

Studies in the History of Philosophy of Mind 26

David Bennett
Juhana Toivanen *Editors*

Philosophical Problems in Sense Perception: Testing the Limits of Aristotelianism

 Springer

David Bennett • Juhana Toivanen
Editors

Philosophical Problems in Sense Perception: Testing the Limits of Aristotelianism

 Springer

Editors

David Bennett
Department of Philosophy, Linguistics, and
Theory of Science
University of Gothenburg
Göteborg, Sweden

Juhana Toivanen
Department of Social Sciences and
Philosophy
University of Jyväskylä
Jyväskylä, Finland

ISSN 1573-5834 ISSN 2542-9922 (electronic)
Studies in the History of Philosophy of Mind
ISBN 978-3-030-56945-7 ISBN 978-3-030-56946-4 (eBook)
<https://doi.org/10.1007/978-3-030-56946-4>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2020

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Contents

1	Introduction	1
	David Bennett and Juhana Toivanen	
2	Aristotle on the Transmission of Information: Receiving Form Without the Matter	15
	Victor Caston	
3	Aristotle on Perception as Representation	57
	Todd Ganson	
4	Reply to Ganson	69
	Mark Eli Kalderon	
5	The Case of Red-Stained Mirrors: Perception, Strange Phenomena, and the Role of Exemplification in Aristotle	77
	Filip Radovic	
6	Alexander of Aphrodisias on Simultaneous Perception	91
	Attila Hangai	
7	Common Sense in Themistius and Its Reception in the pseudo-Philoponus and Avicenna	125
	Elisa Coda	
8	On Common Sense, Estimation, and the Soul’s Unity in Avicenna	151
	Jari Kaukua	
9	Sense Perception in Sayf al-Dīn al-Āmidī: A Theologian’s Encounter with Avicennan Psychology	161
	Laura Hassan	
10	Setting One’s Sights on Sight: Observations on Sense Perception in Sayf al-Dīn al-Āmidī	185
	Jon McGinnis	

Chapter 6

Alexander of Aphrodisias on Simultaneous Perception



Attila Hangai

Abstract Alexander of Aphrodisias picks up Aristotle’s insufficient treatment of simultaneous perception and develops an adequate solution for the problem, thereby offering an account of the unity of perceptual consciousness—the single mental activity of a single subject with complex content. I show the adequacy of the solution by using as criteria the requirements that have been identified by Aristotle and approved (and explained) by Alexander. I analyze Alexander’s solution in two turns. First, with respect to heterogeneous perceptibles, Alexander adopts and reformulates Aristotle’s metaphorical account invoking the analogy with a point. Second, with respect to homogeneous opposites, accordingly, perception is judgement, but it involves physical changes in diverse parts of the primary sense-organ. By this account Alexander resolves the issue of the unity of the subject on the level of the capacity of the soul, and coordinates the complexity of content with the complexity on the physical level. In addition to being adequate, the solution is faithful to Aristotle. I suggest that the interpretative decisions Alexander makes (the clarification of the analogy; the reference he finds to the analogy; the two components of the solution, judgement and parts of the organ) form an ingenious extension of Aristotle’s treatment. Interestingly, even though many elements in Alexander’s interpretation are taken up by modern commentators, no one has followed it in its entirety, nor even treated it in its own right.

A. Hangai (✉)
Eötvös Loránd University, Budapest, Hungary

6.1 Introduction

There is a growing interest in the notion of simultaneous perception in Aristotle.¹ The problem is how it is possible to perceive two (or more) perceptible objects at one time. The problem applies to perceiving white and sweet together as well as white and black—thus perceiving multiple objects from one sense-modality as well as from several. The importance of the issue is clear in Plato’s depiction of it in his *Theaetetus* (at 184–186):² without a solution to it one might believe that a person’s perceptual awareness is a disjointed array, as if it were that of multiple subjects in the Trojan horse. Plato endorses the argument with its conclusion that on the level of perception there is no unitary conscious experience. Apparently this is what made Aristotle discuss the issue.

Even though Aristotle did have many things to say about the problem and had something to offer as a solution, what we find in his works is not satisfactory. He returns to the problem at least three times: in *De anima* 3.2 and 3.7, and most extensively in *De sensu* 7. He explicates the problem quite clearly, and determines the features a satisfactory solution would require. But his explicit explanations are rather metaphorical; he does not seem to aim at a straightforward, thorough account of the issue, despite its central importance in the explanation of perceptual awareness.

Due to the nature of Aristotle’s discussion there is controversy as to which analogy he prefers (if those he describes are not equivalent); what his account consists in; and even what sort of phenomenon of simultaneous perception is under consideration. Aristotle does not explicitly answer these questions, but only offers remarks and philosophical considerations which might help in settling the issue: hence there is room for disagreement. Since my aim here is not to provide an understanding of Aristotle, I shall not judge between the competing interpretations. Instead, my goal is to show that the solution Alexander of Aphrodisias offers for the problem on the basis of Aristotle’s treatises is both an adequate solution (judged by the requirements set out by Alexander and for the most part already by Aristotle) and a reasonable extension of Aristotle’s account. I shall demonstrate this by examining how Alexander reads Aristotle and how the solution he offers is an interpretation of Aristotle’s analogy with the point.

This leads to the clarification of a few issues with regard to Alexander’s theory of perception (though these are to be investigated further in a separate study). What does it mean that perception (as activity) is judgement? How is material change involved in perception, what kind of change is it, and how is it related to the judgemental activity of perceiving? How may complex mental (especially perceptual) content be explained? And most straightforwardly: how is the unity of (perceptual) awareness to be accounted for?

¹The most important contributions to interpreting Aristotle’s notion are Marmodoro 2014, esp. Chap. 4–7; Gregoric 2007, esp. 129–62; Osborne 1998; Charlton 1981; Modrak 1981a; and Hicks 1907.

²On this problem in Plato’s *Theaetetus* see e.g. Cooper 1970; Modrak 1981b; Burnyeat 1990.

Again, Alexander's account may be taken as an interpretation of Aristotle. In this regard it is instructive to see how Alexander answers the interpretative questions above. It is clear that he prefers the Point Analogy to the Apple Analogy (see §6.4 below); and it is explicit how he understands these. The phenomenon to be explained remains implicit, however, as Alexander simply uses the same terms as Aristotle. I suggest that what Alexander and Aristotle have in mind (as simultaneous perception) is basically the unity of (perceptual) awareness—that is, having a single cognition of the (immediate) environment, in contrast to having several distinct cognitions that require further cognitive acts to relate them to each other. This account in turn enters into the explanation of several higher functions of perception: having complex perceptual content in general; having the ability to distinguish perceptible objects from one another; and perceiving physical objects as single unitary things.³ It could be shown that even though many of Alexander's ideas are often reiterated by commentators, his interpretation in its entirety is quite unique.

In what follows, I first (§6.2) set out the problem as it is presented by Alexander (and Aristotle), identifying the requirements for any adequate solution. I shall introduce (§6.3) one particular issue, the Problem of the Opposites: the problem of being moved in opposite ways while being affected by opposite perceptible objects when perceiving them together. Before this issue may be resolved, however, (§6.4) the solution for simultaneous perception of objects in multiple sense-modalities (*heterogeneous* objects) has to be discussed. For the two problems are better resolved in the same way. I explicate (§6.4.1) a General Account; (§6.4.2) the Apple Analogy; and most importantly (§6.4.3) the Point Analogy. Then, I turn (§6.5) to Alexander's solution for the Problem of Opposites. This problem is particularly important, for Aristotle apparently did not provide a satisfactory answer to it. Instead, what he has to offer is at best a metaphorical account of the possibility of a solution, or even the impossibility of it.⁴ Alexander's account involves two elements: (§6.5.1) explicating that perception is indeed judgement; and (§6.5.2) showing how the material change involved in perception is related to perceptual judgement. Once this is discussed, I shall (§6.5.3) briefly show how the account applies to the Point Analogy and (§6.5.4) to the Apple Analogy. I (§6.6) conclude by assessing the adequacy of the solution

³Modrak (1981a: 421) argues that perceiving common perceptibles also depends on simultaneous perception. But common objects simply accompany special ones (Alexander, *de An.*, 65.11–22), so that in their case the problem of simultaneous perception does not arise: see Gregoric (2007: 129–30). Again, Marmodoro (2014) argues that it is simultaneous perception, together with other functions, that depend upon the more general *becoming aware of complex perceptual content*. However, she often seems to equate these functions. Johansen (2012: 180–85) argues that complex perceptual content (including simultaneous perception) is gained by accidental perception. But this cannot account for simultaneous perception of opposites—for they are by no means accidentally perceived.

⁴Hicks (1907: 452) claimed that it turns out that a solution is not possible after all. Gregoric (2007: 141–44, 153–55) argues that the Point Analogy shows only the possibility of a solution, without providing one clearly; cf. Kahn 1966: 57; Hamlyn 1968a: 128; Shields 2016: 274.

against the requirements set out by Alexander himself, and indicating how Alexander's account is an ingenious extension of Aristotle's brief remarks.

Alexander discusses the topic of simultaneous perception directly and most elaborately in his commentary *On De sensu*, following the topic and reasoning of Aristotle's corresponding work *De sensu* 7. In the other passages, in his *De anima* and *Questiones* 3.9, Alexander follows Aristotle's discussion in *De anima* 3.2, where Aristotle focuses rather on judging that two perceptible objects are different—viz. perceptual discrimination—and considers simultaneous perception because discrimination is dependent upon simultaneously perceiving the items that are discriminated.⁵ Thus, I set out the problem and Alexander's solution mainly as it appears in the commentary. But, since the preferred solution Alexander offers is the same in all three places, I will use all of them to fully reconstruct the solution. Since much of what Alexander says depends on Aristotle's text, I note the parallel passages in Aristotle, especially to provide some notes on Alexander's relation to Aristotle.

6.2 The Problem of Simultaneous Perception

In the first half of his treatment in the commentary, Alexander investigates the reasons to deny the possibility of simultaneous perception (Alexander, *in Sens.*, 136.7–156.23). He takes these considerations to be stating and assessing the *endoxa*: posing difficulties to be resolved.⁶ He presents three arguments—by setting out the main principles on which they rest—as he identifies them in Aristotle's chapter.⁷ The first and the second arguments introduce requirements for any solution for the problem, so we shall run through them in turn (§§6.2.1 and 6.2.2). The third argument poses a difficulty for a certain case of simultaneous perception: for *opposites* in one sense-modality. Since Alexander's innovations lie especially in providing a coherent solution for this problem—which Aristotle did not explain satisfactorily—this will be introduced separately (§6.3). But before that we shall see one attempt for an account that provides further requirements for the solution (§6.2.3).

The requirements for any solution for the problem of simultaneous perception that emerge from these arguments are as follows. If two things are perceptible simultaneously they must be perceptible (i) distinctly, *in the same way*, and (ii) *as two*, not as one. Again, (iii) the *activity* of simultaneous perception has to be one, and (iv) this activity has to be in *one time*. One activity will require (v) *one capacity*, indeed one that is able to perceive all kinds of perceptibles. For (vi) the account should be the same for heterogeneous and for homogeneous perceptibles.

⁵Cf. Alexander, *in Sens.*, 163.6–17.

⁶Alexander, *in Sens.*, 136.5–6, 156.23–157.2.

⁷The latter arguments are introduced by “moreover” (ἔτι). A different identification of the arguments is given by Gregoric 2007: 133–35.

6.2.1 *Argument from Mixed Perceptibles*

The first argument (Alexander, *in Sens.*, 136.7–139.8; cf. Aristotle, *Sens.* 7, 447a14–b6) is briefly as follows:

- (1) The greater movement always displaces the lesser.⁸
- (2) What is unmixed and on its own can be perceived to a greater degree than what is mixed.⁹

Now, there are four possible combinations. The two perceptible objects might be:

- (a) from *one genus* (belonging to the domain of a single sense modality) and of the *same intensity*;¹⁰
- (b) from one genus and of different intensities;
- (c) from *different genera* (in different sense modalities) and of the *same intensity*;
- (d) from different genera and of different intensities.

It is possible in none of these cases that two objects are perceived simultaneously. If the two objects are from one genus—(a) or (b)—then they are mixed, so that they *efface* (ἀφανίζει) each other, hence do not come to awareness. Out of the two objects *one thing*—their mixture—comes to be intermediate between them.¹¹ And in general, the objects mixed are perceptible to a lesser degree than if they were unmixed,¹² as (2) states. In case (d), the lesser movement is displaced by the more intense one so that it is effaced,¹³ as (1) states. Moreover, there is an impure awareness¹⁴ even of the greater movement: thus it is perceived to a lesser degree than in unmixed state,¹⁵

⁸Alexander, *in Sens.*, 136.7–8. Alexander takes up Aristotle’s description in Aristotle, *Sens.* 7, 447a14–15: ἀεὶ ἡ μείζων κίνησις τὴν ἐλάττω ἐκκρύει. The term “displace” (ἐκκρύει) occurs also at Aristotle, *Insomn.* 3, 460b32–461a3, where it is claimed that small perceptual motions are displaced by larger ones from perceiving when the person is awake, so that these motions are “effaced” (ἀφανίζονται) and remain unperceived or unnoticed, i.e. do not come to awareness.

⁹Alexander, *in Sens.*, 136.13–14; cf. Aristotle, *Sens.* 7, 447a17–18.

¹⁰In most cases Alexander refers merely to greater (μείζων) and lesser (ἐλάττω) movements, but occasionally (Alexander, *in Sens.*, 137.16) he identifies them as *stronger*—σφοδροτέρας.

¹¹Alexander, *in Sens.*, 136.22–137.2. Alexander returns to the mixture of perceptibles at *in Sens.*, 138.8–24. The idea is that out of two perceptible objects in the domain of one sense (e.g. two colours) one single object comes to be when they are put together—in perceiving them (e.g. red and white are mixed and pink comes about). Alexander’s view of intermediate, mixed, colours dependent on mixture of the coloured bodies is expressed at Alexander, *in Sens.*, 63.13–66.6.

¹²Alexander, *in Sens.*, 137.12–14.

¹³Alexander, *in Sens.*, 137.16–17.

¹⁴I shall use “awareness” as a translation of ἀντίληψις and related terms, as Caston (2012) advocates (see 139, n. 346 on the term). In general, I use Caston’s terminology set out in his Index (Caston 2012: 189–214) when not stated otherwise.

¹⁵Alexander, *in Sens.*, 137.17–24.

because of (2). Finally, in case (c) there will be perception of neither object: they efface each other, and being equal this amounts to annulling each other.¹⁶

What the argument shows is that (i) if two things are perceptible simultaneously they must be perceptible *distinctly*, both of them must be revealed *in the same way*. In the cases above, the two objects may appear together (in mixture) at best as revealed in a quite low degree, due to their interference.

6.2.2 *Argument from the Numerical Correspondence of Activity and Object*

Let us turn to the second argument (Alexander, *in Sens.*, 139.9–143.8; cf. Aristotle, *Sens.* 7, 447b6–448a1).

(3) It is more plausible that two things are perceptible simultaneously if the two objects are from one genus—*homogeneous* (e.g. two sounds)—than if from different genera—*heterogeneous* (e.g. colour and sound).¹⁷

(4) It is impossible to perceive simultaneously two homogeneous objects.

Hence,

(5) It is impossible to perceive simultaneously two heterogeneous objects.

Since two objects are either homogeneous or heterogeneous: no two objects are perceptible simultaneously.

According to Alexander (4) is shown by the following argument:

(6) One activity of perception is of numerically one perceptible object.¹⁸

¹⁶Alexander, *in Sens.*, 137.26–138.5.

¹⁷Alexander, *in Sens.*, 139.9–18; cf. Aristotle, *Sens.* 7, 447b6–9. Alexander takes Aristotle to be arguing that “the activity of one sense is able to be one and the same to a greater extent than the activity of several senses; [...] because of similarity” (Alexander, *in Sens.*, 139.21–23, translations from *On De sensu* are from Towey 2000, often modified). This similarity is explicated below at Alexander, *in Sens.*, 145.2–18, in connection to the same principle (cf. Aristotle, *Sens.* 7, 448a14–18). Accordingly, the closest similarity is between homogeneous objects—as white and black; then, between those heterogeneous objects that are correspondent (both lie on the same place in the spectrum of the quality, so that they are perceptible in the same way)—as white and sweet; and the greatest distance is between heterogeneous non-correspondent objects—as white and bitter. On the view that perceptual qualities are defined as proportions of extremes of the spectra, see Alexander, *in Sens.*, 63.13–66.6 for colours (cf. Aristotle, *Sens.* 3, 440a31–b25); and Alexander, *in Sens.*, 80.22–82.20 for flavours (cf. Aristotle, *Sens.* 4, 442a12–28).

¹⁸Alexander, *in Sens.*, 140.21–24; cf. Aristotle, *Sens.* 7, 447b14–16. Aristotle, interestingly, states the consequent as “perception will *claim* its objects to be one” (ἐν ἑκείνῳ ἐρεῖ). Alexander finds support for this claim in that numerical oneness is judged by the (oneness and identity of) time of perceiving (Alexander, *in Sens.*, 141.10–17; cf. Aristotle, *Sens.* 7, 447b24–25). This claim is used

(7) If two homogeneous perceptibles are not mixed, they are separate and numerically two.¹⁹

Hence, unmixed homogeneous perceptibles may be perceived only in two distinct perceptual activities.²⁰

And since

(8) At one time there can be only one activity of perceiving by a single capacity.²¹

Either there must be two activities of one capacity for the two distinct objects, and hence two activities at different times—not simultaneously (from (8))—or there must be two capacities for the two simultaneous activities. But the latter is a non-starter, as we are in the hypothesis that the two objects are homogenous, hence perceived by one single capacity.

Again, the converse of (6) is also adopted.

(6*) Of a numerically one thing there is numerically one perceptual activity.²²

But, since a mixture is one thing:

(9) Homogeneous perceptibles can be perceived together and simultaneously if they are mixed.²³

However, in this case the two homogeneous perceptibles are perceived *as one*, not as two separate things.²⁴ Exactly the *unity* of mixture is what renders it simultaneously perceptible.²⁵

This argument exposes further requirements for a solution. First, simultaneous perception of two things requires that (ii) the two things are perceived *as two*, not as one.²⁶ Second, (iii) the *activity* of simultaneous perception has to be *one*. And the difficulty lies exactly in this: one activity is required with multiple objects to which it is directed (iv) at *one time*. But it seems that (8) “at one time there might be only one activity”; and (6) “one activity is directed at one single object”; hence at one

by commentators for arguing that simultaneous perception amounts to perceiving physical objects *as one*, see Gregoric 2007: 138–41.

¹⁹This is implied by Alexander, *in Sens.*, 140.5–6.

²⁰Alexander, *in Sens.*, 140.24–141.1; cf. Aristotle, *Sens.* 7, 447b16–17.

²¹Alexander, *in Sens.*, 141.1–4; cf. Aristotle, *Sens.* 7, 447b17–20.

²²Alexander, *in Sens.*, 140.8–10. Indeed, this is introduced earlier than (6); cf. Ross 1906: 219–20.

²³This follows from the first argument, cf. Alexander, *in Sens.*, 140.5–6, 10–12; cf. Aristotle, *Sens.* 7, 447b9–12.

²⁴Alexander, *in Sens.*, 140.5–6. This connects it to perceptual discrimination: judging that two perceptible objects are different. Hence they must be perceived *as different* (cf. Alexander, *in Sens.*, 163.17).

²⁵Further elaboration of the notion of one thing coming about from the mixture can be found at Alexander, *in Sens.*, 143.27–144.19.

²⁶*Pace* Gregoric 2007: 133, 138–39. Cf. Marmodoro 2014: 177–78, 220–21.

time only one object might be perceived.²⁷ So, to establish the possibility of simultaneous perception, this view must be dropped, or at least qualified. As we shall see, this consideration reappears in modified terms: the subject of judging will have to be simultaneously indivisible, and divisible into many (§6.4.1).

6.2.3 *First Attempt: Different Parts of the Soul*

Once the plausible arguments against the possibility of simultaneous perception have been enumerated, and a prominent anti-realist solution has been ruled out,²⁸ Alexander turns to solve the problem. As a first attempt, he suggests that it is *by different parts of the soul*—i.e. with different perceptual capacities²⁹—that we can perceive two objects together (Alexander, *in Sens.*, 157.11–162.11; cf. Aristotle, *Sens.* 7, 448b20–449a5). Heterogeneous perceptibles are indeed perceived by different senses that Alexander considers to be parts of the perceptual capacity,³⁰ so the idea suggests itself. But this account is inadequate for homogeneous perceptibles. In their case one individual would have multiple capacities (or perceptive parts: *merē aisthētika*) that are specifically the same (*homoeidē allēlois*)—i.e. that are for

²⁷ Gregoric (2007: 132–33) claims that the problem of simultaneous perception consists especially in the three principles: (6), (6*) and (8), all of which he takes to be corollaries of the principle according to which the activity of the sense is identical to the activity of the object. For Alexander, cf. Gregoric 2017: 50–52.

²⁸ Alexander, *in Sens.*, 146.1–156.22; cf. Aristotle, *Sens.* 7, 448a19–b17.

²⁹ It is noteworthy that in introducing the issue, “part” is not mentioned by Aristotle. What he claims is only: “perceiving together but with a *different item* belonging to the soul” (*ἐτέρω δὲ τῆς ψυχῆς*) (Aristotle, *Sens.* 7, 448b20–21). He mentions the existence of “parts” as a consequence of this account: “there will be several parts specifically the same”—*πλείω γὰρ μέρη ἕξει εἶδει ταῦτά* (Aristotle, *Sens.* 7, 448b24–25) (translations of Aristotle are mine). So it seems that these parts are *parts of sight* (if anything) rather than of soul (and by no means of the eyes as Ross (1906: 234) takes it despite the explicit reference to the soul). Alexander himself interprets Aristotle’s argument this way (Alexander, *in Sens.*, 158.1–16). The idea is that by positing several means of perceiving, the perceptual means is, so to say, divided into parts. Alexander takes up the term and tries to clarify its meaning. He says that “it is not by one indivisible part of the soul with which we perceive everything,” but the perceptive soul consists of different parts that are one by being *continuous*. The idea seems to be that the perceptual capacity is not a simple thing, but it has internal complexity that might be cashed out in terms of different parts of it that nonetheless constitute one single bodily magnitude. It is important in this suggestion that the parts are *different*—they have to be different numerically, but, as it will turn out in the present argument, also specifically. Understood in this way, it is clear why this first attempt will be rejected for homogeneous objects: the parts in the case of homogeneous objects will turn out to be specifically the same and not different. It is also clear that this suggestion may be maintained for heterogeneous perceptibles: the different parts of the perceptive part would be the five special senses. However, this is not exactly Alexander’s view, for he denies that the unity of the perceptual capacity lies in the *continuity* of its parts (cf. Alexander, *in Sens.*, 164.6–7)—which seems to be the view of the Stoics: Alexander, *de An.*, 30.26–31.2; cf. Long and Sedley 1987, Chap. 53; Inwood 1985: 27–41.

³⁰ Alexander, *de An.*, 40.4–5, 11–15.

perceiving objects in one and the same genus. For a perceptual capacity (like any capacity of the soul) is defined in terms of the object with which it is concerned. That is, one genus of perceptibles requires one species of perceptual capacity. So if two objects are the same in genus, they require capacities that are specifically the same.³¹

This consequence, however, is unacceptable. Let us consider an example: perceiving simultaneously two visible things, white and black. Now, the two capacities that this solution postulates are either one visual capacity for perceiving white (V_w) and one for perceiving black (V_b) or two full-blown visual capacities (V_1 and V_2) one perceiving the white and the other the black when the subject simultaneously perceives them. Neither option is acceptable in an Aristotelian account. Now, in the first case V_w and V_b are specifically the same insofar as both are visual capacities, having certain colours as objects. It is quite clear what it means that they are parts of the visual capacity: each of them is capable of perceiving part of the domain of vision: white and black respectively. But this account is in contradiction with the Aristotelian notion of a perceptual capacity: it is an ability to perceive all the perceptibles in its domain (genus) on the scale defined by the two opposites. In the second case V_1 and V_2 are specifically the same in the robust sense of being capable of perceiving the same range of perceptibles. However, it is unclear what it would mean for these capacities to be parts of the visual capacity. Rather, vision seems to be reduplicated. Moreover, it does not make sense in the Aristotelian framework that one subject has two (numerically distinct) visual capacities, or in general two capacities for perceiving the same objects.³² For a perceptual capacity is defined in terms of its object—thus the same object defines the same capacity. And having the capacity for perceiving all objects in the given domain, there is no place for a further capacity with the same domain.³³

Next, Alexander considers an analogy that was suggested by Aristotle himself. The two capacities with which we perceive simultaneously are like our two eyes: they are specifically the same and different in number—and yet they form such a unity that their activity is the same, resulting in one act of seeing.³⁴ But this is not a good analogy. The two eyes together constitute the organ of seeing, thus they together form a unity, being a joint-organ for one single capacity, so that their activity—i.e. the activity of the capacity sight—is one; yet this does not apply for the

³¹ Alexander, *in Sens.*, 158.8–9, 11–12, 15–16; cf. Aristotle, *Sens.* 7, 448b22–25. See also Alexander, *de An.*, 32.23–33.11; and Aristotle, *de An.* 3.2, 426b8–12.

³² One object might be the special object for exactly one capacity. Cf. Osborne 1983: 401.

³³ It is not clear how Alexander understands the argument; it is genuinely ambiguous. Two facts suggest that he takes it in the former way: involving V_w and V_b . First, he claims that the capacities will be specifically the same “because the perceptibles also are the same in genus with each other, for *they are all visible*” (Alexander, *in Sens.*, 158.14–15). Second, he takes the analogy with the eye to be a possible reply to the issue, and it certainly involves the very same capacities specifically, and different only in number: V_1 and V_2 , cf. Alexander, *in Sens.*, 158.17–159.19. Gregoric (2007: 141) takes it in the former way too, as does Marmodoro (2014: 222–27), though she mistakes a part of the sense to be a sense-organ.

³⁴ Alexander, *in Sens.*, 158.23–25; cf. Aristotle, *Sens.* 7, 448b26–27.

capacities. Two distinct capacities cannot have a single activity insofar as they form a unity by being capacities of one capacity.³⁵ Indeed, being two capacities, they will have two activities, that cannot be simultaneous in light of the previous arguments (especially that in §6.2.2).³⁶

This reasoning shows two things. First, it is not by several distinct capacities of the soul that we can perceive several things together, but (v) *by one and the same perceptual capacity*. It follows then that—since homogeneous as well as heterogeneous objects should be perceptible simultaneously—this one capacity has to be able to perceive all things.³⁷ Again, since the reason for dismissing this preliminary account was that it is not applicable for all cases, in particular for homogeneous perceptibles, (vi) an account that can handle all cases in the same way is preferable to one that can handle different cases in different ways. The latter requirement—the homology of the accounts—is explicit in Aristotle, *de An.* 3.7, 431a24–25,³⁸ and is also taken up by Alexander at *de An.*, 63.23–64.4. Both of these remarks occur in the context of the Point Analogy, hence it is safe to assume that this is one fact that makes this analogy superior.

Let me recapitulate the requirements for a solution that have been identified. If two things are perceptible simultaneously they must be perceptible (i) distinctly, *in the same way*, and (ii) *as two*, not as one. Again, (iii) the *activity* of simultaneous perception has to be *one*, and (iv) this activity has to be in *one time*. One activity will require (v) *one capacity*, indeed one that is able to perceive all kinds of perceptibles. For (vi) the account should be the same for heterogeneous and for homogeneous perceptibles.

³⁵The disanalogy in other terms. The two eyes, on the one hand, and the one capacity of which the eyes are the organs, on the other, are ontologically distinct: body and capacity. This allows that the two eyes are unified on another level in the one capacity of vision, hence having one activity. But in the case of two visual capacities as constituting one visual capacity there is no such difference in the ontological status that would allow the unification into one activity.

³⁶Alexander, *in Sens.*, 158.25–159.17; cf. 159.20–161.20. It is noteworthy that Alexander here adumbrates his solution by admitting the adequacy of the analogy with certain provisos (Alexander, *in Sens.*, 159.9–13). As Ross (1955: 233) puts it “it will be that unity (and not the two parts) that is the percipient.”

³⁷This requirement is explicit in the immediately following passage: Alexander, *in Sens.*, 162.12–163.17, cf. Aristotle, *Sens.* 7, 449a5–7. I discuss this in §6.4.1.

³⁸The interpretation of the whole reasoning at Aristotle *de An.* 3.7, 431a20–b1 is difficult, for many pronouns have unclear denotation—probably referring to a lost figure, cf. Osborne 1998. Hence it is best to restrict the use of this passage only as a source of the claim about the homology of the accounts, agreeing with e.g. Beare 1906: 281; Hicks 1907: 531; Modrak 1981a: 419; Gregoric 2007: 157; Shields 2016: 339–40; even though effort is made to extract a coherent picture out of the text, cf. Marmodoro 2014: 228–33; and Osborne 1998, who basically extends the account of Ross 1906: 231. For a view according to which the two problems (of homogeneous and heterogeneous objects) need different approaches see Charlton 1981: 107. Again, even though Accattino and Donini (1996: 227–28) note that Alexander explicitly asserts that the problem is the same for the two cases, they doubt that indeed this is true.

6.3 Problem of Opposites

The third argument (Alexander, *in Sens.*, 143.9–26; cf. Aristotle, *Sens.* 7, 448a1–19) concerns simultaneous perception of homogeneous objects, and it is based on the connection between perception and physical movement.

(10) Perception is a sort of movement (or it is by means of movement).

(11) Movements of opposites are opposed.

(12) Opposites cannot coexist in the same thing at the same time. Nor can opposite movements.

Hence, opposites cannot be perceived together.³⁹

The argument can be extended to every pair of homogeneous objects.⁴⁰ Perceptible objects that are intermediate between the opposites—and come to be as a mixture of them in a certain ratio or by means of excess—might be allocated to one of the opposites in virtue of which one is in them in greater amount.⁴¹ Hence it is impossible to perceive two homogeneous objects simultaneously. And this, together with (3), leads to the conclusion that simultaneous perception is impossible for any two objects.

This argument is the most important difficulty for the discussion in Alexander and already in Aristotle; its examination occupies most of Chap. 7 in Aristotle's *De sensu* and most of Alexander's commentary on it. Since it would be difficult to deny (11) or (12), the question is how (10) should be understood so as not to lead to the unacceptable consequence of the impossibility of simultaneous perception of opposites. Moreover, since (vi) a unitary account is preferable—one which explains all cases of simultaneous perception in the same way—the solution for the Problem of Opposites must be coordinated with the solution for heterogeneous perceptibles. So first this latter account has to be seen.

³⁹Alexander uses the same argument also in *de An.* and *Quaestiones* 3.9 (hereafter *Q.*).

For (10), see Alexander, *in Sens.*, 143.11–12; cf. Alexander, *de An.*, 61.21–24.

For (11), see Alexander, *in Sens.*, 141.12; cf. Aristotle, *Sens.* 7, 448a1–2; *de An.* 3.2., 427a1–2. Alexander provides reasons for claim (11) in parallel passages. The movement in question is assimilation: and assimilations to opposites are opposed (Alexander, *de An.*, 61.23, 28–30). Or, the movement is the reception of the perceptible form: and forms of opposites are clearly opposed (Alexander, *Q.* 3.9, 95.23–25).

For (12), see Alexander, *in Sens.*, 141.13; cf. *de An.*, 61.20–21; *Q.* 3.9, 95.25–26, 97.19–22; Aristotle, *Sens.* 7, 448a2–3; *de An.* 3.2, 426b29–30.

For the conclusion, see Alexander, *in Sens.*, 141.13–14; cf. Aristotle, *Sens.* 7, 448a3–5.

⁴⁰Alexander, *in Sens.*, 143.19–22; cf. Aristotle, *Sens.* 7, 448a5–8.

⁴¹Alexander, *in Sens.*, 142. 25–27, 143.17–19.

6.4 Simultaneous Perception of Heterogeneous Perceptibles

Alexander proceeds from a general characterization of the solution (*in Sens.*, 162.12–164.4), through a discussion of Aristotle’s metaphorical accounts (*in Sens.*, 164.5–167.9), and finally to the clarification of the metaphor that enables him to answer even the Problem of Opposites (*in Sens.*, 167.10–168.5). In this section we shall see in detail (§6.4.1) the General Account and (§6.4.3) the metaphor that Alexander prefers—the Point Analogy—and (§6.4.2) only in passing the other metaphor with physical bodies—the Apple Analogy. In the following section (§6.5) I shall turn to the solution for the Problem of Opposites.

6.4.1 General Account

Alexander provides a general account, at Alexander, *in Sens.* 162.12–164.4, commenting on Aristotle, *Sens.*, 449a5–7. He picks up the claim that “the soul perceives things different in genus with different capacities,”⁴² and then explicates that despite the multitude of perceptual capacities there is *one single unity* constituted of them which is *perceptive of all perceptible objects*. For this claim, Alexander invokes Aristotle’s discussion of perceptual discrimination at Aristotle, *De anima* 3.2, 426b8–427a16: how can one judge the difference between objects of different senses—like white and sweet. We learn there that *one single capacity* is required for judging the difference, and since the thing which judges must also be perceiving the objects, there must be one single thing perceiving the objects at the same time. In other words: *discrimination of two heterogeneous perceptibles presupposes the simultaneous perception*⁴³ of them by *one single perceptual capacity*.⁴⁴

⁴²Alexander, *in Sens.*, 162.14–15, 20–22; cf. Aristotle, *de An.* 3.2, 426b8–12. The text is uncertain, being quite lacunose. But even though the way I interpret this sentence makes a good sense, nothing hinges on the exact meaning. The reference “having postulated” might be to Alexander, *in Sens.*, 159.14–19, where it is stated that each sense (capacity) perceives its peculiar object, hence if there are multiple objects different in genus, there will be several distinct capacities.

⁴³Alexander at *in Sens.*, 163.12 calls this “joint perception” (συναίσθησις). What he means we can see from Alexander, *de An.*, 60.27–61.2: “if there were two perceptible objects, of which you perceived one and I the other, both of us would grasp the difference of the one that one of us perceives in relation to the difference that he does not himself perceive but the other perceives.” (Translations from Alexander, *de An.* are mine.) εἰ δύο ὄντων τῶν αἰσθητῶν τοῦ μὲν σὺ αἴσθοιο, τοῦ δὲ ἐγώ, γνωρίζειν ἑκάτερον ἡμῶν τὴν διαφορὰν οὐ αὐτὸς ἦσθετο πρὸς τὴν τοῦ οὐ οὐκ αὐτός, ἀλλ’ ἕτερος ἦσθετο. That is, *A* perceives *a*, *B* perceives *b*, and it would be the case that *A* perceives the difference of *a* from *b* in virtue of perceiving *a*, but not perceiving *b* herself, but *b* being perceived by *B*. There would not be a single subject that perceives both *a* and *b* “jointly”; cf. Aristotle, *de An.* 3.2, 426b17–20. This point goes back to Plato, *Theaetetus*, 184–86.

⁴⁴Alexander, *in Sens.*, 162.12–163.17; cf. 164.9–11. The argument is a summary of Aristotle’s argument at *De anima* 3.2, 426b8–29. Three requirements are settled there for perceptual discrimination. (i) That it is by perception, since the objects are perceptible objects; (ii) that it is by one

Even though it is granted that there is one single underlying perceptual capacity—the *common sense*—there is a difficulty for this position.⁴⁵ What is the characteristic object of this one capacity? Since it is supposed that this capacity is able to perceive all kinds of perceptibles, namely all the objects of the special senses (colours, sounds, tastes, etc.), and there is no unitary genus of object formed from the five special objects, for objects from different genera cannot be mixed, it seems that the common sense does not have one genus of object. But lacking such a characteristic object seems to demolish the unity of the capacity.

This problem is not solved here;⁴⁶ it is only the Point Analogy (*in Sens.* 164.5–165.20) that explains the unity of the perceptual part. Rather, Alexander first shifts here from the question of a single object (the perceptibles, *aisthēta*, about which the perception is) to that of a single underlying body (*sōma*).⁴⁷ But since one capacity does not require a single bodily organ (as it should require a single object), but may unify different organs (as its parts in a sense)—as it was the case with the two eyes and sight, the one capacity—the fact that the several sense-organs do not

single subject (or capacity), otherwise it was like the Trojan horse; and (iii) that it is in one indivisible time—i.e. simultaneously. On alternative interpretations of the argument see Polansky 2007: 395–98. This is summarized by Alexander, *de An.*, 60.14–61.19 and *Q.* 3.9, 94.25–95.18. The *De anima* passage foreshadows Alexander’s preferred solution by specifying the sense of simultaneity (*de An.*, 61.15–18). In the *Quaestiones* Alexander speaks in his own terms—explicitly equating perceiving with judging (e.g. *Q.* 3.9, 94.31–95.1, 95.11–12), so that he opens the way to his own theory that indeed defines the activity of perceiving as judging, and leads to his own resolution of the Problem of Opposites (discussed below in §6.5). Polansky (2007: 396–97) also emphasizes the terminology used by Aristotle: judging (*krinein*), thinking (*noein*) and especially saying (*legein*); cf. Accattino and Donini 1996: 233. Polansky claims that this is to give generality to the argument for all kinds of cognitive discrimination, as well as to emphasize the type of content involved in perceptual judgement. This latter point I shall explicate in §6.5..

⁴⁵Alexander, *in Sens.*, 163.18–164.4; cf. Aristotle, *Sens.* 7, 449a8.

⁴⁶Alexander admits this at *in Sens.*, 164.8–9. Indeed, it cannot be solved in the way it was posed: by identifying a single genus as the object of the perceptual capacity. This is because the five special senses are *parts* of the perceptive soul, forming a hierarchical series. In cases of such hierarchies, however, it is not possible to give an account consisting in the identification of the object, cf. Alexander, *de An.*, 28.14–29.1, 30.17–20. Hence, it is not the case that the unified object of the common sense is the range of common perceptibles, as e.g. Hamlyn (1968b: 205) and Modrak (1981a: 413–14) suggest for Aristotle. Nevertheless, in Alexander it is indeed the common sense which is responsible for perceiving the common objects (Alexander, *de An.*, 65.11–22). Were this the case—i.e., if common sense were *defined* as the faculty for perceiving common perceptibles—common sense would be a special sense distinct from the five special senses. But Aristotle explicitly rules this out in *De anima* 3.1. The same reasoning applies to the suggestion that the object of common sense is *physical objects as such*, see Charlton 1981: 108. This problem is observed by Marmodoro 2014: 189–212. But her proposal—that the common sense has another type of individuating condition: the type of content—is not convincing.

⁴⁷Alexander, *in Sens.* 164.5–6. “Next he explains in another way of what one underlying thing this perceptive <thing> is, i.e. of what body there is a perceptive capacity.” Ἐξῆς δὲ λέγει πως ἄλλως, τίνος τὸ αἰσθητικὸν τοῦτο ἓνός ἐστιν ὑποκειμένου καὶ τίνος σώματος αἰσθητικῆ δύναμις ἐστι. It seems to be important in the shift that *underlying thing* (ὑποκειμένου) might mean both the object and the underlying body or subject.

constitute a unitary organ (though they constitute a unitary sensory structure⁴⁸) is not troubling for Alexander. Thus, by making the shift, nothing hinders talking about one capacity. Several objects define several capacities; but several organs do not. As a consequence of this move, Alexander also shifts from claiming that we perceive heterogeneous objects by different perceptual capacities to saying that the perceptual capacity “perceives different objects through different parts of the body, i.e. *through different organs*.”⁴⁹

To clarify the issue: what is required for the solution is one *unitary capacity* of the soul that may have sufficient diversity or *complexity*, so that it can perceive several things simultaneously. In short: it must be *one* and *many* (complex⁵⁰) at the same time.⁵¹ This is apparently granted in what follows, so this can be taken as a *General Account*.⁵²

To explain how this is the case, Alexander appeals to the Point Analogy. It is important to see that Alexander invokes the analogy quite forcedly.⁵³ For Aristotle in *De sensu* does not even seem to explicate the Point Analogy. What he offers is a dense expression of a possible option of a solution:

Is that [capacity], then, which perceives white and sweet, some unity *qua* indivisible in actuality, but different, when it has become divisible in actuality?⁵⁴

Moreover, immediately after this, closing his investigation on simultaneous perception, Aristotle turns to the Apple Analogy.⁵⁵

Yet, as it will become clear shortly, Alexander prefers the Point Analogy to the Apple Analogy. He does so because the Apple Analogy does not fit the General

⁴⁸Cf. Kahn 1966: 68–69; Everson 1997: 139–48.

⁴⁹Alexander, *in Sens.* 164.20–21, cf. 164.4.

⁵⁰An additional requirement is that the complexity of the capacity has to be mirrored in the complexity of the physical structure, see Marmodoro 2014: 191–94.

⁵¹It is instructive to understand the diversity of the judging subject “in being” as “divided in its relations” and grasping them together as “bringing them into one relation with one another” as Beare (1906: 279–81) takes it, cf. Modrak 1981a: 419; Marmodoro 2014: 246; Shields 2016: 274. However, this in itself is not yet a solution, for the coming to bear of several relations has a basis in real occurrent changes, cf. Alexander, *in Sens.*, 126.25–127.12. See §6.5.2.

⁵²Hence, I disagree with Ross (1906: 230) that this is taken by Alexander as a full-blown solution for the problem, and that it is connected to the Apple Analogy rather than to the Point Analogy.

⁵³However, Ross (1906: 230–31) believes that the passage “without doubt” refers to the Point Analogy. Cf. Marmodoro 2014: 242–48.

⁵⁴ἄρ’ οὖν ἢ μὲν ἀδιαίρετόν ἐστι κατ’ ἐνέργειαν, ἔν τι ἐστὶ τὸ αἰσθητικὸν γλυκέος καὶ λευκοῦ, ὅταν δὲ διαίρετόν γένηται κατ’ ἐνέργειαν, ἕτερον. (Aristotle, *Sens.* 7, 449a10–13.) According to Charlton (1981: 107) this picks up Aristotle, *de An.* 3.2, 427a2–9, an unsatisfactory solution. Gregoric (2007: 136) takes this to mean as follows: when it perceives two things simultaneously the perceptual part of the soul is undivided, when consecutively, it is divided. Then he finds this unattractive, for what is required is that it is both undivided and divided. The problem with this suggestion is that this is a non-starter as an explanation of simultaneous perception, for this simply takes that as one unproblematic case.

⁵⁵Gregoric (2007: 136) believes that closing the investigation with the Apple Analogy implies that it is the preferred view here.

Account, and because he manages to interpret the Point Analogy in a way that is highly illuminating for the case of heterogeneous perceptibles, and may be applied—with some additional nuances—to homogeneous objects too.

So Alexander identifies two serious solutions (attributing them to Aristotle) in his commentary *in Sens.*: the Point Analogy and the Apple Analogy. He introduces the analogies with the General Account, which he formulates in a way that helps him to argue for his preference for the Point Analogy. Since we do not possess Alexander's commentary on Aristotle's *De anima*—though *Quaestiones* 3.9 clearly functions as a commentary on the last part of *De anima* 3.2⁵⁶—we might only judge Alexander's interpretation of it indirectly. It seems that he found only one solution there: he apparently took—quite reasonably—the accounts at Aristotle, *De anima* 3.2, 427a9–11 and 427a11–14 together to be the expression of the Point Analogy. Since he does not explicate the Apple Analogy except in his commentary *in Sens.*, it is safe to judge that he did not find it in Aristotle's *De anima*.⁵⁷

Let us see, in short, what the Apple Analogy consists in and how it may explain simultaneous perception. Then, we can see why Alexander prefers another solution to this.

6.4.2 *Apple Analogy*

The analogy (Alexander, *in Sens.*, 165.20–167.9; cf. Aristotle, *Sens.* 7, 449a13–20) is this. “As it can be with the things themselves, so too it is with the soul.”⁵⁸ That is, “as it can be with bodies and things underlying the senses that something, being *numerically the same*, possesses *several affections* within itself,” “so too can it be like this with the soul.”⁵⁹ Getting to his conclusion about the soul, Alexander offers an example for the analogy: an apple.

The apple, being *numerically one*, is at the same time sweet, yellow or white, and fragrant, and the affections differ from one another and are *perceptible by different senses*.⁶⁰

The difference of the several affections (the qualities or properties) of the apple lies in their being perceptible by different senses; in general: they are different in being (*to einai*) or in account (*logos*); in essence (*to ti ēn einai*).⁶¹ Since perceptible qualities differ in genus or species (i.e. in their form—essence) by virtue of defining different senses, such that the qualities are perceptible by the different senses they

⁵⁶ See Sharples 1994: 135.

⁵⁷ Perhaps Alexander identified the passage in Aristotle, *de An.* 3.2, 427a2–5 as the Apple Analogy, but left it treated in general terms, and dropped it as inadequate (Alexander, *Q.* 3.9, 95.27–96.4).

⁵⁸ Aristotle *Sens.* 7, 449a13–14. A thorough account of the Apple Analogy is given by Gregoric 2007: 137–40.

⁵⁹ Alexander, *in Sens.*, 165.25–26, 166.2.

⁶⁰ Alexander, *in Sens.*, 165.26–166.2.

⁶¹ Alexander, *in Sens.*, 166.11–13; cf. Aristotle *Sens.* 7, 449a16.

define, their difference in being is rightly identified as being perceptible by different senses. Alexander appeals to the same example of the apple in arguing for the unity of the soul in his *On the Soul*, where it serves to illustrate the way of dividing “the soul by enumerating the capacities it has and by *ascertaining the differences* between them.”⁶²

So, just as the qualities of the apple are different insofar as they are perceptible by different capacities, there are several different perceptual capacities by means of which the one unitary perceptive soul perceives the different qualities. “The perceptive <soul>, being *one* [‘in respect of that which underlies’], is able to be aware and judge several different things simultaneously because it possesses *several capacities*”⁶³ that are “different from each other, in respect of which it is possible to be active at the same time.”⁶⁴

Alexander disapproves of the Apple Analogy as a solution in the end, because it implies that the diverse heterogeneous objects are perceived by *different capacities* of the soul.⁶⁵ But what is required is exactly the reverse: *one capacity perceptive of all perceptible objects* (according to the General Account). Moreover, even though this analogy fits with heterogeneous objects, it does not offer an account for homogeneous opposites.⁶⁶ Just as the apple cannot be white and black at the same time,⁶⁷ the soul cannot perceive these qualities with different capacities, for they are objects in the same genus, being perceptible by the same capacity.⁶⁸

The other aspect of the analogy—that it involves a single body, the apple—makes it attractive to commentators.⁶⁹ They argue that the role of simultaneous perception, and especially this analogy is to explain the perception of physical objects. It will

⁶²Alexander, *de An.*, 31.2–4; trans. Caston (2012). For the whole discussion of the analogy, see Alexander, *de An.*, 30.26–31.6.

⁶³Alexander, *in Sens.*, 166.2–4. ὡς μίαν οὖσαν τὴν αἰσθητικὴν πλειόνων καὶ διαφόρων ἅμα ἀτιληπτικὴν τε καὶ κριτικὴν εἶναι τῷ πλείους δυνάμεις ἔχειν. The inclusion is from *in Sens.*, 167.8.

⁶⁴Alexander, *in Sens.*, 167.8–9; cf. 166.15–167.4. πλείους δυνάμεις καὶ διαφόρους ἀλλήλων ἔχει, καθ’ ἃς ἅμα οἶόν τέ ἐστὶν ἐνεργεῖν.

⁶⁵See Alexander, *in Sens.*, 168.5–10. We can see this also from the fact that the Apple Analogy does not appear in the parallel passages (*de An.*; *Q.* 3.9) that are dealing with the connected issue of perceptual discrimination.

⁶⁶Alexander, *in Sens.*, 167.10–21. Gregoric (2007: 142–43) suggests that Aristotle merely extends the Apple Analogy to homogeneous perceptibles *a fortiori*, in line with principle (3) (in §6.2.2).

⁶⁷*Pace* Marmodoro (2014: 252–53) who simply asserts that it can be: at different parts. But this ruins the analogy.

⁶⁸Alexander, *in Sens.*, 168.13–15. Ross (1906: 231–32) thinks the Apple Analogy should rather be complementary to the Point Analogy, explicating that the relation between the perceptions is like that between their objects. Gregoric (2007: 156–61) argues even for the identity of the two accounts.

⁶⁹E.g. Charlton 1981; Modrak 1981a; but also Gregoric 2007. Cf. Marmodoro 2014: 177, who does not find the analogy fully adequate, but invokes Aristotle, *Somn. Vig.* 455a12–22 as the final account, referring to a *further power* of common sense (Marmodoro 2014: 255–61). Cf. Osborne 1983, 1998.

become clear that this function is not identical with simultaneous perception, rather perceiving physical objects as one thing is an additional act that depends on simultaneous perception (§6.5.1).

6.4.3 Point Analogy

In order to use his preferred explanation, Alexander interprets Aristotle's dense remark (*Sens.* 7, 449a10–13) as invoking the Point Analogy, and finds a reference immediately preceding it (*Sens.* 7, 449a9–10) to explicate the analogy in Aristotle, *De anima* 3.2, 427a9–23. We may ask two questions in this regard. First, whether or not this is a plausible interpretation of these lines in Aristotle—i.e. is it the Point Analogy that is meant here? Second, whether Alexander's interpretation of the analogy itself is a plausible and satisfactory solution for the problem of simultaneous perception? Once we have seen Alexander's account itself, we may attempt to answer these questions in §6.6.

Alexander sets out the analogy briefly in his commentary (Alexander, *in Sens.*, 164.5–165.20) and adds further details in the parallel passages: *de An.*, 63.6–64.11 and *Quaestiones* 3.9, 96.8–97.20. Hence, I shall use all these treatises to interpret the account. Let me first set out the easier side of the analogy, the point, before turning to the difficult question of how it works for the soul. In this section I focus on how the Point Analogy can solve the problem of heterogeneous perceptibles.

For Aristotle, a point in this context is one indivisible unity, but it divides a line into two segments, hence it can be taken as many.⁷⁰ Alexander transforms this image so that the point is the centre of a circle, which, by being numerically one and without extension or parts, is indivisible; and as being the *limit* of several lines beginning from it or ending at it, it may be said to be many.⁷¹ It is divisible into these different lines, being the centre in which all the radii are joined.⁷² The different radii run from the periphery to the centre, hence the centre itself—their limit—has relations to the other limits, i.e., the different points on the periphery, thus it is divisible accordingly.⁷³ Understood either in Aristotle's or Alexander's way, the point is a numerical

⁷⁰Aristotle, *de An.* 3.2, 427a9–14; cf. 3.7, 431a20–24. Most commentators agree that Aristotle means a point that divides a line: Rodier 1900: 394; Ross 1906: 230–31; Hicks 1907: 450; Henry 1957: 433; Ross 1961: 36; Hamlyn 1968a: 128; Charlton 1981: 106; Accattino and Donini 1996: 230. Beare (1906: 280) specifies it as a point on the time-line, i.e., a “now.” For interpreting Aristotle as meaning the intersection of several lines (as Alexander does) see Marmodoro 2014: 245; Polansky 2007: 399; Modrak 1981a: 417–18; and Kahn 1966: 56. Gregoric (2007: 150–53) argues that the two images of the point should be taken to explain two distinct phenomena: the divided line—the discrimination of opposites; the center of the circle—the discrimination of heterogeneous objects.

⁷¹Alexander uses several words for the point: limit (ὄρος); point (σημεῖον); terminus (πέρας); centre (κέντρον).

⁷²Alexander, *in Sens.*, 165.17–20; cf. *Q.* 3.9, 96.14–18, 20–22; *de An.*, 63.8–12.

⁷³Alexander, *Q.* 3.9, 96.19–20, 22–24.

unity (one in subject, *kata hypokeimenon*⁷⁴), but it has plurality in its being, in its relations to the lines terminating in it. In Alexander's account the point has plurality also in its relations to the end-points of the radii on the circumference of the circle.

Thus, there are quite a few items involved in Alexander's picture: (a) the centre of the circle; (b) the radii; (c) the different termini of the radii on the circumference. Translating the image to the soul, Alexander, in the *Questiones*, claims "each of these [things that judge] judges the affection on its own particular line."⁷⁵ Hence we may identify a further item: (d) the affections on the lines. It is clear that what judges (perceives) is (a) the centre. Again, what is judged is (d) the affection corresponding to (b) a particular radius. It seems *prima facie* obvious that what is judged is identical to (c) the points on the circumference. However it shall soon be clear that this is not the case.

As we have seen, the perceiving thing must be one in number, indivisible, just like the point taken in itself:

For in so far as it is itself taken and thought of in itself as being an indivisible limit of all the sense-organs, it will be *in activity* and by its own nature an indivisible one, and this will be able to be aware and perceptive of all perceptibles. [...] In this way, in so far as it is one thing in respect of the underlying subject, that which perceives all the perceptibles and judges them will be the same thing.⁷⁶

But it also has to be many, for it has to be able to apprehend many different things at the same time:

When it is *divided by the activities in respect of the sense-organ*, it will be many. [...] Insofar as it is divided by the activities in respect of the sense-organs, coming to be many in a way, it will perceive several different things together.⁷⁷

First, it is noteworthy that in these passages Alexander is commenting properly: he describes the distinction between oneness and multiplicity in terms of indivisibility and divisibility *in activity*—just as one can find it in the corresponding passage of Aristotle (*Sens.* 7. 449a10–13). In this way, he makes a strong connection between this remark of Aristotle's and the Point Analogy—even though Aristotle does not indicate that the distinction should be understood in these terms.⁷⁸ Thus, Alexander secures his interpretation as plausible. On the one hand, the perceiving thing is said

⁷⁴Alexander, *in Sens.*, 165.18.

⁷⁵Alexander, *Q.* 3.9, 96.25. ὅν ἕκαστον κριτικὸν ὄν τοῦ ἐν τῇ ἰδίᾳ γραμμῇ πάθους ὄντος, translations of *Q.* 3.9 are from Sharples 1994.

⁷⁶καθόσον μὲν γὰρ αὐτὸ καθ' αὐτὸ λαμβανόμενον τε καὶ νοούμενον ἀδιαίρετον πέρασ τι ὄν πάντων τῶν αἰσθητήριων, ἐνεργεῖα τε καὶ τῇ αὐτοῦ φύσει ἀδιαίρετον ἐν τι ἔσται, καὶ τοῦτο πάντων αἰσθητῶν ἀντιληπτικόν τε καὶ αἰσθητικόν. [...] οὕτω δὲ καθὸ μὲν ἓν τί ἐστι κατὰ τὸ ὑποκείμενον, ταῦτόν ἐσται τὸ πάντων τῶν αἰσθητῶν αἰσθανόμενον καὶ κρῖνον αὐτά (Alexander, *in Sens.*, 165.3–6, 8–9.)

⁷⁷ὅταν δὲ ὑπὸ τῶν κατὰ τὸ αἰσθητήριον ἐνεργειῶν διαιρεθῇ, πλείω ἔσται. [...] καθὸ δὲ ὑπὸ τῶν κατὰ τὰ αἰσθητήρια ἐνεργειῶν διαρεῖται, πολλὰ πως γινόμενον πλειόνων καὶ διαφερόντων ἅμα αἰσθήσεται. (Alexander, *in Sens.*, 165.7–8, 9–11.)

⁷⁸Although Aristotle mentions divisibility according to actuality at *de An.* 3.2, 427a5–9, just before presenting the point analogy, he explicitly rejects this option as not allowing for simultaneity.

to be one thing, hence it must have one activity at one time—recall (8) from §6.2.2. On the other hand, it is not *prima facie* obvious what it means that “it is *divided by the activities in respect of the sense-organs*.” What Alexander says about this here, referring to Aristotle’s *De anima*, is quite dense:

For being a limit of all the sense-organs *in the same way*, when *the activity* comes about *in respect of several sense-organs*, it is taken as divided and more than one. To the extent that it comes to be a boundary of several things together, the same <limit> *in the activities in respect of several sense-organs*, to this extent one thing would perceive several things of different genera together.⁷⁹

As it stands, this is an explanation of simultaneous perception only of *heterogeneous* perceptibles. It seems to involve several activities in respect of each sense-organ that is being used in perceiving the relevant perceptible. For example, in perceiving white and sweet together, by sight and taste, there will be activities in respect of the relevant organs: the eyes and the tongue. To see what these activities might be, we should turn to the parallel passages, especially to *Quaestiones* 3.9.

Alexander offers two alternative interpretations. According to the first one, the Point as Organ interpretation (*Quaestiones*, 3.9, 96.31–97.8) the point is to be identified with the *primary sense-organ*. Hence the point should be a body, a magnitude with extension. In this case the lines were the connections between the peripheral sense-organs and the central organ, and *along these lines* were the affections *transmitted*⁸⁰ from the periphery to the central organ. But together with the view that perception involves affections, i.e. material changes, the familiar Problem of Opposites arises. The different affections from opposed objects cannot come to be in the same part of the central organ—just like it does not come to be in the same part of the peripheral organs, or the appearance of them in the same part of mirrors. Thus the central organ as a body or magnitude will not only be divisible, but indeed the affections would be in different parts of it, hence it would not be one single thing as is required by the analogy.

It is clear from this that the radii do not only contain the affections, but they are indeed responsible for the *transmission* of the affections. This is confirmed by the alternative, preferred, interpretation: the Point as Capacity. Accordingly (*Quaestiones*, 3.9, 97. 8–19, see in §6.5.2), the point is to be identified with the *capacity* of the central sense-organ, the *common sense*.⁸¹ This capacity, being the *form* of the body in which it resides, senses and judges the things that produce alterations in that body, *according to the transmission* from the peripheral sense-organs. As a capacity, it is *single, incorporeal, indivisible* and *similar in every way and every part*. It can become many, however, by perceiving (in the same way) the

⁷⁹ πάντων γὰρ τῶν αἰσθητηρίων ὁμοίως ὄν πέρας, ὅταν κατὰ πλείω γίνηται ἢ ἐνέργεια αἰσθητήρια, ὡς διηρημένον καὶ ὡς πλείω λαμβάνεται· καθόσον δὲ ἅμα πλειόνων γίνεταί πέρας τὸ αὐτὸ ἐν ταῖς κατὰ πλείω αἰσθητήρια ἐνεργείαις, κατὰ τοσοῦτον ἂν καὶ ἐν τῶν πλειόνων τε καὶ ἀνομογενῶν ἅμα αἰσθάνοιτο. (Alexander, *in Sens.*, 165.13–17.)

⁸⁰ “Transmit” renders *diapempein*: Alexander, *Q.* 3.9, 96.33, 36; and *diadosthai*: *Q.* 3.9, 97.5, 6.

⁸¹ It is clear from Alexander, *de An.*, 63.6–28 that Alexander identifies this capacity as the common sense.

changes in each part of the ultimate sense-organ. Thus, by the judgements of the several different parts the capacity becomes several in a way.

Now, the Point as Capacity interpretation is most probably the same as the account we find at Alexander, *in Sens.*, 165.13–17. Hence we may identify the activity that comes about *in respect of a sense-organ* as the perceiving activity coming about *according to the transmission*. This latter notion seems to be this.⁸² In perception, first the peripheral organ is affected by the perceptible object. Then this affection is transmitted from the peripheral organ to the primary sense-organ. The result of the transmission is assimilation to the perceptible object. In cases when there are several such assimilations in the primary organ (in different parts), the common sense perceives several objects at the same time. It is related to the different objects in virtue of perceiving by means of being related to the different assimilations. Since each affection is transmitted on a single route, and different affections on different routes, the *common sense is related to different means of transmission* from periphery to centre. If the different objects are *heterogeneous*, their transmissions are through different routes and from *different sense-organs*. Thus, in simultaneous perception of heterogeneous perceptibles the objects are judged by alterations produced in the primary sense-organ *according to the transmissions* from different sense-organs.

This can be interpreted as follows. The common sense is able to determine to which sense-modality a given perception belongs *by the route of transmission* of the given perceptual change.⁸³ This is possible because the routes from the different organs differ. This interpretation can be corroborated by appealing to the last parallel passage. In his *De anima* (63.12–64.3), Alexander emphasizes the connection between the activity of common sense and the affections in the primary sense-organ. This sheds light on the way the different objects are perceived according to the transmission. For the sense capacity is many on account of being the terminus of the several different *movements* transmitted from the different peripheral organs.⁸⁴ When several such movements arise in the primary sense-organ, several objects are perceived simultaneously. Since the movements are transmitted from different organs, heterogeneous perceptibles are judged in virtue of the difference of the peripheral organ that transmits or reports⁸⁵ the affection.

Granted that the theory is consistent in the three treatises, it is noteworthy that the expression of it is not only less explicit in the *Commentary on De sensu* than elsewhere, but it is less satisfactory too. For, in the commentary, Alexander understands the division of the activity in terms of the peripheral sense-organs, so that this

⁸² See also the parallel account at Alexander, *de An.*, 64.4–9. Cf. Alexander, *in Sens.*, 19.17–20.

⁸³ Cf. Aristotle, *Insomn.* 3, 461a28–b3.

⁸⁴ “For insofar as the perceiving capacity is the terminus of all movements which come about through the [peripheral] sense-organs in the ultimate sense-organ (for the transmission from the perceptible objects through the sense-organs extends to it and is towards it), it will be many, coming to be a terminus of many and different movements.” (Alexander, *de An.*, 63.13–17.)

⁸⁵ Caston (2012: 146–47, n. 362) emphasises the *subservient* role of the special senses in reporting or transmitting perceptual information to the common sense.

account can work only for heterogeneous perceptibles. Alexander needs to clarify that he meant to apply his solution for homogeneous opposites too—and he does this rather concisely, a few pages below (at *in Sens.*, 168.2–5, see §6.5.2). The *Quaestiones* 3.9 and *De anima* passages, on the other hand, connect the division of the activity to the different *parts* of the central organ and to the *movements* coming about in those parts; the transmission is mentioned only to explain how the different genera of perceptibles are to be distinguished—and they explain this rather clearly (see §6.5.2 for details).

Now, the picture is this. First, (a) the centre of the circle is what perceives: the perceptive part or capacity of the soul—the common sense. Then, (d) the affections on the lines are the things that are judged, and (b) the lines themselves are the routes of transmission from the periphery to the centre. Hence (c) the points on the periphery must be the peripheral sense-organs themselves, rather than the objects perceived.

There is, however, a difficulty with the image: it applies—as it stands—only for heterogeneous perceptibles. Two heterogeneous objects may be distinguished on account of being transmitted by different lines. But two homogeneous perceptibles should have been transmitted by the same line, and be present together at the same time at the terminus—which is impossible, since they are opposites.⁸⁶ Thus, if this analogy is to answer the Problem of Opposites too, it must be refined.⁸⁷ How Alexander does this shall be the topic of the next section.

6.5 Judgement and Affection

Now we may turn to the Problem of Opposites as expressed in §6.3. Recall the argument.⁸⁸

(10) Perception is a sort of movement or it is by means of movement.

(11) Movements of opposites are opposed.

(12) Opposites cannot coexist in the same thing at the same time. Nor can opposite movements.

⁸⁶This is why the Point as Capacity interpretation in itself is insufficient for the explanation. Polansky (2007: 400) also emphasizes that it is the sense which is represented by the point, but he interprets affection in a non-material sense, hence believes that the Problem of Opposites does not arise. The same interpretation is expressed by Gregoric 2017 for Alexander's theory. We shall see below that the Problem of Opposites does arise.

⁸⁷Modrak (1981a: 418) thinks that the Point Analogy is easily adoptable to opposites, for "one can envision the lines moving in opposite directions." I doubt that it is easy to envision this.

⁸⁸I shall restrict the investigation in this section to the features of the solution that are highly relevant to the Problem of Opposites. However it is desirable to give a comprehensive account of the solution (which I do plan to give at another occasion) in order to assess its consequences for Alexander's theory of perception, and in general for his philosophy of soul.

Hence, opposites cannot be perceived together.

Since (11) and (12) are obviously true, the question is how (10) should be understood to allow simultaneous perception of opposites. Alexander's solution is this: "perception, even if it seems to come about by means of an affection, is nevertheless itself judgement."⁸⁹ We have to see first (§6.5.1) what it means to be a judgment; then (§6.5.2) how judgement relates to the material change involved in perception; so that we can assess (§6.5.3) how this account can solve the Problem of Opposites by the Point Analogy, but (§6.5.4) not by the Apple Analogy.

6.5.1 Perception as Judgement—Opposition in Judgement

Judgement (*krisis*)⁹⁰ is the activity of all kinds of cognitive capacities: not only of perception, but of representation (*phantasia*), opinion (*doxa*), knowledge (*epistēmē*), and intellect (*nous*).⁹¹ Among the features of judgement Theodor Ebert (1983) identifies, the most important is that it can be true or false, hence erroneous, so that its content is *propositional*.⁹² It is a sort of deciding—as in perceptual discrimination. Moreover, it is arguable that its propositional content is of predicational form: 'S is F'.⁹³ In the case of perception (and *phantasia*), there are restrictions for the terms in

⁸⁹ Alexander, *in Sens.*, 167.21–22; cf. *Q.* 3.9, 97.25–27, 98.6–10; *de An.*, 63.28–65.1, 84.4–6.

⁹⁰ *Krisis* (κρίσις) picks out the active side of perceiving—together with awareness: *antilēpsis* (ἀντιλήψις)—the two terms being used mostly interchangeably. The term is translated (especially in Aristotle) in different ways: *judgement*—e.g. Towey 2000; Sharples 1994; Emilsson 1988: 121–25; *discrimination* or *discerning*—especially Ebert 1983; cf. Shields 2016; Corcilius 2014; Gregoric 2007; *cognition*—Caston 2012: 139–40, n. 346; cf. Ross 1906: 217, 233. Two features that Caston attributes to *judgement* need to be disregarded: that it involves concepts (otherwise animals could not have it); and that it involves endorsement. Since *phantasia* does not involve endorsement (Alexander, *de An.*, 67.18–20, 71.10–21) this clearly is not meant. Even though the generality of the term "cognition," and its clear contrast to practice (Alexander, *de An.*, 73.20–26, 75.13–15) renders it a quite good translation of *krisis*, if we bear in mind the restrictions concerning concepts and endorsement, "judgement" picks out the propositional type of content more clearly.

⁹¹ Alexander, *de An.*, 66.9–19. Cf. *de An.*, 78.10–21, where in addition *antilēpsis* (awareness), *synkathesis* (endorsement or assent), *hypolēpsis* (supposition), *logizesthai* (calculation), *dianoesthai* (thinking), and *katalēpsis* (securing) are also subsumed under *krisis*.

⁹² Cf. Emilsson 1988: 122. Note the use of "saying" in connection to this activity, which occurs also in Aristotle (see §6.4.), cf. Hicks 1907: 448; Polansky 2007: 396; Bergeron and Dufour 2008: 307.

⁹³ Pace Ebert 1983, who argues that content expressing sameness or difference (e.g. "x differs from y") is operative, being more basic—hence *krisis* should be translated as "discrimination." Corcilius 2014—rightly—objects that the discrimination of difference is not that basic act. Instead, he interprets *krisis* (discrimination) as transforming the sensory input into phenomenal content, separating the perceptible form from its matter. This is not yet awareness, the latter being the immediate consequence of the separation, leading to motor responses in the animal. Since neither interpretation admits predicational content, they cannot be applied for Alexander—nor, I am inclined to think, for Aristotle, especially in the case of simultaneous perception.

the content: the subject S has to be an individual that might bear perceptible properties; the predicate F must be a perceptible feature predicated of S. This kind of content is most apparent in our passages, though there are independent reasons to take Alexander to attribute it to perception.⁹⁴

Given this, we can see how identifying perception with judgement can solve the Problem of Opposites. The problem stemmed partly from (11) “movements of opposites are opposed.” The solution that

(10*) Perception is judgement.

is an adequate solution, because

(11*) There is no opposition in a judgement of opposites.⁹⁵

So,

(12*) Judgement of opposites that they are opposites can be simultaneous.⁹⁶

Hence simultaneous perception of opposites is possible.

To see the solution in detail we need to look at the explication of (11*): what it is to be *opposition in judgement*. This also supports the understanding of *krisis* as judgement involving predicational content. Let us see Alexander’s explanation.

That which is opposite in affection is different from that which is <opposite> in judgement. For in affection white <is opposite> to black but in judgement the judgement {1}⁹⁷ concerning the white <thing> that it is white and the <judgement> {2} of the black <thing> that it is black are not opposites. For these <are> *true together*; and it is impossible for opposite judgements to be true together. But what is opposite to the judgement {1} concerning the white <thing> that it is white is the <judgement> {3} concerning the white <thing> that it is black. For this reason these latter <judgements> never *exist together in* {4} *the judgement in accordance with perception*, but the former ones are—for they are not opposite.⁹⁸

⁹⁴First, since perception provides motivation for action in animals, it has to be able to present external objects to the animal *as* to be pursued (or avoided), or, more specifically, *as food, as nutrient, as dangerous*, Sorabji 1974, 1992. This argument is restricted to accidental perception, however, which is quite unproblematic. Second, concept formation—if it depends on perception—requires that what is general is somehow already in the content of perception, since the perceptible features have to be applicable to multiple subjects. In seeing a white wall the subject has to perceive the wall *as white*, or, in general, has to perceive S *as F*, cf. Caston (unpublished as of now). Third, the explicit treatment of the truth-conditions of *phantasia* (Alexander, *de An.*, 70.23–71.5) implies that its content is “S is F.” For a true *phantasia* is about a real thing in the world (S) which is such as the thing (F).

⁹⁵Alexander, *in Sens.*, 167.22–168.2.

⁹⁶Alexander, *in Sens.*, 167.25–168.1.

⁹⁷I numbered the examples of judgements in this and the following text for ease of reference.

⁹⁸ἄλλο δὲ τὸ ἐν πάθει ἐναντίον καὶ ἄλλο τὸ ἐν κρίσει. ἐν πάθει μὲν γὰρ τὸ λευκὸν τῶ μέλανι, ἐν κρίσει δὲ οὐχ ἡ κρίσις {1} ἢ περὶ τοῦ λευκοῦ ὅτι λευκὸν οὐδ’ {2} ἢ τοῦ μέλανος ὅτι μέλαν ἐναντία· αὐτὰ μὲν γὰρ ἅμα ἀληθεῖς· ἀδύνατον δὲ τὰς ἐναντίας κρίσεις ἅμα ἀληθεῖς εἶναι. ἀλλ’ ἔστι {1} τῆ περὶ τοῦ λευκοῦ κρίσει ὅτι λευκὸν ἐναντίον {3} ἢ περὶ τοῦ λευκοῦ ὅτι μέλαν. διὸ

In this way in judgement it is impossible to suppose that {5} what is white is white and black together; and for this reason, again, in judgement what is like this *cannot exist together*. But to say that {2} black is black and that {1} white is white is not impossible, because it is not even opposite.⁹⁹

We may identify two kinds of proposition in this account as the content of perception.¹⁰⁰ First, there are propositions with a singular subject and one feature predicated of it: x is F—“the white is white” {1}; “the black is black” {2}; “the white is black” {3}.¹⁰¹ Second, there are propositions in which several predicates are combined: x is F and G—“the white is both white and black” {5}, viz. “the same thing is white and black.”¹⁰²

Now, Alexander’s point here is that when propositions of the former type are combined to form propositions of the latter type, some combinations will be possible, while others will be impossible. Possibility of combination depends on whether the combined elements are contradictory or not. If they do not contradict each other—can be “true together”¹⁰³—they can belong together to the judging subject.¹⁰⁴ That is, they can exist together (*συνυπάρχει*) in a single judgement. This single judgement is the perceptual judgement: the “*judgement in accordance with perception*” (ἡ κατὰ τὴν αἴσθησιν κρίσις).¹⁰⁵

Thus, two items are involved in an opposition in judgement and in the corresponding lack of opposition, since at least two items might be either opposite or not. The two items are two judgements that together compose a complex judgement: {1} together either with {2} or with {3} compose one judgement {4}. When the subject in the two simple propositions is the same and the predicates are opposed, there will be opposition in judgement, for these cannot hold together: “x is F and x is G”—e.g. {1} and {3}: “w is white and w is black.” On the other hand, when the subjects of the different predicates differ, the predicates may be opposed without thereby being a contradiction: “x is F and y is G”—e.g. {1} and {2}: “w is white and b is black.”

αὗται μὲν οὐδέποτε *συνυπάρχουσι* ἐν {4} τῇ κατὰ τὴν αἴσθησιν κρίσει, ἐκεῖνα δὲ οὐ γὰρ εἰσιν ἐναντία. (Alexander of Aphrodisias, *in Sens.*, 167.22–168.2; cf. *Q.* 3.9, 97.28–30; *de An.*, 64.12–17.)

⁹⁹ ἐν κρίσει πάλιν ἀδύνατον τὸ {5} τὸ λευκὸν ὁμοῦ μὲν λευκόν, ὁμοῦ δὲ μέλαν ὑπολαμβάνειν εἶναι. διὸ πάλιν ἐν κρίσει τὸ οὕτως ἔχον ἀσυνύπαρκτον. {2} τὸ μὲν μέλαν μέλαν, {1} τὸ δὲ λευκὸν λευκὸν εἰπεῖν οὐκ ἀδύνατον, ὅτι μηδ’ ἐναντίον. (Alexander, *Q.* 3.9, 97. 32–35.)

¹⁰⁰ In the interpretation I am generally in agreement with Accattino and Donini 1996: 233. See also Alexander, *de An.*, 64.12–17. This passage uses “saying” (*legein*) to describe the judging activity.

¹⁰¹ Even though there is linguistic ambiguity in “the white is white” (*to leukon lekon esti*) as to whether the subject “the white” (*to leukon*) picks out the thing that happens to be white or the whiteness (of a thing), the reference is clearly to the thing. Otherwise it would be not only false but nonsensical to say that “the white is black”—i.e. whiteness is blackness—or that “the same item is white and black”—i.e. the same quality is whiteness and blackness.

¹⁰² See also Alexander, *de An.*, 64.16.

¹⁰³ Cf. Alexander, *in Sens.*, 167.25–26.

¹⁰⁴ Cf. Alexander, *de An.*, 64.16.

¹⁰⁵ Alexander, *in Sens.*, 168.1; cf. *Q.* 3.9, 97.34.

Since the components of the composite judgement are judgements themselves, the composite judgement is formed by a *conjunction* of its components.¹⁰⁶

Thus, Alexander's solution for simultaneous perception invokes judgements having propositional content with such complexity. Hence (11*) "there is no opposition in a judgement of opposites."

It also becomes clear from this how perceptual discrimination and perceiving physical objects differ from, yet depend on, simultaneous perception. These acts can be understood as further judgements in addition to the judgement of simultaneous perception. In perceptual discrimination the difference of the objects is judged by means of the difference of the items in the content (in "x is F and y is G," x differs from y; and F from G) and that "F differs from G" is an additional judgement to simultaneous perception. Similarly, in perceiving one object, the sameness is judged by means of the sameness of some item in the content: the sameness of the subject (if $x = y$, i.e. "x is F and x is G"),¹⁰⁷ and the judgement that "it is one thing" is additional to simultaneous perception. Hence simultaneous perception is a more basic phenomenon than either discrimination or perceiving one physical thing. All the arguments suggest that simultaneous perception is the unity of consciousness in which all perceptual judgements are conjoined.¹⁰⁸

6.5.2 *Material Change and Judgement*

Even though Alexander asserts that (10*) "perception is judgement," he also maintains that (10#) "*perception is by means of movement.*" It seems that he rejects any attempt to solve the Problem of Opposites by eliminating all physical change.¹⁰⁹ He

¹⁰⁶A similar suggestion is made by Beare 1906: 281.

¹⁰⁷E.g. bile is perceived to be both bitter and yellow, cf. Aristotle, *de An.* 3.1, 425a30–b3. On this see Kahn 1966: 54; Hamlyn 1968b: 199–200; Marmodoro 2014: 166–67.

¹⁰⁸Emilsson (1988: 94–100) explicitly identifies it thus, and emphasizes the Stoic influence on the unity of consciousness in the ruling part of the soul (*hēgemonikon*). Cf. Hamlyn 1968a: 128; 1968b: 199; Charlton 1981; Modrak 1981a; Shields 2016: 272–73.

¹⁰⁹At *de An.*, 61.30–63.5 Alexander plays with the idea. And even though he does not explicitly reject it, at the end he offers remarks that tell against it (*de An.*, 62.22–63.5)—namely, the case of the sense-organ and the medium are disanalogous: affections remain in the former, but do not remain in the latter—in line with everything he says elsewhere, e.g. *de An.*, 39.10–18; *in Sens.*, 5.19–8.13. The role of this suggestion in the argumentation is by no means clear, however: cf. Bergeron and Dufour 2008: 42, 308–9; Accattino and Donini 1996: 228–30; Emilsson 1988: 99.

Gregoric (2017: 56–62) also takes the remarks at *de An.*, 62.22–63.5 as supporting the thesis that perception requires no material change, but is a different kind of change. He argues, then, that this "immateriality" thesis is the first step towards the solution, leaving for the point analogy to decide if the special senses or the common sense do simultaneous perception and perceptual discrimination. Against this interpretation the following can be considered. First, this obscures why the Problem of Opposites still arises, and why there is need for separate parts of the sense-organs for receiving incompatible affections (cf. note 86). Again, later (59–60) Gregoric confuses this immateriality thesis with the thesis that the common sense as a form is immaterial—which

has strong reasons to do so: e.g. a causal connection to the object is necessary to trigger the activity of the capacity; moreover, the fact that the affection is assimilation to the object explains the intentional (and phenomenal) content of the perception. In addition, it would be anachronistic to suppose that perception does not involve material change at all.¹¹⁰

For this reason, Alexander has to provide a satisfactory explanation of how the material change (the movement) is related to the perceptual activity of judging. In particular, he has to offer an account of the role of material alteration in simultaneous perception of opposites (as well as of heterogeneous perceptibles).

In his commentary he just summarizes the findings that are explicated in detail both in *Questiones* 3.9, and in *De anima*.¹¹¹ Thus, in this section, I appeal to the parallel passages to complete the account of simultaneous perception provided in the commentary.

However when that body is affected in which this <i.e. the perceptive> soul <is located>, and which it is habitual to call the ultimate sense-organ, <it is affected> not in respect of the same part by both <opposites> but rather <the affections> are generated in different <parts> by different <opposites> just as we see in case of the eyes and mirrors when the opposites appear simultaneously.¹¹²

The problematic proposition was that (12) “*the same thing cannot admit two incompatible (in particular: opposite) affections at the same time.*” This involves three factors: the subject, the affection, and the time. Two of these cannot be altered. First, we are considering the possibility that the affection involved in perception is affection in the strict sense. Again, since what has to be shown is the possibility of simultaneous perception, simultaneity cannot be dropped either. The remaining factor is the subject. Hence, instead of a single subject there must be different subjects for the incompatible affections.

We learn elsewhere that the affection involved in perception is *assimilation* to the perceived object.¹¹³ This is a consequence of the Aristotelian theory of causation.¹¹⁴ For, if *a* acts upon *b* (in virtue of *F*), then before the process *a* and *b* were dissimilar (*F* and non-*F*), and in the change *a* assimilates *b* to itself, by making *b* actually

Alexander clearly endorses, but which does not follow from the immateriality thesis concerning the perceptual change. Moreover, Alexander does not appeal to the thesis that perception is a different kind of change; rather, he puts forward the thesis that perception is a *different type of activity*: judging.

¹¹⁰Nevertheless it has been supposed for Aristotle: Burnyeat 1995, 2002. But this idea is conclusively rejected, e.g. by Sorabji 1992; Sisko 1996; Everson 1997; Caston 2005; Lorenz 2007.

¹¹¹Cf. Alexander, *Q.* 3.9, 97.22–25; 98.2–15; *de An.*, 64.4–11; 64.17–65.1.

¹¹²πάσχιοντος μέντοι τοῦ σώματος ἐν ᾧ ἦδε ἡ ψυχή, ὃ ἔθος ἐστὶ λέγειν ἕσχατον αἰσθητήριον, οὐ κατὰ τὸ αὐτὸ μέρος ὑπ’ ἀμφοῖν, ἀλλὰ κατὰ ἄλλο ὑπ’ ἄλλου γίνεταί, ὡς γὰρ ὀρώμεν καὶ ἐπὶ τῶν ὀφθαλμῶν καὶ ἐπὶ τῶν κατόπτρων ἅμα ἐμφαινόμενα τὰ ἐναντία. (Alexander, *in Sens.*, 168.2–5.)

¹¹³See Alexander, *de An.*, 38.20–40.3, 40.20–41.10; cf. Aristotle, *de An.* 2.6. Cf. Marmodoro 2014: 80–86.

¹¹⁴Aristotle, *Ph.* 3.1–3; *GC* 1.7. For a recent analysis of the relevance of the causal theory in Aristotle’s views on perception, see Marmodoro 2014.

F. Perceptual assimilation comes to be through a *qualitative change*, for the special objects of perception are qualities.

Again, since the affection is physical, it requires a body as its subject. Thus it is not the capacity that receives the affection, otherwise the Problem of Opposites would still arise. But the incorporeal capacity is not even a suitable subject for material affection. Hence, the subject has to be the sense-organ.¹¹⁵ But being corporeal implies that it is an extended magnitude, so that it is divisible into several parts.¹¹⁶ Now, since a part of a magnitude is still a magnitude, and a part of a body is still a body, the parts of the sense-organ are suitable subjects for receiving affections. Indeed, Alexander appeals to the observation that different colours affect different parts of the eye as well as appear in different parts of a mirror.¹¹⁷ Hence the proper subject that receives perceptual change is a part of the sense-organ.¹¹⁸ So, assimilation takes place in parts of the primary sense-organ. It comes to be there by being transmitted there from the different peripheral sense-organs.¹¹⁹

This explains why the respect in which the one capacity is many may have been cashed out in different terms (see §6.4.3). Since all these items—the transmission-process itself, the route of transmission, the affection as the product of transmission, and the part of the primary organ as the end-location of transmission—are phases of and items in a single process (the transmission), the claims that the one capacity becomes several in accordance with “the transmissions,” “the activities in respect of the sense-organs” (i.e. the transmission-processes themselves), “the lines” (corresponding to the routes), “the affections,” and “the parts of the organ” are all equivalent. The last of these—the parts—is the most proper item according to which the distinction can be made. For the parts of the sense-organ might differ irrespective of the kind of affection and the corresponding kind of perceptible features involved—heterogeneous or homogeneous perceptibles in the same way (requirement (vi) in §6.2).

Now, since the affections are related to (present in) different parts of the sense-organ, no impossibility arises from the fact that the sense-organ is being affected by opposites simultaneously. However, that the affections are of diverse subjects seems to contradict the requirement of a single subject.¹²⁰ Even though the subject of the

¹¹⁵Alexander, *Q.* 3.9, 97.35–98.4. In the passage where Alexander introduces the issue of perceptual change, he carelessly writes as if its subject were the capacity rather than the body, see especially Alexander, *de An.*, 39.11–13, 16–18. This attribution can be dismissed, however, as introductory, especially because it is followed by an explicit statement that the subject is the body (*de An.*, 39.18–21). Cf. Corcilius 2014: 43–48. However, see Lorenz 2007.

¹¹⁶Alexander, *Q.* 3.9, 96.31–97.8.

¹¹⁷Alexander, *in Sens.*, 168.3–5; *Q.* 3.9, 97.1–4.

¹¹⁸Alexander, *in Sens.*, 168.3–4; cf. *de An.* 64.4–9, 18–19; *Q.* 3.9, 97.5–8, 22–25, 98.4–6.

¹¹⁹Alexander, *de An.*, 64.2–3, 7–8, 19–20; *Q.* 3.9, 97.22–25.

¹²⁰Cf. Emilsson 1988: 104–5. Emilsson argues that: “Plotinus’ view of the matter is much simpler [than that of Alexander]. Basically all he does is to develop one of Alexander’s two solutions so that a uniform account can be given in terms of it.” This solution is what I explicate below: that the soul as incorporeal is uniformly present to the body. The achievement of Plotinus that Emilsson

perceptual activity is claimed to be the capacity, it must be explained how it is the case that there is only one single capacity if there are several parts of the sense-organ that each may receive different affections simultaneously. How might there be one activity of this capacity, which is related to several parts of the sense-organ?

This capacity senses and judges the things that come about in that body, of which it is the form and capacity, according to the transmission from the sense-organs. For this capacity is single and, as it were, the terminus of this body of which it is the capacity, since it is to this that the changes are transmitted as their ultimate [destination]. [The capacity,] being *incorporeal* and *indivisible* and *similar in every way*, as being single, in a way becomes many [capacities], since it senses *similarly* the changes in each part of the body of which it is the capacity, whether the change comes about in it in some one part or in several. For in the judgement of several [parts] the single [capacity] in a way becomes several capacities, since it is taken as the proper terminus of each part.¹²¹

What Alexander offers is insisting on *hylomorphism*. Accordingly, as the sense-organ is the matter of the perceiver, the capacity of perception—which makes the judgement—is the form.¹²² Just as with any form, the perceptive capacity informs the sense-organ throughout *uniformly*. That is, it is the same form in relation to the *whole* sense-organ as well as to *all its parts*. Thus, there is one single form, and it is incorporeal, and similar throughout.¹²³ In a sense the perceptual movements are taken to it, “for the transmission from the perceptible objects through the sense-organs extends to it and is towards it.”¹²⁴ For the capacity is the last item concerned with the movements in making the judgement by means of them, hence, in a sense, it is the limit of the sense-organ. The capacity might be called a limit of the body insofar as it might be called the limit of the bodily movements in the diverse parts of the organ, or the limit of the parts themselves.¹²⁵ Certainly it is not a physical limit in virtue of being the end-location of the transmission of the movements. Rather, being incorporeal (not a magnitude), hence also indivisible, it might be a limit by analogy. The capacity is the limit of the movements, insofar as when the

refers to is his disregarding of the transmission from sense-organs to a central organ as unnecessary addition. Cf. Henry 1957.

¹²¹ ἴσως δ' ἂν ἐφαρμόζειν δύναιτο μᾶλλον τῆ δυνάμει τῆ τοῦ σώματος ἐκείνου, ὃ λέγομεν ἔσχατον αἰσθητήριον, οὗ ἢ αἰσθητικὴ δύναμις εἶδος, ἣτις δύναμις αἰσθάνεται καὶ κρίνει τὰ ἐν τῷ σώματι, οὗ δύναμις καὶ εἶδος ἐστὶν γενόμενα κατὰ τὴν ἀπὸ τῶν αἰσθητηρίων διάδοσιν. ἢ γὰρ δύναμις αὕτη μία οὕσα καὶ ὥσπερ πέρασ τοῦ σώματος τούτου οὗ δύναμις ἐστίν, ἐπειδὴ ἐπὶ τοῦτο τὸ ἔσχατον αἰ κινήσεις φέρονται, ἀσώματός τε οὕσα καὶ ἀδιαίρετος καὶ ὁμοία πάντη, μία οὕσα, πολλάι πως γίνονται τῷ τῶν καθ' ἕκαστον μέρει τοῦ σώματος, οὗ δύναμις ἐστίν, κινήσεων αἰσθάνεσθαι ὁμοίως, ἂν τε κατὰ ἓν τι μέρος ἢ κινήσεις ἐν αὐτῷ γένηται, ἂν τε κατὰ πλείω. ἐν γὰρ τῆ τῶν πλείονων κρίσει πολλάι πως δυνάμεις ἢ μία γίνεται ὡς ἕκαστου μορίου πέρασ οἰκεῖον λαμβανομένη. (Alexander, *Q.* 3.9, 97.10–19.)

¹²² Alexander, *Q.* 3.9, 97.9–10.

¹²³ Alexander, *de An.*, 63.17–19, 64.9–11; *Q.* 3.9, 97.14–15, 98.6.

¹²⁴ Alexander, *de An.*, 63.15–16; see §6.4.3.

¹²⁵ Alexander, *Q.* 3.9, 97.13–14, 18–19; *de An.*, 63.14–17.

capacity makes judgements based on the movements the movements terminate in the judgement.¹²⁶

Again, being the form in the same way of each part of the sense-organ, the capacity can judge the affections in each part *in the same way*.¹²⁷ This is a crucial point for two reasons. First, this allows that only one activity may be there to judge several things (requirement (iii) in §6.2), by being related to each part of the primary sense-organ uniformly, i.e. picking up on the affections in the parts and judging that corresponding to the affection there is a quality in the environment. The same relation allows that each perceived feature comes into the perceptual content as a predicate of its given subject. Second—and most importantly—the uniform relation allows that the objects are perceived distinctly, without any interference, hence as they are (requirement (i) in §6.2). For in case several things are perceived, since the affections are in diverse parts, they do not need to affect each other, hence they may remain affections as they would be if only a single thing were perceived. The lack of interference also allows the objects to be perceived as two (requirement (ii) in §6.2).

This implies that there are as many objects in the perceptual content, since many affections are co-occurring in the several parts of the primary sense-organ. When there is only one affection, what is perceived is only one thing. When there are many affections, all of them will be perceived at the same time. And in this latter case the one capacity *as it were* becomes several.¹²⁸

6.5.3 *The Solution for the Point Analogy*

Now that we have seen the elements of the solution, let us see how it applies for the analogies. The solution that (10*) “perception is judgement” seems to be applicable to both the Apple Analogy and the Point Analogy similarly. It certainly applies to the Point Analogy. As we have seen (§6.4.3), the account of the Point Analogy describes the point in the same terms as we have just seen for the capacity: *single, incorporeal, indivisible*. Moreover, the connection is also made in terms of the uniformity of relation. For just as the point is “insofar as what is from them all [the lines] is one undifferentiated and in *every way the same*,”¹²⁹ the capacity as well is the “limit of all the sense-organs *in the same way*.”¹³⁰ There is not only no spatial differentiation in the point and the capacity, but they are also related to the different items with the same kind of relation. The point is the limit of the lines in the same sense, and the capacity is present to its parts, is judging the affections in the parts,

¹²⁶ Alexander, *Q.* 3.9, 97.14, 17–18.

¹²⁷ Alexander, *Q.* 3.9, 97.15–17; *de An.*, 63.20–28.

¹²⁸ Alexander, *Q.* 3.9, 97.17–18, 98.8–15; *de An.*, 64.20–65.1.

¹²⁹ καθόσον δὲ ἐν τὸ ἐκ πάντων ἐστὶν ἀδιάφορον καὶ πάντη τὸ αὐτό. (Alexander, *Q.* 3.9, 96.26.)

¹³⁰ πάντων γὰρ τῶν αἰσθητηρίων ὁμοίως ὄν πέρας. (Alexander, *in Sens.*, 165.13.)

and is presented with the affections in the parts through the affections having been transmitted, etc., in the same way.

It is clear that if the unity is given on the level of capacity, there has to be something on a different level that accounts for the required plurality. In the point analogy: the point is one, and there are several lines. The lines and the point are on different levels, for the lines are one-dimensional items whereas the point is zero-dimensional. Since the capacity is on the level of form, the only possible subject remaining, then, is something bodily.¹³¹ Plurality is indeed accounted for by the several parts of the primary sense-organ. Hence, the analogy with the point requires that there are several bodily items (parts of the sense-organ) involved in the solution as subjects for the diverse perceptual affections: viz. (10*) is necessarily supplemented with (10#).

6.5.4 *The Solution for the Apple Analogy*

Again, the fact that (10*) “perception is judgement” is introduced, at *in Sens.*, 167.21, in the context of the Apple Analogy¹³² suggests that it fits this analogy too. In the Apple Analogy there is *one body* underlying the affections on the one hand, and *many capacities* perceiving them on the other. However, both these aspects of the analogy strongly tell against the applicability of the solution (10*) for it. First, (10*) involves one act of judging, although with complex content. But according to (8), one act requires one capacity being active. The many capacities in the Apple Analogy conflict with this requirement. Again, as we have seen (§6.5.2), the solution (10*) involves that the body in which the affections are present has many parts; and these different parts can be unified precisely because one capacity is their form. So whereas the Apple Analogy involves unity of body and multiplicity of capacities, (10*) involves multiple bodily parts unified by one single capacity.

More generally, the purpose of (10*) is to reconcile that (10#) “perception involves material changes” with (11) “material changes of opposites are opposed,” so that one single subject can perceive opposites together without one single body being affected with opposite motions (which is impossible (12)). But if the solution that (10*) “perception is judgement” is combined with an analogy that insists on the singularity of the body involved, then even though (11*) “judgement of opposites does not involve opposition,” the opposite movements involved by (10) and (11) will affect this one single body, contrary to the fact that (12) this is impossible. But if it is dropped that there is only one body, the analogy with the apple is just ruined.¹³³

¹³¹ Pace Gregoric 2007: 132. Cf. Gregoric 2017.

¹³² It is a second alternative to the interpretation according to which the Apple Analogy rules out simultaneous perception of opposites, see Alexander, *in Sens.*, 167.10–21.

¹³³ This problem is the same as that with the Point as Organ interpretation, i.e. the point in the Point Analogy corresponds to the primary sense-organ, to a body, as it is discussed by Alexander in *Q.* 3.9, 96.31–97.8.

6.6 The Adequacy of Alexander's Account

Let us see whether Alexander's solution reconstructed in §§6.5.2 and 6.5.3 answers the issue adequately, especially in relation to the requirements identified in §6.2.

- (i) *The two items that are perceived simultaneously must be perceived distinctly in the same way.* This is clearly met both on the level of the content of the perceptual judgement and that of the material change. First, since the perceptible features enter into the content (x is F and y is G) as predicates (F , G), the two features come into the one judgement in the same way *as predicates* and as distinct, for they are predicates *of different subjects* (though the subjects might be identical: if $x = y$). Again, the perceived objects produce perceptual affections in the primary sense-organ in the same way and distinctly. For the affections come to be *in distinct parts* of the organ, but similarly, insofar as they are *assimilations* to the objects perceived by means of alteration through transmission.
- (ii) *The two items must be perceived as two.* Since the content is a complex of two simple perceptual propositions: " x is F " and " y is G ," the two objects are perceived as two: x , and y as well as F and G . The fact that the corresponding affections are in distinct parts of the sense-organ prevents their interference.
- (iii) *There has to be a single activity of simultaneous perceiving.* There is one activity: judging that " x is F and y is G ." This can be a single activity, for the difference between a judgement with a simple content (x is F) and one with a complex content (x is F and y is G) is not that the former involves one activity and the latter two, but that the latter involves a more complex activity than the former. It is more complex, for it involves also the conjoining of two simple propositions. But it is still one activity, for it is a judgement with a single truth-condition (even though this depends on the truth conditions of the component simple judgements). Again, judging relates to the objects and to the corresponding parts of the sense-organ uniformly, for there is a single form (i.e. capacity) informing the organ, which thereby has a single activity.
- (iv) *The single activity must be at one time indivisible in any respect.* The main desideratum having been simultaneity, this requirement has never slipped notice. However, one might ask how the several components of a judgement (" w is white" and " b is black") might be simultaneous, if judgement is like *saying* or *pronouncing*. For the saying of the terms, and even more, the saying of the component judgements, involves temporal distinctions: since in the judgement " w is white and b is black" the component " w is white" is pronounced before " b is black," hence not simultaneously, so they cannot be judged simultaneously either. But this objection is based on confusing the role of *saying* in the account. What it serves to illuminate is merely the *type of content*—i.e. propositional content—not that it is a process having some

duration.¹³⁴ The simultaneity of the component judgements is best seen in the image in the final account. The judgement of simultaneous perception involves two contemporaneous affections in two parts of the primary sense-organ, hence two contemporaneous relations between the judging capacity and the affections. Since the judgement consists in the relations the capacity has to the several affections, if these affections are simultaneous, the judgement will be simultaneous too. The account does not mention any pronouncing.

- (v) *There has to be one capacity which is perceptive of all kinds of object.* The Point Analogy explicitly fits this, emphasizing the uniqueness of the capacity as the form of the primary sense-organ—the perceptive part of the soul or the common sense—and that this capacity uses the peripheral sense-organs in its activities. Since the capacity is related to each part of the central organ, hence to all transmitted affections in those parts, it is able to perceive all kinds of perceptibles. As we have seen, the Apple Analogy is defeated on this point, as it involves several capacities.
- (vi) *There has to be a homologous account for heterogeneous and for homogeneous perceptibles.* This is also clear in the final account. For what matters is that the perceptual changes affect different parts of the sense-organ, so that they are perceptible simultaneously without causing any physical inconsistency—the formal inconsistency having been resolved by (10*) the judgement-account. Thus, even though only the affections from heterogeneous perceptibles are transmitted through specifically different routes (through different sense-organs), the end-result is similar: different parts of the primary sense-organ are affected by different perceptibles, regardless of how the objects may differ.

6.7 Conclusion

Alexander provided an adequate solution for the problem of simultaneous perception, which can be identified as an important psychological notion: the unity of (perceptual) consciousness. The problem is already set out, but never resolved by Aristotle. Aristotle merely provided some analogies to show the possibility of an account. Alexander solves the problem by extending Aristotle's analogy with a point (depicting a circle with its centre, see §6.4.3) and connecting all of Aristotle's remarks about the issue in different works; thereby remaining a faithful Aristotelian. Alexander's interpretation of Aristotle gains plausibility from the plausibility of his solution for the problem of simultaneous perception. Even in cases when Alexander apparently supplies additional elements to the account—perception as judgement (§6.5.1); assimilation in different parts of the sense-organ (§6.5.2)—we may find the roots in Aristotle, and there is nothing written by Aristotle that contradicts

¹³⁴Rodier (1900: 388) notes that judging is an activity (*energeia*) rather than a movement (*kinēsis*), hence occurs instantaneously and does not have a coming to be.

Alexander's account. Thus, Alexander's treatment of simultaneous perception can be taken as a coherent and powerful interpretation of Aristotle; though the final assessment would require the examination of the consequences of Alexander's solution, and a thorough comparison of them with Aristotle's theory.

Bibliography

- Accattino, P., & Donini, P. (Trans.). (1996). *Alexander of Aphrodisias, L'Anima*. Bari: Laterza.
- Beare, J. I. (1906). *Greek theories of elementary cognition: From Alcmaeon to Aristotle*. Oxford: Clarendon Press.
- Bergeron, M., & Dufour, P. (Eds. & Trans.). (2008). *Alexander of Aphrodisias, De l'âme*. Paris: Vrin.
- Burnyeat, M. (1990). *The Theaetetus of Plato*. Indianapolis: Hackett.
- Burnyeat, M. (1995). Is an Aristotelian philosophy of mind still credible? (A Draft). In M. Nussbaum & A. Rorty (Eds.), *Essays on Aristotle's De Anima* (pp. 15–26). Oxford: Clarendon Press.
- Burnyeat, M. (2002). De Anima II.5. *Phronesis*, 47, 28–90.
- Charlton, W. (1981). Telling the difference between sweet and pale. *Apeiron*, 15, 103–114.
- Caston, V. (2005). The spirit and the letter: Aristotle on perception. In R. Salles (Ed.), *Metaphysics, soul, and ethics in ancient thought: Themes from the work of Richard Sorabji* (pp. 245–320). Oxford: Oxford University Press.
- Caston, V. (Trans.). (2012) *Alexander of Aphrodisias, on the soul, part I*. London: Bristol Classical Press.
- Caston, V. (Unpublished) "Aristotle on Perceptual Content."
- Cooper, J. (1970). Plato on sense-perception and knowledge (Theaetetus 184–186). *Phronesis*, 15, 123–146.
- Corcilius, K. (2014). Activity, passivity, and perceptual discrimination in Aristotle. In J. F. Silva & M. Yrjönsuuri (Eds.), *Active perception in the history of philosophy: From Plato to modern philosophy* (pp. 31–53). Cham: Springer.
- Ebert, T. (1983). Aristotle on what is done in perceiving. *Zeitschrift für Philosophische Forschung*, 37, 181–198.
- Emilsson, E. K. (1988). *Plotinus on sense-perception: A philosophical study*. Cambridge: Cambridge University Press.
- Everson, S. (1997). *Aristotle on perception*. Oxford: Oxford University Press.
- Gregoric, P. (2007). *Aristotle on the common sense*. Oxford: Oxford University Press.
- Gregoric, P. (2017). Alexander of Aphrodisias on the common sense. *Filozofski vestnik*, 38, 47–64.
- Hamlyn, D. W. (Trans.). (1968a). *Aristotle, De Anima Books II and III*. Oxford: Oxford University Press.
- Hamlyn, D. W. (1968b). Koine Aisthesis. *The Monist*, 52, 195–209.
- Henry, P. (1957). Une Comparaison chez Aristote, Alexandre et Plotin. In E. R. Dodds et al. (Eds.), *Les Sources de Plotin* (pp. 429–449). Vandoeuvres-Genève: Fondation Hardt.
- Hicks, R. D. (Ed. & Trans.). (1907). *Aristotle, De Anima*. Cambridge: Cambridge University Press.
- Inwood, B. (1985). *Ethics and human action in early stoicism*. Oxford: Clarendon Press.
- Johansen, T. K. (2012). *The powers of Aristotle's soul*. Oxford: Oxford University Press.
- Kahn, C. H. (1966). Sensation and consciousness in Aristotle's psychology. *Archiv für Geschichte der Philosophie*, 48, 43–81.
- Long, A., & Sedley, D. (1987). *The Hellenistic philosophers*. Cambridge: Cambridge University Press.
- Lorenz, H. (2007). The assimilation of sense to sense-object in Aristotle. *Oxford Studies in Ancient Philosophy*, 33, 179–220.
- Marmodoro, A. (2014). *Aristotle on perceiving objects*. Oxford: Oxford University Press.

- Modrak, D. (1981a). *Koine Aisthesis* and the discrimination of sensible difference in *De Anima* III.2. *Canadian Journal of Philosophy*, 11, 404–423.
- Modrak, D. (1981b). Perception and judgement in the *Theaetetus*. *Phronesis*, 26, 35–54.
- Osborne, C. (1983). Aristotle *De Anima* 3.2: How do we perceive that we perceive? *Classical Quarterly*, 33, 401–411.
- Osborne, C. (1998). Perceiving white and sweet (again): Aristotle: *De Anima* 3.7, 431a20–b1. *Classical Quarterly*, 48, 433–446.
- Polansky, R. (2007). *Aristotle's De Anima*. Cambridge: Cambridge University Press.
- Rodier, G. (Ed. & Trans.). (1900). *Aristotle, Traité de l'âme d'Aristote*. Paris: Leroux.
- Ross, G. R. T. (Ed. & Trans.). (1906). *Aristotle, De Sensu and De Memoria*. Cambridge: Cambridge University Press.
- Ross, W. D. (Ed. & Trans.). (1961). *Aristotle, De Anima*. Oxford: Clarendon Press.
- Ross, W. D. (Ed. & Trans.). (1955). *Aristotle, Parva Naturalia*. Oxford: Clarendon Press.
- Sharples, R. W. (Trans.). (1994). *Alexander of Aphrodisias, Quaestiones 2.16–3.15*. London: Duckworth.
- Shields, C. (Trans.). (2016). *Aristotle, De Anima*. Oxford: Oxford University Press.
- Sisko, J. (1996). Material alteration and cognitive activity in Aristotle's *De Anima*. *Phronesis*, 41, 138–157.
- Sorabji, R. (1974). Body and soul in Aristotle. *Philosophy*, 49, 63–89.
- Sorabji, R. (1992). Intentionality and physiological processes: Aristotle's theory of sense perception. In M. Nussbaum & A. Rorty (Eds.), *Essays on Aristotle's De Anima* (pp. 195–225). Oxford: Clarendon Press.
- Towey, A. (Trans.) (2000). *Alexander of Aphrodisias On Aristotle on Sense Perception*. London: Duckworth.