive the tree. The second reading invokes self-consciousness: here the force of the claim that we perceive that we are is on the whole of the structured proposition: that it is *we* who *are*. [J] makes clear that Aristotle intends the second interpretation and accordingly justifies the common claim that this passage discusses reflective self-consciousness and *not* the pre-reflective consciousness that attends all conscious states whatever.

But notice that reflective self-consciousness doesn't enter the picture until *after* Aristotle has already asserted the general thesis found at [D]. It does not seem, given both the structure of this passage and the context in which it occurs, that Aristotle starts off with the phenomenon of self-consciousness in mind and goes on to provide

an explanation. Rather, he holds it to be independently true that we perceive all of our perceptions, and from this it just so happens to follow that we are self-conscious. Of course being self-conscious turns out to have important ramifications for the pleasure and choiceworthiness of life, but the crucial point for our purposes is about the relationship between [D] and [J], not the relationship that [J] bears to the later parts of the passage.

Thus, Aristotle apparently holds [C], [D], and [E] for reasons independent of a felt need to explain the phenomenon of self-consciousness. All of this is grist for CSR's mill. For, according to CSR, Aristotle is committed to [D] because meta-psychological perception provides the psychological underpinnings of a unified life in general—and from that unified life, self-consciousness happens to follow. As in the case of strictly-perceptual unity discussed in *De Anima* and *Parva Naturalia*, the fact that the lives of humans are composed of interrelated thoughts, perceptions, and movements requires that some single perception take in those thoughts, perceptions, and movements. The argument of *Nicomachean Ethics* IX.9 1170a25-b5 shows that the need for meta-psychological perceptions happens to lead to self-consciousness. In other words, self-consciousness is a coincident that follows from two facts: (1) we must perceive our perceptions and thoughts in order to explain the unity of our conscious lives; and (2) thoughts and perceptions are constitutive of our existence.

Given the truth of [H], as supported by [I] and [J], Aristotle concludes [K]: living is in fact choiceworthy. We earlier saw that this argument only holds for those who are not vicious, corrupted, or pained, but this class will include people who are

not entirely good. Nonetheless, living is especially choiceworthy for those who are good, Aristotle argues, because, as he asserts at [L] and [M], [I] and [J] are especially true for them.

We see, then, the structure and function of the above argument. The conclusion that is most significant at this point of *Nicomachean Ethics* is the claim that living is choiceworthy [K], together with the claims that support this: (1) simply in virtue of living, we perceive our own living (from [E] and [F]); and (2) to perceive our own living is good and pleasant (from [H] and [J]). Aristotle goes on to argue for the value of friendship by claiming that we are related to our friends as we are to ourselves: as such, to see my friend living will also be choiceworthy. Indeed, he famously uses *sunaisthanesthai* at 1170b10 to describe the co-perception that occurs between or among friends. The implication seems to be that there may be one activity, or perhaps two activities that are sufficiently similar, that occurs when friends perceive together.[42] Even if *sunaisthanesthai* is used by later writers to invoke simple consciousness, there is no indication that Aristotle is using it here in that sense: the most obvious reading by far is to take the *sun* prefix as taking on its normal meaning of 'with' and affixing to the two subjects, viz. the man and his friend.[43]

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[42] At [1170b7-8], Aristotle says that a friend's being is choiceworthy either in the same way or in a similar way (*paraplêsiôs*). I here extend that "same or similar" way to the nature of co-perception.
[43] Most commentators agree that *sunaisthanesthai* is not invoked in order to refer to consciousness, see, for instance, Kahn [1975]. Note, though, that it would not undermine my overall point if *sunaisthanesthai* were a reference to conscious awareness, cf. 2.3. Caston ([2012], 34) claims that even in Alexander's time, *sunaisthanesthai* rarely referred to just any instance of perceptual consciousness (which Caston says Alexander ascribes to "perception proper"). Instead, Caston argues, it most often refers to a type of awareness that accompanies the perception of something else, and his examples are all cases of joint perception.

For present purposes, the lesson to be taken from this passage is that Aristotle invokes language similar to that which we find in our master passage when he attempts to describe the psychological underpinnings of broad unity. On my account, this implies that Aristotle means to invoke the common sense as an explanation of this phenomenon, for, according to CSR, any reference to a metaperception is a reference to the formal underpinnings of common sensing. As we saw above, he here enlarges the class of higher-order perceptions to include perception of non-perceptual states. In tying together perceptions of our perceptions with perceptions of other psychological states like thinking and proprioception of our walking, Aristotle is committing himself to the view that one single faculty is responsible for both. If the common sense is responsible for metaperceiving,[44] then, it will also be responsible for the self-consciousness that follows from the broader class of meta-psychological perceptions.[45]

The above suffices for exegesis, but two issues remain to be addressed before we can conclude that perceptions of non-perceptual states are able to provide this needed broader unity: (1) How is it that Aristotle can describe some meta-psychological states as perceptions when those states don't require the activity of any

[44] Recall again that commentators agree that the common sense is responsible for the meta-perceptions that open *DA* III.2. As such, all who take this passage as genuinely appealing to perception will hold that the common sense is responsible for this activity as well.
[45] Non-human animals are incapable of perceiving their thoughts, but this is because they are unable to have thoughts, not because of some failing of their perceptual capacity.

special senses?; and (2) Will the identity of the higher- and lower-order states be assured in such cases?[46]

4.3.2 Problems for the Enlarged Scope of Metaperception

It remains to be seen whether Aristotle can, without violating the strictures of his theory, enlarge the class of lower-order states that are perceived to include those that are not themselves perceptual, that is, states like thinking and proprioception of our walking. In particular, we should ask how, given his account of perception, it is even *possible* to perceive non-perceptual psychological states. In general, something is perceptible iff it has a perceptible form.[47] External objects are perceptible in virtue of the forms those objects possess, which make up the (potential) colors, sounds, odors, etc. of those objects. Perceptions have the potential to themselves be perceived in virtue of the fact that they also have perceptible form, and this is so because perception consists in the subject taking on the perceptible form of the object. But, excluding visible leg movements and tactile sensations, what perceptible form does walking possess? Even worse, how could thought be perceptible?[48]

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[46] I know of no modern literature on either one of these issues: interpreters have seemed satisfied with addressing *why* Aristotle would claim that we perceive all of our thoughts and perceptions and with determining the role it plays in the argument of *NE* IX.9; they have therefore ignored questions about whether the account works. As such, the next section is somewhat speculative. It is motivated by an interest in whether Aristotle's account can possibly claim to be comprehensive.

[47] Given Aristotle's view on form (cf. I.1), this could also be stated in an obviously-vacuous way: an object is perceptible iff it has the potential to be perceived.

[48] [Philoponus] (*De An.* 465,26-31), presents a similar objection against the idea (which he ascribes to Plutarch and Alexander, but which also would hold of Aristotle) that the common sense observes its own activities. For, he says, perceptual senses can only take in sense-objects, which in turn must exist in bodies. Since, according to him, the activity of perceiving does not exist in a body, it follows that that activity is not able to be perceived. This objection, though, seemingly does not take into account the view found in Aristotle that the activity of the sense is nothing other than the activity of the

If Aristotle's view in this passage is to work, then it must be possible for thought to be perceptible,[49] but his discussion of *nous* makes it difficult to see how this could be so. In his fullest discussion of the subject, at *De Anima* III.4, he does analogize thought and perception, but he does so largely in order to call attention to the differences between them. In particular, while he notes that both perceiving and thinking involves the taking on of a form, perception takes on the sensible form, and thought the intelligible form. It follows that thought and perception have formally different objects, which Aristotle explicitly states at *De Anima* III.4 429a17-18. Though many objects will have both types of form (as I may both perceive and think about a rabbit), the object of perception (the sensible form of the rabbit) is different from the object of thought (the intelligible form of the rabbit) in the same way that the perception is different from the thought. Aristotle is clear that, like the *aisthêtikon* and the *aisthêta*, *nous* is potentially the *noêta* (429a15-16), and, though he is not explicit on this, as in the perceptual case, he would presumably identify the activity of the *noêta* with the activity of the *nous*.[50]

Aristotle further notes that *nous* "must have no other nature than this, that [it is] potential" [429a21-22]. As noted above, when it is actively thinking, *nous* will take on the intelligible form. But it will only be intelligible form, so insofar as intelligible

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sense-object. If one is perceptible, then the other will be as well. It might be thought that [Philoponus]'s objection here depends on a general view about activities (viz. that they don't exist *in* bodies), in which case Aristotle would presumably respond by rejecting the assumption that only things *in* bodies in this way are perceptible. For it is clear that, for Aristotle, perceiving is an activity, viz. the activity of the sense-object (or, equivalently, the activity of the sense).

[49] Assuming the Bywater emendation.

[50] He does later say that *noêta* that lack matter are, when thought, identical to the *nous* [430a3-4]. This will be so because *noêta* without matter are purely intelligible objects. It would seem to follow that in the case of material objects, the activity of the *nous* will be identical to the activity of the intelligible form of the *noêta*.

form is different from perceptible form, *nous* will lack perceptible form, therefore rendering it unable to be perceived.[51]

Indeed, Aristotle repeatedly stresses, in *De Anima* III.4 and elsewhere, that *nous* is immaterial. It would seem, though—especially given the physical account of medium and organ presented in *De Anima* II.5-11[52]—that being perceptible requires some material substratum or other. I cannot see any way to reconcile the natures of *nous* and *noêta* on the one hand, and *aisthêtikon* and *aisthêta* on the other, such that thought could be in any way perceived.

Moreover, even if there were a way for thought to be perceived, we would immediately run into problems establishing the unity of the lower-order thought and the perception of that thought. As we have seen, the numerical identity of the activity of perception and the perceived object is necessary for the success of Aristotle's account of the common sense. In *De Anima* III.2, Aristotle is at pains to find a way to establish the unity of perception, both in joint perception and, later, in perceptual discrimination. There must be, as he notes in *De Anima* III.1 and *De Sensu* 7, a single activity that binds and, as he says in *De Anima* III.2, a single activity that discriminates. Fortunately, as we saw, since the activity of perceiving and being perceived are identical according to Aristotle, so too my perceiving of a perception

[51] The relationship between intelligible form and perceptible form is more complicated than this analysis suggests, since for Aristotle we come to grasp/take on intelligible form only after (and *via*) a grasping/taking on of perceptual form. There are large issues here that this sketch is not going to be able to address, but it's worth noting that Aristotle's epistemology goes from particular perceptions to universal thoughts, *not*, as we would need in this context, the inverse movement from thought contents to perceptual contents. In other words, while Aristotle's empiricism implies that perceptible form is fodder for thought, it doesn't obviously require that sensible form is fodder for perception. As I say, though, these considerations are suggestive at best.

[52] Cf. I.3.

will be identical both to that lower-order perception and to the activity of the external object being perceived. There is just one perceptual activity that could be described in at least three ways, and it is the numerical singularity of that activity that allows for the experience of unity.

Similarly, if the perception of thinking (or walking) is to explain broader psychological unity, the meta-psychological perception of the thought has to be identical to the thought itself. But even if, *per impossible*, a thought could be perceived, that perception would only be identical to the activity of the perceptible form of the thought: the intelligible form would be left out and the thought would accordingly outstrip the content of the meta-psychological perception. We are thereby left without an account of how the strictly-intelligible features of a thought come to be unified with our perceptions.[53] Our conscious lives manifest that there is continuity between perception and thought, but meta-psychological perceptions are not up to the task of explaining that fact.

It seems that meta-psychological perceptions cannot do the requisite work because of the bright-line distinction that Aristotle elsewhere draws between the *aisthêtikon* and *nous*: both deal with different kinds of objects and have different

[53] In other words, it is surely right that my perceiving of my thinking and my thinking being perceived will be identical, and this for the perfectly general reasons given in *De Anima* III.2. But my thought being perceived will *not* be identical to the thought itself any more than a rabbit being perceived would be identical to a rabbit. So even if the thought turns out to be perceptible, the thought itself will not be fully present in the metaperception, and accordingly there will be aspects of that thought that won't be unified with other psychological states of the individual.

material underpinnings.[54] As such, it is difficult to see how they could be fully integrated. The rigidity of the distinction is presumably motivated by Aristotle's felt need to sharply distinguish humans from non-human animals. For him, possessing *nous* is not a small biological step; rather, it is an altogether different type of thing than the *aisthêtikon*.

In the present passage, Aristotle seeks to explain psychological unity more generally on the same model that he used to explain perceptual unity. He therefore attempts to make the slight emendation I suggested by moving from metaperceptions to the wider class of meta-psychological perceptions. In this section, I have argued that the extension is illicit: the common sense as understood in *De Anima* and in the treatises of *Parva Naturalia* cannot account for the broader psychological unity of thought and perception—nor, therefore, can it underpin self-consciousness in human beings.[55]

It is nonetheless clear that Aristotle thinks that higher-level perceptions can account for psychological unity in general: he says as much in the passage at hand. That he supposes a similar approach will work in this context supports CSR. For

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[54] For instance, Kahn ([1975], 24) observes: "The only absolute restriction [against using *aisthêsis* and its cognates] lies in the Aristotelian (and Platonic) antithesis between the two faculties of discernment: sense and intellect."

[55] It would seem from the argument of the last section that non-human animals have (rudimentary) self-consciousness, and that self-consciousness is provided for by the common sense. For just as it is definitional that human life consists in (nutrition and) perception and thought (from which it followed that perceiving those perceptions and thoughts was perceiving one's life), non-human life consists in (nutrition and) perception (from which it seemingly follows that perceiving those perceptions is perceiving one's life). Of course perceiving one's life *as one's life* requires the possession of concepts, which non-human animals lack. It is for this reason that the self-consciousness in question would be rudimentary. It is indeed rather doubtful that we would want to call such awareness "self-consciousness" at all, but since *NE* IX.9 focuses on humans, consideration of these questions would be speculative at best. On the difference between "seeing" and "seeing as," and what role if any it plays in Aristotle's taxonomy, see 3.5.

Aristotle's invocation of higher-order perception in this context suggests that perception of lower-order states is, according to him, necessary and sufficient for unity. This is an appropriate assumption only if these perceptions are not just *one way* that common sensing takes place, but are, rather, are *the only way* it does.

In this final chapter, I have argued that, in addition to joint perception and in-itself perception of the common objects, Aristotle also takes discrimination, sleep and waking, and self-consciousness to depend upon common sensing. Moreover, I have demonstrated that, when describing the operation of the common sense, Aristotle repeatedly invokes language that mirrors our master passage. Accordingly, I conclude both that he takes a single potentiality to underpin all of these perceptual abilities, and that the potential to perceive our perceptions is the potential in question.[56]

Throughout the thesis, I have argued that Aristotle is attracted to this view because the metaperceptual apparatus gives him the means to explain how, in activity, common sensing is nothing over-and-above special sensing. Socrates, in *Theaetetus*, created real problems for any theory of perception that goes beyond the activity of the special sense and their organs. So, since Aristotle is committed to a taxonomy that forbids non-human animals from possessing reason, he has to give a deflationary account of common sensing. He needs to explain how non-human animals can be in sophisticated psychological states (most prominently, they will have to be able to grasp similarity and difference among objects), but explain it in a way that doesn't

[56] Also, contrary to the natural modern view that these disparate functions don't share any commonalities, I have provided some considerations meant to suggest that they would have seemed sufficiently similar to Aristotle, at least.

invoke any activities numerically distinct from the activity of the special senses. The metaperceptual apparatus can do just that, given Aristotle's underlying metaphysical commitment to the identity of the activity of the sense-object and the activity of the sense. Aristotle is shown, then, to have a substantive but parsimonious account of common sensing—one that (as long as we stick strictly to *perception*) evades the worries posed by Socrates in *Theaetetus* without requiring Aristotle to extend reason to non-human animals.

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