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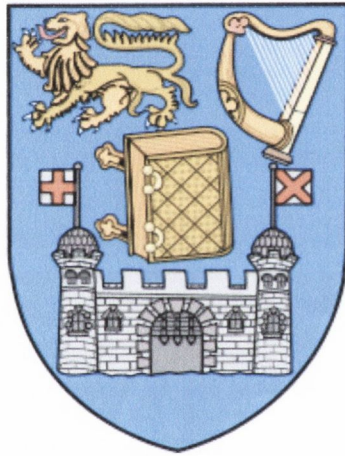
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Plato's Theory of Perception

Peter D. Larsen

January 2012

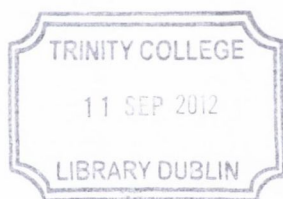
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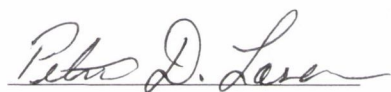
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A handwritten signature in cursive script, reading "Peter D. Larsen", written over a horizontal line.

For Mom and Dad

TABLE OF CONTENTS

SUMMARY	v
ACKNOWLEDGEMENTS	vii
LIST OF ABBREVIATIONS	viii
 INTRODUCTION	 1
 1. THE THREE CLAIMS	 10
1.0 INTRODUCTION	10
1.1 CLAIMS 1A AND B	11
1.2 CLAIM 2A	17
1.3 CLAIM 2B	23
1.4 CLAIM 3	29
1.5 CONCLUSION	34
 2. THE SUBJECT OF PERCEPTION	 35
2.0 INTRODUCTION	35
2.1 UNPACKING CLAIMS 1A AND 1B	37
2.2 TEXTUAL EVIDENCE FOR CLAIMS 1A AND 1B	50
2.3 COMPARISON OF THE THEORIES OF PERCEPTION IN THE <i>THEAETETUS</i> (156 AND 184).	61
2.4 CONCLUSION	71
 3. THE OBJECTS OF PERCEPTION	 73
3.0 INTRODUCTION	73
3.1 THE OBJECTS OF PERCEPTION ARE SIMPLE SENSE QUALITIES ONLY.	76
3.2 TEXTUAL EVIDENCE FOR CLAIM 2A	82
3.3 THE DEFENSE OF THE <i>IDION</i> CLAIM.	92
3.4 THE INTERNALITY OF THE OBJECTS OF PERCEPTION.	101
3.5 THE RELATIONSHIP BETWEEN THE OBJECTS OF PERCEPTION AND THE EXTERNAL WORLD.	110
3.6 CONCLUSION	113
 4. THE PHYSIOLOGY OF PERCEPTION	 117
4.0 INTRODUCTION	117
4.1 THE RELATIONSHIP BETWEEN BODY AND SOUL IN PERCEPTION.	122
4.2 VISION	126
4.3 TOUCH	137
4.4 TASTE	149
4.5 SMELL	153
4.6 HEARING	156
4.7 CONCLUSION	159
 5. PLATO AND ARISTOTLE	 163
5.0 INTRODUCTION	163
5.1 ARISTOTLE'S CONCEPTION OF THE SOUL.	167
5.2 ARISTOTLE'S VIEWS ON PERCEPTION: THE PRELIMINARIES.	174
5.3 ARISTOTLE ON THE OBJECTS OF PERCEPTION.	177
5.4 ARISTOTLE ON THE PERCEPTUAL PROCESS.	189
5.5 ARISTOTLE'S DIRECT VIEW OF PERCEPTION.	194
5.6 CONCLUSION	208
BIBLIOGRAPHY	211

Summary

The overall thesis

This dissertation defends the view that in a number of later dialogues (*Theaetetus*, *Philebus*, *Timaeus*, *Sophist*, as well as, incidentally, the earlier *Phaedo*) Plato articulates a coherent and systematic account, and thus a theory, of perception. The theory, I argue, is made up of the following three claims: (1A) The perceiving subject is not the individual sense organs, but rather the unified soul, and (1B) this is the very same subject as the subject of thought. (2A) The objects of perception are simple sense qualities *only*; (2B) the objects of perception are not, at least immediately, external to the perceiver, but these internal objects of perception are, at least in many cases, causally related to external objects. (3) Although, according to Plato, perception, as cognitive act, is carried out by the soul, Plato develops an account of the physiology of perception, and in particular of how the body and the sense organs are involved in the causal perceptual process.

What is new

That this interpretation of Plato's theory of perception is new and distinctive can be seen in a number of its central points. The first has to do with the claim that there is, in Plato, a theory of perception at all. While this view is not new, it is certainly distinctive; for the topic of perception is so underdetermined in Plato's dialogues that many critics have concluded that Plato does not, in fact, articulate any such theory.

The main finding of this study is that perception, for Plato, is indirect. This is the view that the end state of the causal perceptual process – the act of perception itself – can be characterized for what it is without reference to the object that stands at the beginning of that process and sets the process in motion.

Based on the above indirectness claim, I argue further that the content of perceptual experience is internal to the perceiver. This view is based on the idea that if, as Plato claims, the access that the subject of perception has to the objects of the external world is mediated through the body, and if each sense is only able to convey to the soul the disturbances that are specific to it, then the objects that arise in the soul, and which constitute the content of perceptual experience, are distinct from the external objects that serve as their causes.

Moreover, perceptual states are internal in the strong sense that they are not of and do not stand for, or represent, those objects.

It is familiar that Plato defends the following, so-called *idion* claim: what is perceived through one sense cannot be perceived through another, but critics are unanimous in the opinion that Plato offers no support for this crucial claim. One notable advance on the scholarship is to argue that the *idion* claim is motivated and justified in Plato, precisely in that it is a consequence of indirectness and internality.

The discussion of the three claims, mentioned above, which highlight Plato's views concerning the elements that are involved in perception, and the process that gives rise to perceptual awareness, provides the foundation for a precise, point-by-point contrast with the views on perception developed by Aristotle in the *De Anima*.

Methodology

The approach is largely thematic, structured around the major claims.

Unlike a common approach, it is my understanding that Plato develops, in the later dialogues, a distinctive theory of perception that can be understood and appreciated independently of any epistemology or metaphysics. It is rather the case that this theory of perception can, and should, be understood as providing the basis for Plato's further claims concerning the nature of perceptual objects, external objects, and the potential for these objects to serve as objects of knowledge.

In addition to clarifying and arguing for the various features of Plato's theory of perception, this study also has a wider aim. Based on the claims of indirectness and internality that emerge from the examination of Plato's comments, there is an opportunity to place Plato's theory within the context of modern debates on perception. Most of the ancient influence on modern views of perception has come from Aristotle by way of the medieval thinkers and Descartes. One of the main reasons for the lack of Platonic influence on the modern debates has been the view that Plato doesn't articulate a theory of perception. However, since, as we shall see, Plato does have important things to say about perception, and since these discussions do amount to a full-blooded theory, there is an opportunity to situate Plato's theory within the context of these modern debates. Unfortunately this is a project that lies outside of the scope of this dissertation, but it offers an opportunity for interesting and fruitful research in the future.

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There are a number of people and organizations to whom I owe a debt of gratitude, and without whom this research would not have been possible. The first are my parents who have been tremendously supportive of my various endeavors. I'd also like to thank my intrepid supervisor, Vasilis Politis. If there is anyone of whom it is true to say that without his wisdom, guidance and influence this thesis would not have been written it is Vasilis. There are three organizations that provided the very essential financial support that furnished me with the leisure to pursue this research. I am, therefore, extremely grateful to the Newman Educational Trust, the Plato Centre, and the Department of Philosophy, Trinity College Dublin. I would also like to thank all the members of the Plato Centre at Trinity College Dublin, in particular, Professor John Dillon for his encouragement of my academic pursuits, and his faith in my abilities. Finally I must thank Manfred Weltecke for his friendship and his support, both philosophical and moral.

List of abbreviations of Greek texts

Title	Abbreviation	Author
<i>Theaetetus</i>	<i>Tht.</i>	Plato
<i>Timaeus</i>	<i>Tim.</i>	Plato
<i>Philebus</i>	<i>Phil.</i>	Plato
<i>Sophist</i>	<i>Soph.</i>	Plato
<i>Alcibiades</i>	<i>Alc.</i>	Plato
<i>Republic</i>	<i>Rep.</i>	Plato
<i>De Anima</i>	<i>DA.</i>	Aristotle

Introduction

This dissertation defends the view that in a number of later dialogues (*Theaetetus*, *Philebus*, *Timaeus*, *Sophist*, as well as, incidentally, the earlier *Phaedo*) Plato articulates a coherent and systematic account, and thus a theory, of perception. The theory, I argue, is made up of the following three claims: (1A) The perceiving subject is not the individual sense organs, but rather the unified soul, and (1B) this is the very same subject as the subject of thought. The importance of this claim twofold: in the first instance, it establishes that the subject of perception – that part of an individual which carries out the act of perception when that individual is said to perceive – is singular and unitary. Fragmentation with regard to perceptual content, therefore, occurs only at the level of the senses and not at the level of cognition. Furthermore, it establishes that thought and perception are two distinct faculties of one and the same entity. This allows Plato to develop a close relationship between these two psychical faculties while still maintaining that they are separate by virtue of both the objects they pursue, and the means by which they pursue them. Claim 2 is concerned with characterizing the objects that comprise the content of perceptual awareness. (2A) The objects of perception are simple sense qualities *only*; (2B) the objects of perception are not, at least immediately, external to the perceiver, but these internal objects of perception are, at least in many cases, causally related to external objects. The importance of the first part of the claim lies in the stipulation that simple sense qualities are the only objects which can be apprehended by perception, and that, as a result, complex objects, understood as objects composed of multiple sense qualities, are not, on Plato's view, perceptible. Properly spelled out this claim means, as we shall see, that the objects of perception are internal in the strong sense that they are not the external objects that cause them, and, moreover, are not of, and do not represent these objects. The above claims can be summed up succinctly by saying that Plato defends a view that perception is indirect. The precise sense in which this is the case is a matter that will occupy us substantially through the course of this investigation. Finally, despite Plato's emphasis on the role of the soul as the subject of perception, he maintains also that the body plays a necessary role in the perceptual process, and it is this role to which the third claim is addressed. (3) Although, according to Plato, perception, understood as cognitive, act is carried out by the soul, Plato develops an account of the physiology of perception, and in particular of how

the body and the sense organs are involved in the causal perceptual process. The body, for Plato, represents the link between the percipient soul and the external world. Thus, although the senses and the bodily sense organs are themselves insensate, it is largely through the disturbances that they transmit to the soul that perceptual awareness is possible. Furthermore, through the account that Plato gives of the specific process by which each bodily sense organ and its associated sensory power operates, both with respect to the objects in the external world and the soul, it becomes evident that the qualities, which represent the objects of perception, are not intrinsic features of external objects.

That this interpretation of Plato's theory of perception is new and distinctive can be seen in a number of its central points. The first has to do with the claim that there is, in Plato, a theory of perception at all. While this view is not new, it is certainly distinctive; for the topic of perception is so underdetermined in Plato's dialogues that many critics have concluded that Plato does not, in fact, articulate any such theory.¹ Based, however, on the idea that the claims, set out above, identify what Plato takes to be both the necessary and sufficient conditions for perception, as well as the character of perceptual experience and the process by which it arises, there is good reason to think that the comments that Plato makes about perception in the dialogues do, when taken together, add up to a theory. Furthermore, it will become clear as we proceed that Plato remains consistent on the features of this theory throughout the later dialogues.

One of the main findings of this study is that perception, for Plato, is indirect. This is the view that the end state of the causal perceptual process – the act of perception itself – can be characterized for what it is without reference to the object that stands at the beginning of that process and sets the process in motion. That this is the understanding of the perceptual process that Plato holds arises, in large part, from his characterization of that process. Plato suggests that perception consists of a two-part causal process. The first part of this process involves an interaction between an external object and a bodily sense organ, which results in a bodily disturbance. This disturbance, in the second part of the process, is then communicated through the

¹ Historically, primarily based on the lack of a specific dialogue dedicated to perception itself, scholars have often thought that Plato lacks a full-fledged theory of perception. Many recent scholars today, however, do think that there is the material for a theory to be found in what Plato says about perception. This issue has given rise to D.K. Modrak's recent article from 2006 "Plato: A Theory of Perception or a Nod to Sensation?" in which she argues that, on balance, the evidence does indicate that Plato held and articulated a theory of perception.

body, by the sensory power specific to the affected organ, until it ultimately reaches the soul. It is, then, this subsequent interaction between the bodily affection and the soul that gives rise, on Plato's account, to perceptual awareness. When this process is considered in conjunction with Plato's claim that what is perceived through one sense cannot be perceived through another, it becomes clear that what actually affects the soul, understood as the subject of perception, is not the external object that stands at the beginning of the causal process, but rather the disturbance that results from the body's interaction with that object. This shows that perceptual awareness, for Plato, does not result from the subject of perception coming into direct contact with an external object, but comes about only through the soul's mediated access to external objects by means of the body.

The view that perception is indirect, which arises from a consideration of Plato's conception of the perceptual process, coupled with the claims that he makes about the objects of perception, gives rise to the further view that the content of perceptual experience is internal to the perceiver. This view is based on the idea that if, as Plato claims, the access that the subject of perception has to the objects of the external world is mediated through the body, and if each sense is only able to convey to the soul the disturbances that are specific to it, then the objects that arise in the soul, and which constitute the content of perceptual experience, are distinct from the external objects that serve as their causes. Furthermore it will be argued that, based on Plato's account, the objects of perception are not only internal in the sense that they are distinct from the objects of the external world, but they are also internal in the strong sense that they are not of and do not stand for, or represent, those objects.

One of the significant claims that Plato makes about perception in general, and one which reveals quite a lot about the nature of the objects of perception in particular, is his statement at *Theaetetus* 184e8 that what is perceived through one sense cannot be perceived through another – what we shall refer to as the “*idion* claim.” It is a common view among critics and commentators on the *Theaetetus* that Plato's articulation of this claim is unmotivated within the context of the argument in which it appears. It will, however, be shown that far from being unmotivated, the maintenance of the *idion* claim is, in fact, necessitated by the process of perception as Plato characterizes it immediately prior to his statement of the claim. This process, which has been described above as indirect, provides that the bodily sense organs serve as the intermediaries between the soul and the objects of the external world.

This provision coupled with the idea that each of the senses is distinct from the others, and that, as a result, fragmentation in terms of perception does occur at the level of the senses, while the perceiving subject is understood as singular and unitary, necessitates the claim that each sense is only able to convey to that unitary perceiving subject the disturbances that give rise to the perceptual objects specific to it. This is a new and distinctive way of looking at this argument, and the status of this crucial claim. In addition to demonstrating that this particular claim is prepared for and theoretically motivated, it also shows that the claims that Plato makes about the various psychological and physiological features of perception are consistent with his view of the perceptual process.

The discussion of the three claims, mentioned above, which highlight Plato's views concerning the elements that are involved in perception, and the process that gives rise to perceptual awareness, provides the foundation for a precise contrast with the views on perception developed by Aristotle in the *De Anima*. The first salient point of contrast between these two thinkers involves the objects of perception. Claim 2A attributes to Plato the view that the objects of perception are simple sense qualities *only*. It will emerge that while Aristotle does hold that simple sense qualities are the objects of perception, properly speaking, he further argues that in virtue of perceiving these sensible qualities a perceiver also comes to perceive objects that are common to multiple sense faculties as well as the complex objects of which those simple sense qualities are features. This means that, for Aristotle, the content of perceptual awareness is far richer and more complex than it is for Plato, and it provides the perceiver with far more information about the world. Another important contrast between Plato and Aristotle concerning the objects of perception centers on Aristotle's explicit statement that perceptual objects are external to the perceiver. As mentioned above, Plato's characterization of the objects of perception as well as what he says about the process of perception indicates that the objects of perception, for Plato, are internal, psychical objects. In addition to providing a strong point of contrast between the perceptual theories of Plato and Aristotle, their divergent views concerning the status of the objects of perception corroborates the further contrast that while perception for Plato is indirect, Aristotle holds a view of the perceptual process that is direct. This view arises both from Aristotle's claims about the objects of perception, and from his claim that perception consists of the sense receiving the sensible form of an object without the matter. This statement indicates a number of

important things about the perceptual process. First it tells us that, for Aristotle, the process of perception consists of a single step, and a single interaction. Secondly, this claim means that the act of perception necessarily involves the external object that is perceived, since the act itself consists in the sense becoming like that object and taking on an element of the external object (what precisely this element is, and how it is received isn't entirely clear). Therefore, since the indirectness of perception, for Plato, hinges on the notion that because perception is a two-step process, the end state of the causal perceptual chain can be characterized for what it is without reference to the object that sets that process in motion, Aristotle's view, which holds that perception is a one-step process in which the sense comes to be like the external object, and, in some sense receives the sensible form of that object without the matter, is decidedly direct in the precise sense that the characterization of the end state of the causal perceptual chain necessarily involves the external object to which it is causally related. This comparison allows us both to clarify the way in which Plato's theory is indirect, and to show how the various elements of the perceptual process combine to give rise to this view.

Before we turn to our examination of Plato's theory of perception, a few brief words on the methodology of this study are necessary. Plato's views on perception have frequently been discussed in conjunction with his metaphysics and epistemology. Although it is eminently understandable why this is the case, since Plato's discussions of perception are often placed within the context of a larger account that involves certain metaphysical or epistemological views, this examination will set aside these considerations, which, while they are decidedly important, lie outside of the scope of this study.

It is typically thought that Plato's interrelated views on metaphysics and epistemology inform his thoughts on perception, its objects, and its function. And that the explanation of these views on perception can be given in terms of Plato's metaphysical and epistemological commitments. It is my understanding, however, that Plato develops, in the later dialogues, a distinctive theory of perception that can be understood and appreciated independently of any epistemology or metaphysics. It is rather the case that this theory of perception can, and should, be understood as providing the basis for Plato's further claims concerning the nature of perceptual objects, external objects, and the potential for these objects to serve as objects of knowledge. This approach provides a clear avenue for future research into the

relationship between Plato's theory of perception, and his epistemology and metaphysics.

Plato peppers the dialogues with discussions, of varying lengths, which shed light on the elements involved in perception and the perceptual process. As a result, many of the pieces that have been written on Plato and perception consist of an examination of the views that he presents in a single dialogue. Since, however, this study represents an inter-dialogue approach to Plato's views on perception, and proposes that from these views a consistent and coherent theory emerges, it has been deemed best to adopt a thematic approach rather than to address Plato's discussions of perception on a dialogue-by-dialogue basis. The advantage of adopting this tactic is that it allows us to use each of the accounts of perception presented in the different dialogues to clarify and justify each of the claims made about Plato's views of the perceptual process. This provides for the inter-dialogue consistency on these issues to emerge naturally through the course of the discussion of the three claims mentioned above. Additionally, this approach lends itself to a more thoroughgoing analysis of Plato's theory.

As regards the scope of this dissertation, I have made a conscious choice to focus only on the so-called later dialogues² – with references to earlier works made only when relevant to the argument – and to leave out a number of works in which Plato makes brief references the phenomenon of perception. In the works of Plato, perception is never raised as a topic in its own right, but is discussed only as a component of, or as a means to clarify, some other topic. In the *Theaetetus* the question under examination is, what is knowledge? Perception is only included in the discussion because early on in the dialogue Theaetetus proposes that knowledge is perception. Thus, the discussion of perception in the *Theaetetus* is geared toward showing that, contrary to Theaetetus' suggestion, knowledge and perception are, in fact, distinct. The purported topic of the *Philebus* is pleasure, and the main question of that dialogue is, which life is better, the life of pleasure or the life of reason? In this

² The dialogues that will be included in this study are *Theaetetus*, *Timaeus*, *Philebus* and *Sophist*. All of these dialogues have been reliably identified as either late middle, or early late. I wish to remain agnostic on the debates about the dating of the dialogues. For I don't believe that it has any direct relevance to the issues under consideration here. The classification of these texts as "late", which I will use throughout this dissertation, is merely a useful way of differentiating them from those dialogues which I have chosen to leave out of this study – most notably *Phaedo*, *Phaedrus* and *Republic* all of which contain interesting comments about perception, which, incidentally are largely consistent with the view developed here, and which are typically taken to be late early, or middle dialogues.

context, perception only arises as a result of its physiological and psychological similarities with the phenomena of pleasure and pain. The *Timaeus* is a discussion of cosmology and cosmogony. Perception in the *Timaeus*, therefore, represents only a necessary component in a full account of the psychical capacities of living beings. Finally the topic of the *Sophist* is often taken to be being, and while perception, as such, doesn't arise in the course of the discussion, there are some revealing comments made about it toward the end of the dialogue in conjunction with certain other psychical faculties. Although each of these accounts of perception serves ultimately to achieve further philosophical ends, they all reveal something important about the nature of perception itself. They each provide a piece of the puzzle, which, when taken together, gives rise to an understanding of perception as a complex physiological and psychological phenomenon.

The choice to focus, in this study, on the later dialogues, at the exclusion of those dialogues, which are typically taken to be from the so-called middle period, and which also contain comments about perception, is based, in large part, on the fact that these middle dialogues contain no account of perception or the perceptual process, as such. They instead focus primarily on the idea that sense perception represents both an impetus and an impediment to knowledge, and they reveal nothing of substance about perception itself.³ That being said, however, I do believe that the views expressed in these brief comments from the middle dialogues are, in large part, consistent with the accounts developed in the later dialogues. One notable example of this consistency is in the language that Plato uses to characterize the role of the senses and the sense organs in perception. In the argument at *Theaetetus* 184 Plato makes a point about the proper use of language, and he specifies a particular locution which, he claims, captures the role of the senses as those things *through* which the soul perceives (using the preposition *διὰ* typically accompanied by the word for the sense in the genitive case). This locution from the *Theaetetus* is echoed at three points in the *Phaedo*. The first is at 65a7 where Socrates refers to the philosopher as caring nothing for the pleasures that come through the body (*διὰ τοῦ σώματος*). At 79c2 – 6 this locution is repeated in a passage in which it is specifically applied to perception. Plato

³ I am, therefore, in Agreement with Ganson (2005) when he says, "Plato's most important discussions of the nature of sense-perception (*αἴσθησις*) occur in the *Theaetetus*, *Timaeus* and *Philebus*" (1). And with Silverman (1990) who notes, "I doubt that either the *Phaedo* or the *Republic* tells us very much about perception. In neither dialogue is there much evidence that Plato had, or was interested in, any differentiated concept of *αἴσθησις* that would allow us to sort out precisely what he attributed to the senses in sensory experience and what he attributed to the mind" (158).

here indicates that when the soul investigates things through sight or through hearing or through any other sense (διὰ τοῦ ὁρᾶν ἢ διὰ τοῦ ἀκούειν ἢ δι' ἄλλης τινὸς αἰσθήσεως) it is dragged toward those things that are ever changing. The point of this passage has frequently been taken to be primarily metaphysical, and as a result the way in which Plato characterizes perception here has been overlooked. However, that what he says about perception, and the emphasis that he places on it in this passage is consistent with claims that he makes in the later dialogues tells in favor of the view, mentioned above, that there is a coherent and consistent theory of perception that lies behind the metaphysical and epistemological claims that Plato makes. Finally, at 83a4 – 6 Plato says that investigations through the eyes (διὰ τῶν ὀμμάτων) and ears (διὰ τῶν ὠτῶν) are full of deceit, and that in order to seek truth one must detach, to the extent possible, from these organs. There are, of course, instances in which Plato is not entirely consistent in his use of language about perception. An example of this is at *Republic* 507c where in drawing an extended analogy between the sun and the good, Plato indicates that we see with the sense of sight (τῇ ὄψει, and hear with hearing (καὶ ἀκοῇ) which is precisely the locution – namely, a construction involving the word for the sense capacity in the dative case – that he denies of the senses in the *Theaetetus*. This particular example from the *Republic*, however, appears to be an instance in which Plato is speaking loosely.⁴ For he isn't here saying anything about the relationship between the body and the soul as he is in the *Phaedo*, or about the precise way in which perception comes about, as he is in the *Theaetetus*, but is rather trying to reveal something about the nature of the good, and is using perception, in general, to set up the analogy with the sun. We can see, therefore, that despite Plato's sketchy remarks about perception in the middle dialogues, these remarks are frequently and significantly consistent with the substantive claims that he makes in the later dialogues.

In addition to clarifying and arguing for the various features of Plato's theory of perception, this study also has a wider aim. Based on the claims of indirectness and internality that emerge from the examination of Plato's comments, there is an

⁴ This idea is reinforced by the fact that elsewhere in the *Republic* Plato employs the same locution as he does in the *Phaedo* to refer to the way in which the soul receives affections by means of the body. At *Republic* 584 when discussing the nature of pleasure and anticipatory pleasure, Socrates indicates that certain affections that are called pleasures come to the soul through the body (διὰ τοῦ σώματος) (584c4). Thus it seems that, despite certain apparent inconsistencies, there is a very real sense in which the view of perception expressed by Plato in the middle dialogues is consistent with that developed in the later dialogues.

opportunity to place Plato's theory within the context of modern debates on perception. Most of the ancient influence on modern views of perception has come from Aristotle by way of the medieval thinkers and Descartes. One of the main reasons for the lack of Platonic influence on the modern debates has been the view that Plato doesn't articulate a theory of perception. However, since, as we shall see, Plato does have important things to say about perception, and since these discussions do amount to a full-blooded theory, there is an opportunity to situate Plato's theory within the context of these modern debates. Unfortunately this is a project that lies outside of the scope of this dissertation, but it does offer an opportunity for interesting and fruitful research in the future.

Chapter 1

The Three Claims

1.0 Introduction

My argument concerning Plato's theory of perception relies, in large part, on three interrelated general claims about the way in which Plato approaches the phenomenon of perception. These claims serve a twofold function: first they encapsulate the major features of, what I take to be, Plato's theory of perception; and second they identify those aspects of the theory that distinguish it both from the Presocratics, and from Aristotle, and allow it to be situated within the context of more modern debates in the philosophy of perception. Plato views perception as primarily a cognitive phenomenon which is complicated by the fact that it involves both physiological (somatic) and psychological (psychical) components. The interaction and relationship between these components, which is left rather vague in the Platonic corpus, has been a major topic of debate. This relationship, however, is only one aspect of Plato's theory upon which I will focus in what follows. This chapter serves to introduce and profile these three claims, which represent the backbone of my argument, and the implications of which will be taken up in subsequent chapters. I will proceed, in this chapter, to examine each of these claims individually. In this examination I will provide some brief carificatory discussion about each of the claims, and will identify the passages in the later dialogues that provide the theoretical justification for the view that these are, in fact, positions that Plato holds. I will further highlight, in a general way, why these claims are important internally to Plato. Finally we will begin to look at how these claims give rise to the view that perception, for Plato, is indirect. For it is this conclusion – namely, that perception and the process that gives rise to it are indirect – that allows us to place Plato's theory in the context of the modern debates in the philosophy of perception. Chapters 2 – 4 will take up and discuss each of the three claims individually, and, as such, this chapter also represents an extended chapter-by-chapter account of the content that will be examined in these subsequent discussions.

The claims, which focus almost exclusively on the physiology and psychology of perception, are as follows: (1A) the perceiving subject is not the individual sense organs, but rather the unified soul, and (1B) this is the very same subject as the subject of thought; (2A)

the objects of perception are simple sense qualities *only*; (2B) the objects of perception are not, at least immediately, external to the perceiver, but these internal objects of perception are, at least in many cases, causally related to external objects; (3) although, according to Plato, perception, as cognitive act, is carried out by the soul Plato develops an account of the physiology of perception, and in particular of how the body and the sense organs are involved in the causal perceptual process. I take it that these claims are exhaustive insofar as they incorporate all of the elements of Plato's theory of perception in which I am interested and which, as I see it, make it a distinctive theory. For they identify, not only that which perceives, but also that which it perceives, and the process by means of which perception is made possible. As it will emerge, these features identify both the necessary and sufficient conditions for perception. Furthermore, as we shall see, these claims, when taken together, while they may seem straightforward and uncontroversial at first glance, represent a new way of looking at Plato on perception. Not least because they maintain that Plato held a consistent view about perception throughout the later dialogues. The further importance of this view, and the role that perception plays in Plato's later epistemology should not be understated, but this far-reaching topic will have to be left for future research. The immediate concern of the present investigation is to develop, along thematic lines, an account of the various features of Plato's theory of perception.

1.1 Claims 1A and 1B: The perceiving subject is not the individual sense organs, but rather the unified soul; this is the very same subject as the subject of thought.

This is a claim that gets to the heart of an important issue concerning perception in general, and Plato's theory in particular, but first some clarification is in order. What I mean here by "perceiving subject" is that part of an individual that carries out the perceptual act when the individual himself or herself is said to perceive. It is obvious, and I think uncontroversial that when it is the case that "Frank sees red," Frank, rather than James, is the subject of that visual perception, i.e., the one who is actually seeing red, but what is at issue here is whether there is an identifiable part of Frank that can be credited with the responsibility for carrying out the act of seeing, and if so, which part that is. One logical candidate for this role would be the eye. It seems empirically obvious from the mere fact that when one's eyes are open she tends to see, and when they are closed she doesn't, at least she doesn't see in the way in which visual perception typically comes about, although it may be

the case that she sees by means of a different sort of process, that the eyes are certainly involved in visual perception, but is this the whole story? I think that the textual evidence from the Platonic corpus tells against the idea that Plato takes the sense organs to be the subjects of perception. To be sure, the organs of sense play a crucial role in Plato's understanding of the perceptual process, but the buck does not stop with them. It is rather the case that there is a separate subject, the soul, which is distinct from the individual sense organs, and which, with the help of the sense organs, serves as the subject of perception.

Perhaps the most forceful and deliberate statement of this comes in the *Theaetetus* when, after having refuted Theaetetus' attempt to define knowledge as perception on the grounds that knowledge isn't the sort of thing that can vary from subject to subject like perceptions do, Socrates begins his inquiry again in order to correct an erroneous notion that had crept into their analysis of the process of perception. Socrates asks Theaetetus whether it is more correct to say that we perceive with the senses or through them. Theaetetus replies that "through" would be the more accurate preposition to apply to the role that the senses play in perception (*Tht.* 184b4 – 184c9). This short statement represents the beginning of an argument that grounds a crucial distinction in Plato between two elements in the perceptual process – namely, the senses, which are understood as the means to perception, and a yet to be identified component which serves as the subject of perception.¹ Plato then goes on to draw a famous analogy in which he describes what the situation would be like if the senses were, in fact, the subjects of rather than the means to perception. In this analogy, which depicts a scenario that Plato characterizes as strange (δεινόν), the perceiving subject is identified as a wooden horse in which there are a number of warriors (the senses)² which

¹ For an in-depth discussion of this passage, and in particular the implications of the grammatical distinction that Plato draws here see Burnyeat 1976. Burnyeat argues cogently on both philosophical and linguistic grounds, against a group of important philologists to whom he refers as the "grammarians," that, based on the structure of the argument to that point, the "with idiom" as Plato uses here is meant to pick out the subject of perception, and not the means by which another subject is able to carry out the act of perception. Thus he says, "This [the discussion and rejection of the Heraclitean view of the world which immediately preceded the articulation of the grammatical distinction] may suggest that we should read the 'with idiom' as picking out the subject of perception, rather than the means used by a separate subject as the grammarians suppose. And the suggestion is duly confirmed when Plato denies that we perceive with eyes and ears only to affirm that we perceive with something else, the soul" (33).

² It isn't entirely clear from the context of the analogy itself whether the warriors represent the senses, or the sense organs. Not a whole lot hangs on whether we understand these warriors to be the organs of sense, or the powers that operate through those organs, for what Plato wants to emphasize in this passage is that any fragmentation at the level of the perceiving subject is unsatisfactory. It is, however, ultimately important whether we take it that Plato's use of the term αἰσθησεις refers to the sense organs or to the senses or both. This is because if it refers only to the sense organs, then it could be argued that for Plato the soul, the subject of

carry out the act of perception without any unity between them, or any reference to the single entity of which they are parts. The situation described in the analogy of the wooden horse, in which a number of disconnected, percipient senses are lodged inside the perceiver is one which Plato, in this passage, rejects. There is, however, a view here which he endorses – namely, the view that the senses converge to some single thing, and that it is this entity which is able to perceive by means of the senses (*Tht.* 184d1 – 5). The crucial point here is that the soul is identified as a single unit, which means that the subject of perception (that part of an individual that actually carries out the act of perception when that individual is said to perceive) is unitary, insofar as it is understood to be a single thing, some one form (μίαν τινὰ ἰδέαν), which perceives despite the fact that the components by means of which it is able to perceive are various and distinct. After establishing that the soul, and not the individual senses, is the subject of perception, Plato goes on to discuss the faculty of thought (διάνοια). He identifies thought in this argument as occurring when the soul is engaged in apprehending the non-perceptible properties that apply to all of the objects of perception taken together, as well as to any non-perceptible cognitive entities that there may be, (the *koina*). He must, however, distinguish thought from perception, since they are both identified as faculties of the soul. He does so by indicating that perception makes use of the bodily sense organs, whereas thought occurs when the soul apprehends its objects without the use of the body. Thus, although perception and thought are distinct psychological faculties, they are related in the sense that they are both carried out by the soul, and that at least some of the objects of thought are objects that apply in common to all of the objects of perception (*Tht.* 185a4 – 186b10). This last point will become clearer as we proceed.

We also find support for this claim in the *Philebus* at 33d2 where Socrates, in order to examine the nature of memory as it relates to pleasure, decides that he and Protarchus must first determine the features of perception, since, according to Socrates, memory and perception are related faculties. Plato in this passage distinguishes two types of bodily

perception, can, using the sensory powers, reach out through the individual sense organs in order to perceive its objects. If, however, we understand Plato's use of this term here to refer to both the sense organs and the powers that operate through them, then the soul is only able to access its objects by means of the disturbances that are transmitted to it by the sensory powers. I think that based on the way in which Plato characterizes the perceptual process it is more likely that he means αἰσθησεις here to refer to both the organs of sense as well as the powers that operate through those organs. This is a view that will emerge as we delve deeper into Plato's account of the perceptual process. For now it is important to emphasize, that based on this view the fragmentation with regard to perception occurs at the level of the sense organs and sensory powers, and unity is only achievable at the level of the soul.

affections: those that are extinguished within the body before they reach the soul; and those which penetrate through the body to the soul and effect each individually and both in common (*Phil.* 33d2 – 6). Plato then says that of the first type of affection the soul is oblivious (*λανθάνειν*). He, however, thinks better of this terminological designation, citing its etymological relationship to the term for forgetting (*λήθη*). Such an association, he says, would imply that there is something in the situation in which the soul is unaffected, which has been cognized, for only things that have been previously cognized are the kinds of things that can be said to be forgotten. Instead Plato opts for the term non-perception (*ἀναισθησία*) because this locution accentuates the idea that when an affection does not penetrate all the way through to the soul, no perception can occur (*Phil.* 33e2 – 34a2). This indicates rather forcefully that the sense organs, which provide for the connection between the disturbances that affect the body during its intercourse with the external world, and the soul, are not, in and of themselves, percipient. If they were then it wouldn't matter whether the affections penetrated through to the soul or not, for perception would only require the affection of the senses. It is rather the case that the soul is a necessary component in the perceptual process, since no perception is possible if it remains unaffected. Furthermore, the point that Plato is making here in the *Philebus* is one that he clearly takes to be important. He stated in the *Theaetetus* (*Tht.* 184c1 – 7) that it isn't typically necessary to be overly specific with one's use of terminology, but that this is only necessary when something crucial hangs on such precision. This statement precedes his distinction between the with idiom and through idiom discussed above. Thus, interestingly, the passage cited from the *Philebus* is the second time, when talking about perception, that Plato has made a point of clarifying both his terminology and the meanings of the words that he is using. This could indicate either that perception is something that Plato takes very seriously, and, therefore, wants to be as specific as possible about, or that perception is an often misunderstood phenomenon, and as a result it requires the precision of language to clarify certain misconceptions. I think that we are safe to assume that Plato thinks that both of these are true. For, as we shall see, in the *Timaeus* Plato indicates that the supreme benefit for which living beings were endowed with sense perception is that it provides the impetus – through perceiving the movement of the heavenly bodies – to think, among other things, about philosophy (*Tim.* 46e6 – 47e2). Furthermore, perception, for Plato, seems to be a capacity about which people are frequently mistaken,

particularly in their assumption that perception provides us with reliable information about the external world.

There is further evidence, to be found in the *Timaeus*, for the claim that it is the soul that carries out the perceptual act rather than the individual senses. When Plato, after having recounted the process that went into the construction of the body and soul of the world, first describes the method and general features of the constitution of the human soul and body, he distinguishes the situation of the embodied human soul from that of the embodied world soul by stipulating that since the human body allows for the influx and expulsion of material external to it, something that the body of the world does not allow, the human soul must be designed so as to be able to cope with the impact from these disturbances (*Tim.* 42a3 – 6). He goes on to say that the motions that result from the human body's encounters with external elements, which arise when it crashes into external objects, are communicated through the body until they reach the soul and this interaction between the soul and these bodily motions results in perceptions (*Tim.* 43b5 – c7). After making these general statements, Plato continues in the *Timaeus* to describe in detail how, and according to what rationale, the specific elements of the human body were created. He states that the head was fashioned to be the seat of the soul, and that its round shape was meant to emulate that of the universe. In order to facilitate locomotion, the rest of the body was given to the head as its vehicle. The front of the body was distinguished from the back, and it was determined that the direction of movement would be toward the front. The face was affixed to the front of the head, and was so placed because the organs of the face – i.e., the organs of sense: the eyes, ears, nose, skin³ and tongue – were designed to serve the soul. Thus, at least implicitly Plato is here indicating, by stating that the organs of the face were positioned so as to serve the soul, that the organs of sense are not sufficient for sense perception. Furthermore, there is, in fact, a priority in status given to the soul here, which also contributes to the notion that the senses and sense organs serve it (*Tim.* 44d2 – 45b2).

These passages show that although Plato regards the sense organs as important, and indeed necessary in the perceptual process, he does not view them as sufficient, and thus does not take them to be the subjects of perception. It is rather the case that the soul plays a crucial role in the process of perception as that which actually carries out the perceptual act when a

³ Although the skin is clearly not specific to the face, the face does contain, in one form or another, all of the sense organs.

particular perceiving subject is said to perceive. It might be useful here to say a brief word about the distinction between the soul and the body. As we shall see in the next chapter, Plato views the soul as that which, properly speaking, comprises a particular human being. Thus, when we say, “Frank sees red,” this, on Plato’s view, is the equivalent of saying “Frank’s soul sees red.” The body, on the other hand, is an element in which the soul of a mortal creature must reside, and which is symptomatic of that creature’s mortality. Thus the body, which is corporeal and insensate, cooperates with the soul in its intercourse with the external world, but does not, itself, constitute an essential part of the living being. We shall see how Plato’s conception of the soul/body relationship differs crucially from that of Aristotle. The bodily sense organs are, therefore, best understood as tools (ὄργανα)⁴ that provide the information by means of which the soul is able to perceive. In addition to this, it appears that although the various sense organs themselves are distinct, and convey different information to the soul, the soul, which is itself a unitary thing, is able to perceive by means of each of the different types of material that are conveyed to it.

Finally, this unitary soul, which is the subject of perception, is also the subject of the related faculty of thought. For, as we saw in the *Theaetetus*, at least one of the functions of thought is to bring its objects to bear upon the objects of perception. Each of these points will be elaborated below, but before moving on, we should say a brief word about why this claim is of particular importance. Admittedly, on the surface it seems like a relatively mundane and uninteresting claim, but if taken seriously it begins to lay the foundation for the view that Plato takes perception to be primarily an internal, psychical, phenomenon. This appears to be the case, despite the fact that perception is clearly related to the external world. In addition, understanding the function of the soul in perceptual process as the seat of awareness of

⁴ Although Plato does use the term instruments (ὄργανα) to refer to the senses, and sense organs in the *Theaetetus* (*Tht.* 184d3) I think it would be incorrect to view the senses as completely devoid of agency in the perceptual process. Burnyeat (1976) interprets Plato’s attribution of the “through idiom” to the senses as indicating that they are the means by which the soul perceives, and that they are causal and inanimate in the process (37). Burnyeat’s motivation for denying agency to the senses is to emphasize that, for Plato, the senses are not percipient, however, I think that based on the way in which Plato characterizes the senses as converging (συντείνειν) to the soul, there is a sense in which they are an active partner with the soul in the process of perception. Furthermore, denying all agency to the senses could give the impression that the soul is able to reach out through the sense organs and come into perceptual contact with external objects, but this is clearly not the view that Plato holds. For Plato, as the *Philebus* passage discussed above indicates, the soul is only able to perceive if, and to the extent that, the senses reach it with the disturbances that are communicated to them. Thus, although Plato does refer to the senses as instruments, or tools by means of which the soul is able to come into contact with the objects of perception, their role does not appear to be wholly inactive; they seem rather to serve as active, but insensate partners of the soul in perception.

perceptual objects paves the way for a crucial distinction between the soul and the body, and the elaboration of the distinct roles that they each play in the perceptual process. Both of these themes will be explored in greater detail below.

1.2 Claim 2A: The objects of perception are simple sense qualities only.

The first claim, discussed in the previous section, addressed itself to the question, which part of the perceiving subject, if any, carries out the act of perception when the subject, as a whole, is said to perceive? It was argued that based on what Plato says in several later dialogues, a correct response to this question must attribute this function to the soul, and deny any cognitive capacity in the perceptual process to the senses. The claim under examination now pertains to what it is, strictly speaking, that soul perceives when it fulfills its role as perceiver. In other words, what are the objects that are specific to the faculty of perception, and which are apprehended by that capacity alone? I will argue that based on what Plato says in these various dialogues, the answer to this question is that it is simple sense qualities that are, strictly speaking, the objects of the perceptual faculty, and that these qualities represent the whole of perceptual content. By simple sense qualities here I mean, colors, scents, tastes, textures and sounds, i.e., only those things, which may or may not be features of objects in the external world (Plato doesn't make any definitive claims about the status of these objects at this stage, nor is it something that is at issue here), which are made available to the soul by each of the individual sense organs. According to this view then, it is not the case that complex objects – namely, objects that are comprised of multiple sense qualities – are, at least immediately, objects of perception, and such objects, of course, will comprise largely, if not exclusively, external objects, both material and immaterial. But this is to anticipate; first we must turn to the passages in Plato that support this claim in order to defend it as a legitimate component of Plato's perceptual theory.

As noted above, one of Plato's most important and revealing discussions of perception is found in the *Theaetetus*. There are two points in the dialogue – 156 and 184 – at which he articulates, what appears to be, a theory of perception. At 156 we find Socrates, after already having equated Theaetetus' definition of knowledge as perception with the Protagorean dictum that “man is the measure of all things, of the things that are that they are,

and of the things that are not that they are not,” (*Tht.* 151e8 – 152a4)⁵ recounting what he claims to be the perceptual theory that Protagoras espoused in private to his students, the so-called “secret doctrine.” This theory maintains that perceptions occur when motions from a sense organ come into contact with motions from an external object. This process creates, in the space intervening between the object and the organ, a quality that belongs to the object perceived, and a perception that is of that quality, and is specific to that organ in question. The example that is given in the text of this process deals with visual perception. According to this account, the eye comes into contact with something commensurable with it, and the quality that is created is whiteness (or any other color). When this occurs, the eye becomes filled with that whiteness and the eye itself perceives the very whiteness that is created in the act of perception, and the object which possess the whiteness becomes, in that instant, not whiteness, but white (*Tht.* 156a2 – c4). This most interesting and complex phenomenologist⁶ account of perception, which Plato attributes to Protagoras, deserves a close examination, and such an examination will be undertaken in chapter 2 below, but what is important for our current purposes is not the intricacies of the theory, but rather only those things that Plato identifies as objects of perception. As should be clear from the discussion above, he indicates that white is an object of perception, but also referred to in this argument are hard and hot (*Tht.* 156e6). These are all simple sense qualities, and not complex objects like birds and trees. Taken on its own, however, this would be fairly weak evidence in support of the claim that Plato thinks that sense qualities are the ultimate, or even the immediate objects of perception.

If we turn our attention to the second of the two arguments from the *Theaetetus* referred to above, we find further evidence for this claim. The argument at 184, although perhaps less interesting phenomenologically and metaphysically, certainly appears to be a

⁵ τῶν μὲν ὄντων ὡς ἔστι, τῶν δὲ μὴ ὄντων ὡς οὐκ ἔστιν.

⁶ This is how Modrak (1981) characterizes this sort of perceptual theory. I agree with this, for, in this case, the perception itself determines the phenomenal character of the object. Furthermore, this characteristic appears to be possessed by the object intrinsically. “This account – which I shall dub ‘phenomenalist’, because the existence and character of the object of perception are dependent upon the act of perceiving as well as upon the structure of the external object – would, if true, justify the claim that an object perceived through one sense cannot be perceived through another sense” (38). Modrak, therefore, goes on to argue that since this theory of perception justifies the claim at 184 that what is perceived through one sense cannot be perceived through another, it must be the theory that Plato holds. Although I agree with Modrak that the theory presented at 156 is best characterized as a phenomenalist theory, this is where my agreement with her ends. For, as I shall argue in the next chapter, although there are certainly aspects of the theory presented at 156 that are consistent with Plato’s theory of perception, it cannot be the case that he held this theory. Furthermore, I will argue that this crucial claim is justified by a different theory.

more reasoned and thoroughgoing account of the perceptual process. In addition to this, as I will argue in due course, it seems reasonable to think that the theory at 184, at least when viewed alongside the theory at 156, is the one that Plato himself endorses. Furthermore, in the theory at 184 we find further references to the objects of perception. Just as in the theory at 156, many of these statements come in the form of passing references to these objects, which are consistently spoken of in terms of simple sense qualities. The first mention comes just after the analogy of the wooden horse at 184d7 where Socrates asks Theaetetus the following question: “Well now, here’s why I’m subjecting you to such strictness about it: I want to know if there’s something in us with which we get at not only white and black things, by means of the eyes, but also other things by means of the other sense organs.”⁷ Socrates continues, “Tell me this. Take the things by means of which you perceive hot, hard, light, and sweet. You classify each of them as belonging to the body, don’t you?” (184d7 – e6)⁸ The importance of these two questions within the context of the dialogue is obviously not to determine what the objects of perception are, but rather to establish the unity of the soul, and to reinforce the distinction between soul and body, but the fact remains that Plato here refers to white (λευκόν), black (μελανόν), hot (θερμός), hard (σκληρός) light (κοῦφος) and sweet (γλυκύς) – all simple sense qualities – as the objects of perception.

Another important reference in the argument at 184 to the objects of perception comes at 186b2 as Socrates and Theaetetus are discussing the distinction between perception and thought, and delineating the purview and objects of each faculty. Socrates, in order to rein Theaetetus back in after he has made a statement that moves too quickly within the context of the discussion says, “Hold on; it’ll perceive the hardness of what’s hard by means of touch, won’t it, and the softness of what’s soft in the same way?”⁹ This is a crucial passage for our purposes, because it demonstrates that what is given in perception is the quality rather than the object which gives rise to that quality – it is the hardness of what is hard that is perceived through touch, not that thing that causes the awareness of hardness. Now, it might be the case that Plato holds that by perceiving the hardness of the object, the perceiver, by extension, also perceives that object, but this is not something that he says here, and, as it will

⁷ τοῦδ’ ἐτι τοῖς ἑνεκα αὐτά σοι διακριβοῦμαι, εἴ τι νῦν ἡμῶν αὐτῶν τῶ αὐτῷ διὰ μὲν ὀφθαλμῶν ἐφικνούμεθα λευκῶν τε καὶ μελάνων, διὰ δὲ τῶν ἄλλων ἑτέρων αὐτῶν

⁸ καὶ μοι λέγε: θερμὰ καὶ σκληρὰ καὶ κοῦφα καὶ γλυκέα δι’ ὧν αἰσθάνη, ἄρα οὐ τοῦ σώματος ἕκαστα τίησι; ἢ ἄλλου τινός;

⁹ ἔχε δὴ: ἄλλο τι τοῦ μὲν σκληροῦ τὴν σκληρότητα διὰ τῆς ἐπαφῆς αἰσθήσεται, καὶ τοῦ μαλακοῦ τὴν μαλακότητα ὡσαύτως;

emerge, this is not a position that Plato endorses. Despite the numerous differences between the two perceptual theories presented in the *Theaetetus* and discussed above, the enduring picture of the objects of perception that emerges from an examination of both of these passages in the *Theaetetus* is one whereby these objects are understood to be simple sense qualities. These qualities are colors, sounds, tastes, textures and scents.

There is a further piece of evidence from the discussion at 184 that tells in favor of the claim under consideration here. At 185a, after having made the grammatical distinction, and established the significant philosophical claim that goes along with it – namely, that the senses are the means to perception while the soul is that which actually perceives – Plato goes on to say that “that which is perceived by means on one sense, cannot be perceived by means on another.”¹⁰ This is a short, and easily overlooked statement, but it conveys a number of important philosophical points, which will be discussed in greater detail in chapter 3. What is important to note here is that with the articulation of this claim, which we shall refer to as the “*idion* claim,” Plato indicates that the scope of perception is limited to only those objects that are accessible through the disturbances that are conveyed to the soul by the various senses taken individually. Thus only what is proper to sight, hearing, taste, smell and touch are, strictly speaking, objects of perception, and no single object can be perceived by means of the disturbances that come through two distinct sense modalities. Although this claim doesn’t say anything explicit about whether these perceptual objects are simple sense qualities, or complex objects themselves, there is a relatively obvious problem with combining the *idion* claim with the view that complex objects can, strictly speaking, constitute the content of perceptual experience. The problem with which we are, of course, well familiar, not least since its statement by William Molyneux¹¹, is that if it is possible to

¹⁰ ὃ δι’ ἑτέρας δυνάμεως αἰσθάνη, ἀδύνατον εἶναι δι’ ἄλλης ταῦτ’ αἰσθῆσθαι

¹¹ The so-called Molyneux problem is expressed in a passage from John Locke’s *Essay Concerning Human Understanding*. “To which purpose I shall here insert a problem of that very ingenious and studious promoter of real knowledge, the learned and worthy Mr. Molyneux, which he was pleased to send to me in a letter some months since; and it is this: ‘Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and the other, which is the cube, which the sphere. Suppose then the cube and sphere placed on a table, and the blind man to be made to see; *quaere*, whether by his sight, before he touched them, he could now distinguish and tell which is the globe, which the cube?’ To which the acute and judicious proposer answers: ‘Not. For though he has the experience of how a globe, how a cube, affects his touch; yet he has not attained the experience, that what affects his touch so or so, must affect his sight so or so; or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube’” (Locke *Essay* II.ix.8). The concern that Molyneux and Locke express here is essentially the same as that expressed by Plato – namely, that the features of the cube and the sphere that are perceptible by means of touch are not the same features that are

perceive complex objects, strictly speaking, then it appears that one and the same object can be perceived by multiple sense modalities; such as when a sphere and a cube can be distinguished by both sight and touch. As it will emerge, this statement plays a crucial role in understanding the sort of theory of perception that Plato holds.

The *Timaeus* also furnishes us with evidence in defense of this claim. After describing, in detail, the design and construction of the human body, Timaeus suggests that his account ought to begin again in order to examine each of the various sensations, and those things that cause them. He then goes through each of the five senses, identifies the sorts of objects that are perceived by means of each, and looks at how those objects arise from a physiological perspective. Our main concern here is with the second component – namely, Timaeus’ identification of the specific objects that are perceived by means of the various sense modalities. As mentioned above, Plato here goes through each of the senses beginning with touch. He identifies four distinct sets of opposite qualities that represent perceptual contents that can be classified under the broad umbrella of touch – hot and cold, smooth and rough, heavy and light, hard and soft – each of these tactile perceptions comes about as the result of specific alterations in the constitution of the skin through its interactions with external bodies (*Tim.* 61c1 – 64a1). Although Plato does maintain that there are these different categories that fall broadly under the class of touch perception, and probably many subsets within these main classifications, what is important to note is that what one perceives when one employs the skin and the sense of touch in an investigation of an object is not the object itself, but rather a quality that is related to the object. The relation of quality to object consists in the fact that the awareness of the object arises as the result of interaction of the object with the skin. Thus the perception itself is of an object related to but distinct from the external object under consideration – a sense quality. The investigation of the other sense modalities proceeds in much the same way, so it is not necessary to go through each one

perceptible by means of sight. Thus it seems that on the basis of perception alone, and without the input of memory and reflective thought, the newly sighted man would, on Plato’s view as well, be unable to distinguish the cube from the sphere by means of sight alone. However, the way in which Plato would conceive of the role of perception in this thought experiment is certainly different from the way in which Locke and Molyneux understand it. For whereas Locke and Molyneux were concerned to show, with this experiment, that there is no innate knowledge, Plato’s views on it would be informed rather by his division between the faculties and objects of perception and thought. The justification for Plato’s negative response to the question, therefore, would not be based on the newly sighted man’s previous inability to experience the difference between a sphere and a cube through the sense of sight, but rather be based on the inability of perception alone to link up the objects perceived by means of sight with those perceived by means of touch. For that, on Plato’s view, reflective thought is required.

individually in detail. It is, however, useful to mention the types of perceptual objects that Plato identifies as being specific to each modality, and any relevant subdivision therein. The sense of taste gives rise to five distinct categories of taste qualities: bitter, pungent, salty, hot and sweet. The awareness of these qualities comes about thorough the varying degree of contraction and dilation of the vessels of the tongue (*Tim.* 65b4 – 66c7). Smell appears to be the least important of all of the senses, or at least it provides us with the least information. According to Plato, the only division that can be made as far as types of scents are concerned is between pleasant and unpleasant odors (*Tim* 66d1 – 67a7). Hearing conveys sounds which are higher or lower in pitch based on the speed of the motion of air imparted through the ear. Thus it seems that whereas taste and smell produce perceptions that are divisible into discrete categories, auditory perception results in a continuum that runs from high to low, and which contains imperceptible pitches on either end (*Tim.* 67a8 – c3). Visual perception, the objects of which are colors, is divided into three types, those colors that are brilliant (caused by the dilation of the visual ray), those that are translucent and imperceptible (resulting from motions that are commensurate with the visual ray, and which neither dilate nor contract it), and those colors that are muted (caused by the contraction of the visual ray) (66d1 – 68d7). Again, the important thing to note is that it is colors, sounds, tastes and scents that are construed here as the objects of perception, and not complex objects composed of multiple sense qualities like stones, elephants and pizzas. A more thoroughgoing analysis of Plato's views on the physiological process that results in perception will be undertaken in chapter 4.

Based on the passages from the *Theaetetus* and the *Timaeus* mentioned above, it should be clear that Plato does not take the objects of perception to be complex objects, but rather views the content of perception to be constituted by simple sense qualities only. Whether it is the case that these sense qualities are only the immediate objects of perception, and that in perceiving these a perceiver ultimately comes into contact with the complex objects of which they are features is yet to be seen. Although Plato doesn't make a big point about the identification of these objects of perception as simple sense qualities, as it will emerge, it is a crucial feature of his theory from a hermeneutical perspective. This is because how we understand the status of the content of perceptual experience, on Plato's view, has a significant bearing on the sort of perceptual theory that Plato holds. For now, however, let us move on to the next part of this important claim.

1.3 Claim 2B: The objects of perception are not, at least immediately, external to the perceiver, but these internal objects of perception are, at least in many cases, causally related to external objects.

In the discussion of the first claim, and part A of the present claim, we looked in general at what it is that perceives – the subject of perception – and what it is that is perceived when perception occurs. We have said nothing substantive up to this point about the perceptual process itself, i.e. about the way in which perception arises from both a physiological and psychological perspective. This claim represents a first step toward characterizing and clarifying the process by which perception is made possible. In particular, this section will expand upon the account given above concerning the objects of perception by answering questions about whether, and to what extent, the simple sense qualities, identified above as the objects of perception, are related to external objects. The claim presented here will defend the view that, for Plato, the evidence on this issue indicates that the content of perceptual experience, and the objects that constitute that content are not external to the perceiver, but are rather objects that are internal to the perceiver's soul. It will further be argued that although the immediate objects of perception are not external to the perceiver, Plato does maintain that there is a causal relationship between these internal objects of perception, and the objects that populate the external world. The implications of this claim are many and various, and they will be taken up in due course, but the task here will be to highlight the evidence in favor of the claim that Plato does indeed hold this view.

Plato's most in-depth discussion of the physiological and psychological features of perception occurs in the *Timaeus*. As mentioned above, early in his discussion of the constitution of the human body at 42a5, Timaeus indicates that the demiurge instructed the younger gods, to whom he entrusted the task of creating the bodies of both human and non-human animals, that the bodies that they are to fashion, unlike the body of the universe, are to be designed to allow for material to flow into and out of them. As a result of this stipulation, the first capacity with which they are to endow these bodies is sense perception (42a3 – 42a6). This indicates that perception, from this early mention in the *Timaeus*, is closely linked with the influx and expulsion of things external to the body, and must, it seems, have some relation to external objects. Perception, it is said, occurs when the body comes into contact with external elements. These elements produce disturbances that are then transmitted through the body. When these disturbances, in the form of motions, reach the soul they bang

up against it and result in perceptions (*Tim.* 43b5 – c7). This image that Plato paints of the perceptual process, according to which perceptions result from the disturbances that travel through the body and knock on the door of the soul, indicates rather clearly that for Plato the immediate cause of perception is the interaction between the soul and the motions that are conducted through the body. Moreover, the cause of these motions is identified as the collisions between the body and various external elements. Thus, although Plato does not mention the objects of perception explicitly here, he does indicate how these objects are related to external objects. He envisions here a two-step causal relationship whereby, in the first step, the interaction between the body and external objects results in a disturbance that is transmitted through the body to the soul. In the second step of the process these motions arrive at the soul and bang up against it. It is this latter interaction that is the immediate cause of the soul's awareness of the objects of perception. Based on this understanding one can naturally conclude that the relationship between the elements that populate the external world and the perceptual acts to which the interactions between these external objects and the body give rise is, at least frequently, a causal one. Furthermore, the act of perception, at least as it is presented here in the *Timaeus*, when it occurs normally, involves some interaction between the soul and what is external to it.

As noted above, the passage from the *Timaeus* does give us some important evidence about the relationship between external elements and the act of perception, but it does not deal at all with the objects of perception. The next passage, to which I will now turn, does show, arguable though it may be, that: (1) the objects of perception are distinct from external objects; and (2) that these objects ought to be understood as internal objects. This passage, already discussed in relation to the first claim for its significance regarding Plato's statement about terminology, occurs in the *Philebus*. At *Philebus* 33c7 Plato claims that there is a sort of pleasure that is peculiar to the soul. He further states that this type of pleasure does not involve the body, and is entirely dependant upon memory. However, in order to examine the nature of memory he suggests that they must first examine the nature of perception. After linking perception and memory in this way, Plato goes on to characterize perception, as he had done in the *Timaeus* passage, as the result of disturbances of the body that are carried through to the soul. It sometimes happens though, that certain of these affections, which disturb the body, are not transmitted through to the soul and when this occurs we say that the soul is oblivious of these affections. Although he initially uses the term oblivious to refer to

the soul's condition relative to these types of disturbances, as mentioned above, within the span of a single line Plato changes the term that he uses to refer to the state of the soul in this situation from oblivion to non-perception (*Phil.* 33d2 – 34a5). Now, the important aspect of this passage is not its linguistic or terminological significance, but the overall philosophical significance of the claim that perception does not occur when external objects come into contact with the body but the resultant motions or disturbances are not transmitted through to the soul. It is rather the case that perception only occurs when those disturbances reach the soul without getting extinguished in the body. Despite the relatively straightforward nature of this passage, there are a number of questions that it raises, and one of the most interesting of these is what is happening when the affections mentioned are extinguished in the body, and what implications does this have for how we understand those motions that do reach the soul? It seems that, on this view, the reason why there is no perception when the motions in question do not reach the soul is that the component that is able to receive these motions and generate and cognize the objects of perception has not been affected. Now the use of the word “generate” here should not be misunderstood; I am not claiming that the soul is able to merely create objects of perception out of nothing, certainly not on its own at least, but rather that through a distinctive causal process perceptual content, which is distinct from external objects, arises in the soul. This perceptual content, however, appears to be directly related to the motions that these external objects cause in the body, and in this way are related, albeit in an indirect way, to the external objects themselves.

To be sure, this is a contentious interpretation of this passage from the *Philebus*, but I think the point becomes more salient as Plato continues his discussion. After having claimed that the affections of the body that penetrate through to the soul result in perceptions, whereas those that are extinguished before they reach the soul do not, he goes on to describe memory (*μνήμη*) and recollection (*ἀνάμνησις*). Memory he identifies as the preservation of perceptions, or the storage, within the soul, of perceptual content. Recollection, he maintains, can occur in two ways: when the soul, on its own, retrieves a perceptual object that it had previously come to by means of the body, or when the soul retrieves an object, either a perception or a piece of knowledge that it had lost or forgotten (*Phil.* 34a1 – b8). The important points here are Plato's characterization of memory, and the first of the two ways in which he says that recollection can occur, for in both of these processes the soul accesses a perceptual object without utilizing the body, and thus the soul, which has no access itself to

an external object, is in touch with a perceptual object that was initially occasioned by such an external cause. This means that in the instance of memory and/or recollection the object of cognition clearly *is* an internal object and not one external to he who is remembering or recalling. One could claim that all that this demonstrates is that the objects of the faculties of memory and recollection are internal objects, but that it says nothing about the internality or externality of the objects of perception. This would, of course, be true if Plato did not identify the objects of memory and recollection as the very objects that had previously been apprehended by perception. Therefore, unless the objects in question undergo some sort of change when they transition from being objects of perception to objects of memory or recollection, we have a fairly strong indication here that these objects, definitely in the case of memory and recollection, and likely in the case of perception, insofar as memories and recollections are phenomenologically similar to perceptions, are all internal objects.

The *Theaetetus*, however, contains perhaps the most forceful and theoretically cogent account that lends itself to the view that the objects of perception are internal to the perceiver. As mentioned above, Plato begins the argument at 184 by distinguishing between the role of the soul and that of the bodily senses in perception. After establishing this distinction, he goes on to immediately state the *idion* claim. This claim, according to which what is perceived through one sense cannot be perceived by means of another, has been taken, by many scholars to be unmotivated within the context of the argument in which it appears. This view, however, arises from a lack of serious attention to the process of perception as Plato characterizes it immediately preceding his articulation of the claim. It will be argued in chapter 3 that the justification for the *idion* claim is provided by the indirectness of the perceptual process that arises from Plato's characterization of that process. As was mentioned above, it will be shown that Plato views the process of perception as a two-step causal process, and since, according to his characterization of that process, the senses serve as intermediaries which are interposed between the subject of perception and the external objects that stand at the beginning of the causal perceptual chain, that which actually perceives does not come into direct contact with the objects that stand at the beginning of the chain. If we understand perception in this way, then the division and disunity amongst the senses themselves, and the position they hold as the necessary conveyers of the disturbances by means of which perceptions arise, necessitates the claim that what is perceived by means of one sense cannot be perceived by means of another.

After establishing that the motivation for Plato's maintenance of the *idion* claim lies in the indirectness of the process of perception as he conceives of it, it will be argued that the *idion* claim, duly supported by the claim of indirectness, gives rise to the view that the objects of perception are internal to the soul. This conclusion arises from the nature of the *idion* claim itself, coupled with its relation to the indirectness of perception. Plato's articulation of the *idion* claim leads to the view that each of the various senses must converge to the soul with the disturbances specific to it. Furthermore, it is not the case that the soul can merely reach out through the senses and their corresponding organs in order to come into contact with the external objects that stand at the beginning of the causal perceptual chain. In addition to this, since, based on the indirectness of perception, the end state of the causal perceptual process – the act of perception itself – can be characterized for what it is without necessary reference to the objects that stand at the beginning of the process, the objects of perceptual awareness cannot be the same as the objects that set the process in motion. Moreover since the soul is located within the body, and the act of perception, which involves the soul's awareness of an object that is distinct from the external object that occasions that perception, occurs within the soul, it follows that the content of that perceptual experience must be internal to the experience itself. Thus, it will be shown that not only is the *idion* claim justified by Plato's view of the process of perception, but also that his maintenance of the *idion* claim coupled with a proper understanding of the perceptual process that gives rise to it necessitates the view that the objects of perception are internal to the perceiver.

There is yet further evidence that, on Plato's view, there are cognitive states that are phenomenologically similar, or identical, to perception which do not involve the simultaneous affection of the body by a discrete external object. In the *Theaetetus* Plato indicates that the anomalous perceptual experiences of dreams and hallucinations provide a problem case for the view that knowledge is perception.

In that case we must make sure that we have not left anything out of our theory. We have left out of our discussion thus far cases of dreaming, and of sickness and other kinds of insanity, also mishearing or misseeing or some other type of misperceiving. You know, I suppose, that in all the cases of this sort people agree that they provide what seems to be a refutation of the argument we are considering. For all these instances represent cases in which false perceptions arise in us. Here, most of all, it is

not the case that the things that appear to each individual, are. But on the contrary, in these cases not any of the things that appear are (*Tht.* 157e1 – 158a3).¹²

This passage, as well as what Plato says immediately following it, indicates that dreams and hallucinations represent instances of misperceptions in which the content of the perceptual experiences do not have any reliably identifiable external cause. The notion that these cognitive states are causally and phenomenologically identical to perception is corroborated by a comment that Plato makes in the *Timaeus* in which he identifies dreams as arising from the motions that remain in the body after the eyes have been closed, and the visual apparatus has been shut off from external stimulation (*Tim.* 45e3 – 46a2). Therefore, it appears to be the case that, on Plato's view, there are certain perceptual experiences that involve content which does not possess any external cause. If this is the case, then we are justified in thinking that the content of these experiences is internal to the soul. Furthermore, as it will be argued in chapter 3, if the content of these instances of anomalous perceptual experience is internal to the perceiver, we have good reason to think that the content of all perceptual experience is likewise internal. Again, the arguments for this claim will be taken up in greater detail in chapter 3.

Based on the passages discussed above, we can begin to see a picture emerging of the way in which Plato envisions the complex relationship between perception, its objects and the objects external to the perceiver. The first *Timaeus* passage indicates that perception is related to external objects by emphasizing the fact that the faculty of perception is connected with the influx and expulsion of external material. Furthermore, based on the way in which Plato characterizes the process of perception, the relationship between the faculty of perception and the external objects appears to be a causal one, whereby the motions that result from the body's interaction with external objects are transmitted through the body until they reach the soul, these motions then bang up against the soul and the psychological disturbances that are caused by this interaction result in perceptions. This is then supplemented by the *Philebus* passage which examines the status of the faculties and objects of perception, memory and recollection. According to this account, memory is the

¹² μὴ τοίνυν ἀπολίπωμεν ὅσον ἐλλείπον αὐτοῦ. λείπεται δὲ ἐνυπνίων τε περὶ καὶ νόσων τῶν τε ἄλλων καὶ μανίας, ὅσα τε παρακούειν ἢ παρορᾶν ἢ τι ἄλλο παραισθάνεσθαι λέγεται. οἶσθα γάρ που ὅτι ἐν πᾶσι τούτοις ὁμολογουμένως ἐλέγχεσθαι δοκεῖ ὃν ἄρτι διῆμιν λόγον, ὥς παντὸς μᾶλλον ἡμῖν ψευδεῖς αἰσθήσεις ἐν αὐτοῖς γιγνομένας, καὶ πολλοῦ δεῖ τὰ φαινόμενα ἐκάστω ταῦτα καὶ εἶναι, ἀλλὰ πᾶν τούναντίον οὐδὲν ὧν φαίνεται εἶναι.

preservation of perceptual objects which can then be made present again to the soul without the use of the body, and at least one function of recollection is the recovery, by the soul itself, of objects that had initially been made available to the soul through its communion with the body. If, as it seems is the case, the objects in question, both in the case of memory and recollection, are the same as the initial perceptual objects, then these must be internal objects. This is because both in the case of remembering and recollecting there is no external object present which corresponds to and gives rise to the memory or the recollection, thus if the soul can come into contact with these objects independent of any external stimulation, then the objects, which were once perceptual objects, must be internal to the soul. This notion that the objects of perception are internal to the soul is then further corroborated by Plato's discussions in the *Theaetetus* and *Timaeus* of other sorts of anomalous perceptual experiences in which the content of the experience has no immediate external cause. We can see then that although Plato certainly does envision normal instances of perceptual experience to consist of a causal relationship between the external objects and the objects of perception, based on his views about the two-step process by which those perceptions arise, as well as cases of misperception, we can see that the objects of perception, for Plato, are ontologically distinct from the external objects that occasion them, and are internal to the perceiver.

1.4 Claim 3: Although, according to Plato, perception, as cognitive act, is carried out by the soul, Plato develops an account of the physiology of perception, and in particular of how the body and the sense organs are involved in perception.

Claim 1 dealt exclusively with the psychical aspect of perception, and in the discussion of that claim it was argued that it is the soul and not the bodily sense organs that is the subject of perception, understood as that which actually perceives. But it should be equally clear, especially from the discussion of part B of Claim 2, that the body in general, and the sense organs, in particular, play a crucial role in the perceptual process. The aim of this claim is to elucidate the role that the sense organs play in this process, both collectively and individually. I will first further elucidate the way in which, according to Plato, the body and the sense organs interact with the soul in a general and collective way. I will then look at how Plato characterizes each of the sense organs individually, and, in particular how each of them deals with the external stimuli that is specific to it, and transmits its particular information to the soul.

The first task then is to determine the relationship between the body and the soul in the perceptual process. In the first claim, the importance of the soul, conceived of as the subject of perception, was emphasized. The primary source for the establishment of this claim was the discussion from *Theaetetus* 184 – 187 in which Plato makes a concerted effort to distinguish the soul from the body. At first blush it can appear as if Plato is here elevating the soul to the detriment of the body, this is, however, an erroneous impression. To be sure, Plato in this argument does stress the soul's role as that which actually perceives, but this is only to dispel the view that each individual sense organ is responsible for perception. The first significant comment that Plato makes regarding the role of the sense organs comes in the grammatical distinction that Plato makes at the very beginning of the argument. As discussed above, this distinction concerns the preposition that is applied to the soul and the senses when describing their roles in the perceptual process. The “with idiom,” according to Plato, ought to be ascribed to the soul, as it is this locution that accurately characterizes it as the subject of perception. This, however, only tells half of the story, for it is the senses that are identified as those things “through which” or “by means of which” the soul is able to perceive. It is in the latter part of the analogy of the wooden horse that Plato makes this point when he says “...but not into some one form, either soul or whatever it is necessary to call it, all these things [the senses] converge, and through which, like equipment, we perceive all that is perceptible” (*Tht.* 184d2 – 5).¹³ This clearly indicates that the senses have a crucial, albeit underdetermined, role to play in the perceptual process. They serve as the means to perception, and, as mentioned above, as the equipment or tools necessary for getting the job done. In addition to this, it is significant that Plato, in the very next lines, establishes explicitly that the senses are bodily. “Now tell me, those things by means of which we perceive hot, hard, light and sweet, would you attribute them to the body, or something else? Nothing else” (*Tht.* 184e4 – 7).¹⁴ Thus it is not only the case that the sense organs are those things by means of which the soul is able to perceive, but since these organs are construed as parts of the body, this provides the body with a crucial role in the perceptual process. We will delve more deeply into the way in which Plato develops the specifics of the body/soul relationship below.

¹³ ... ἀλλὰ μὴ εἰς μίαν τινὰ ἰδέαν, εἴτε ψυχὴν εἴτε ὅτι δεῖ καλεῖν, πάντα ταῦτα συντείνει, ἧ διὰ τούτων οἶον ὀργάνων αἰσθανόμεθα ὅσα αἰσθητά.

¹⁴ καὶ μοι λέγε: θερμὰ καὶ σκληρὰ καὶ κοῦφα καὶ γλυκέα δι' ὧν αἰσθάνη, ἄρα οὐ τοῦ σώματος ἕκαστα τίθης; ἢ ἄλλου τινός; οὐδενός ἄλλου.

Another important passage that illustrates the relationship between the body and the soul in perception is *Philebus* 33d1. Since this passage has already been discussed both in conjunction with claim 1 and claim 2B, I will not go into great detail about the context of the passage here. As noted above, Plato in this passage identifies two types of bodily affections: one whereby the disturbance that is caused in the body is extinguished within the body before it reaches the soul; and the other whereby the bodily affection penetrates through the body to the soul, and both are moved in common, ultimately resulting in a perception. As mentioned above, in the former case no perception occurs, whereas in the latter case the result of the common affection is a perception. This indicates not only that the body is necessary for perception, but also that in order for a perception to arise from a bodily affection, that affection must be strong enough to penetrate throughout the body so that it can also disturb the soul. This notion, that the body affecting the soul is a necessary condition for perception, is made clearer when Plato continues further on in the passage to discuss memory and recollection. As discussed above, memory and recollection appear to be conditions similar to perception insofar as they seem to involve the same objects that are involved in perception. Furthermore, they appear to be similar psychical states. In the case of memory and recollection, however, the body need not be involved, and, as such, they are classified as psychical faculties distinct from perception. Therefore, it seems sensible to think that in order for a psychical phenomenon to be an instance of perception it must involve both somatic and psychical components. Although, as we've seen from what was said above, it need not always involve an external stimulus.

The *Timaeus* contains the most extensive account of the physiology of perception both in general and with regard to the individual sense modalities. I will begin the brief discussion of the relevant passage here with the general claims that Plato makes. These claims serve the primary purpose, at least here, of corroborating and supporting what is said in the *Theaetetus* and *Philebus* about the relationship between the body and the soul. As stated in the discussion of claim 2B, the human body was constituted, according to Plato, in order to allow material to flow into and out of it. Thus, just as in the *Philebus*, at *Timaeus* 43b6 perception (which was identified as the first faculty endowed to human beings) is taken to occur when the motions that result from the body's interaction with things external to it are transmitted throughout the body until they bang up against the soul. We can, therefore, begin to see that the relationship between the psychical and somatic components of perception,

in general, is one in which each is necessary, but neither is sufficient. Perception cannot occur without the soul because, conceived of as the subject of perception, the soul is that which actually perceives, yet without it being affected no perception is possible. By the same token, normal perception is not possible without the body, for the body serves as the soul's mode of access to the external world, and since perception is caused by objects external to the perceiver, without the body there can be no such access. This rounds off our discussion of the physiology of perception in general terms as constituted by the relationship between body and soul with the important claim that the bodily affection is a necessary condition for normal perceptual experiences. The reason why this claim is so important is that it allows us to resist a common desire to exaggerate the role that the soul plays in Plato's theory of perception to the detriment of the role fulfilled by the body.

After discussing the process of perception in general, Plato goes on in the *Timaeus* to look at each sense modality individually, and to articulate how they interact with the external world and how they convey their information to the soul. As mentioned above, Plato's account of the physiology of sense perception hinges on the ability of the body to communicate motions that result from its interaction with objects in the external world through to the soul. I will give a brief account of how this works in the case of each of the five sense modalities, but will not go into any great detail, since each will be discussed extensively in chapter 4. Plato begins his discussion of the physiology of perception with a lengthy account of the tactile faculty. Plato here claims that tactile qualities are the result of the interaction of the flesh with the elements that compose the objects of the external world – most notably fire and water. The constituent triangles of which these elements are composed affect the flesh in ways that give rise to the soul's awareness of hot and cold (*Tim.* 61d5 – 62b8). Plato's account of the perception of rough and smooth is similar to that of hot and cold. An encounter with an object that has a stable but non-uniform structure gives rise to a perception of roughness, while a similar encounter with an object that has stability, reinforced by a uniformity of structure gives rise to a perception of smoothness (*Tim.* 63e7 – 64a1). Taste perceptions occur as the result of certain alterations in the condition of the vessels of the tongue from its encounter with different external elements. For example, when rough particles of earth dry up and contract the area around the vessels of the tongue, the resulting perception is of a sour taste (*Tim.* 65c1 – d4). Olfactory perception arises in the soul as the result of the effect that the vapor, or mist that comes in through the nose has on the

physiological system of the upper body from the navel to the head. When the effect is disquieting the resultant scent is unpleasant, when it is restorative, the resultant scent is pleasant (*Tim.* 66d1 – 67a6). Auditory perception results from the character of the air that travels through the ear and impinges on the brain and the blood. These affections then travel, by means of the blood, to the soul. A more forceful impact upon the soul results in the perception of a louder sound (*Tim.* 66e7 – 67c3). Finally, vision, for Plato, is the result of the effect that objects have on the light that constitutes the visual ray. The eye is specifically suited to allow for the visual ray to pass through it, and is thus receptive of the distortions that are suffered by the ray itself. When these alterations in the ray are communicated to the soul they give rise to color perceptions. The extent to which the ray, which is formed when external light coalesces with the light within the perceiver, and which extends from the eye to the objects of the external world, is dilated or contracted determines the particular colors to which the disturbances give rise (*Tim.* 67c4 – 68d7).

This represents a quick and somewhat schematic summary of Plato's account of how the physiological alterations that result from the body's encounter with external objects result in the soul's awareness of the different sorts of perceptual contents. There are two aspects of this account that are important to note. The first is that for each perceptual modality Plato develops a physiology to go along with the psychology. It is by means of the physiological process that Plato describes in these pages from the *Timaeus* that the soul is able to become aware of perceptual content. Thus perception is related to the soul's interaction with the body, and the body is what bridges the gap between the soul and the external world. The second important point to be made about this discussion is that Plato does not indicate that perceptual content that arises in the soul from the body's interaction with external objects is a feature of those external objects. In fact, he claims that it is rather the structural features of the external objects that specifically suit them to affect the body and give rise to perceptual content. It is a combination of the effect that the constitutive elements of external objects have on the body, and the subsequent effect that these physical changes have on the soul that gives rise to perceptions. This account, as we shall see, is consistent with the view that the perceptual qualities of objects are secondary qualities¹⁵ which are causally related to the structural qualities that those objects possess intrinsically.

¹⁵ By "secondary qualities" here I mean qualities that are caused by features of external objects, but which do not belong to those external objects intrinsically. More will be said about this in chapter 4.

1.5 Conclusion

The purpose of this chapter has been to introduce and profile the three claims that characterize Plato's theory of perception, and around which the remainder of this dissertation will be developed. In addition to introducing the claims, this chapter has also given a snapshot of the textual evidence from the Platonic corpus that supports the attribution of these claims to Plato. The first of the claims deals with the subject of perception, or that which actually perceives; the second is addressed to the objects of perception, or the content with which a perceiving subject comes into contact in an act of perception; and the third claim is concerned to show that despite a clear emphasis on the side of the psychological aspect of perception, Plato develops an accompanying physiology, which plays a crucial role in the perceptual process. Each of these claims will be addressed in greater detail in the next three chapters.

We can see, therefore, that these three claims, as well as the philosophical implications that go along with them, represent the foundations of a full account of Plato's theory of perception. For it will emerge, through an investigation of each claim, that taken together they do represent the backbone of a Platonic theory of perception. The general elements that comprise this theory, which are highlighted through each of the claims, are the necessary and sufficient conditions for perception – namely, the encounter between the soul and motions transmitted to it through the body – and the process by which that condition, under normal circumstances, is achieved. In addition to this, the claims also elucidate the relationship between the content of perception and the objects of the external world, and provide the basis for a discussion of instances of anomalous perception and misperception. In what follows these claims will be investigated one-by-one with an eye to showing that based on the implications that follow from them, Plato's theory of perception is best understood as indirect.

Chapter 2

The Subject of Perception

2.0 Introduction

This chapter is concerned with the first of the three claims discussed in chapter 1. The focus of this two-part claim is to spell out precisely what Plato takes to be the subject of perception, and the philosophical upshots that follow from his view. As mentioned above, the claim itself maintains the following: (A) the perceiving subject is not the individual sense organs, but rather the unified soul; and (B) the subject of perception is the very same subject as the subject of thought. The details of these claims are crucial for how we understand Plato's theory of perception, and the issues to which they give rise are far reaching. This chapter represents an analysis of the points made in these claims, their role in Plato's account of perception and an investigation of some of the relevant issues to which they give rise. It begins by delving into the philosophical significance of maintaining each of these claims individually, and both together. The first section is dedicated to explicating what it means for Plato to claim that the soul is the subject of perception, and the philosophical implications of such a view. This section will also set out the important aspects of the claims that Plato makes about the subject of perception, and the relationship between the faculties of perception and thought. It looks specifically at Plato's crucial distinction between the soul and the body, and considers why the former is designated over and above the latter as the subject of perception. It will emerge through the course of this account that the soul is, for Plato, that which constitutes the human being, properly speaking. Furthermore, it will examine Plato's claim that the soul, understood as perceiving subject, is a unitary entity, why this is important for his theory, and how strong Plato's assertion of this unity is. After establishing the motivations behind Plato's identification of the soul as the subject of perception, we'll consider how it is that perception and thought can be understood, by Plato, as distinct functions of one and the same unified entity without the soul itself either being radically separated into parts, or the capacities of perception and thought collapsing into a single faculty. In addition to this, an account of the precise way in which perception and thought cooperate within the soul will also be given. Through the course of this examination, it will emerge that part B is the more philosophically interesting and significant part

of the claim, and that much of the analysis of part B will inform and expand upon the analysis of part A. In this context we will also make brief mention of the faculties of imagination (φαντασία) and memory (μνήμη) and the role that they each play in linking perception and thought.

After looking at the philosophical implications of these claims, and the commitments to which they give rise, section two will showcase and examine the textual evidence from the Platonic corpus which serves to corroborate the view that these positions are, in fact, consistent with what Plato says about perception in the later dialogues. Although many of the crucial passages were mentioned in chapter 1, this section focuses on giving both an expanded exposition, as well as providing an interpretation of these lines. The passages under consideration here are drawn primarily from the comments that Plato makes in the *Theaetetus*, *Timaeus*, and *Philebus*. These three later dialogues contain some of Plato's most extensive treatments of perception. This section serves not only to show that the textual evidence bears out Plato's commitment to these claims, but also begins to demonstrate a very important point, which will be a theme throughout this dissertation – namely, that the views of perception presented in these later dialogues are consistent.

One of the issues to which an examination of the textual evidence for these views gives rise is that in the *Theaetetus* Plato appears to present two distinct characterizations of the perceptual process. The third section of this chapter will, therefore, be dedicated to providing a comparison and analysis of these views. It will be argued that these theories, while they share a number of crucial aspects in common, are ultimately incompatible. Furthermore, it will be argued that of the two distinct views of perception that Plato gives in the *Theaetetus*, at 156 and 184, it is the theory¹⁸⁴ that we ought to think of as a more accurate articulation of the view of perception that Plato himself holds. The reason why our position on this issue is important is that the way in which we understand Plato's view of how perception works is, in large part, dependent upon which of these positions we take him to hold. In addition, this analysis is most properly suited to this chapter because, as it will emerge, the feature that distinguishes these two views, and makes them essentially incompatible is what each of them understands to be the subject of perception.

2.1 Unpacking the philosophical implications of parts A and B of the claim

As discussed in chapter 1, the first part of this claim deals with the subject of perception, or that part of an individual that actually carries out the act of perception when that individual is taken to perceive. What precisely this means, however, is in need of some careful clarification. In common parlance we generally say that a whole and singular individual perceives a particular complex and external object. Take, for example, the phrase “Frank sees the pint of stout.” Contained within this statement is the identification of both a subject and an object – in this case, “Frank” is the perceiving subject and “the pint of stout” is the object of perception – and it articulates a certain relationship between them whereby the former is understood to be in some cognitive contact with the latter (precisely what this contact consists in will be discussed later). For the moment, we want to focus on the subject of the perceptual act, leaving aside the other two relevant components – namely, the object of perception, and the process that culminates in the cognitive act itself. The identification of the subject as “Frank” here distinguishes it from all other potential individual subjects, say, for example, “Joe,” “Rebecca” and “the dog.” This is not to say that these individuals don’t also perceive the pint; if the pint is within range of their perceptual fields, they may perceive it as well, but the point is rather that, to be sure, the subject that we identify as Frank *is* in perceptual contact with the pint. The question, however, is what exactly do we mean when we make such an assertion? Is it the case that Frank as a whole and singular thing is entirely in perceptual contact with the pint? Is it the case that each and every part of Frank, his arms, his head, his navel, etc., is simultaneously in this type of cognitive relationship with the pint? Or is it rather the case that there is a certain identifiable part of Frank that, strictly speaking, perceives, or carries out the act of perception, when we take it that Frank, as a whole perceives the pint? According to Plato’s view, the answer to this question is that there is an identifiable part, or component, of an individual that is responsible for carrying out the act of perception when that individual is taken to perceive. Plato identifies this component, which is responsible for the act of perception, as the soul (ψυχή). This means that, on Plato’s view, when we say “Frank perceives the pint” what we mean is

that Frank's soul perceives the pint, and that it is in virtue of this that Frank can be said to perceive the pint.¹

The above claim – namely, that when we say “Frank sees the pint” we mean that Frank's soul perceives the pint – is interesting for a variety of reasons. This claim can either be understood in a weak sense or a strong sense: according to the weak reading, it is the case that Frank's soul is identifiable as the part of him that perceives, but it could be the case that it is merely one among many parts of him that perceive when Frank is said to perceive; the strong reading, on the other hand, which is the understanding that, according to the evidence, we ought to attribute to Plato, expresses the view that Frank perceives the pint with only his soul and with no other part of himself. This means that if the strong reading is accepted the statement “Frank perceives the pint” is equivalent to “Frank's soul, and only Frank's soul, perceives the pint” and is crucially distinct from the statement “Frank perceives the pint with his soul.”² The most important upshot of this claim is that it serves to establish the soul's role in perception and to distinguish it from any other elements that might be involved in the perceptual process. In particular, it begins to dispel what appears to be a common and natural misconception – namely, that it is Frank's eyes that do the perceptual work when Frank, for example, sees the pint. This, then, is one of the crucial points made in the first part of this claim – namely, that although the sense organs are certainly involved in perception, the precise nature of this involvement will be spelled out later, it is not the eyes, ears, nose, tongue and skin, nor they in conjunction with something else, which carry out the act of perception, and are thus said to perceive. I won't say anything further about the relationship between the organs of sense and the soul in the process of perception here, as it will be discussed in detail in chapter 4. Suffice it to say that according to the first part of the claim in

¹ It is interesting to note that, for Plato, although the soul is only one of several components of an individual, it appears to be the component that is most properly constitutive of the individual. In other words, for Plato, Frank is his soul. This view is clearly articulated in the *First Alcibiades* (129e5 – 130c5), and is hinted at in comments made in the *Phaedo* (82d8 – e3). Therefore, on Plato's view, the expressions “Frank's soul perceives the pint,” and “Frank perceives the pint” express one and the same meaning.

² Despite the fact that Plato, in the *Theaetetus*, attributes the “with which” idiom to the soul in order to characterize the role that the soul plays in the perceptual process, I think it is better to change the locution to “X's soul perceives.” For the view that “X perceives with his soul” could give the erroneous impression that, for Plato, the soul is instrumental in the process of perception, and that there is something over and above the soul which makes use of the soul in the perceptual process. This is the view that Aristotle holds when he claims that the individual, understood as a combination of body and soul, perceives with his soul (*DA* 408b14 – 15). This view will be discussed in greater detail in chapter 5.

question, perception, understood as cognitive act, is taken by Plato to be a distinctly psychical function and not a matter of the body, as such.

It might be useful at this point to say a brief word about the phenomenon of perception understood as an act. If we think about perception in terms of other human actions it appears to possess a rather distinctive character that sets it apart from nearly every other sort of human activity. Thinking, in general terms, about the things that humans do, we find that most actions begin with something cognitive, say an intention, and are concerned with manifesting that cognitive element externally³. If we think, for example, of the act of throwing a ball, we generally take it that the causal chain that ultimately brings this action about runs in the following way: one first has a intention to throw the ball; the brain then sends the appropriate impulses to the arm which tell it to pick up the ball, draw back the arm and whip it forward, simultaneously releasing the ball; finally the ball flies through the air and is either caught by someone, hits against some animate or inanimate object, or falls to the ground due to the force of gravity. In this way, most actions are intentionally motivated and externally directed. Thus the directionality of much of our interaction with the world tends to run from the subject toward the object, beginning in an act of cognition and culminating in an observable manifestation that is, in some sense, representative of the content of that cognition. Perception, however, seems, on the face of it, to be quite distinct in nature from actions of the type described just above. First of all, perceptual acts do not appear to be the result of any intention on the part of the perceiving subject – it is rather the case that when our sense organs are operating properly and are unobstructed, perception occurs whether we want it to or not.⁴ Secondly, the direction of the causal chain that results in perception seems to run

³ I don't intend the use of the word external here to be assuming any sort of dualism. It is merely useful to employ such terms in order to distinguish between acts of cognition and their physical or phenomenal manifestations.

⁴ One could, of course, object to this by invoking a distinction between sensation and perception, and claiming that, whereas sensation may occur so long as the sense organs are unobstructed, perception, properly speaking, requires some sort of willful processing or awareness of the data that is given in sensation. If we understand sensation and perception to be two aspects of a single cognitive faculty, then Plato makes no such distinction. George Nakhnikian (1955) has claimed that in Plato there is a distinction between sensation and perception. "The objects of sensing are sense-data or sense-qualities, what Plato calls αἰσθητά (156C) and ποιότητες (182A); he gives, as examples, particular colors, sounds, odors, pleasures, pains, emotions, and fears. The objects of perceiving are colored, sonorous, odorous *things* (156E) (129 – 130). Nakhnikian's argument, however, rests upon the view that Plato holds the perceptual theory articulated at *Theaetetus* 156, and this, as we shall see, is an erroneous view. Furthermore, Plato claims only that the objects of perception are what Nakhnikian refers to as

in the opposite direction from that which results in most other actions. So, whereas in the example above, the intention to throw the ball, which is something internal, ends up being manifested externally when the subject of the intention actually throws the ball, in the case of perception, objects external to the perceiver – a tree, or a table, for example – are, in some sense, manifested internally.⁵ Finally, while the act of throwing a ball involves the active employment of one's mind and limbs in order to externally manifest the internal intention, perception, conceived of as an act, appears to be passive insofar as the objects external to the perceiver act upon the sense organs which then, in turn, act upon the mind. It is these three features of perception that crucially distinguish it from other types of human activity. There are, to be sure, human actions that do incorporate one or another of these three aspects of perception – namely, the involuntary nature of the act, the direction of the flow from external to internal, and the passivity of the subject – but there does not seem to be any other regular human activity that involves all three of these features. The closest that we come is the phenomenon of the body absorbing the nutrients from food. As I understand it, this process runs as follows: food, which is external to the body, enters the mouth, is chewed and begins to be broken down by the saliva; this food enters the stomach and is digested through the presence and action of hydrochloric acid and various enzymes; the food then travels to the small intestines where it is broken down further, and the nutrients are absorbed in the bloodstream through passive diffusion and active transport absorption; once in the bloodstream the nutrients are ferried around to the various important organs of the body. In a human body that is operating normally, this absorption occurs whenever there is food present in the stomach, just as perception occurs whenever the sense organs are unobstructed. In addition, the absorption of nutrients into the blood seems to be a passive process insofar as the body doesn't actively seek out the nutrients in question, but engages in the action whenever they are present, just as perception occurs only when information from the sense organs reaches the soul. Furthermore, the body incorporates the food (at least generally) regardless of whether it is beneficial or poisonous, further indicating that it is a passive process in which the body can't help but engage. Thus, in many ways the

"sense-data or sense-qualities". He never claims that perception has, as its objects, the objects to which we take it that these qualities belong.

⁵ The details of how we ought to think of the objects of perception, and their relation to external objects, as well as the precise way in which perception is actualized will be discussed in detail in chapters 3 and 4.

process by which nutrients are absorbed from food into the body is similar to perception. For Plato, however, this analogy would be imperfect. For he argues that not only is perception the proper activity of the soul, and not the sense organs, but also the soul is unified insofar as it is a single entity that is able to perceive by means of the information that is given to it by the various sense organs. This means that whereas in the case of the absorption of nutrients by the body, the process is entirely automatic, and undertaken completely by the body, perception involves an element that is distinct from the body, and one which doesn't appear, at least, to be given a purely mechanistic account.

This brings us to the second crucial component of the first part of the claim under consideration – namely, that although the sense organs are involved in perception, it is the singular and unitary soul that is able to perceive by means of each of them. The importance of this part of the claim for Plato, as we will see below, is to establish that although the soul perceives by means of the necessary input of the different sense organs, it is not the case that the soul is fragmented into different percipient parts. This denial of fragmentation can also be taken in a weak or a strong sense. The weak understanding would have it that although the act of perception is carried out by the soul, understood as a whole, there are separate parts of the soul that are responsible for processing the information given to it by each of the different senses. According to the strong reading, on the other hand, not only is there no fragmentation with regard to that which actually perceives, but also the soul is not divided into different components corresponding to the diverse sense modalities. It is rather the case that, on this reading, the senses converge to the soul, and that the singular and undivided soul is able to perceive the various perceptual objects by means of the information that they each provide. It is the latter, stronger, reading that we should attribute to Plato. The important point to emphasize here is that by distinguishing the soul from the senses, and identifying the latter as the subject of perception, and by further indicating that this perceiving subject is unitary, Plato is not only denying the notion of fragmentation within perception, understood as a number of percipient entities perceiving in isolation from one another (this, of course, is generally recognized by critics), but he is also affirming the positive point that all of the various and diverse objects of perception are the objects of one singular and unitary entity. The reason why this is so crucial will become clear presently when we

look at the second part of the claim, and clarify the relationship between the faculties of perception and thought.

Now that we have spent some time unpacking the philosophical implications of part A, let's take a similar approach to our examination of part B of this claim. As mentioned above, part B states that the subject of perception is the very same subject as the subject of thought. In the discussion of part A, we determined that, according to Plato, it is the singular unitary soul that is the subject of perception. What, then, are the implications of claiming that the soul is also the subject of thought? There are a few clarifications that must be made at the outset of this discussion in order to avoid further confusions down the road. The first is to indicate that, for Plato, perception and thought are undoubtedly distinct faculties. Since Plato attributes them to one and the same subject it might be tempting to think either that they are a single faculty, or that they are two parts or aspects within a single faculty. Both of these thoughts would be incorrect. Two features distinguish the faculties of thought and perception from one another: the different objects which they pursue, and the different processes by which they arise.⁶ It is important to note, however, that just as in the discussion of part A we said that although the soul perceives by means of diverse sense modalities, it is not divided into separate percipient parts that perceive by means of each of the modalities, similarly, the distinct psychological faculties of thought and perception do not constitute separate parts of the soul, but rather function toward different ends within a unified soul.⁷ Finally, the third point to make here is that although perception and

⁶ These are, in fact, the two criteria that Plato identifies in the *Republic*, toward the end of Book V, as the features in virtue of which faculties are differentiated from each other. "Here's what I think about them. A power has neither color nor shape nor any feature of the sort that many other things have and that I use to distinguish those things from one another. In the case of a power, I use only what it is set over and what it does, and by reference to these I call each the power it is: What is set over the same thing and does the same I call the same power; what is set over something different and does something different I call a different one" (Trans. Grube) (*Rep.* 477c6 – d5).

⁷ It is necessary to say something here about Plato's views concerning tripartition within the soul. The tripartite soul is an important issue in Platonic psychology, which has been the subject of great debate amongst scholars. It is not my intention here to engage in a protracted discussion of the conception of tripartition in Plato, nor do I think that Plato's views on tripartition are hugely relevant for our discussion here. This is because, as we shall see, the view of perception and thought that I am developing here is consistent both with the notion that the soul has a tripartite structure, and with the view that it is wholly unitary. Of the four main dialogues under consideration in this dissertation the only one in which Plato makes mention of tripartition is the *Timaeus*. In that dialogue, tripartition features quite prominently in Plato's account of the formation of the human body and soul. In this discussion, Plato indicates that the divine (immortal) soul, crafted by the demiurge himself, was placed in the head, while the mortal soul, which was manufactured by the lesser gods, was placed in the lower part of the body. The affections that Plato associates with the mortal part of the soul (understood at this stage to be a simple unity) are pleasure, pain, boldness, fear, spirit and hope, all of which are fused with unreasoning sense perception (αἰσθήσει δὲ ἄλόγῳ) and lust (*Tim.* 69c3 – d6). All of these

thought are separate faculties and pursue different objects, they are related to each other insofar as some of the objects of the latter are applied to the objects of the former. If the relationship between these two capacities is still quite opaque, that is to be expected, as these points are merely preliminary and schematic. The details will be clarified presently.

Now let's look at how precisely this relationship between perception and thought shakes out by answering three questions that emerge from the general discussion of this relationship as it has been presented above. The first question is: how can perception and thought be distinguished while still constituting faculties of a single unified subject? A partial answer to this question was given above, when it was stated that perception and thought are distinguished by their pursuit of different objects, and their employment of different means in the pursuit of these objects, but there is still some clarification needed in order to determine precisely what this means. Although this will be discussed in greater detail when we look at the textual evidence for this claim, for the moment let's look at what it is that differentiates the

affections are characterized as being contrary to reason and the good, and thus in order to keep the mortal soul, and its pernicious affections, away from the divine soul, to the greatest extent possible, the lesser gods situate the mortal soul in the body, away from the head. They do, however, provide a means of connection between the immortal (rational) and mortal (non-rational) parts of the soul via the neck (*Tim.* 69d6 – e3). The mortal part of the soul is positioned in the torso, and is then further divided into two parts. The spirited part, the superior of the two, is housed in the chest, while the appetitive part is contained in the area below the midriff (*Tim.* 70a2 – e3). Plato's account of human psychology here is closely associated with the physiology to the extent that each part of the soul is attached to a corresponding part of the body, and just as we now hold that the brain is able to send messages to, and thus exert control over the various organs of the body, so too is it the job of the rational part of the soul to communicate with, and keep the other two inferior parts in line. Thomas Johansen (2004) notes that "The body is so composed as to ensure the different parts of the soul are able to do their proper job without interference from the other parts. The impression is that without the tripartite physiology to go with the tripartite psychology the soul would be the forum of a disorganized and motley set of more or less irrational affections" (150). Although I agree that the psychology and physiology of this part of the *Timaeus* are closely related, I'm not sure if the one necessitates the other quite in the way that Johansen suggests. Furthermore, as we shall see presently, there is an important sense in which the different parts of the soul do, and in fact must, interact with each other. Plato indicates, a bit further on in this passage, that the appetitive part of the soul, of which sense perception is a capacity, is situated in the liver. Although he states that this part of the soul is unable to understand the commands of reason, the constitution of the liver is specifically suited to receive impressions from the rational part of the soul, and thus to return to it visible images (*Tim.* 71a3 – b5). I interpret this as meaning that perception itself has no conceptual capability, but it only possesses the function of receiving the affections that come through the body, and to achieve a very rudimentary awareness of these affections. When, however, the objects of the rational part of the soul have been suitably imprinted upon the liver, the conveyances received by the perceptual faculty can be blended with these rational impressions, and their content, with the help of reason, can become differentiated and determinate. Thus, to the extent that the soul, despite being divided into parts, is understood to be a singular entity, and since sense perception is identified as a capacity of the appetitive (non-rational) part of the soul which is contactable and can be influenced by the rational part, we can understand Plato's view of tripartition to be consistent with the view that perception and thought are two separate faculties of a soul which is unified. For although the soul may have parts, it is clear from what Plato says in the *Timaeus* that these parts are interconnected and are not radically separate.

various objects of these cognitive faculties. For Plato, the objects of perception are limited to only those objects that can be conveyed by each of the sense organs. These we shall refer to as the *idia aisthêta*⁸, or special objects of perception, following Aristotle. Plato identifies one set of the objects of thought, the *koina*, or common features as applying in common to all of the objects of perception. Plato identifies these as features like number, sameness and difference, likeness and unlikeness (*Tht.* 185c9 – d3). Since the *koina* are features that apply to all of the objects of perception, and since they are not themselves objects that are apprehensible by perception, since this would violate the *idion* claim, it makes sense to think that one of the functions of thought is to apply the *koina* to the *idia aistheta*. Furthermore, it seems reasonable to think that if thought has as one of its functions the application of these objects of thought to the objects of perception, then this capacity serves to endow the perceptual objects with a greater degree of intelligibility. Bearing this in mind, I return to the question at hand – namely, how is it, especially considering that these two faculties share such a close relationship, that thought is distinguished from perception? The force of this question becomes greater when we consider that the objects that are identified as being *koina* are often taken to be included in perception. I take it that the reasons behind this distinction are several. There are the distinct and separate objects already mentioned, but in addition to these objects, there is also the fact that in order for the soul to perceive it must utilize the body, i.e., it must, in some sense, be in touch with the external material that causes the perception. As mentioned above, information about these external objects is transmitted through the bodily sense organs to the soul, and the result is the soul's apprehension of a corresponding perceptual object. Thought, on the other hand, is carried out by the soul itself by itself, and is thus independent of the body, to the extent that it doesn't utilize the body in the investigations that are peculiar to it. Finally, as stated above, it is the case that at least one of the functions of thought is to apply these objects, the *koina*, to the objects of perception, but that is certainly not the only function of the faculty of thought. For, as Plato says, thought not only results in the formation of judgments about the perceptual objects, but also directs itself toward objects that have no connection to the faculty of sense perception. Thus although perception and thought

⁸ The reference to the *aisthêta* here as *idia aisthêta* should not be taken to distinguish them from another set of perceptual objects. For as it will emerge, Plato holds that the *idia aisthêta* are the only objects that are perceptible.

are closely related by virtue of the role that thought plays in apprehending and applying its objects to the objects of perception, and thus making the objects that result from the conveyances of the senses more intelligible, they are differentiated by the use of the body in perception, as well as the various objects and functions of thought that are unrelated to perception.

The above discussion leads naturally to the next question. We can clearly see how thought is independent of perception – namely, in virtue of the objects that it pursues, and its functions that do not involve perception, which are many – but if the objects of perception are always made available to thought, and depend upon it for their intelligibility, how independent really is perception from thought? The answer to this question has a lot to do with the nature of the objects of perception, and the sense in which the application of thought to these objects provides for their intelligibility. As will be discussed in greater detail in chapter 3, the objects of perception, according to various statements that Plato makes throughout the later dialogues, appear to be nothing but simple sense qualities, i.e., colors, tastes, scents, tactile qualities and sounds. Understood in this way, the conceptual content that accompanies these perceptual objects is severely limited. In addition to this, as mentioned above, the objects of thought, the *koina*, are things that apply to each and every object of perception – such as number, sameness and difference, likeness and unlikeness, etc. – and perhaps the most important of the *koina* that Plato explicitly identifies is being. The way in which Plato uses the notion of being in this context can be construed in a number of different ways: he could be using being in an exclusively existential sense, where the purpose of its application to the objects of perception is to confer upon them the quality of existence; on the other hand, he could be using being predicatively, whereby the purpose of its application to the perceptual objects is to determine what specific sense qualities they are; Plato could also, however, be thinking of being in both of these senses. It is my view, which will be argued for in greater detail later, that we do not have sufficient evidence to rule out either use of being here, and so we ought to think that Plato is using being both existentially and predicatively. For, as Lesley Brown⁹ and Charles Kahn¹⁰ have persuasively argued,

⁹ Brown (1986) argues that there is a usage of being in Greek that is complete, but allows for a complement. Thus, she concludes, “X is (complete use) entails X is *something* and X is F entails X is” (69). Since Brown’s investigation is about the *Sophist*, which is the dramatic successor to the *Theaetetus*, we have some reason to think that her analysis of the one would apply to the other. On this understanding then Plato’s claim at *Theaetetus* 186b6 that although one perceives hardness and

there seems to be no hard and fast distinction in Greek between complete and incomplete uses of the notion of being. In fact, according these commentators, when being is used in Greek it, more often than not, is used predicatively. If we take Plato's reference to being in this way, then it follows that the faculty of perception must be involved in the collection of undifferentiated sensory content. This is because, if the application of thought is necessary even for the minimal cognition that is involved in identifying each sense quality as the very quality that it is – i.e., labeling a red visual patch as red – then perception could be nothing but this pre-conceptual sensory content. This means that the faculty of perception is independent from thought to the extent that only perception can accomplish the collection of sensory content, which thought cannot. The reason for this is that the input of the body is necessary for the accomplishment of this task, and thought, as stated above, does not utilize the body, but is rather a function of the soul that operates itself by means of itself. Furthermore, although it does not appear to be possible, or if it is possible it seems to be extremely difficult, for those who have habitually subjected their perceptual content to the faculty of reflective thought to separate the one from the other, and differentiate the unconceptualized perceptual content from the labels that are applied to it in thought, it seems undeniable that Plato does think that during infancy, before one has apprehended the various *koina* and learned to apply them to the *idia aistheta*, these two cognitive components are, in fact, distinct such that perception is experienced in the preconceptual way described above.¹¹ The point, therefore, is that although perception, and thought are extremely closely related psychical functions, and although in a fully developed soul they may be de facto inseparable, they are, in principle, separate and independent faculties, and there is even a time in one's life during which perception operates independently of thought. These issues will be

softness by means of touch, assessments of their being come when the soul is engaged in an investigation itself by itself, indicates that assessments of being here refers both to the existence of the qualities hardness and softness, and that they are hardness and softness. This point is strengthened by the fact that the potential elided copula – namely, hardness and softness – is provided in the previous line.

¹⁰ Kahn (1966) argues that the philosophical use of being in Greek should, in most cases, be understood as what he calls the "veridical" use. Thus he says, "If man is the measure of all things, 'that they are so or not so', then he is the measure of the existence or non-existence of atoms just as he is the measure of the being-cold or not-being-cold of the wind. These remarks are intended to render plausible my claim that, for the philosophical usage of the verb, the most fundamental value of *einai* when used alone (without predicates) is not 'to exist' but 'to be so', 'to be the case', or 'to be true'" (250).

¹¹ This is corroborated by Michael Frede (2000) when he says: "Thus even the simple judgment that something is red presupposes some notion of what it is to be and some notion of what it is to be red. And this we do not have right from birth. Nor is it given to us by perception, but only by reflection on what we perceive" (384).

discussed in greater detail when we consider the objects of perception, as well as whether or not perception, for Plato, is a judgmental capacity.

This discussion, however, dovetails nicely with a question about whether or not, for Plato, perception can be educated. In other words, is it possible, through habituation, and frequent connections, for individuals to eventually come to perceive objects as objects rather than as a mere collection of sensory content? The answer to this question depends, in large part, on what we think is being asked. If we understand the question as asking whether the faculty of perception alone can be trained to apply concepts to its objects, the answer appears to be clearly negative. The reasons for this are several, and have been mentioned above in passing. First of all, Plato states clearly in a number of places that the objects of the perceptual faculty are limited to those features of objects that are perceptible by means of the individual sense modalities. This means, as we shall see in the next chapter, that the objects of perception – the only content that the faculty of perception can pursue – are sense qualities. Additionally, as stated above, the features that apply to all objects of perception, the concepts which enable sensory content to be differentiated and labeled, are objects of thought, and not of perception. And, as Plato states in the *Theaetetus*, these common features cannot, in principle, be perceived. Thus, since an awareness of, at least some of, these concepts (most important among them are being and number) is necessary in order to have a cognition of an object as a particular object, perception alone will not be able to achieve such recognition. If, however, we understand the above question to be asking whether the faculty of perception can be linked with thought, and that the soul can be trained to habitually blend the objects of these two faculties so that the concepts that lie in thought can be seamlessly applied to the perceptual content that results from the soul's interaction with the body, then I think the answer is clearly yes. This view is corroborated by a passage in the *Timaeus* in which Plato describes the decision to situate the appetitive part of the soul (of which perception is a faculty) in the liver. The composition of the liver being, as he says, dense, smooth, bright and sweet, with a bitter quality, is perfectly suited to allow for the objects of thought to be imprinted upon it so that it may return, to the faculty of thought, and the rational part of the soul, visible images (εἰδωλα) (*Tim* 71a3 – b5). This seems to indicate that in order for the rational part of the soul to come into contact with a perceptual image that it can understand, the objects of perception must be linked up with the concepts that are specific to the rational capacity of the soul.

This understanding also underscores the close relationship that Plato thinks holds between perception and thought, despite any potential partition within the soul. Thus, for Plato, in order to cognize the world as being composed of objects with being and unity, as well as a myriad of other properties, the input of reflective thought is necessary. Such interaction between perception and thought ultimately allows for the conveyances of the senses to be rendered into the sorts of conceptual content about which judgments can be made.

Now that we've demonstrated the ability of each of these two capacities – perception and thought – to operate independently of the other, let's examine more closely the nature of their cooperation in order to determine how precisely they interact, and why such cooperation necessitates the postulation of a unitary subject. Many of the details concerning the collaboration between perception and thought have been discussed above, but just by way of a reminder let's review a few of the more important features. Thought, construed solely in terms of its cooperative role with perception, consists in the ability of the soul to apply the *koina* to the undifferentiated, pre-conceptual, sense content. This perceptual content, in the form of simple sense qualities, is then rendered into content that is more intelligible through the differentiation of one quality from another, and the identification and labeling of this sensory content. In addition to recognizing these fundamental characteristics, the products of perceptual awareness are also categorized as being the same as themselves and different from each other, and as being singular or numerous. Although these are just a few of the features that become apparent when thought is applied to perceptual content, the way in which such application contributes to our understanding of this content should hopefully be clear. The relevant question now is why should we think of the soul as being the subject of both of these faculties? Why should we think that both faculties require a common subject? Plato doesn't give any explicit indication of why we ought to think that this should be the case, but based on what he says about the relationship between perception and thought in the *Theaetetus*, *Sophist* and *Philebus*, it seems reasonable to think that it is the close interaction between these two cognitive faculties that necessitates their attribution to a common subject. This becomes particularly salient when we think about the way in which the identification of the objects of perception as the particular sense qualities that they are – namely, as red, hard, bitter, etc. – appears, in practice at least, to be an immediate operation that is contemporaneous with the act of perception itself. In other words,

when an object is perceived, it seems that there is no separation, either temporally or conceptually, between the act of perception itself, and the labeling of the content perceived. Although, as mentioned above, the immediate labeling of sense content appears to be a rather complex process, for Plato, the fact remains that in order to maintain such a close relationship between perception and thought, as well as these other cognitive functions, it is necessary for Plato to attribute them to a common and unitary subject. The force of this will become clear as we look more closely at certain issues that arise from the discussion of the different aspects of the perceptual process, most notably, the relationship between perceptual content and the objects external world.

Before we turn to an analysis of the textual evidence in support of this claim, there is one further point which should be made concerning the relationship between the psychical faculties of perception and thought. It was noted above that although, on Plato's view, the soul is clearly the subject of perception, it makes necessary use of the body in the perceptual process. The soul needs the conveyances that come to it by means of the bodily sense organs in order to access the objects of perception, and in this sense the soul uses the body and the senses in perception. Similarly, it seems that the faculty of thought, in addition to providing the objects of perception with a greater degree of intelligibility, uses perceptions in its own inquiries. It is well-known that according to Plato, the objects of thought, or those things that the soul considers through itself, can, in some cases, serve as objects of knowledge, while the objects of perception, or those things with which the soul becomes acquainted through the body, can, at best, only serve as objects of opinion. It appears, however, that based on the relationship between perception and thought, the soul doesn't come to investigate the objects of knowledge completely on its own. For based on the fact that the soul applies the objects of thought to the objects of perception, it seems to be the case that the objects of which the soul becomes aware by means of perception can serve as an impetus for the soul to investigate those objects that it pursues by itself, independent of the body. There is evidence for this in the *Timaeus* when Plato indicates that it is from sight that philosophical inquiry arises, and through language and hearing and, in particular, dialectic that it is considered and investigated (*Tim.* 46e2 – 47e2). Let us now turn our attention toward the textual evidence from the later dialogues that support the claims that have been made about perception, thought and their common subject thus far.

2.2: Textual Evidence in support of the claim

We will approach the textual defense of this claim in the same order in which we dealt with its unpacking above. We will, therefore, start with part A, which is concerned with the notion that it is the unified soul, and not the individual sense organs that is the subject of perception. We will then move on to part B, which pertains to the subject of thought and the relationship between the faculties of perception and thought. The purpose of this section is twofold: it is meant to provide the reader with the citations to the relevant passages from the later dialogues that represent a defense of, and justification for the attribution the various components of this claim to Plato; it also serves the further purpose of providing a bit of interpretive work in order to indicate both a potential, and a likely way to understand certain vague formulations in Plato's texts, and to once again underscore the force and significance of the philosophical commitments that accompany this claim. With this in mind, it is fortunate for these purposes that for this particular claim, the textual evidence for the two components of the claim stands rather uncontroversially on its own, and doesn't require a great deal of justificatory work.

As noted in chapter one, the strongest and clearest statement of the view that the soul, and not the individual senses, is the subject of perception comes in the *Theaetetus* at the very beginning of the argument that runs from 184 – 187, and which constitutes Socrates' final refutation of Theaetetus' definition of knowledge as perception. After Theaetetus agrees that the senses are those things through which rather than with which we perceive, Socrates gives the analogy of the wooden horse in which he characterizes the cognitive situation that would prevail if it were the case that the individual senses were indeed percipient. "For it would be strange, my boy, if there were many senses ensconced within us, just as in a wooden horse, and there were not some single form, either soul or whatever we must call it, to which all of these converge, and with which through them as if they were instruments, we perceive that which is perceptible" (*Tht.* 184d1 – 5).¹² The crucial part of this passage is its reference to the scenario in which the senses themselves perceive, and do so in isolation from one another, as "strange." This indicates that Plato is at the very least

¹² δεινὸν γάρ που, ὦ παῖ, εἰ πολλαί τινες ἐν ἡμῖν ὥσπερ ἐν δουρείοις ἵπποις αἰσθήσεις ἐγκάθηνται, ἀλλὰ μὴ εἰς μίαν τινὰ ἰδέαν, εἴτε ψυχὴν εἴτε ὅτι δεῖ καλεῖν, πάντα ταῦτα συντείνει, ἢ διὰ τούτων οἷον ὀργάνων αἰσθανόμεθα ὅσα αἰσθητά.

calling into question the cogency of both the notion that the senses are percipient, and the conception that they are disassociated and operate without reference to one another. On the other hand, while calling this understanding, which may be taken to be a widely held position, into question he is at the same time endorsing the view that there is some single and unitary entity, the soul (ψυχή) as he ambivalently, but explicitly, identifies it here to which all of the senses converge and with which, by means of each of the sense modalities, we are able to perceive all of the various objects of sense. These are two quite distinct conceptions of the way in which perception occurs. The one, which Plato rejects, maintains that the senses are the ultimate components in the perceptual process. On this view, since there is nothing beyond the senses that is involved in perception, they represent both the necessary and sufficient conditions for perception to occur. The other conception, which Plato appears to find more palatable, preserves the position of the senses as necessary in the perceptual process, but also adds further element, the soul. This means that on the view that Plato accepts, although the senses are still necessary in the perceptual process, since their convergence to the soul is explicitly mentioned as part of that very process, they are no longer sufficient. Although the addition of the psychical component to the perceptual process might seem insignificant, it represents a fairly radical shift in the way that the process itself is understood. This is because, on the first understanding articulated above, when, for example, a subject comes into visual perceptual contact with a certain tree, the tree acts upon the eyes, and the eyes themselves see the tree. On this first view then, this would constitute a complete account of the process of visual perception. On the latter conception, however, the tree interacts with the eyes (as it will emerge it is the visual ray in particular with which external objects interact in visual perception), and the eyes then transmit information from this communion with the external object to the soul, and it is the soul which is then able to perceive as a result of the transmission of this information to it. This is a fairly clear indication of several crucial components of this claim – namely, that it is the soul, and not the senses, that is percipient, and that this percipient entity is singular and unitary insofar as it is the recipient of the conveyances of all of the different sense modalities.

Although the above passage certainly represents the clearest articulation of the evidence in favor of this claim, there is further evidence to be found in the *Philebus* to support part A of the claim in question. This passage comes as Socrates is justifying

the articulation of a distinction between two different types of pleasure, one that involves the body, and the other that is of the soul alone. The second type of pleasure, he maintains, is based on memory (μνήμη). After establishing the link with memory, Socrates suggests that in order to examine the features of this type of pleasure, it is first necessary to determine what sort of thing memory is. Before they can do this, however, it is further maintained that memory is related to perception, since it consists of the preservation of past perceptions, and thus in order to get clear on the nature of memory, they must first investigate perception. This, says Socrates, will then ultimately lead to a better understanding of the type of pleasure that the soul experiences independent of the body. In his discussion of perception, Socrates first distinguishes two types of bodily affection: one in which the disturbance is extinguished within the body before it reaches the soul; and the second whereby the disturbance penetrates through the body to the soul, and affects both body and soul. “You must realize that some of the various affections of the body are extinguished within the body before they reach the soul, leaving it unaffected. Others penetrate through both body and soul and provoke a kind of upheaval that is peculiar to each, but also common to both of them” (Trans. Frede) (*Phil.* 33d2 – 6)¹³. Socrates goes on to procure Protarchus’ agreement that in the first scenario mentioned in the quote above, in which the affections of the body do not penetrate through to the soul, the soul remains oblivious to the disturbances. In the second instance, however, when the παθήματα do affect both body and soul, the soul is not oblivious. He, however, thinks better of this terminology, since the notion of obliviousness runs the risk of invoking idea of forgetfulness, which would be erroneous in this case. For, he says, forgetfulness is not involved in the awareness or lack thereof, of the disturbances that affect the body. This is because if no memory has been formed, then there is nothing to be forgotten. Socrates instead suggests the use of the term non-perception (ἀναισθησία) to describe the situation in which the soul is left unaffected. “Instead of saying that the soul is oblivious when it remains unaffected by the disturbances of the body, now change the name of what you so far called obliviousness to that of *nonperception*... But when the soul and body are jointly affected and moved by one and the same affection, if you call this motion perception you would say nothing out

¹³ θές τῶν περὶ τὸ σῶμα ἡμῶν ἐκάστοτε παθημάτων τὰ μὲν ἐν τῷ σώματι κατασβεννύμενα πρὶν ἐπὶ τὴν ψυχὴν διεξελθεῖν ἀπαθῆ ἐκείνην ἔασαντα, τὰ δὲ δι’ ἀμφοῖν ἰόντα καὶ τινα ὥσπερ σεισμὸν ἐντιθέντα ἰδίον τε καὶ κοινὸν ἐκατέρῳ.

of the way” (Trans. Frede) (*Phil.* 33e10 – 34a1).¹⁴ This discussion indicates rather clearly, although not explicitly, that Plato understands the soul’s role in the process of perception to be a necessary one. This is because only when the bodily disturbances penetrate through to the soul and affect it is perception possible. When, on the other hand, the disturbances that affect the body are extinguished in the body before they reach the soul, and the soul is left unaffected, no perception occurs. If it were not the case that the soul was the subject of perception, if, rather, the bodily sense organs were percipient, then it shouldn’t matter whether the soul is ultimately affected by the bodily disturbances or not, perception, on this view, should occur as soon as the body encounters external stimuli. This would certainly be true if the scenario presented in the in the wooden horse analogy were true. Since, however, Plato says explicitly that the case in which the soul remains unaffected by bodily disturbances is a case of non-perception, and since he takes special care to make sure that he uses this particular terminology, we can take it that perception cannot occur without the joint affection of the soul and the body. Both bodily and psychical components are necessary for perception, since, as Plato indicates, perception occurs when the body and the soul are affected, both in common and each individually.

The third and final piece of textual evidence that I would like to raise in support of part A of the claim – that it is the soul and not the individual sense organs that is the subject of perception – comes from the *Timaeus*. After describing the construction of the soul and body of the world by the demiurge, Plato indicates that the demiurge entrusted the constitution of the bodies of human and non-human animals to the younger gods. In addition to fashioning these bodies, the gods were also charged with the task of ensouling the bodies with the appropriate souls, the immortal part of which had been created by the demiurge himself. Plato then goes on to describe the rationale behind the construction the bodies of these human and non-human animals. According to this account, these younger gods first took the two divine revolutions of the soul and bound them within a circular body, which we now refer to as the head. The head, since it contains the rational soul, is identified as the ruler of the whole body. The rest of the body (the neck, torso, arms and legs) was given to the head to prevent it from rolling around on the ground, and to provide for

¹⁴ ἄντι μὲν τοῦ λεληθέναι τὴν ψυχὴν, ὅταν ἀπαθῆς αὕτη γίγνηται τῶν σεισμῶν τῶν τοῦ σώματος, ἣν νῦν λήθην καλεῖς ἀναισθησίαν ἐπονόμασον... τὸ δ’ ἐν ἐνὶ πάθει τὴν ψυχὴν καὶ τὸ σῶμα κοινῇ γιγνόμενον κοινῇ καὶ κινεῖσθαι, ταύτην δ’ αὖ τὴν κίνησιν ὀνομάζων αἴσθησιν οὐκ ἀπὸ τρόπου φθέγγοι’ ἄν.

its ease of travel. Finally, Plato says that after differentiating the front of the body from the back, the gods affixed the face, and its organs to the front side of the head. “Human beings no doubt ought to have the front side of their body distinguishable from and dissimilar to their backs, and so the gods began by setting the face on that side of the head, the soul’s vessel. They bound the organs inside it to provide completely for the soul, and they assigned this side, the natural front, to be the side that takes the lead” (Trans. Zeyl) (*Tim.* 45a5 – b2).¹⁵ This passage indicates that the organs of the face (the organs of sense) that are affixed to the front of the body – namely, the eyes, ears, nose and tongue – are so placed in order to be in the service of the soul. This is because the head is the seat of the soul, and the face was positioned on the front of the head. In addition to this, Plato indicates that it is the role of these organs to provide completely for the soul. This could of course be interpreted in a number of different ways, but the way in which I read it is that the organs of the face, based on their constitution, which Plato goes into the specifics of immediately following this section on the constitution of the body in general, and their proximity and relationship to the soul are meant to serve as the connection between the soul and the external world. As such, their purpose is to provide the soul with the material by means of which it can perceive.

The notion that the soul is connected to the external world through its body is articulated earlier in the *Timaeus* when Plato says that what distinguishes the bodies of human and non-human animals from the body of the world is that they allow for the influx and expulsion of external material. Furthermore, it is this fact that necessitates the endowment of human and non-human animals with the faculty of sense perception (*Tim.* 42a3 – b1). This represents further evidence that the body ought to be construed as the medium by means of which material may flow into and out of the soul, but it is the soul itself that is responsible for directing the body, and for coping with and cognizing the external material provided to it by the body. This passage gives rise to an important question concerning the agency, or lack thereof, of the body and soul in the perceptual process. It isn’t entirely clear from what Plato says precisely how we ought to understand the activity and passivity of the body and soul in the perceptual process. While the passage referred to above, as well as others in the

¹⁵ διὸ πρῶτον μὲν περὶ τὸ τῆς κεφαλῆς κύτος, ὑποθέντες αὐτόσε τὸ πρόσωπον, ὄργανα ἐνέδησαν τοῦτω πάσῃ τῇ τῆς ψυχῆς προνοίᾳ, καὶ διέταξαν τὸ μετέχον ἡγεμονίας τοῦτ’ εἶναι, τὸ κατὰ φύσιν πρόσθεν:

corpus, does indicate that the soul possess a clear role as agent in the perceptual process insofar as it is that which actually carries out the act of perceiving, I am reluctant to maintain that the senses have no agency whatsoever, and act as mere conduits or channels through which bodily affections travel. This view – namely, that the senses are devoid of agency in the perceptual process – has been prevalent in much of the scholarship on this issue, primarily I think to ensure that it isn't assumed that the senses actually perceive.¹⁶ However, I think that to the extent that it is the senses that converge to the soul with the information that the soul needs to perceive, and since the soul can't reach right out and make contact with external objects, we have reason to think that the soul's role in the perceptual process is passive. Therefore, although we certainly ought not attribute any cognition to the senses, we also shouldn't think of them as entirely passive in perception.¹⁷

All of the passages discussed above tell rather definitively, either explicitly or implicitly but with little need for interpretation, in favor of part A of the claim under consideration here. It is the case, however, that Part A is the more straightforward and uncontroversial component of this claim. Although many people might think intuitively that the sense organs are the subjects of perception – i.e., that we see with our eyes and hear with our ears – when they reflect on perception, even briefly, it seems that, in most cases, people are willing to at least concede that there is a certain unity amongst these various sense modalities, even if they aren't quite prepared to admit that they all belong to a common subject. This, of course, seems to be Socrates' purpose in the argument from the *Theaetetus* discussed above – namely, trying to disabuse his young interlocutor of the view that perception is primarily a bodily function in which the sense organs are not only the key players but also the ultimate subjects of perceptual acts. This view seems to reflect a combination of *Theaetetus*' largely unexamined opinion on perception as well as a certain commitment that

¹⁶ As was mentioned above, Burnyeat (1976) argues that Plato's reference to perception occurring through rather than with the senses, should be understood as designating the senses as being causal and inanimate in the perceptual process.

¹⁷ Frede (2000) claims that perception represents a passive affection of the mind. "Now, Plato, in restricting perception to a passive affection of the mind and in emphasizing the activity of the mind in forming beliefs, thinks of beliefs as something we deliberately arrive at after a good deal of consideration and ratiocination" (384). This quote, with which I agree, is consistent with a point made above, that perception involves no intention on the part of the perceiver, whereas thought does appear to be an intentional psychical process. Furthermore, although I agree with Frede that the soul is passive in perception, I also think that, despite the mechanistic way in which they operate, the senses do have some agency in the perceptual process. This agency is manifested in their transmission of bodily affections to the soul.

remained from their earlier discussion of knowledge conceived of as perception in terms of Protagoras' famous idiom. Socrates, however, has little difficulty procuring Theaetetus' agreement that the senses and bodily sense organs are not, in fact, the subjects of perception, even if the young mathematician doesn't fully understand the thrust of what Socrates is getting at. The relatively unproblematic nature of this claim means that there isn't a great deal of scholarly debate regarding Plato's commitment to it, or its salience as a component of his theory of perception. As we turn our attention toward part B of the claim, the situation is somewhat different. We will see that the passages that tell in its favor are rather vague, and, as a result, a great deal more justification in the form of both citations to textual evidence from the Platonic corpus, and a compelling account of how these various passages ought to be interpreted is necessary to show that this is, in fact, a view that Plato holds.

Part B, again, maintains that the soul, which is the subject of perception, is the very same subject as the subject of thought. Recall also, from the discussion above, that crucial to this claim is the idea that in addition to comprising two distinct components of one and the same subject, perception and thought are separate but related faculties within a unified soul. The reason why this is such an important and potentially controversial claim is that the way in which we interpret the relationship between perception and thought, in part, determines the function and scope of each of these psychological faculties. Furthermore on the account that I am developing here the perceptual and the reflective, or rational, components of the soul do not constitute radically different parts of a divided soul, but are rather separate but related functions within a unified soul. What precisely this means will become clearer as we examine the evidence. As mentioned above, the evidence in favor of this claim is largely hermeneutical in nature, and as a result will not be as explicit as the evidence from the passages cited in the discussion of part A. Be that as it may, it remains the case that this is an eminently defensible claim, the justification of which will be argued for presently.

Just as in the discussion above, let us begin the defense of this claim with an examination of the argument at *Theaetetus* 184, in order to show that, for Plato, the soul is the common subject of both perception and thought. This is the most important and fundamental thing to show, for if thought is not even a psychological faculty then perception and thought cannot be related, let alone as closely related as I am claiming they are. As mentioned above, Plato spends the first part of this argument defending

the notion that it is the soul and not the individual senses that is the subject of perception. He then goes on, in the second part, to distinguish perception from thought and to clarify certain features that are distinctive of each. Plato first claims, at 185a4 – 6, that those features that are held in common by multiple objects of perception are not themselves perceptible. He then goes on to enumerate several of these features, included among them are, being, sameness, difference, number, likeness and unlikeness (*Tht.* 185a8 – b5). After establishing that these common features (*koina*) are not perceptible, and identifying the sort of objects to which he is referring when he speaks of *koina*, Plato asks Theaetetus which part of the body one uses to investigate these *koina*. This question arises naturally from the assumption that thought and perception are similar, and that in perception there are identifiable parts of the body used to apprehend the objects with which that faculty is concerned. To which Theaetetus replies that there isn't a part of the body that serves thought in the apprehension of the *koina* in the way that the sense organs serve perception. It is rather the case that these common features are investigated by the soul through itself. "But by the gods, Socrates, I don't have anything to say. It doesn't seem to me that for these things there is any special instrument as there is for the others, but that in investigating the common features of all things the soul operates itself by itself"¹⁸ (*Tht.* 185d7 – e2). This passage shows two things. The first thing it shows is that the soul – previously identified as the subject of perception – is also the proper subject of thought. The second is that the faculty of thought is distinct from that of perception insofar as the former apprehends its objects without the use of the body, and by means of itself, while the latter must employ the bodily sense organs in order to access its objects. This shows that although perception and thought share a common subject, they are distinct faculties, at least in the way in which they access their objects and the objects that they pursue. In addition to this it begins to show that despite the undeniable distinction between perception and thought, they are linked in a way that makes it extremely unlikely that they represent radically separate parts of a divided soul. This is because the objects of thought are features that apply to all of the objects of perception, and as we shall see, the application of these objects of ratiocination to

¹⁸ ἀλλὰ μὰ Δία, ὦ Σώκρατες, ἔγωγε οὐκ ἂν ἔχοιμι εἰπεῖν, πλὴν γ' ὅτι μοι δοκεῖ τὴν ἀρχὴν οὐδ' εἶναι τοιοῦτον οὐδὲν τούτοις ὄργανον ἴδιον ὥσπερ ἐκείνοις, ἀλλ' αὐτὴ δι' αὐτῆς ἡ ψυχὴ τὰ κοινὰ μοι φαίνεται περὶ πάντων ἐπισκοπεῖν.

the objects of perception endows the objects of perception with a greater degree of intelligibility.

Before moving on to these further considerations, however, let's look at some additional evidence for the claim that the soul is the subject of thought. Turning to the *Sophist*, the dramatic successor to the *Theaetetus*, we find Theaetetus and the Eleatic Stranger involved in a discussion, the aim of which is to argue in favor of the possibility of false speech. This discussion leads the Eleatic Stranger to describe the nature of speech in general, and its relationship to thought in particular, by drawing a rather significant analogy between speech and thought. "Aren't thought and speech the same, except that what we call thought is speech that occurs without the voice inside the soul in conversation with itself?" (Trans. White) (263e3 – 5)¹⁹ This passage clearly indicates that thought, as a process, is so similar to speech that it can be characterized as the same sort of activity with the exception that it occurs silently within the soul. This means that the soul is, in fact, the subject of thought, since the process identified in this passage occurs within the soul. The two interlocutors then go into more detail about the nature of speech in order to get clearer on what is distinctive about thought. After establishing that speech, and thus thought, consists of affirmation and denial, the Stranger goes on to say that when this internal dialogue doesn't arise on its own, but comes about as the result of perception, this is known as appearance (φαντασία). "And what if that doesn't happen on its own, but arises through perception? When that happens, what else could one call it correctly, besides appearance?" (Trans. White) (264a4 – 6)²⁰ This further indicates that not only is the soul the subject of thought and perception, but also that the former is related to the latter insofar as the objects of perception can serve as the immediate subject matter of the faculty of thought. In other words, according to this passage, thought can come about it two ways: it can either arise as a conversation about those objects that it apprehends by itself (an example of these would be the *koina*); or it can occur when such a conversation takes place about the objects of perception. This understanding underscores the close relationship that these two psychological faculties share. Moreover it is interesting to note that Plato here says that appearance (φαντασία) is the result of the activity of thought when it comes about as the result of perception. This gives

¹⁹ οὐκοῦν διάνοια μὲν καὶ λόγος ταῦτόν: πλὴν ὁ μὲν ἐντὸς τῆς ψυχῆς πρὸς αὐτὴν διάλογος ἄνευ φωνῆς γιγνόμενος τοῦτ' αὐτὸ ἡμῖν ἐπωνομάσθην, διάνοια;

²⁰ τί δ' ὅταν μὴ καθ' αὐτὸ ἀλλὰ δι' αἰσθήσεως παρῇ τι, τὸ τοιοῦτον αὖ πάθος ἄρ' οἷόν τε ὀρθῶς εἶπεῖν ἕτερόν τι πλὴν φαντασίαν;

further credence to the claim, mentioned briefly above, that perception for Plato consists of the collection of undifferentiated sense content and that one of the functions of thought is to differentiate and identify this content. This is because if appearance is construed here as a subject becoming aware of something as a particular thing, and if this is a function of the blending of perception and thought, then it follows that perception alone cannot even provide this conceptual appearance. It rather appears to be the case that one of the functions of thought is to deal with the objects of which the soul becomes aware through sense perception, to sort out what is perceived and determine what the objects of perception actually are. This, of course, is not a definitive statement of this claim, but it is at least consistent with such an understanding, and it begins to tell in that direction. It is interesting to note that this claim – namely, that thought consists of silent discourse within the soul, and that judgment is the result of thought is echoed in the *Theaetetus* (189e4 – 190a7), or perhaps it is the *Theaetetus* passage that is echoed in the *Sophist*.

Finally, the *Philebus* also provides some evidence in support of this claim. Just as in the discussion from the *Sophist* quoted above, Plato defends the possibility of false speech, as we turn to the *Philebus*, we find Socrates defending the view that false pleasure is also possible. Due to the obvious similarity in subject matter between the *Sophist* passage, and the *Philebus* passage under consideration here, the defense of the claim that Plato engages in is very similar in both of these contexts. During the course of his defense of the view that false pleasure is possible, Plato gives a somewhat detailed account of the process by means of which, in a particular act of perception, a perceiving subject comes to judge what it is that he or she perceives. The example that Plato gives of this here is of someone who sees a form off in the distance and proceeds to engage in a sort of self-interrogation the aim of which is to determine what it is that he sees. This process, says Plato, culminates in a judgment about the content of the visual perception.

So: Wouldn't you say that it often happens that someone who cannot get a clear view because he is looking from a distance wants to make up his mind about what he sees?

Pro: I would say so.

So: And might he then not again raise another question for himself?

Pro: What question?

So: “What could that be that appears to stand near that rock under a tree?”—
Do you find it plausible that someone might say these words to himself when
he sets his eyes on such appearances?

Pro: Certainly.

So: And might he not afterwards, as an answer to his own question, say to
himself, “It is a man,” and in so speaking, would get it right?

Pro: No Doubt.

So: But he might also be mistaken and say that what he sees is a statue, the
work or some herdsman?

Pro: Very likely.

So: But if he were in company, he might actually say out loud to his
companion what he had told himself, and so what we earlier called judgment
would turn into assertion?

Pro: To be sure.

So: Whereas if he is alone, he entertains this thought by himself, and
sometimes he may even resume his way for quite a long time with the thought
in his mind? (Trans. Frede)²¹

This is a crucial exchange for a number of reasons, not least because it involves a
discussion of both perception and thought, and gives a concrete example, through a
thought experiment, of both the way in which they cooperate in order to come to a
judgment about a particular sensory experience, and the sorts of judgments that are
formed about the objects of these experiences. These features make this passage
perfect for our purposes, as it reiterates in everyday, practical terms what Plato says,
in a more abstract and theoretical way, in the *Theaetetus*. Let us now turn our
attention toward the content of the passage itself. This passage, just like the *Sophist*
passages discussed above, indicates that thought, on Plato’s view, consists of a

²¹ Σω: πολλάκις ἰδόντι τινὶ πόρρωθεν μὴ πάνυ σαφῶς τὰ καθορώμενα συμβαίνειν βούλεσθαι κρίνειν
φαίης ἂν ταῦθ’ ὥπερ ὀρθῶς;

Πρώ: φαίην ἂν.

Σω: οὐκοῦν τὸ μετὰ τοῦτο αὐτὸς αὐτὸν οὕτως ἀνέροιτ’ ἂν ὧδε;

Πρώ: πῶς;

Σω: τί ποτ’ ἄρ’ ἔστι τὸ παρὰ τὴν πέτραν τοῦθ’ ἑστάναι φανταζόμενον ὑπὸ τινὶ δένδρῳ; ταῦτ’ εἰπεῖν
ἂν τις πρὸς ἑαυτὸν δοκεῖ σοι, τοιαῦτ’ ἅττα κατιδὼν φαντασθέντα αὐτῷ ποτε;

Πρώ: τί μήν;

Σω: ἄρ’ οὐκ μετὰ ταῦτα ὁ τοιοῦτος ὡς ἀποκρινόμενος ἂν πρὸς αὐτὸν εἴποι τοῦτο, ὡς ἔστιν
ἄνθρωπος, ἐπιτυχῶς εἰπὼν;

Πρώ: καὶ πάνυ γε.

Σω: καὶ παρενεχθεὶς γ’ αὖ τάχ’ ἂν ὡς ἔστι τινῶν ποιμένων ἔργον τὸ καθορώμενον ἄγαλμα
προσεῖποι.

Πρώ: μάλα γε.

Σω: κἂν μὲν τίς γ’ αὐτῷ παρῇ, τὰ τε πρὸς αὐτὸν ῥηθέντα ἐντείνας εἰς φωνὴν πρὸς τὸν παρόντα
αὐτὰ ταῦτ’ ἂν πάλιν φθέγγαιτο, καὶ λόγος δὴ γέγονεν οὕτως ὃ τότε δόξαν ἑκαλοῦμεν;

Πρώ: τί μήν;

Σω: ἂν δ’ ἄρα μόνος ᾗ τοῦτο ταῦτὸν πρὸς αὐτὸν διανοούμενος, ἐνίστε καὶ πλείω χρόνον ἔχων ἐν
αὐτῷ πορεύεται.

dialogue that is primarily composed of a series of questions and responses.²² This dialogue, however, unlike normal speech, takes place silently and within the soul. In the example above, this internal dialogue is aimed specifically at discerning what the perceptual content of a particular perceptual experience is. In other words, the purpose of this dialogue is to discern what it is that the perceiving subject sees. This is significant because it indicates, once again, that thought is related to perception insofar as the content of the internal dialogue, as in the example given above, is frequently comprised by the objects of perception, and thought is directed, among other things, toward making judgments about these perceptual objects.

Just to review briefly, what has been shown in this section is that there is ample evidence throughout the later dialogues to support the two components of this claim. Much of this evidence comes from Plato's discussions of the faculties of perception and thought, and their status as psychical faculties. This evidence, on balance, shows that perception and thought are both carried out by the soul, despite the fact that one involves the body, while the other is undertaken by the soul through itself. It further indicates that these two faculties are closely related such that the application of thought to the conveyances of the senses is essential for the identification of the objects of perception as the very objects that they are. Many of the details of these further claims will become clearer in subsequent chapters, the task of this chapter is only to show that, for Plato, the soul, as opposed to the body, is the common subject of both perception and thought, and that these two capacities share a close relationship within the soul.

2.3 Comparison of the theories of perception in the *Theaetetus* (156 and 184)

Based on the crucial role that the arguments that Plato gives in the *Theaetetus* play in the defense of the claim under consideration in this chapter, as well as for my argument as a whole, it is important to look closely at what Plato says about perception throughout the dialogue, and not just consider those parts that suit our purposes here. In addition to this, a discussion of the contrast between the theory of perception articulated at 156 and the one presented at 184 is well suited to the topic of this chapter for the distinction between these two views hinges on what one takes to be the subject of perception. There is a distinct difficulty that arises when considering

²² Recall that in the passages quoted from the *Sophist* and the *Theaetetus*, discussed above, thought was equated with internal speech, and speech was identified as affirmation and denial.

whether there is a theory of perception in Plato's writings, in general, and in the *Theaetetus*, in particular, and if there is, where we find the articulation of that theory. This difficulty, as we encounter it in the *Theaetetus*, is a function of the fact that Plato appears to articulate two distinct, and as I will argue, incompatible theories of perception through the course of his discussion of perception in the first part of the dialogue. The question then, is do we have good reason to think that Plato holds one of these theories over the other? And, if so, why? There has been quite a bit of disagreement among scholars as to which of the perceptual theories Plato actually holds – in fact, the opinions of scholars seem to be split almost directly down the middle with half favoring the view that Plato holds the theory of perception articulated at 156 – 7 and the other half supporting the position that the understanding of the perceptual process presented at 184 – 7 is Plato's.²³ There are also those who think there is no theory of perception in the *Theaetetus*, but rather that Plato only uses certain commonly held views about perception to reveal something about the nature of knowledge. Most commentators, however, do think that some insight about Plato's view of perception can be gleaned from the discussion in the *Theaetetus*, and these commentators tend to support one or the other of the positions mentioned above. The issue would, of course, be less serious if the two theories were compatible, and there are some commentators who think that is the case,²⁴ but, as I will argue presently, these two theories are decidedly incompatible, and that incompatibility forces us to choose one or the other if we are to hold that Plato does express a coherent theory of perception in the *Theaetetus* that he holds to be true. As I read it, the incompatibility between these two theories hinges primarily on what, on each of the views, is understood to be the subject of perception. The relation between these two theories is further complicated by the way in which the process of perception is characterized in each. I will first outline the major features of each of these theories, and then, contrary

²³ Ronald Polansky (1992) provides a helpful list that reflects the division amongst critics on this issue (101 n. 50). Those who support the view that Plato holds the theory articulated at 156 include Bernsen 1969, Burnet 1968, Cornford 1935, Desjardins 1990, Jackson 1885, Matthen 1985, Nakhnikian 1995, Ritter 1933, Ross 1953, F.C. White 1976 and Yolton 1949 – 50. To this list I will add Modrak 1981. Those who deny that the theory at 156 represents Plato's own view include Burnyeat 1976, Gulley 1962, Guthrie 1969 – 78, Irwin 1977, Kerferd 1949, McDowell 1973 and Runciman 1962. To this list I will add Silverman 1990.

²⁴ Modrak (1981) argues that Plato's acceptance of the theory at 156 justifies the claims that he makes about perception at 184. "A theory of perception which took account of phenomenal characteristics would afford a better theoretical justification for the claim that no sense perceives the object of another sense than the present argument. Earlier in the dialogue, on behalf of some unnamed proponents of universal flux, Socrates offers a theory of perception which would provide the needed support" (38).

to the view of those scholars who support the theory at 156 – 7, I will argue that we have much better reason to think that the theory presented at 184 – 7 is the one that Plato holds, or at least the one that he finds to be most compelling.

The context of the articulation of the first theory of perception, at 156 – 7 is a discussion of the Protagorean doctrine, “Man is the measure of all things, of the things that are, that they are, and of the things that are not, that they are not” (*Tht.* 152a2-4).²⁵ Socrates has equated Theaetetus’ definition, “knowledge is perception” with this formulation of the Protagorean dictum. In addition, Socrates suggests that Protagoras not only expressed this view in his writings, which were available to the general public, but also that Protagoras possessed a “secret doctrine” which he expressed only to his students and in private. This view, according to Socrates, was also espoused by most wise men with the notable exception of Parmenides. This theory maintains that all things are in a constant state of motion, and that as soon as any given thing is determined to be in a particular way, or to have a particular property it will be revealed to be in a contrary way, or possess the opposite property. Socrates lends some support to this view by enumerating a number of instances in which motion is seen to be beneficial and preservative, while rest is deleterious and destructive (*Tht.* 153a5 – c6). This lays the foundation for the claim that perception is actually the result of motion. Plato first gives a general account of perception, which is based on the interaction between two contrary motions. An upshot of this perceptual theory is that it is consistent with the view that objects never appear the same to different perceivers, or even to the same perceiver at different times. Perception, according to this theory, occurs when two motions, one from a given sense organ, and the other from an external object that is commensurate with the first motion come together. In the collision of these two motions, a sense quality is created that appears to have no determinate location, but is rather generated in the intervening space between the organ and the object (*Tht.* 153d8 – 154a9). It is this locative component of the view that allows for the fleeting nature of the perception. For if the perception was specifically located either within the perceiver or within the object there would be something that could stabilize its existence, and the possession of resulting quality could then be attributable, either to the perceiver or to the object.

²⁵ πάντων χρημάτων μέτρον ἄνθρωπον εἶναι, τῶν μὲν ὄντων ὡς ἔστι, τῶν δὲ μὴ ὄντων ὡς οὐκ ἔστιν.

After establishing the conditions for the relativity of both the perceiving subject, and the object of perception, Socrates presents a number of logical puzzles that arise from the, according to the doctrine of universal flux, erroneous belief that the objects of perception are stable entities. These puzzles have to do primarily with judgments that arise from comparing the perceptions of various objects. The first of the two main difficulties that Socrates highlights has to do with the same quantity of dice, say four, appearing greater when compared to a set of two dice, and less when compared with a set of eight without gaining or losing any of its original number. How can the very same group of dice be both greater than and less than at the same time? The second difficulty concerns individual X, who appears larger than individual Y at a time t , and smaller than Y at time t_1 without having lost any mass. How can the same individual be both larger and smaller with reference to another individual without the loss or acquisition of mass? These puzzles arise from the conflation of the cognitive and the ontological aspects of the situation, in other words, from assuming that things are the way that they appear. This, Socrates maintains, is essentially what the Protagorean theory requires, and the puzzles only arise if one who holds the Protagorean position does not also take seriously the secret doctrine, which is based on the idea of universal flux.

After considering these examples Socrates launches into the articulation of a full theory of perception, the so-called "twins theory," which is based on the metaphysical (universal flux) and epistemological (man is the measure) commitments described above. He reiterates that perception is the result of motions, but this time adds the condition that the products of the two motions – that which comes from the sense organ, and that which is characteristic of the external object – are co-creative. In other words an instance of seeing and an instance of hearing always involve a color and a sound, and these two elements of perception – namely, the seeing and the color or the hearing and the sound – are both created in the very event of perception. This means that seeing cannot occur without the presence of a color, and a color cannot come into being if the appropriate motion does not come into contact with a similar motion from an eye. In addition to this, since the sensible quality is created somewhere in the intervening space between the sense organ and the object, i.e., the point at which the two motions come into contact, this preserves the notion that the quality is not stationary, but is rather the product of motion, and is itself a certain type of motion. All of this taken together means that the perception of a particular sense

quality is only an instantaneous interaction of two motions, and lasts only for the brief moment that the perception is maintained. It also means that the subject of perception is the sense organ. For as Socrates remarks,

Then at that moment, when the seeing from the eyes, and the whiteness, from the thing which joins in giving birth to the color, are moving in between, the eye has come to be full of seeing; it sees at that moment, and has come to be, not by any means seeing, but an eye that sees. And the thing which joined in generating the color has been filled all around with whiteness; it has come to be, again, not whiteness, but white – a white piece of wood, or stone, or whatever it is that happens to have that sort of color (Trans. McDowell) (156e1-7).²⁶

This quote illustrates the way in which both the faculty of sight, which is responsible for perception, and the sense quality, which is perceived, are actualized in the act of perception. According to the above account, the process occurs in the following way: the faculty of sight, which consists of the motion emanating from the eye, comes into contact with the motion from an object external to it; the joining of these motions then gives birth to the color that, under the right conditions, will appear (and since it is a Protagorean theory we are dealing with, to the extent that it appears it will be) white. It is unclear whether these conditions are dependent upon external situations, such as light, or the position of the object relative to the perceiver, but it is clear that an absolutely necessary condition is the presence of the movement from the eye characteristic of vision. When the two motions come into contact the sensible quality is created, and reaches back toward those things from which the motions arise. In the case of the eye it is sight that is actualized, and the eye, which is the seat of visual perception on this theory is filled with vision and sees the very quality that was created in the act described above. On the other hand, and at the very same time, the object, the movement from which occasioned the perception, becomes filled with the same quality that fills the sense organ, and truly possesses that quality for the duration of the perception.

This is the way in which Plato characterizes the rather complex perceptual theory that, as he claims, represents the view that was held by Protagoras, or at least is

²⁶ τῆς δὲ λευκότητος πρὸς τοῦ συναποτίκτοντος τὸ χρῶμα, ὃ μὲν ὀφθαλμὸς ἄρα ὅψεως ἔμπλεως ἐγένετο καὶ ὁρᾷ δὴ τότε καὶ ἐγένετο οὐ τι ὅψις ἀλλ' ὀφθαλμὸς ὀρῶν, τὸ δὲ συγγενῆσαν τὸ χρῶμα λευκότητος περιεπλήσθη καὶ ἐγένετο οὐ λευκότης αὐτῷ ἀλλὰ λευκόν, εἴτε ξύλον εἴτε λίθος εἴτε ὅτιον συνέβη χρῆμα χρωσθῆναι τῷ τοιούτῳ χρώματι.

an upshot of a commitment to his epistemological position. The theory, as it is presented here, fits well with the epistemology of the Protagorean thesis, and the metaphysics of the secret doctrine. For, we can see that the Protagorean position is maintained in this theory. Since the act of seeing, which consists of the interaction between the motion from the eye of the perceiver with the motion from the external object, creates the sense quality that is perceived, and in this activity the object which produces the motions with which the motions from the eye come into contact, possesses that quality, then it is certainly the case, on this theory, that each and every thing *is* exactly the way it is perceived. This is because the appearing and the being of the quality are co-creative in that they both arise from one and the same interaction. Furthermore, the theory squares with the idea of perpetual flux because the fact that the sense quality is created in the act of perception means that no object ever has any intrinsic properties, but rather that whatever properties an object can be said to possess only exist to the extent that it is perceived, and only for the moment of perception. It might be the case, and likely is, that on this theory there are intrinsic properties that objects possess that are imperceptible, otherwise there would need to be an argument given for how these objects could exist mind independently, but, it remains the case that perception is the mode of access that humans and non-human animals have to external objects, and so in that regard imperceptible properties are not relevant.

Let us then briefly recap the major features of this theory of perception. The existence of sensible qualities is dependent upon the interaction of an external object with an organ of sense, and similarly the existence of sensation is dependent upon an external object with which the sense organ can come into contact. The sense quality itself, which is the object of perception, is ephemeral and comes into existence only for the moment that the perception occurs. When the interaction takes place, and the sense quality is created, the organ, which is specific to that particular quality, perceives the quality, i.e., sees the color or hears the sound, and, therefore, it is important to note that the organ, the eye or the ear, is, on this view, the subject of perception, or that which actually perceives. There is, to be sure, a number of features of this theory that are consistent with the theory presented at 184, but as we shall see presently, the two theories are fundamentally incompatible based on their differing conceptions of the subject of perception.

Now let us turn our attention back to the theory presented at 184 in order to highlight this essential incompatibility. As mentioned above, the first move that Plato makes in this passage is to distinguish the means to perception from the subject of perception; the senses, which he had characterized in the earlier theory as the motions that emanate from the sense organs, are here designated as the means by which a yet unnamed subject perceives (*Tht.* 184c1 – 9). The next step, the analogy of the wooden horse, constitutes a clarification of the conception that Plato is rejecting – namely, that scenario in which a number of individually percipient and disconnected senses all perceive without reference to one another – and suggests that instead there is some singular entity, the soul, to which the senses converge and which fulfills the role of subject of perception (*Tht.* 184d1 – 5). Plato then further delineates these two elements of the perceptual process by identifying the means to perception, the senses, as bodily, and the soul, the subject of perception, as non-bodily (*Tht.* 184d7 – e7). What is most important here is that Plato differentiates sharply between the role of the senses, which are associated with the bodily sense organs, and the role of the soul in perception. As stated above, the objects of perception, although not explicitly identified in the argument up to this point, are more than likely sense qualities, like colors and sounds, since these are the only objects to which he refers (this view will be developed more fully in the next chapter). Plato then makes, what we shall call the *idion* claim (*Tht.* 184e8 – 185a3). This is the claim that the objects that are perceived through one sense modality cannot be perceived through another; it is this claim that allows him to ground the distinction between perception and thought. These elements represent the most important features of the perceptual process as Plato presents it in this argument. Since his development of the distinction between perception and thought, which comprises the remainder of the argument, is not, strictly speaking, relevant to this inquiry, we'll leave the discussion of those passages for another time. Let us now turn our attention toward a comparison of the view of the perceptual process presented here, and the one articulated at 156, and discussed above.

There are certainly distinct and important affinities between these two views, so we'll begin with these and then move on to the dissimilarities. The first, and perhaps most salient, connection pertains to the objects of perception. According to both accounts, what is perceptible, at least immediately, and perhaps ultimately, are sense qualities. As stated above, these are colors like white and red and sounds, which can be loud and soft rather than complex objects like birds and trees. The notion that

sense qualities comprise the objects of perception is undeniable in the theory at 156 as Plato indicates that it is these sense qualities, like white and hard, that are created in the act of perception. The case is somewhat less cut-and-dry in the later theory, but the fact that sense qualities are the only objects that Plato mentions as objects of perception is telling. The objects of perception will be taken up in earnest in the next chapter, so I will not say any more about them here. Another related similarity between these two theories is that they both seem to involve a type of *idion* claim. This is unquestionable in the case of the theory at 184; that this is the case in the theory at 156, on the other hand, is not as straightforward. The notion that each sense quality is created by the interaction of the specific motions of the sense organs with the relevant motions from the external objects is consistent with the view that the motions from the ear would only interact with the motions that are consistent with sounds, and the motions from the eye with those that result in color; this, however, is only a possible reading of this passage. If this understanding is correct, then it would mean that on the view articulated at 156 color, for example, cannot be perceived by the ear and sound cannot be perceived by the eye. Thus both of the conceptions of the perceptual process under consideration here are compatible with regard to two points related to the objects of perception, both what these objects are, and how these objects are limited by the perceptual process. This, however, is where the similarities end.

The primary difference between the two theories, and the difference that makes them essentially incompatible theories is the way in which the subject of perception is characterized in each. As noted above, in the theory at 184, Plato makes a sharp distinction between the means to and the subject of perception. He associates the means to perception (the senses) with the body, and the bodily sense organs (the eyes and the ears), and distinguishes the subject of perception (the soul) from the body by indicating that in perception the senses, which operate through the body converge to the soul, and that it is by means of these that the soul is able to perceive the objects of perception. When the soul apprehends the objects of thought, on the other hand, it does so by means of itself, and without any necessary input or assistance from the body. This means that the soul must, in some sense be distinct from the body since it is able to operate independently of it. Thus the subject of perception, as presented in the theory at 184, is the soul. This subject, although it is related to the body is ultimately distinct and separable from it. Unfortunately Plato is not as clear in the theory at 156 about the subject of perception as he is at 184. Based

on what Plato does say it seems sensible to think that the subject of perception in this earlier theory is not the soul, but rather the individual senses. This is based on two primary considerations. The first is that the soul is never mentioned here as an element in the perceptual process; in fact, there is no reference to any unitary perceptual entity in the argument at 156. Instead it is the individual sense organs that are both necessary and sufficient for perception. This is because as stated above, if perception is the result of the interaction between the motions from the sense organ and the external object, then the sense organ clearly serves a crucial function; for without its motion perception would not be possible. In addition to this, Plato remarks that when these motions come together – say one from the eye, and the other from an object that is potentially colored in a particular way – the color is created in the intervening space between the eye and the object, the object becomes colored, and the eye is filled with sight and becomes an eye that sees. The fact that there is no further element beyond the sense organ mentioned here, coupled with the notion that when perception occurs it is said to fill the sense organ, the eye or the ear, with the power specific to each sense modality, sight or hearing, and becomes an eye that sees or an ear that hears certainly gives us good reason to think that the subject of perception in this earlier theory has to be the individual sense organs. On this view then, it is the body, assuming that the sense organs are understood as bodily, which they are in the argument at 184, that is, strictly speaking, percipient. Furthermore, the view of the disjointed perceiving subjects presented in 156 appears to be precisely the view that Plato is calling into question and providing an alternative to at 184 when Socrates says that they must pick up on something in Theaetetus' formulation which is not correct (οὐκ ὀρθή). We can see, therefore, that since these two views of the perceptual process differ fundamentally with regard to which part of a perceiving entity actually perceives, it would certainly be inconsistent to claim that Plato holds them both. Thus if we are to think that Plato's view on perception is consistent, we must assume that he accepts one of these views on the perceptual subject and rejects the other.

Now that we've established that the two perceptual theories presented in the first half of the *Theaetetus* express incompatible views on the subject of perception, since in the one articulated at 156 this subject is taken to be the bodily sense organs, whereas in the theory at 184, these organs are certainly not sufficient in this process, for it is the soul that actually perceives, let's turn toward the question of which theory

Plato is most likely to support. As mentioned above, critics tend to be divided on this question with half of those who think that there is a theory of perception in the *Theaetetus* taking the view that the theory at 156 is Plato's, the other half supporting the notion that the theory at 184 is the one that most accurately expresses Plato's view. There is no definitive answer to this question, but, as it will emerge, the evidence, which centers primarily on context, gives us good reason to come down in favor of this later theory. The theory at 156 is set within the context of the Protagorean view that man is the measure of all things – which Socrates takes to be equivalent to Theaetetus' definition of knowledge as perception. This epistemological position necessitates, by its treatment through the course of the argument, the further metaphysical claim that everything is in a constant state of motion, or flux, and thus nothing can ever be pinned down as being consistently a particular way or a particular thing. Ultimately, the combination of these two commitments leads to the highly undesirable conclusion that meaningful discourse is impossible, because as soon as one refers to anything it has already become different (*Tht.* 182d1 – e6). The theory of perception presented at 156, which ultimately gives rise to these highly undesirable consequences, is thought to be the theory that not only squares with, but also arises from these purportedly Protagorean and Heraclitean claims. We, therefore, already have an indication that this isn't the sort of theory that Plato would support since he puts it in the mouth of another thinker – Protagoras – and since it is consistent with epistemological and metaphysical theories that lead to undesirable consequences, consequences which Plato himself could not accept.

As stated above, the two theories have features which make them incompatible, so although there are certainly aspects of the previous theory that Plato would like to hold over and import into the later, it cannot be the case that he supports both theories, as accurately describing the phenomenon of perception. The question now is: why does Plato feel the need to raise the issue of perception again at 184 after he had already seemingly refuted Theaetetus' definition? It could be the case that Plato raises the discussion of perception again because he wants to test this particular definition against a theory that he actually finds to be compelling. But this, while a plausible reading, is purely speculative. Socrates does intimate at the very beginning of the argument – before making the grammatical distinction – that the reason why he is bringing perception up again is to highlight something in their previous discussion which is not correct (*Tht.* 184c1 – 5). As we know, this incorrect phraseology

concerns whether the senses ought to be understood as the means to or the subjects of perception. This distinction establishes that the senses are not the subjects of perception, and, as discussed above, this idea – namely, that it is the individual senses that are percipient, and are thus the subjects of perception – is a crucial component of the earlier theory of perception. As mentioned above, it is the fact that in the theory at 156 the senses are understood as the subjects of perception, whereas in the theory at 184 the soul fulfills that role that makes these two theories incompatible. In addition to this, the objects of perception in the theory at 156 are not stable objects that persist through time; they are rather the Heraclitean sort of objects, the specific features of which are created in the act of perception and which vary from perception to perception and from perceiver to perceiver. The objects of perception in the theory at 184, on the other hand, although they are sense qualities and are the result of motions, just as in the previous theory, they seem to be the sorts of objects that do persist through time, and which, based on the causal argument that Plato gives of perception, can be replicated in independent instances of the same causal process. This is further corroborated by the claim that true and false judgments can be made about these objects. Thus, based on the fact that the theory at 156 is put into the mouth of another thinker, and leads to unacceptable epistemological and metaphysical consequences, coupled with Plato's desire to return to their discussion of perception even after the definition has seemingly been successfully refuted indicates that it is far more likely that Plato supports the theory articulated at 184.

2.4 Conclusion

This chapter represents an explication and defense of one of the most fundamental claims that Plato makes about perception. Furthermore, this chapter has begun to lay the foundations of an account of Plato's theory of perception. It has been argued here that, for Plato, the proper subject of perception, or that part of an individual which actually carries out the act of perceiving when that individual is said to perceive, is the soul, and not the individual sense organs. Moreover, this chapter has also defended the view that this perceptual subject is the very same subject as the subject of thought. The significance of these claims within the context of Plato's theory of perception pertains primarily to how we understand the perceptual process to work. Plato's identification of the soul as the subject of perception accompanies a designation of the senses (understood to be associated with the bodily sense organs)

as the means to perception. In other words, if the soul is that part of an individual which actually carries out the act of perception, then the senses are those things which provide the material by means of which the soul is able to perceive. On Plato's view, therefore, the perceptual process involves at least two components – the bodily senses and the non-bodily soul. This conception of the perceptual process as a two-step process that involves both body and soul will be very important as we proceed, and as we look closely at the sort of perceptual theory with which these commitments are consistent.

The importance of the second part of the claim is that although Plato understands perception and thought to be distinct faculties that pursue different objects by different means, he also maintains that these capacities are closely related. The ground, which allows Plato to develop this relation, is his identification of both perception and thought as faculties of one and the same subject. The relation itself consists in the fact that one of the sets of objects apprehended by thought are features that apply in common to all objects of perception. Since these objects cannot themselves be apprehended by perception, it follows that one of the functions of thought is to apply these objects to the objects of perception. Furthermore, the upshot of this interaction whereby thought applies its objects to the objects of perception is that it endows the perceptual objects with a greater degree of intelligibility. Thus it must be possible that the conveyances of the senses can, and indeed must, become available to thought. Plato's claim that the objects of perception and thought are all psychical objects provides for this possibility, since both of these faculties are faculties of the soul the objects of each can be made readily available to the other. The relationship between perception and thought will be crucial when we consider whether perception is a faculty that can form judgments. For the time being, however, we will turn our attention, in the next chapter, toward a more thoroughgoing analysis of the objects of perception in order to gain some clarity on what precisely these objects are, and what status they have in Plato's theory.

Chapter 3

The Objects of Perception

3.0 Introduction

Whereas in the previous chapter we examined the way in which Plato conceives of and characterizes the subject of perception and thought, in this chapter we will turn our attention, broadly toward what Plato understands to be the objects of perception properly speaking. In other words, we'll be examining those things with which a perceiving subject comes into cognitive contact in an act of perception, and which constitute the content of these perceptual acts. In addition to considering what sort of objects Plato takes to be the objects of perception, this chapter also begins to flesh out, in greater detail, certain aspects of the process of perception that Plato defends, and develops. It is this process that will ultimately allow us to draw important conclusions about the sort of perceptual theory Plato holds. This more complete analysis of the perceptual process is only possible, however, after certain claims have been made about what Plato takes to be the objects of perception. The reason for approaching the topic of the objects of perception in this way – namely, by considering them in conjunction with the theoretical implications that emerge from the process of perception as Plato characterizes it – is that giving a careful account of this process allows us to justify certain ambiguous claims that Plato makes in his arguments about perception, claims which have a direct bearing on how we understand the objects of perception. Furthermore, clarifying these ambiguous claims, and identifying the motivation for them, as well as their philosophical implications, allows us to further determine the sorts of objects that constitute the objects of perception. The reason why we are able to talk about the features of the perceptual process in general at this point is because once we have established what Plato takes to be the subject and the objects of perception respectively, as well as how he understands the perceptual process, in general, to operate we will have all of the components needed to determine the type of theory that Plato defends.

The present chapter, therefore, undoubtedly represents one of the most important chapters in this dissertation, for it involves, among other things, the first articulation of and the foundation for the defense of the claim that Plato is an indirect realist concerning perception. This, no doubt, will strike many readers as an overly

bold claim especially when viewed against the backdrop of the brief and often sketchy remarks that Plato makes about perception in the dialogues. It is, however, a claim that is eminently defensible, and its defense relies on a series of connected claims that have to do primarily with the objects of perception, and the process that leads to a perceiving subject's coming into perceptual contact with these objects. The two main claims of this chapter (claims 2A and 2B introduced in Chapter 1) are as follows: (2A) the objects of perception are simple sense qualities only; and (2B) the objects of perception are not, at least immediately, external to the perceiver, but these internal objects are, at least in many cases, causally related to external objects. These claims, taken together, are clearly far reaching, and begin to hint at issues such as the ontological and metaphysical status of objects that comprise the external world, issues that lie outside of the immediate remit of an investigation of sense perception. It is, therefore, necessary from the outset, to clarify the scope of the current investigation, and to reiterate that I am not, in this dissertation, concerned with Plato's views on the ontological or metaphysical status of a world external to the perceiver, or the objects that might comprise such a world; I am also remaining agnostic, to the extent possible, on the question of whether these external objects, in whatever way they exist, or the objects of perception themselves can, on Plato's view, constitute objects of knowledge. These are, to be sure, interesting and crucial questions, and as such they deserve the thorough sustained attention that cannot be given to them here, but the claims made in the current work will lay the foundation for an examination of these issues in future investigations. Thus, for the moment I will leave these concerns to the side, and focus on what it is that, for Plato, comprises the content of sense perception.

For the sake of organization and ease of presentation, I have further divided the philosophical unpacking, analysis and defense of claims A and B from above into five subsections. The first section is concerned with the articulation and philosophical unpacking of the first of the above claims – namely, the view that the objects of perception are simple sense qualities only. The importance of this claim lies in the fact that it severely limits the scope of perceptual content, since it defends the view that, for Plato, simple sense qualities comprise the whole of the content of perception, both immediately and ultimately. There will follow a careful explication of this claim, and an examination of the philosophical implications that proceed from attributing it to Plato. Since the theoretical implications of this claim as it relates to Plato's theory

of perception are large, the claim itself is in need of clear justification. The second section addresses itself to providing the defense for this claim which consists primarily of textual evidence from the *Theaetetus* and *Timaeus*. One of the pieces of textual support comes in the form of a short, but extremely weighty statement that Socrates makes in the *Theaetetus*. This statement, which I referred to briefly in the previous chapter as the *idion* claim, states that what is perceived by means of one sense faculty cannot be perceived by means of another. This claim, which in the context of the dialogue serves as the principle that allows Plato to draw a crucial distinction between perception and thought, is an undeniably essential part of the way in which Plato understands perception to work both with regard to how perception apprehends its objects, and in terms of the relation that these objects have to the external world. As a result, it is necessary, if we are to think that Plato's theory of perception is at all coherent, to identify the motivation and justification for this claim as well as establish its cogency both within the argument in which it appears, and with respect to the theory of perception, in general. Consequently, the third section is then addressed to identifying and elucidating the support that Plato gives for this claim. As it emerges, we need only look several lines above the articulation of the claim itself to find its support. The evidence for this support comes in the form of the process of perception as Plato characterizes it at the beginning of the argument at 184. My claim here is that based on the way in which Plato conceives of this process, perception, for Plato, is best understood as being indirect – the precise sense in which it is indirect will be spelled out below – furthermore, it is the indirectness that emerges from the perceptual process as it is articulated in the *Theaetetus* that, in my view, provides the crucial theoretical grounding for the *idion* claim.

The fourth section is then addressed to clarifying the theoretical consequences that follow from Plato's maintenance of the *idion* claim duly supported, as it is, by the indirectness thesis. In particular, section four will focus on the notion that when the *idion* claim is considered in conjunction with the indirectness that arises from the perceptual process, it follows that the objects of perception, which were characterized and discussed in the first two sections, are internal to the perceiver. This idea – namely, that the content of perception is internal or private to the perceiver – it turns out, must be true both of the immediate and the ultimate objects of perception, since these were already identified, in section one, as the very same objects.

The fifth and final section looks at the relationship between the objects of perception, which, through the course of the previous four sections, had been found to be simple sense qualities that are internal to the perceiver, and the external world. Without going into the specifics of Plato's views on the ontology or metaphysics of the objects that comprise the external world, it is argued here that despite the internality claim there exists, for Plato, a causal relationship between objects external to the perceiver, whatever these objects may be, and the objects with which that subject is in perceptual contact. This understanding, however, gives rise to a clear potential objection, according to which, any causal relationship that obtains between the objects of the external world and the perceptual objects, immediately calls into question the idea that the ultimate objects of perception are not identical with these very external objects. For it could be argued that although it might be the case that the immediate objects of perception are internal to the perceiver, there is no reason to think, or worse, there is good reason not to think that the ultimate objects of perception – i.e., the objects that are perceived in virtue of perceiving the immediate objects of perception – are likewise internal. The response to this objection relies on the way in which we construe the causal relationship that Plato develops between the external objects and the objects of perception. If we construe the causal relationship between the external object and the object of perception to involve the view that that which sets the causal process in motion must also be understood as that which individuates the end state of the process, and, as such, the end state of the process cannot be understood for what it is without necessary reference to that which set the process in motion, then the objection holds and we would have good reason to think that perception, for Plato, is, if not direct, then at least not indirect. It will emerge, however, that the claims made earlier in the chapter – namely, the indirectness thesis and the internality claim – necessitate the view that the end state of the perceptual process is not individuated by the beginning state. This response will be developed fully in the fifth section.

3.1 The objects of perception are simple sense qualities only.

There are several aspects of this claim that must be clarified before we begin unpacking the philosophical implications that follow from its maintenance. The first, and obvious, clarification that must be made is what we mean by simple sense qualities. I take it that, for Plato, simple sense qualities are to be understood as

comprising the sensory content that is apprehended by means of the individual sense modalities. By this I mean that the objects of perception are those features of objects that are given only in investigations by the soul through the bodily components, the organs, which correspond to these sense modalities (the eyes, ears, nose, tongue and skin). Taken in this way, these objects would naturally be understood to be colors, sounds, scents, tastes and textures. It is important to note here that, at this point, it remains somewhat of an open question as to whether perception, for Plato, in addition to apprehending these objects is also equipped to carry out the identification of these sense qualities as the very qualities they are, or if it rather only provides for the simple (non-conceptual) apprehension of these qualities. An answer to this question was hinted at in the previous chapter, and will be developed more fully below. To anticipate a little bit, however, it is my view that the evidence supports the claim that, for Plato, the identification of sense content does not accompany the perception of that content, but that such labeling of sensory content is only possible with the additional input of reflective thought. The justification for this claim, as mentioned above, lies primarily in the distinction that Plato draws between the objects and function of perception and thought, and in his articulation of the *idion* claim, which will be examined below. Let us, therefore, leave this question for the time being. Since we have established a minimal characterization of what we mean by sense qualities, let's consider the identification of these qualities as "simple." The significance of referring to the objects of perception in this way is to highlight the fact that, on Plato's view, the objects of perception are not complex objects, where complex objects are understood to be distinct objects that are composed of multiple sense qualities. In other words, the objects of perception are not the sorts of objects that we generally assume to populate the external world, objects like birds, ambulances and televisions. They are rather objects that are more basic insofar as they are what we would take to be simple perceptual features that apply to these complex objects.

In order to make these points more perspicuous, let's consider an example. For the sake of clarity and consistency we'll use the same example that we used when characterizing the subject of perception in chapter 2 above. Recall that in the previous chapter we had specified the meaning of the subject of perception by examining what it is that actually perceives, on the Platonic account, when we take it that a perceiving subject, Frank, sees, for example, a pint of stout. Now let's look again at this scenario,

but shift the focus from the subject of perception to the objects, or those things that are actually perceived when Frank is in perceptual contact with the pint. I would like to approach this example in two ways: first by looking, as we did in the previous chapter, at what happens when we take it that Frank merely sees the pint; and then, in the interest of emphasizing precisely what is meant by the objects of perception, and how we ought to understand these objects, we'll examine what happens when Frank takes up and drinks from the pint and perceives, by means of the different sense modalities, what we generally take to be a singular object that is composed of multiple sense qualities. First, we must begin with a brief word about the physiology of perception. Although the physiology of perception as well as the relationship between the physiology and psychology will be discussed in the next chapter, let's give a quick characterization of it here in order that we may consider a more or less full account of a perceptual experience. On Plato's view, in perception some element of the various sense organs (this varies from organ to organ) comes into contact with motions from an external object. Motions, which arise in the body as a result of these interactions, are then transmitted, by means of a particular sense modality, through the body until they reach the soul at which point the motions bang up against the soul and cause the soul's awareness of a specific perceptual object. Furthermore, as discussed above, it is the soul for which these perceptions occur as opposed to the individual senses faculties, or their bodily analogues. The question now, however, is, what is it that the soul perceives by means of these motions? We've already stated that the answer to this question is, simple sense qualities, but what does this mean? Let's turn our attention to the example from above: when Frank directs his eyes toward the pint of stout, what is transmitted by means of his visual sense are motions that result from the interaction of the visual ray with the object suitably positioned with respect to it, these motions then, through their subsequent interaction with the soul, culminate in the soul's awareness of a color; in this case, let us say that the color in question is a very dark reddish brown. It might also be the case that Frank perceive other colors that result from a similar interaction of the visual ray with the surrounding environment, but just in focusing his power of vision on the pint, what Frank strictly perceives is color, although as stated above, *that* this color is reddish brown is not something that is given in perception alone. There are a number of issues that this characterization raises, but these will all be addressed in due course, for the moment all I'd like to emphasize is that, according to Plato's view, when one sees, or

perceives by means of the visual power, what one perceives, strictly speaking, is color.

Frank's interaction with the pint, however, does not end with his having seen its color, so now we must consider what happens when Frank takes up the pint of stout and drinks from it. The general characterization of the process of perception remains the same, as the motions from the objects are transmitted through the body by means of the various sense faculties to the soul, but the resultant objects, since Frank is employing different bodily components, are different. Each bodily component being sensitive to the affections that are specific to it. As Frank grasps the pint with his hand, the coolness and smoothness of the glass – which result from the interactive motion, arising when the skin of his hand touches the glass, coming into contact with and affecting the soul in the particular way it does – is made manifest in the soul as the perception of the tactile qualities of coolness and smoothness. Frank then, continuing to perceive the color of the stout and the temperature and texture of the glass, draws the pint toward his face and as the liquid comes within range of the olfactory motions that emanate from Frank's nose, these motions join with those that are characteristic of and produced by the liquid that he is about to drink; these motions, like those that preceded them, but having followed a different route, knock at the door of the soul and produce in it a perception that has for its object an aroma that is at once nutty and smoky. Finally the glass reaches Frank's lips, and as he draws the dark beer into his mouth, the vessels of his tongue are affected in a certain way. This disturbance is transmitted to the soul, which results in the awareness of a taste that is characteristically bitter, but also subtly sweet.

The above represents a general characterization of the way in which Frank can be said to have perceived what we generally take to be a singular and unitary external object – a pint of stout – by means of four out of his five sense modalities. On Plato's account, however, the objects of perception in this example are not one and singular, but four; these objects are: the color of the beer; the coolness and smoothness of the glass; the aroma of the stout; and the taste to which the liquid gives rise in the soul of the perceiver. It is because of what Plato says in the analogy of the wooden horse from the *Theaetetus*, discussed above about the unity of the perceiving subject that allows us to ultimately affirm that all of these various different perceptual objects that come about through different means can be said to occur for one and the same singular perceiver. So although the objects of perception themselves are not singular

and unitary, since they are perceived by means of disparate sense modalities that operate through distinct bodily organs, they can be unified once perceived, and subjected to the conveyances of reflective thought, since they occur for one and the same perceiver. The important thing to note here is that what are understood to be the objects of perception in the above example are qualities, color, texture/temperature, scent and taste.

The second crucial aspect of this claim holds that in addition to the objects of perception being simple sense qualities, these qualities also comprise the whole of perceptual content. The best way to highlight the importance of this part of the claim is to compare it to Aristotle's view on the objects of perception. This is a view that will be examined closely in chapter 5. For Plato, the simple sense qualities that come through the individual sense modalities represent both the immediate and the ultimate objects of perception. What I mean by this is that there are no further objects beyond these qualities that are also perceived in virtue of perceiving them. For Aristotle, on the other hand, while these simple sense qualities, as well as certain qualities that are common to multiple sense modalities, represent the immediate objects of perception, a perceiver, in virtue of perceiving these immediate objects, also perceives the complex objects to which they belong. For example, on this sort of view, while it is true, for Aristotle, that in the above example the objects that Frank is in immediate perceptual contact with are the color, aroma, texture and taste that are produced as the result of his interaction with the pint, it is also the case that by virtue of perceiving all of these features, which actually belong to an identifiable, unitary, external object, Frank also perceives the shape and number of the pint as well as the pint itself. In addition, Frank's perceiving the pint, qua pint, on what I take to be the Aristotelian account, does not constitute a cognitive act that is carried out by a faculty distinct from perception – i.e., an act of thought or imagination – or even a distinct perceptual act but is rather a function of the perceptual faculty itself. Furthermore, this perception of the complex object does not constitute a separate cognitive act from the perception of the individual sense qualities, but both the sense qualities of the pint and the pint itself are contained in the content of a single perception, and do not represent two distinct perceptual acts. As mentioned above, the details of Aristotle's account of the various objects of perception, and how they are apprehended will be spelled out more clearly in chapter 5. I only raise this view here to serve as a contrast to the view that Plato defends in order to accentuate the idea that on Plato's view the scope of

perceptual content is far more limited than it is on the sort of view that Aristotle holds. This is because for Plato Frank's perception of the simple sense qualities that result from his interaction with the pint comprise both the immediate and the ultimate objects of perception. In other words, it is not the case, for Plato, that in perceiving the sensible features of the pint, Frank perceives the pint, it is rather the case that if Frank can be said to be in cognitive contact with the pint, qua pint, at all, it is only through perception coupled with another psychical faculty.

Plato's approach to the objects of perception, therefore, is similar to the view of sensations proffered by more modern thinkers in that it appears that for Plato perception consists in the awareness of simple sensory affections which are not accompanied by any conceptual content. As mentioned in the previous chapter, however, I think it would be erroneous to attribute such a distinction as that between sensations and perceptions to Plato.¹ This is because Plato himself does not appear to make any division within the faculty of perception, and as mentioned above any division between sensation and perception would, on Plato's view, actually be a distinction between perception, properly speaking, and the blending of perception and thought. What we take to be conceptual perception involves, for Plato, a judgment about the objects of a specific perception. Although some might claim that this is merely a semantic quibble, I think it is important. The faculty of perception serves a particular purpose for Plato – namely to reveal features of the phenomenal world to the soul when it conducts an investigation by means of the body – and Plato makes a concerted effort in the dialogues to distinguish the function of perception from that of thought. It would be a mistake, therefore, to merely assimilate the component of the reflective capacity that applies to the content of perception to the faculty of perception itself. Furthermore it seems to be the case that, according to Plato's view, all perceptual content is non-conceptual, and the deployment of concepts is the function of a separate cognitive faculty. It would, therefore, be a mistake to claim that the objects of perception, for Plato, are sensations, if sensations implies a distinction

¹ When I refer to a distinction between sensation and perception here I have in mind a view which sets apart two separate cognitive acts, both of which are the function of a perceptual faculty. One of these acts involves the apprehension of non-conceptual qualities, while the other involves applying concepts and judgments, and has for its objects the things to which the qualities of the first act belong. Hamlyn (1994) presents this distinction in the following way: "But sensations construed as sense-data or perceptual representations seem to die hard, in spite of Thomas Reid's response to Hume, which involved a clear distinction between sensation and perception, according to which sensations have no object other than themselves, while perceptions have physical things as their object and involve also concepts of those things and beliefs about them" (140).

between sensation and perception, but it would be correct to characterize the content of perception on this view as qualitatively similar to the content of sensations.² The justification for these claims regarding the division between the content of perceptual experience, and the concepts which help to determine that experience will become clearer in due course, what is important for present purposes is to understand that this view is, at least in part, motivated by the claim that on Plato's account the objects of perception – both immediate and ultimate – are simple sense qualities only.

3.2 The justification for the claim that the objects of perception are simple sense qualities only

The claims made above concerning the philosophical implications that emerge from construing the immediate, and ultimate, objects of perception as simple sense qualities only are hopefully somewhat clear, but in order to elucidate them further we must turn our attention toward what remains undefended, and consider the basis upon which these claims are founded. Thus, we must defend the position that this is, in fact, a view that Plato holds. Just as in the examination of the textual evidence in the previous chapter, the purpose of this section is twofold: first, it is primarily dedicated to highlighting the evidence that supports the attribution of the above claim to Plato; secondly, it begins to articulate some of the interpretive and philosophical issues that accompany the discussion of this evidence. The evidence for this claim comes primarily from two sources. The first is the way in which Plato characterizes, and speaks of the objects of perception in the later dialogues, specifically the *Theaetetus* and the *Timaeus*, the second is a particular claim that Plato makes in the *Theaetetus* concerning the process of perception. The *idion* claim, which states that what is perceived through one sense faculty cannot be perceived by means of another, can be understood as providing the necessary theoretical justification for thinking that Plato understands the content of perception to be limited in the way described above.

Furthermore, based on the formulation of the *idion* claim, there are two ways in which

² This view is corroborated by a comment by Frede (2000). "What we perceive, strictly speaking, are just the proper objects of the different senses, e.g. colours in the case of sight. Thus, strictly speaking, we do not even perceive the object of which we come to believe that it is red. And if this is so, it is even more difficult to see how we could be said to perceive that something is red, given this very narrow notion of perception" (384). Frede argues in this article that Plato, in the later dialogues, presents a very specific understanding of αἴσθησις. According to this view, the term does not refer to just any sort of cognitive awareness, as it does in some ancient thinkers, it rather refers to a very specific understanding of cognitive awareness that is spelled out in the *Theaetetus* and involves the soul's awareness of simple sense qualities.

it can be understood: it can be seen either as a claim about immediate perception only, or it can be taken as articulating a feature of perception in general. I will argue here that we have good reason to think that Plato intends the *idion* claim to reflect a genuine element of his theory of perception in general, and moreover that we should understand the claim, in its full force, to be integral for a proper understanding of Plato's view of perception. The *idion* claim provides the basis for thinking that the objects of perception are simple sense qualities only, and the references that Plato makes throughout the later dialogues to these qualities as objects of perception serve to verify and reinforce this understanding. It shall be seen that all of this, taken together, gives us good reason to think that Plato does take an extremely limited view of the content of perceptual acts, and that he does, in fact, hold that the objects of perception are simple sense qualities *only*. Furthermore, it gives us a strong foundation for making further claims about the particular sort of perceptual theory that Plato holds.

Let us first address the textual evidence from the dialogues that supports the above view. It will be shown that Plato, throughout the course of the later dialogues, consistently refers only to simple sense qualities – i.e., colors, scents, flavors, textures/temperatures/resistance based qualities and sounds – as objects of perception when he speaks about these objects. As mentioned above, it is primarily in the *Timaeus* and the *Theaetetus* in which these references occur, so we will consider the discussions from each of these dialogues in turn. Plato, in the *Timaeus*, engages in what is undoubtedly his most extensive survey of the various sensory powers. This discussion, which begins at 61d5, follows a lengthy description of the way in which the bodies and souls of the world and of individual creatures were constructed (*Tim.* 29d7 – 47e2), and of the composition of the elemental bodies (*Tim.* 47e3 – 61d5). This discussion, which serves to elucidate the physiological component of the perceptual process, involves three crucial elements: for each sense modality, Plato articulates how it operates, the objects of the perceptions that it causes, and the explanation of why the experiences that typify these perceptions possess the particular character that they do, i.e., how the physiology of the perceptual process corresponds to the psychology. In what follows I will take each of the sense modalities individually and focus on the objects that Plato identifies as specific to each. Plato indicates at the very beginning of this discussion that an investigation of the character of the elemental bodies must be carried out in terms of sense perception. For it is only

by means of sense perception that we are able to apprehend the character of these elements (*Tim.* 61c3 – d5). Plato's methodology here is thus to account for certain properties of objects by explaining the way in which bodily interaction with them gives rise to particular perceptual qualities.

Plato begins this inquiry with the sense of touch, and indicates that there is no specific bodily organ which serves as the locus for the sense of touch, it is rather the case that the whole body is capable of transmitting the affections that give rise to tactile perceptions. There are eight qualities that Plato identifies as arising by means of the sense of touch. As is typical in Plato, these sense qualities are presented in pairs of opposites, and they can broadly be divided into three general categories as follows: temperature-based qualities – hot (θέρμον) (*Tim.* 61d5 – 62a5) and cold (ψυχρόν) (*Tim.* 62a5 – b6); resistance-based qualities – hard (σκληρόν) (*Tim.* 62b6 – 7), soft (μαλακόν) (*Tim.* 62b7 – 8), heavy (βαρύ) (*Tim.* 62c3 – 4) and light (κοῦφον) (*Tim.* 62c3 – 4); and contact qualities – smooth (λεῖον) (*Tim.* 63e8 – 64a1) and rough (τραχύ) (*Tim.* 63e8 – 64a1). As mentioned above, after identifying these perceptual qualities, Plato goes on to articulate the way in which each of them is caused, and how the causes relate to the experience of the quality itself, but since our concern here is only with the objects that Plato identifies as being objects of perception, for the moment I will pass over these further considerations, but will discuss them in detail in the next chapter.

After discussing the sense of touch, Plato moves on to address taste. He indicates that there is some similarity between touching and tasting, since, just as with touch, that which is capable of transmitting the affection must come into direct contact with the object. As a result, the roughness or smoothness of an object is involved in determining the specific taste perception that is caused by the tongue's interaction with that object. The flavor qualities that Plato here identifies are: sour (στρυφνόν) (*Tim.* 65d3), tangy (αὔστηρόν) (*Tim.* 65d4), bitter (πικρόν) (*Tim.* 65e1), salty (ἄλυκόν) (*Tim.* 65e2 – 3), pungent (δριμύ) (*Tim.* 66a1) and sweet (γλυκύ) (*Tim.* 66c7). There are thus six distinct flavor reactions that result from the particular disturbances to the tongue, and unlike the qualities that come through touch these features are not grouped as pairs of opposites.

After completing his discussion of taste, Plato considers the nature of smell. Smell appears to be, for Plato, the weakest of all the senses. He refers to it as a half-

breed since none of the elemental shapes in and of themselves possess a nature capable of causing any odors (*Tim.* 66d1 – 2); it is rather the case that scents are caused by a substance decaying from having been damp, melting, or evaporating. Thus, smell is the result of the transition from air into water, or water into air (*Tim.* 66d2 – 67a1). As a result, there are only two types of scents that Plato identifies, pleasant and foul (*Tim.* 67a1 – 6). Following on from his discussion of the sense of smell, Plato continues by taking up the sense of hearing. Sounds do not fall into the same sort of determinate categories that flavors, scents and tactile perceptions do. Instead, hearing, for Plato, operates along a continuum. An auditory perception is higher or lower pitched, louder or softer and rougher or smoother based on the specific intensity of the physical elements that impact upon the ear and cause them (*Tim.* 67b6 – c2).

From the very beginning of his section on vision Plato indicates that the objects of visual perception are quite various, but that in general, they are colors. Black and white appear, on Plato's account, to be foundational colors, which means that other colors are formed from their mixture. Red is also a foundational color which is produced by a disturbance that is intermediate in intensity between those that produce white and black (*Tim.* 67d2 – 68b8). Furthermore, different combinations of these three colors, in unspecified ratios, account for the appearance of all of the other perceptible colors. Plato gives an explicit account of the way in which the perception of a few of the more common colors is actualized by the combination of these foundational hues (*Tim.* 68b8 – d7). The discussion of colors as the objects of visual perception rounds off Plato's survey of the perceptual qualities which are caused by the interactions between the bodily sense organs and external objects. To briefly recap: it is the texture, temperature, and resistance qualities of objects that are perceived by means of the sense of touch; the sour, tangy, bitter, salty, pungent and sweet tastes that are perceived through the tongue and the sense of taste; pleasant and unpleasant odors are perceived by means of the sense of smell; high and low pitches, as well as those that are loud and soft are perceived along a continuum that is based on the particular disturbance of elements in the ear, and by means of the sense of hearing; and finally, the contraction and dilation of the visual ray gives rise, on Plato's account, to the perceptions of colors, all of which are formed by the combination, in certain ratios, of black, white and red.

It should be relatively clear that the only sorts of objects that Plato identifies here as objects of perception are the simple qualities – he, in fact, indicates that the enumeration of these, as well as the explanation for the experience of them, are what this section addresses. He doesn't indicate that these are the only things that are perceptible, but he also doesn't say that there is anything further beyond them that perception can have as an object. If the qualities mentioned in this section are, in fact, the qualities that arise in the soul by means of the individual sense organs, then, I think, we have good reason to take it, based on Plato's articulation of the *idion* claim, which will be discussed presently, that this survey represents an exhaustive account of the general types of qualities that perception apprehends, as well as the specific qualities that fall within each of the general types, and that there are no further objects beyond these qualities which perception can access.³

Now that we have a preliminary sense of the sorts of objects that Plato understands to constitute the objects of perception, let us turn our attention toward the *Theaetetus*. We will look here at further references to the objects of perception, which corroborate the view that qualities enumerated in the *Timaeus* are, in fact, the qualities that Plato takes to be the objects of perception, and will also investigate a crucial claim that serves the purpose of limiting the scope of perceptual content. As discussed in chapter Two, there are two points in the *Theaetetus* at which Plato speaks extensively about the details of the process of perception, and the various elements involved in that process. Let us begin with the argument that occurs later in the dialogue, the one at 184 which, on my view, represents the articulation of a perceptual theory endorsed by Plato himself. Plato begins, in the most general way, to refer to the objects of perception in the analogy of the wooden horse where, at the very end of the analogy, he indicates that there are such objects. "...through which, as if they were instruments, we perceive the sorts of things that are perceptible" (*Tht.* 184d4 – 5).⁴ Furthermore, this phrase, taken with the statement that immediately precedes it, indicates that there are at least two components in perception – namely, that which perceives, and that which is perceived. He then goes on, immediately following this assertion, to refer more specifically to the sorts of objects that are perceptible. He

³ Although Plato doesn't give a complete listing of all of the colors that might arise as the objects of visual perception, in giving what he takes to be the building blocks of these colors – black, white and red – as well as an account of the way in which these components combine to form certain other colors, it seems reasonable to think that he views this as complete of an account as he is able to give in the current situation.

⁴ ...ἢ διὰ τούτων ὅσον ὀργάνων αἰσθανόμεθα ὅσα αἰσθητά.

does this in the context of distinguishing between the specific roles that the soul and the body play in perception. The question that he puts to Theaetetus is the following:

If there is one and the same thing within us with which, through the eyes, we arrive at white and black things, and also at other things through the other sense organs; if this question is put to you would you refer all of the things of this sort to the body? But perhaps it is better for you to say yourself by answering questions rather than for me to be interfering on your behalf. Therefore, tell me this. Those things through which you perceive hot, hard, light and sweet, you place them each as belong to the body, do you not? Or do you think they belong to something else?" (184d7 – e6).⁵

In articulating this series of questions Plato twice mentions the objects of perception. The first reference is at 184d9 where he states that it is through the eyes that one comes into contact with white and black. He then rephrases his question, and in rephrasing it he again refers to four different sense qualities. At 184e5 Plato muses whether all the instruments by means of which one perceives hot, hard, light and sweet, belong to the body. All of these objects, both the colors in the first question, and the tactile and taste qualities mentioned in the second, are, not only, the same sorts of objects that were referred to in the *Timaeus*, but they are exactly the same objects. There are two further points in this argument at which Plato explicitly refers to objects of perception. The first comes at 185a9 where Socrates asks Theaetetus how, if it were possible, he would investigate whether two sense objects (a sound and a color) both possess a common sensible feature (saltiness). The second comes at 186b3 – 4 at which point Socrates comments that although features that are held in common by multiple sense objects are apprehended by means of the soul alone, the hardness of what is said to be hard, and the softness of what is said to be soft are apprehended by means of the sense of touch. This shows both that Plato is being consistent in his understanding of the sorts of qualities that comprise perceptual experience, and in his view that all these objects are simple sense qualities.

Now let's turn our attention briefly to the theory of perception that Plato gives earlier in the dialogue at 156. As argued above, this theory, which represents the articulation of a phenomenological perceptual theory, which is compatible with the Protagorean commitments that Plato takes to be entailed by Theaetetus' definition,

⁵ εἴ τιτι ἡμῶν αὐτῶν τῷ αὐτῷ διὰ μὲν ὀφθαλμῶν ἐφικνούμεθα λευκῶν τε καὶ μελάνων, διὰ δὲ τῶν ἄλλων ἑτέρων αὖ τινῶν: καὶ ἔξεις ἐρωτώμενος πάντα τὰ τοιαῦτα εἰς τὸ σῶμα ἀναφέρειν; ἴσως δὲ βέλτιον σὲ λέγειν αὐτὰ ἀποκρινόμενον μᾶλλον ἢ ἐμὲ ὑπὲρ σοῦ πολυπραγμονεῖν. καὶ μοι λέγε: θερμὰ καὶ σκληρὰ καὶ κοῦφα καὶ γλυκέα δι' ὧν αἰσθάνη, ἄρα οὐ τοῦ σώματος ἕκαστα τίτης; ἢ ἄλλου τινός;

knowledge is perception, contains elements that Plato could accept, but is ultimately not one that Plato finds to be compelling. This is because it leads to the undesirable consequence that meaningful discourse is impossible, a conclusion that Plato could not possibly have countenanced. Despite this fact, I think that there are aspects of the theory that do reflect, and are consistent with the views on perception that Plato actually holds. This is clearly evidenced by the fact that the objects of perception that Plato refers to in this theory are the same sorts of objects that he refers to the later theory, as well as in his discussion of the perceptual faculties in the *Timaeus* discussed above. Let us first quickly recap the general features of this theory. According to the theory, visual perception, for example, occurs when the eye and something similar to it, i.e., something capable of giving rise to a perception in the eye, come into contact with one another. When this happens, a color quality is created by the interaction between these two elements. This quality is perceived by the eye, and taken on by the object as a feature of the object, and lasts only for that moment in which the perception occurs. Plato then goes on to indicate that this process is not limited to vision, but extends to the perception of all sorts of other objects, mentioning hardness and hotness specifically (*Tht.* 156e8). In this passage there are three types of perceptual objects that Plato identifies, color, in this case whiteness; a tactile quality, in this case hardness, one of the resistance qualities; and a temperature-based quality, in this case hotness. All of these are the simple sense qualities that he has also mentioned as objects of perception in the argument that comes later in the *Theaetetus* as well as in the *Timaeus*.

These references to the objects of perception as simple sense qualities would, in and of themselves, represent fairly weak evidence in support of the claim that Plato thinks that these qualities are the only objects that are, strictly speaking, perceptible. It is, however, important to note not only what Plato says about the objects of perception in these passages, but also what he doesn't say. Nowhere in any of the arguments discussed above does Plato indicate that the objects of perception are complex objects composed of multiple sense qualities, or that these sorts of objects are perceptible at all. This point becomes more compelling when one considers that Plato has plenty of opportunities in these passages to identify these complex objects as objects of perception. One such instance comes a bit later in the *Theaetetus* argument discussed above in which Plato indicates that although it is the case that what is common to objects of sense perception is apprehended by means of the soul

alone, one comes into contact with the *hardness of what is hard* and the *softness of what is soft* by means of the sense of touch (*Tht.* 186b2 – 4)⁶. Plato crucially doesn't here say that it is in perception that one accesses the thing that possess the qualities hard and soft, but he rather says that it is the quality only that is given in perception. Thus, this passage supports the view that what is perceptible is not the object to which the perceptible qualities are said to belong, but rather only the qualities themselves. There is further support for this point to be found in the argument at 156. In Plato's description of the phenomenological process by which the eye perceives whiteness, which is the example that he gives when articulating this theory, he indicates that the creation of the quality, i.e., whiteness, is a result of the interaction between the motions of the eye, and that of an external object. As Plato extends this example, he indicates that this object with which the eye interacts might be something like a stone or a stick, but what is crucial for our purposes is to note that Plato never says or even indicates that the external object that occasions the perception – the stone or stick – is itself perceptible, what he does say is perceptible is the whiteness that results from the interaction of the sense organ with that object (*Tht.* 156e5 – 7). The significance of highlighting this fact – namely, that Plato never anywhere indicates that the apprehension of the external object, if such apprehension is possible at all, is a function of perception – is to underscore the notion that, for Plato, the objects of perception are simple sense qualities *only*. And that there is no sense in which in coming to perceive the sense qualities we also come to perceive the object to which those qualities belong. Furthermore, it is likely that, on Plato's view, if we come into cognitive contact with the external object itself at all, it is only through a combination of other faculties of the soul. This, as we shall see, crucially distinguishes Plato's view of perception, and the perceptual process from that of Aristotle.

Finally, I'd like to turn to one further passage from the *Theaetetus* that provides additional theoretical support for the idea that Plato holds the view that it is only simple sense qualities that comprise the content of perception. As mentioned above, these lines, which appear, again, in the argument at 184, are brief, and their importance is often overlooked, but their significance both for the coherence of the argument in which they appear, and for determining the sort of perceptual theory that Plato holds cannot be understated. The statement to which I refer – the *idion* claim –

⁶ ἔχε δὴ: ἄλλο τι τοῦ μὲν σκληροῦ τὴν σκληρότητα διὰ τῆς ἐπαφῆς αἰσθήσεται, καὶ τοῦ μαλακοῦ τὴν μαλακότητα ὡσαύτως

is articulated just after the analogy of the wooden horse, and after Plato has made the following two crucial and related distinctions: (1) the distinction between that which perceives (the subject of perception) and that by means of which perception is possible (the means to perception); and (2) the distinction between the soul and the body. The latter distinction is meant to map onto the former insofar as the soul is understood as the subject of perception, and the individual bodily sense organs are taken to be the means to perception. In the passage beginning at 184e8 and extending to 185a2 Socrates says, “Are you willing to agree that what you perceive through one sensory power you cannot perceive through another? For example, what you perceive through hearing you cannot perceive through sight, and similarly what you perceive through sight you cannot perceive through hearing?” (184e8 – 185a2)⁷ In the very next line Theaetetus readily agrees to this claim, and the two interlocutors pass on immediately to further considerations. The swift manner in which Socrates raises this claim and then moves on to develop the distinction between perception and thought – the cogency of which depends on the very veracity of the *idion* claim – have led a number of commentators⁸ to the conclusion that Plato does not defend this claim, but merely assumes it. I will focus more deeply on the defense of the *idion* claim in the next section, and will argue against the view that it is unmotivated, but for current purposes I would like to dwell on this claim briefly in order to determine its relevance with respect to the objects of perception. Later we will look at the *idion* claim for the purpose of understanding both how it fits in the argument within which it appears, and what it tells us about the sort of perceptual theory that Plato holds.

Assuming, for the moment, that the claim is sound, I take it that the overall consequence of holding it as a component of one’s theory of perception, vis-à-vis the objects of perception, is that it significantly limits the possible scope of perceptual content. This is because according to the claim perception can only have for its objects those things that are communicable by means of the individual sense modalities. Now before we continue here we must decide how we ought to understand Plato’s use of this claim in the current context. As I see it, there are two senses in which this claim can be understood: the first is a weak sense, which holds that although it is the case that the immediate objects of perception are the simple sense

⁷ ἢ καὶ ἐθελήσεις ὁμολογεῖν ὅτι δι’ ἑτέρας δυνάμεως αἰσθάνη, ἀδύνατον εἶναι δι’ ἄλλης ταῦτ’ αἰσθέσθαι, οἷον ὅτι ἀκοῆς, δι’ ὅψεως, ἢ ὅτι ὅψεως, δι’ ἀκοῆς;

⁸ Prominent among these are D.K. Modarak (1981) and J. Cooper (1970).

qualities that are perceived by means of the information that is transmitted to the soul by the individual sense modalities, there are further perceptual objects – the external objects to which these qualities apply – and these objects are perceived in virtue of a perceiving subject's being in perceptual contact with the immediate simple objects (this, I take it, is the view held by Aristotle). The *idion* claim, understood in the second, stronger, sense holds that the objects of the faculty of perception are limited to those qualities, and only those qualities, that can be given by the individual sense organs, and that these objects represent the whole of perceptual content. It is my view that Plato intends for the claim in question to be understood in the latter, stronger, sense. The reason for this is based both upon the objects that Plato identifies as perceptual objects, discussed above, and the fact that he nowhere else indicates that there are further objects, other than these immediate objects, that are perceptible.⁹ Thus, we have good reason to think that the *idion* claim, for Plato, is not only a claim about immediate perception, and thus only pertains to a part of perceptual content, but is rather a claim about perception in general, and is one that encompasses the whole of perceptual content. This means that, on Plato's view, the content of perceptual awareness is limited to what is generated by the conveyances of the individual sense modalities, and it is not the case that there are any single objects that can arise in the soul as the result of the disturbances conveyed by two distinct sense modalities.

The next question to ask is, what are the contents of these sensory transmissions? If we think for a moment about the objects that we perceive by means of vision, for example, which are also excluded from, or unable to be perceived by means of hearing, the answer would have to be colors. Similarly, if we think about what results from the interaction of the tongue with an external stimulus, and is also excluded from those perceptions that result from the conveyances of the sense of touch, the response, I think, would have to be that it is tastes that are perceptible by means of the sense of taste, but not by means of the sense of touch. This is all just another way of saying that it is not possible to hear colors, or to see sounds, just as it is impossible to feel flavors or to taste tactile properties. This seems to be the force of

⁹ A.J. Holland notes, "Moreover, the doctrine [the *idion* claim] is, apparently, asserted in its strongest form. That is to say, Plato does not imply merely that there are *some* objects of sense-perception which are private to just one sense. What he says, apparently, is that *any* objects of sense-perception is private to just one sense" (102). Holland goes on to claim that although this view is difficult to justify, there are scant references elsewhere in Plato that tell in its direction. I agree that both that the strong version of the *idion* claim is a view that Plato holds, and that the justification for claiming this comes, in large part, from interpreting things that Plato says elsewhere as being consistent with it.

Plato's claim at this point in the *Theaetetus* – namely, that perception is limited to those objects that are properly perceptible by means of each individual sense modality, and are not perceptible by means of any other sense. In other words, there is no cross modal perception on Plato's view. Now one might object to the validity of this claim by arguing that there are sensible properties of objects that are properly perceptible by means of multiple sense modalities, for example, shape, it might be claimed, is perceptible by means of both vision and touch, or that motion is perceptible by means of all of the senses, and that these are examples of perceptible objects that are not simple sense qualities. Unfortunately Plato doesn't address this objection directly, but based on his articulation of the *idion* claim, and the understanding that he intends it to be a claim about perception in general, an understanding the veracity of which is reinforced by the fact that he doesn't indicate anywhere in the dialogues that there is any further perceptual content, he would have to maintain one of two positions: either these properties – namely, shape, motion, etc. – are apprehended by a single sense modality; or these are not perceptual properties at all, but that they are features that can only be apprehended by a distinct cognitive faculty.

Thus we can see that the *idion* claim, coupled with the fact that throughout the later dialogues Plato refers only to simple sense qualities when he speaks of the content of perception, gives us good reason to think that these qualities comprise the whole of perceptual content. This limits Plato's understanding of what can be perceived to colors, sounds, tastes, scents and tactile qualities (contact, temperature and resistance-based qualities), as opposed to complex objects that possess multiple qualities, or simple objects that apply in common to multiple sense qualities (the *koina*). What remains in need of defense, however, is the ground for Plato's assertion of the *idion* claim itself. In other words, what remains unjustified is the idea that this is a coherent claim both in its own right, and within the context of the argument in which it appears. It is the defense of this claim to which the next section is addressed.

3.3 The Defense of the *Idion* Claim

In the previous section it was argued that Plato's articulation of the *idion* claim in the *Theaetetus* – the claim that what is perceived by means of one sensory power cannot be perceived by means of another – when viewed in conjunction with the references he makes to the objects of perception in the later dialogues gives us good reason to

think that, on his view, the content of perception is limited to simple sense qualities. This section will look at the *idion* claim itself in more detail, and will assess it from three perspectives. The first, and arguably most important of these is whether Plato provides any support for the claim in the context of the argument in which it appears. In other words, is the claim prepared for, and is Plato justified in making it? Or does he simply assume the cogency of the claim without any theoretical warrant? It will be argued here that the theoretical grounding for the assertion of the *idion* claim is to be found in the process of perception as Plato characterizes it several lines prior to its assertion. It will be further argued that this process, as it is presented at *Theaetetus* 184 is characteristic of an indirect understanding of perception, and that this indirectness not only provides the requisite justification for the *idion* claim, but also necessitates its articulation. The precise conception of indirectness with which we are working here will be spelled out below. This view – namely, that the *idion* claim is justified and necessitated by the commitments that immediately precede it – runs against the views of several important critics on this passage. The second perspective from which the *idion* claim will be examined concerns its relation within the argument to what follows from it. We will look at the claim's centrality both to Plato's theory of perception, as well as to the way in which Plato employs it a basis upon which to draw the distinction between the faculties and objects of perception and thought. Finally, we'll examine what implications this claim has for our understanding of perception, and in particular for how we should understand the objects of perception, based on the distinction that Plato draws, by means of the *idion* claim, between perception and thought.

The *idion* claim is central both to Plato's theory of perception, and for his development of the distinction between the faculties of perception and thought – If this point isn't clear yet, it hopefully will be by the end of this section – and, as such, it is important, if we are to think of Plato's theory of perception as being at all compelling, to show that the claim itself is justified, or if not justified in its own right, at least prepared for, within the context of the argument in which it appears. It has become somewhat of a commonplace in scholarship on the *Theaetetus*, and on the passage that runs from 184 – 187, in particular, to claim that Plato does not offer any justification for this move in the argument, and that he merely assumes the veracity of the *idion* claim without arguing for it. For, as John Cooper remarks “Furthermore, though without arguing the point, Plato seems to limit sense perception to what may

be called elementary sense perception, i.e., perception of the ‘proper objects’ of the five senses: colors, sounds, tastes, smells and a supposed analogue for touch.”¹⁰ Similarly, D.K. Modrak writes, “To sum up, *there is no argument given at 184 – 186 for the crucial premiss that an object perceived through one sense cannot be perceived through another*. This seems to be an empirical claim, and consequently its justification depends upon the acceptance of a theory of perception which warrants its assertion.”¹¹ Modrak goes on to claim that it is the perceptual theory at 156 that provides this justification, whereas, on my view, it is the features of the perceptual process given at 184 that gives Plato good reason to maintain the *idion* claim. This conclusion – namely, that Plato provides no justification for the claim – is certainly an easy one to draw from this argument, especially considering the swiftness with which Plato moves from the beginning of the argument, to the *idion* claim and then again on to the conclusions that follow from it. And Modrak is correct that there is no argument given for it, as such, but it is my view that this understanding comes from a lack of serious attention to the process of perception that Plato proposes in the first part of the argument. If we carefully examine these views about the perceptual process as well as the implications that follow from them, we will see that not only is the *idion* claim justified, but also that its assertion is necessitated by the very process of perception itself.

The argument at *Theaetetus* 184 begins with Socrates’ indication that he would like to pick up on something that was incorrect in their earlier discussion about perception (*Tht.* 184c1 – 7). As discussed above, in chapter 2, this error is concerned primarily with the way in which they had conceived of the subject(s) of perception in the earlier theory of perception, articulated at 156. In this earlier discussion, the senses (and their bodily analogues) had been identified as those things which actually perceive, but Socrates establishes, in the argument at 184, that it is rather the case that the sense organs, and the powers that operate through them, are those things through, or by means of which perception is made possible for some other subject. The reason why Plato thinks this clarification is necessary is then articulated in the analogy of the wooden horse (*Tht.* 184d1 – 5). Here he clarifies his point by illustrating what perception would have to be like if the individual senses were actually percipient. In this analogy, Plato reiterates the notion that there are two components to perception:

¹⁰ Cooper (1970), 124 (emphasis added)

¹¹ Modrak (1981), 41 (emphasis added)

there is a physical aspect, which does not perceive; and there is a part that is contained within the physical, and which serves as the subject of perception.¹² The part of the analogy that Plato finds to be unsatisfactory is the idea that the percipient entities that are ensconced within the physical component are separate from one another, and are, as a result, disconnected. Within the context of the analogy, the wooden horse itself represents the physical aspect, and the warriors that are situated inside of it represent the percipient senses. Depending on how seriously we are meant to take the analogy, it seems that on the characterization that Plato gives, not only is the horse physical, but the warriors that stand inside of it appear to be as well. This component of the analogy could be meant to underscore the connection between the sensory powers – sight, hearing, etc. – and the corresponding bodily organs by means of which they are actualized. At any rate, the imperfection of the analogy, for Plato, lies in the disjunction between the individual perceiving subjects, and as a result, Plato suggests that it is more likely the case that there is some singular form (ἰδέα) to which all of the senses converge, and with which we perceive all that is perceptible. This means that the major contribution of the analogy of the wooden horse to the conception of the process of perception as Plato is characterizing it is that it adds a further component to this process. This component, although it is still contained within the physical, serves as a receptor of the conveyances of the various and disparate senses and is also able to apprehend the objects of perception, which it does by means of the information that is conveyed to it by these senses. Although in the analogy itself Plato doesn't identify this percipient form explicitly he does ambivalently suggest that it might be referred to as soul (ψυχὴ) and, as argued above, it makes good sense to think that it is, in fact, the soul that Plato thinks is responsible for perception. In the next step in the argument at 184, Plato further clarifies the picture that he had begun to paint with his initial distinction, between the subject of and means to perception and the analogy of the wooden horse. Here he designates the senses, and with them the organs by means of which they are actualized, as bodily,

¹² The justification for referring to the percipient entity as being “within us” comes from two locutions that Plato employs in the analogy of the wooden horse. The first is when he compares the senses to the warriors in the wooden horse and refers to them as being “within us” (ἐν ἡμῖν). The second reference occurs when he characterizes the senses as converging “into some one form” (εἰς μίαν τινὰ ἰδέαν). Although Plato is using the first phrase to refer to the situation that he ultimately rejects, what he finds to be unsatisfactory about the scenario is not the location of the percipient entity, but the lack of unity within it. Thus, there is already, in the very language that Plato uses to refer to the process of perception, a sense that perception is an internal activity.

while again referring to that which perceives as being inside of the perceiving subject (*Tht* 184d7 – e6). Thus he reinforces the notion that there are two components in the perceptual process, the one, bodily corresponding to the sense organs and their respective powers, the second, which had provisionally been identified as soul, although not explicitly non-bodily, is certainly distinct from the bodily senses and is characterized as being located within the perceiving subject.

Now that we have a sense of the general structure and content of Plato's characterization of the process of perception that immediately precedes the articulation of the *idion* claim, let's look at the way in which these lines can be understood as providing the requisite justification for the claim itself. The first step is to show that the features that Plato identifies as comprising the perceptual process commits him to the view that perception is indirect. The notion of indirectness with which Plato's discussion is consistent, can be understood in terms of the causal argument for indirect perception. This position, as it arises in this argument, holds that the end state of the causal chain that begins with an external object and culminates in an act of perception, can be characterized for what it is – namely, a perceptual experience with a particular content – without any necessary reference to the external object that stands at the beginning of the chain.¹³ There are two main features of Plato's argument that give rise to the view that his conception of the perceptual process is indirect: (1) the claim that the subject of perception is distinct from the means to perception, and that the one is non-bodily, while the other is bodily, and (2)

¹³ Howard Robinson (1994) presents an argument for sense data that relies on a conjunction of the causal argument coupled with the argument from hallucination. In the process he presents two accounts of the causal argument. The first is a form of the classical formulation of the argument and runs as follows: "(7) Perceptual experience occurs at the end of a causal chain running from the external object to the brain. (8) The content of perceptual experience is part of, or internal to, the experience. (9) If something occurs at a certain location anything that is part of or internal to it occurs at (or within) that location. Therefore (10) the content of perceptual experience occurs at the end of a causal chain running from the external object to the brain. The argument is then completed exactly as before: (11) Things at opposite ends of a causal chain cannot be identified. Therefore (12) the content of perceptual experience is not identical with the external object perceived" (86). Robinson then goes on to say that the cogency of this argument depends upon a conception of content that justifies (8). He provides such a justification later when he combines the causal argument with the argument from hallucination and claims that (1) hallucinations and perceptions have the same immediate causes – namely, a particular brain state. (2) Hallucinations and perceptions, if they result from the same brain state are qualitatively identical experiences, and thus possess the same content. If a perception and a hallucination can possess the same content, and in the one case the external object is present, while in the other case it isn't, then the end state of a causal process that culminates in perception can be characterized for what it is – namely the awareness of a particular content – without reference to the external object that sets the causal chain in motion. We shall see that Plato has a similar argumentative strategy at his disposal, but for current purposes, the important thing to note is Robinson's characterization of the causal argument.

that the subject of perception is internal. From the reconstruction of the argument presented above, it should be clear that the primary purpose of these lines is to make a significant distinction between the part of perception which is bodily – namely, the senses and sense organs – and that component of the perceptual process which is distinct from the body – the soul. Although Plato doesn't explicitly designate the soul as non-bodily, it makes sense to think that, based on the distinction that he draws between the functions of the soul and the senses in perception as well as the pains to which he goes to designate the senses as bodily, that this is a conclusion that he would endorse. These aspects of perception, the senses and the soul, correspond to the means to, and subject of perception respectively. In addition to this, another important point, which was mentioned briefly above, is that the locution that Plato uses, particularly in the analogy of the wooden horse, in describing the subject of perception gives the sense that this subject is an internal element of the person for whom the perception takes place.¹⁴ This means that in addition to the bodily/non-bodily dichotomy, Plato also draws a distinction between that component of perception that is internal to the perceiving subject, and that aspect which serves to provide a link between the external world, and the internal perceptual element. In order to make this distinction more perspicuous, let us dwell again briefly on the significance of the alteration to the perceptual process that Plato makes in the analogy of the wooden horse. It is in this correction that the conception of indirectness outlined above begins to become clear. In the perceptual schema that Plato first articulates in the analogy of the wooden horse, the one that he refers to as strange (δεινὸν) the senses serve as both the means to and the subjects of perception. Therefore, according to the view that Plato rejects, it is the bodily sense organs that are both affected by the external objects that give rise to the perceptions, and perceive the perceptual objects to which they give rise. This means that since the act of perception itself can be explained in terms of the sense organ coming into contact with the external object, and since there is nothing further to which an explanation of the perception need appeal, an explanation of the perception can be given in terms of, and must make necessary reference to the object

¹⁴ In the analogy of the wooden horse Plato says the following: δεινὸν γάρ που, ὧ παῖ, εἰ πολλαί τινες ἐν ἡμῖν ὥσπερ ἐν δουρείοις ἵπποις αἰσθήσεις ἐγκάθηνται, ἀλλὰ μὴ εἰς μίαν τινὰ ἰδέαν, εἴτε ψυχὴν εἴτε ὅτι δεῖ καλεῖν, πάντα ταῦτα συντείνει, ἥ διὰ τούτων οἷον ὀργάνων αἰσθανόμεθα ὅσα αἰσθητά. The key phrase in this passage is Plato's reference to the senses as being in us (ἐν ἡμῖν). This is further accentuated by his characterization of the scenario that he finds to be less strange, whereby these senses converge to a single form which is able to perceive all that is perceptible.

that stands at the beginning of the causal chain. This is because it is that object with which the perceiving subject comes into contact, and which constitutes the content of the perception. Furthermore, on the theory presented at 156, visual perception is accomplished by the seeing eyes, which are described as being filled with sight and as perceiving the very same quality that comes to be possessed by the external object (*Tht.* 156d2 – e7). This means that on this earlier theory not only is it the case that each sense is individually percipient, but an explanation of the act of perception itself requires necessary reference to the external object that possesses the quality perceived, or at least the quality that that object possesses. To the view with which Plato replaces this unsatisfactory picture, on the other hand, he adds a component that is missing from the original formulation. The subject of perception, in the process that Plato endorses, represents an entity that is distinct and separate from the senses. In addition, while the senses still serve as the means to perception on this view, they are no longer also the subjects – i.e., they no longer represent the end of the line in the causal perceptual chain. Thus on this corrected conception of the perceptual process, the senses are still understood as coming into direct contact with, or as being directly affected by the external objects, but now, instead of these very same senses also being the subjects of perception, they are interposed between the external objects – which stand at the beginning of the causal chain that culminates in perception – and the soul to which the senses converge, and which represents the subject of the perception, and thus the location of the end state of the causal chain. Thus, the act of perception – the soul's awareness of a perceptual object – which represents the end state of the causal process, and arises by means of the disturbances that are transmitted to the soul by the senses, can be characterized for what it is, namely a reaction to these disturbances, without necessary reference to the external object that causes the perception. This is because the perceptual process is divisible into two distinct stages, and, as a result, all one needs to explain the end state of this process, is an account of the second stage – namely, the reaction within the soul to the senses knocking on its door. There is quite a bit of detail concerning Plato's views on the perceptual process that still remains obscure, but these will become clear in due course. What is important for our purposes is that Plato's shift of the subject of perception from the senses to the soul, as well as his characterization of the perceptual process into a two-part process is consistent with an indirect view of perception. We shall see that the claims that Plato

makes concerning the perceptual process are not only consistent with indirectness, but that they necessitate acceptance of the view of indirectness presented above.

The significance of the notion that the process of perception, as Plato characterizes it in this argument, is consistent with the view of indirectness outlined above, does not lie only in what it tells us about Plato's theory of perception in general, for it is also the case that an understanding of this process coupled with the indirectness thesis, necessitates the articulation of the *idion* claim. To summarize briefly, based on the above discussion, and what Plato says both in the analogy of the wooden horse, and immediately following that passage, we can begin to piece together a perceptual process that runs as follows: perception involves two stages. The first is a physiological stage whereby the bodily sense organs, and the senses that operate through them, are affected by external objects. The second stage brings in a psychological aspect, and involves the transmission of these physical disturbances through the body to the soul, these disturbances affect the soul in some way, and it is by means of this encounter that the soul is able to perceive.¹⁵ Now there is a real sense in which the *idion* claim follows directly from this process coupled with the conception of indirectness, characterized above. This view hinges on two points that Plato makes in the argument. The first is Plato's division of the perceptual process into two distinct steps. Since he designates the soul as the subject of perception, and further indicates that that which provides for the possibility of the soul's perceiving is its relationship to the senses, this means that the senses play a necessary role in the perceptual process. Furthermore, since each of the senses operates only through the organ that is specific to it, it follows that, for example, a perception of a color can arise in the soul only through the transmission of disturbances specific to the sense of sight. Now this isn't to say that in order for such affections to reach the soul, and for the soul to perceive, there must, simultaneously, be an external object that is suitably affecting the eyes, in fact, Plato clearly thinks this needn't be the case. In the *Timaeus* (45d7 – 46a2) he characterizes dreams as arising in the soul, in the same way as

¹⁵ There are clearly some aspects of this account that are not included in the discussion at 184, such as, the existence of external objects, and the interaction between the sense organs and these objects. I think, however, that based on the language of internality that Plato uses to characterize the location of the soul, coupled with his claim that the senses converge to the soul, and it is by means of each of these that the soul is ultimately able to come into cognitive contact with the objects of perception, these are justified assumptions. Furthermore, they are assumptions that will be corroborated in the next chapter when we look closely at the relationship between the physiological and psychological components of the perceptual process.

perceptions, but indicates that they arise as the result of motions that remain in the body after the sense organs have been shut off from the external world. Furthermore, in the *Theaetetus* (158b5 – c8) the states of dreaming and waking are characterized as being phenomenologically identical states, which means that dreaming, on this understanding, is a sort of perceiving. Be that as it may, based on the relationship between the soul and the senses that Plato develops at *Theaetetus* 184, and the senses' character as operating through their individual sense organs, it makes sense to think that the disturbances that are conveyed to the soul by sight, which is specific to the eyes, cannot likewise be transmitted to the soul by means of hearing, which operates solely through the ears. The second point to make in this regard has to do with the indirectness thesis. Recall that the claim of indirectness maintains that the characterization of the end state of the causal perceptual process need not make any necessary reference to the beginning state – i.e., can be understood for what it is completely independent of the object that stands at the beginning of that process. Since, for Plato, the objects of perception are simple sense qualities, and not the complex objects that we often assume to stand at the beginning of the causal process, and to constitute the content of perception acts, it follows that each of those sense qualities is only going to be perceptible by means of the sensory apparatus that is specific to it. If, on the other hand, it were the case that the objects of perception were the complex objects that stood at the beginning of the causal process, then there would be no need to hold the *idion* claim. In fact, such a claim would be incongruous with this view, since each sense modality would pursue one and the same object. One could, of course, object to this view by maintaining that although perception has only the proper objects of each sense as its immediate content, that in perceiving these objects one ultimately perceives the complex object of which these are features, and which stands at the beginning of the causal process. This is the line that Aristotle takes, and it will be addressed in detail in chapter 5, suffice it to say that Plato makes no such claim, and if he did, it would, in fact, be inconsistent with his characterization of perception as a two-step process. For if, on Plato's view, a complex object is going to be perceptible, it must be the case that the awareness of such an object can be obtained through the conveyances of one of the sense modalities. Since, however, there is no sense modality specifically suited to perceive this sort of object, any cognitive awareness of it is not going to be a function of the perceptual faculty.

Thus we can see that based on the process of perception, conceived of as a two-step process, and the indirectness thesis, which arises from this process, and which tells us that the characterization of the act of perception need not make any necessary reference to an object that sets the causal process in motion, Plato's articulation of the *idion* claim, and thus his justification for the limiting of perceptual content, is not only natural but necessitated. For since the subject of perception cannot come into direct contact with the objects that stand at the beginning of the causal process, the information by means of which it perceives its objects is provided to it only by the senses, and thus its perceptual function is completely dependent upon receiving their conveyances. We shall see in the next chapter that Plato develops an account of the physiology of perception according to which, the structure of each of the senses and their corresponding sense organs is sufficiently distinct, and the mode by which they each apprehend their objects is sufficiently different, that, for example, the physiological process that gives rise to color perceptions, is not the sort of process that could, in principle, give rise to taste perceptions, and vice-versa. This, however, is to anticipate. For the moment let us turn our attention back to the objects of perception in order to see what consequences arise from Plato's articulation of the *idion* claim duly supported by the indirectness thesis.

3.4 *The internality of the objects of perception*

This section will look once again at the status of the objects of perception in light of the observations made in the previous section. There it was argued that based on the process of perception that Plato presents in the first part of the argument at 184, it makes sense to think that perception is, at least in some sense, indirect, and it is this indirectness that not only justifies, but necessitates the articulation of the *idion* claim. Based on this understanding it will be argued here that the maintenance of the *idion* claim, duly supported as it is by the indirectness that arises from the process of perception presented immediately prior to its articulation, leads to the further view that the objects of perception are internal to the perceiver, and are private objects accessible by the perceiver alone. Furthermore, this claim of internality applies, as did the claims defended above, to both the immediate and ultimate objects of perception, since, for Plato, contra Aristotle, the immediate and the ultimate objects of perception are the very same objects. In addition to this, the claim also serves to further distinguish the objects of perception from the external objects that Plato takes to be

responsible for a subject's becoming aware of those perceptual objects. This distinction consists in the fact that the objects of perception are not only not identical with the external objects that stand at the beginning of the causal chain that culminates in perception, but they are also themselves not external in any way, but are rather internal, private objects that are distinct from, and as it will emerge, separable from their external causes. This section will begin by examining how Plato's claims in the *Theaetetus* and elsewhere serve to provide the groundwork which ultimately leads to the understanding that the objects of perception are internal, private objects, and, in particular, it will examine how this understanding arises from the *idion* claim supported by indirectness. It will show that there is good reason to think that, for Plato, the objects of perception are not only internal to the perceiver, but that the content of perceptual experience is internal and separable from its external cause. This conclusion will be argued for by using Howard Robinson's discussion of the theoretical implications that follow from holding a form of both the causal argument for perception as well as the argument from perceptual illusion.

As was argued in the previous section, Plato's distinction between and separation of the means to and the subject of perception in the analogy of the wooden horse, coupled with his characterization of the process of perception, whereby the sensory powers, by means of the bodily sense organs, come into contact with external objects, that stand at the beginning of a causal chain, and then transmit the disturbances that result from this interaction through to the soul where perception occurs, serve to indicate that there is a certain and very salient sense in which perception, on Plato's account, is indirect. This is because, on the account given above, that which perceives does not come into direct contact with the objects that occasion the perceptions – namely, the external objects that stand at the beginning of the perceptual causal chain; it is rather the case that the soul is only affected by the transmissions of the various senses. And thus, the perception itself can be characterized without necessary reference to the object that stands at the beginning of the causal chain. Furthermore, it is this indirectness that emerges from the process of perception, as Plato characterizes it, that necessitates the articulation of the *idion* claim. And the *idion* claim, whatever else it may be, is primarily a claim about the objects of perception. In section three, it was shown that although the function of the *idion* claim, within the context of the argument in which it appears, is to distinguish the objects of perception from the objects of thought, there is a secondary

consequence that arises from its maintenance – namely, that it serves as a limiting principle that restricts perceptual content to only those features of objects that can be perceived by means of the disturbances transmitted by the individual senses. Now we will look at what further implications follow from the *idion* claim as it pertains to the objects of perception. This investigation will be carried out in light of the relationship that the claim has to the indirectness thesis.

There are two ways by which the *idion* claim, coupled with the claim of indirectness, impacts the way in which we ought to understand the status of the objects of perception. The first has to do with the relationship between external objects, and the objects of perception. One of the stated purposes of this chapter is to argue that, for Plato, the objects of perception are simple sense qualities only. As discussed above, the defense of this claim hinges both on how Plato refers to these objects in the dialogues, as well as his characterization of the process of perception coupled with the *idion* claim. But this commitment to understanding the content of perception as limited to simple sense qualities, also lends credence to the view that the content of these perceptual experiences is internal to the perceiver. This is because if we understand the objects that populate the external world to be complex objects composed of multiple sense qualities, then it is not these objects themselves that are perceptible, but only, perhaps, certain features of these objects. This, however, doesn't go nearly far enough toward showing that the content of perceptual experience is internal. For it could be the case that although it is only the individual sense qualities of objects that are perceptible, and not complex objects, qua complex objects, these sense qualities are the very qualities that combine to compose the complex objects, and thus it is the very colors, sounds, etc. that exist in the external world with which we come into perceptual contact. Thus, if the understanding that the objects of perception are simple sense qualities is going to justify the claim that these perceptual objects are internal to the perceiver, it would need to be the case that these qualities represent secondary qualities of the external objects.¹⁶ Although I do think that Plato's characterization of the relationship between the physiology and psychology of perception does tell in this direction, we do not have quite enough

¹⁶ By "secondary qualities" here I mean qualities that arise as the result of a perceiver's interaction with an external object and which are caused by features of that object that are distinct from the perceived quality. Thus, while these can be said to be qualities of the external objects, since they are caused by those objects, they are not features that the objects possess intrinsically, but only with respect to the objects' interaction with a perceiver.

evidence to make a claim on those grounds here. This is an issue that will be raised in the next chapter. The second element of the *idion* claim supported by the indirectness thesis that tells in favor of the view that the content of perceptual experience is internal has to do with the directionality of the causal chain that results in perception. As mentioned in section three, the language that Plato uses to describe the soul and the senses throughout the beginning of the argument at *Theaetetus* 184 is the language of internality. He indicates, in the analogy of the wooden horse that the soul is within us, and that the senses converge to the soul. Furthermore, the *idion* claim itself serves to reinforce this view, since it indicates that the disturbances that are communicable to the soul are limited to those types of disturbances to which the individual sense modalities are sensitive. Furthermore, and what is notable about Plato's characterization of the process itself is that, the insensate sense modalities, rather than providing the soul with access to the objects of the external world, transmit to the soul specific disturbances which give rise to perceptions. This means that despite the fact that the perceptual faculty of the soul is unified, as was established in the analogy of the wooden horse, the awareness to which it is able to attain is still dependent upon the individual senses. In other words, based on the *idion* claim and the indirectness of perception, it is not the case that the soul can just reach out through the senses in order to come into contact with the objects of the external world, but it must rather wait to be affected by the senses, and it is the reaction to these affections that give rise to perceptual content. Therefore, since it is the case that the soul is characterized as being internal to the body, and since the direction of the perceptual process is from external to internal rather than the other way round, there is good reason to think that the content of the perceptual awareness to which the soul's intercourse with the senses gives rise is ultimately internal, despite its external cause.

In addition to the evidence for the internality of perceptual content that arises from the *Theaetetus* argument, corroboration of this claim can also be found in the way that Plato characterizes the relationship between the soul and the body elsewhere, and in particular his claims about the fallibility of perception. Let us first examine this issue through a claim that Plato makes about the relationship between the soul and the body. It is clear from the discussion of indirectness that the soul, conceived of as the subject of perception, does not come into direct contact with the external objects. It is rather the case that the soul is able to perceive only by means of the disturbances that are transmitted to it by the senses, these motions bang up against the soul, and the

result of this interaction is the soul's awareness of some perceptual object. In the *Philebus* Plato goes some way toward elucidating the relationship between the soul and the body in perception, he does so through a discussion of the way in which the body is affected by external stimulation, and how this must occur in order for perception to take place. Here Plato indicates that when a bodily affection is extinguished before it penetrates all the way through to the soul, no perception can occur; perception is possible only when the senses and the soul are affected each individually, in their peculiar way, and both together, in a common way (*Phil.* 33d2 – 5). This passage, especially when viewed in the context of the argument in which it appears, indicates that in order for a perception to occur at all both the sense faculty and the soul must be affected, but each of the two components in the perceptual process is affected in its own particular way which is different from the way in which the other is affected. One way of understanding the force of this claim is that it maintains that there are two sorts of affections that occur in perception: the one is the result of the interaction between the sense faculty and the external object, and should that disturbance eventually penetrate all the way to the soul, then the interaction between the affected sense faculty and the soul results in another sort of reaction. If this view is correct, then it would indicate that the affection that results in the perception is a different sort of affection from that which comes about from the intercourse between an external object and the body. Furthermore, it is important to note that Plato doesn't indicate here that an external stimulus is necessary to cause a bodily affection; he only focuses on the relationship between bodily affection and psychical reaction.

If we look at these claims again in conjunction with the points that Plato makes in the argument at *Theaetetus* 184, as well as elsewhere in the dialogue about the fallibility of perception, we can begin to see that not only are the objects of perception different from the external objects – since the interaction of the external objects upon the body is different from the interaction of the body upon the soul, and the affections that result in the perception of these objects are different from the affections that come about from the interaction between the senses and the external objects – but also that there is good reason to think that the content of perceptual experience is internal to the perceiver. This point is supported by the fact that in his initial discussion of *Theaetetus*' definition of knowledge as perception, which he interprets to be the same as Protagoras' "man is the measure" doctrine, Plato indicates

that on this Protagorean view perception must be infallible, since this is a characteristic of knowledge, but it is empirically true that we are frequently mistaken in what we perceive. Fallibility here means that the object of perception does not correspond in any accurate way, to an object out there. This can happen when two people perceive the same object as possessing two different colors, or when someone hallucinates, or dreams, and, in so doing, comes into perceptual contact with an object that doesn't have any external correspondence at all (*Tht.* 157e1 – 158e4). These arguments against the Protagorean view have implications not only for the relationship between perception and knowledge, but also for Plato's understanding of the objects of perception themselves. This is because an instance in which a perceiving subject hallucinates, and comes into perceptual contact with an object that has no specifically identifiable external cause, indicates, at a very basic level, that it is possible for an object of perception to arise in the soul independently of a corresponding external object. If this were true, then it would indicate that at least some perceptual content is separable from its external cause, since it appears that perceptual content can arise without specific external stimulation. Furthermore, Plato's claim here appears to extend beyond anomalous cases of hallucination, which he identifies as belonging primarily to madmen, for he refers in this passage to all cases of misperception. Such cases can arise in any number of ways, from the specific condition of a perceiver's perceptual apparatus, to the position of the perceiver with respect to the external object, as well as the external conditions under which the object causes the perception. If, for example, Frank drinks from the pint of stout and perceives a taste that is smoky and nutty, while Lisa, who happens to be suffering from the flu, also drinks from the same pint and perceives a taste that is bitter and slightly rancid, then we have a case in which two qualitatively distinct perceptions result from the interaction of two separate perceivers with one and the same external object. In such a case, the soul's awareness, which results from its interaction with the transmissions of the sense of taste, and the result of this interaction – the quality or object that is perceived – is, in this case, different depending on the condition of the perceiver. Since the two perceivers do not have the same perceptual objects, despite the fact that we take it that the external object is the same, but have rather perceived objects that are different from one another, this shows that there is no necessary correspondence between the perceptual experiences of different perceivers. Now this doesn't show definitively that the objects of perception are internal, because it could

just be that Frank and Lisa both perceive the taste of the pint but in different ways. We shall see presently, however, that we have good reason, based on these claims concerning the fallibility of perception, coupled with the *idion* claim supported by the indirectness thesis, to think that the content of perceptual experience is, in fact, internal.

As argued above, the indirectness that emerges from Plato's characterization of the perceptual process at *Theaetetus* 184 gives rise to the *idion* claim; the *idion* claim, however, coupled with the indirectness that supports it leads to the view that the objects of perception are internal or private objects. If we take the indirectness thesis seriously, it tells us that the objects of perception are distinct from the objects that stand at the beginning of the causal process and which set that process in motion. This, of course, is a natural upshot of the classical formulation of the causal argument for the existence of sense data. For as Howard Robinson notes, the conclusion of the causal argument holds that "Things located at opposite ends of a causal chain cannot be identified. Therefore, the content of perceptual experience is not identical with the external object perceived."¹⁷ He, however, goes on to indicate that the force of this argument hinges on an interpretation of the content of a perceptual experience which strong enough to justify the claim that "the content of a perceptual experience is part of or internal to the experience."¹⁸ The task, therefore, is to show that the content of perceptual acts are not, and do not merely represent the objects that stand at the beginning of the causal process, otherwise the one could be understood either to be, or to be of, the other. Based on the process of perception we know that, for Plato, perceptual experiences are psychical experiences; they are located within the soul, and the soul is presented as internal to the body. Furthermore, the content of each perceptual experience arises as the result of the peculiar disturbances caused within the soul by each of the senses. If we also take it that the perceptual object that arises through one sense modality cannot be the same object that also arises through another – for example, one is a color and one is a sound – then the content of each of these perceptual acts is different and must be part of the experience itself, to the exclusion of other content. Thus, on this view of the perceptual process the experience of seeing a black color patch is the result of transmissions from the visual sensory apparatus affecting the soul so as to cause in the soul the awareness of the color black. The

¹⁷ Robinson (1994), 86.

¹⁸ Ibid. 87.

important point here is that all that perceptual experience can put us in contact with – the only content it can have – are the individual sense qualities. Since, for Plato, the individual sensory mechanisms are not characterized as capable of transmitting sense qualities, but rather as conveying the disturbances by means of which sense qualities are perceived, and since these qualities arise in the soul, there is good reason to think that the qualities themselves are psychical objects. If we now take it that the object that sets the causal perceptual process in motion is a complex object composed of multiple sense qualities, or is an object that has characteristics suitable to cause the awareness of these sorts of perceptual qualities, then it makes sense to think that the content of the perceptual experience is not of that object itself.

This goes some way toward showing that the objects of perception are internal, but in order to fully justify this claim, one must take this view of the causal perceptual process in conjunction with what Plato says about hallucinations, dreams and misperceptions. This is precisely the approach to justifying sense data that Robinson takes in his book. He argues that alone none of the individual arguments for sense data are strong enough to justify the conclusion, and thus the way to defend the claim that the content of perceptual experience is part of, or internal to the experience is to show that anything that is part of or internal to an event that occurs at a location also occurs at that location. This he accomplishes by combining the causal argument and the argument from hallucination.¹⁹ The causal argument gives us the foundation for the internality claim by providing that since the external objects and the objects of perception occur at different ends of the causal chain they cannot be identical. The task then is to show that not only are these objects not identical, but also that the objects of perception don't merely stand for, or represent the external objects. This, according to Robinson, is accomplished by the argument from illusion, which shows that there are cognitive acts that are qualitatively similar to perceptions and have the same causal basis, and that the content of these acts lack any corresponding external stimulus. Robinson argues that if it is the case that it is theoretically possible to produce a hallucination that is qualitatively indistinguishable from a perception, and if both the hallucination and the perception have the same neural cause, then it is "not, for example, plausible to say that the hallucinatory experience involves a mental

¹⁹ Ibid. 86 – 90.

image or sense datum, but that the perception does not.”²⁰ That Plato thinks that perceptions and dreams or hallucinations do have the same proximate cause, I take it, is clear from his discussion of dreams in the *Timaeus*. In this passage, discussed in the previous section, Plato indicates that dreams result from disturbances that remain in the body after the senses have been shut off from the external world (*Tim.* 45d7 – 46a2). Thus, for Plato, there is at least one sort of cognitive condition that is qualitatively identical to perception and results from the same proximate cause – i.e., bodily disturbances reaching and affecting the soul – but which has no direct external cause. It seems, therefore, that the two parts that constitute the causal perceptual process are separable. It is the second of these two parts that directly gives rise to perceptions, and these states can, at least in some cases, be induced independently of the first part of the process. This provides further credence to the view that the objects of perception, and the content of perceptual experiences are internal to the perceiver despite often having an external cause.

Thus we can see that not only does the indirectness of perception, that becomes evident from a careful reading of the way in which Plato characterizes the process of perception, justify Plato’s articulation of the *idion* claim, but also the *idion* claim itself duly supported by the notion of indirectness leads naturally to a further crucial conclusion about the objects of perception – namely, that these objects, understood as the content of perceptual acts are internal rather than external objects, and that they are private to the perceiver for whom they occur. This conclusion is supported by the way Plato characterizes perception both in terms of the indirectness of perception, in the way that he conceives of the relation between the objects of perception and external objects, and in terms of the *idion* claim. The first of these comes out in his discussions throughout the later dialogues of the way in which the external objects affect the senses, and then how these senses in turn affect the soul, and how this second type of affection leads ultimately to perception. Furthermore, it is also evidenced in Plato’s assertion that there are cognitive states in which a subject appears to be, or at least takes himself to be, in perceptual contact with an object for which there is no direct external stimulus. The examples that Plato gives, which indicate that he does believe that experiences of this sort are possible, are hallucination, when a subject is in a state of madness and dreaming. Furthermore, the

²⁰ Ibid. 151.

fragmentation of the senses into individual distinct sense modalities coupled with the unity of the soul, conceived of as perceiving subject, which comes out in the analogy of the wooden horse, and what immediately follows it, paves the way for the articulation of the *idion* claim, a claim which serves to further substantiate the notion that the objects of perception are internal, psychical objects rather than external objects. This is because if the fragmentation occurs at the level of the senses, while the soul remains unitary, then it is not the case that there are parts of the soul that each operate by means of the various sense modalities and their corresponding organs, but it is rather the case that each of the senses brings its own specific affections to the soul which allows it to perceive the objects that are relative to those disturbances. This, taken together with Plato's assertion in the *Theaetetus* that the senses "converge" to the soul further indicates that the soul, which is presented as internal to the perceiver, perceives objects that, despite their being causally related to objects external to the perceiver, are themselves internal and private. In the next section we will look at precisely how the objects of perception, on Plato's view, are related to the external world, and in particular we will examine a potential objection, that is based on this understanding, to the claims of indirectness and internality spelled out above.

3.5 The relationship between the objects of perception, and the external world

In the foregoing sections I have tried to show that, for Plato, the objects of perception are simple sense qualities; that based on the way in which Plato characterizes the process of perception, his position is most consistent with the view that perception is an indirect causal process, and that this indirectness gives rise to the crucial claim characterized by A.J. Holland as "nothing less than an assertion of the proper object doctrine of perception, a favoured tenet of empiricists"²¹, that what is perceived through one sense modality cannot be perceived through another. Finally, I've argued that based on the understanding that perception is an indirect causal process, coupled with the claim that what is perceived by means of one sense cannot be perceived by means of another, as well as the structure of cases of misperception and hallucination, there is good reason to think that the content of perceptual experiences, for Plato, is internal to the perceiver. This section will begin to shed some light on the relationship between this internal perceptual content, and the external objects that often serve as

²¹ Holland (1973) 101.

its cause; a project that will be taken up in earnest in the next chapter. The current discussion centers on a looming potential objection to the claim that the objects of perception are internal. This objection arises from the view that although the objects of perception are internal, psychical objects, they are, at least in many cases, causally related to external objects. According to this objection then, even though a perceptual content may be an internal sense quality, this quality is *of* the external object that causes it, and thus has some intentional relationship to that object. If this objection holds, then we have a case in which a perceiver in perceiving an internal perceptual object also perceives the external object for which that internal object stands. This would severely undermine the view that the content of perception is internal.

In his discussions of perception, Plato does not say much about the external objects that serve as the causal basis for perceptual awareness. His most extensive discussion of the relationship between external objects and the objects of perception comes at *Timaeus* 43b5. After Timaeus has described the initial construction of the human body and soul, he discusses the first confused interactions between the soul and body, and in particular the process of perception as it occurs prior to the introduction to the soul of the faculty of reflective thought. These perceptions, says Timaeus, occur as the result of the body coming into contact with material external to it – fire is mentioned explicitly here as one of these external elements, but Timaeus makes sure to clarify that the fire that the body encounters is distinct from that which, at least in part, constitutes the human body – the bodily disturbances that result from these interactions are transmitted all the way through to the soul against which they strike and result in perceptions (*Tim.* 43b5 – c7). On this view, normal perceptual awareness clearly results from a causal process, and the beginning state of this process is the body's interaction with external stimulation. The causal relationship between the objects of perception and the external world is further reinforced by Plato's discussion later in the *Timaeus* in which he examines the various sensory powers and the way in which the objects relative to each come about. In this lengthy section which runs from 65b4 – 68d7, Timaeus explains how various external stimuli affect the sense organs in the particular ways that they do, and then again how each of these different types of affection are carried though to the soul by means of the sense organs and result in different sorts of perceptual objects. For example, in his discussion of vision, Plato describes how the contraction and dilation of the visual ray, caused by its interaction with the fire in the external world, ultimately results in

perception of various shades of white, black and red, and furthermore that different combinations of these three are able to account for the rest of the colors. Thus it should at this point be clear that there is, on Plato's account, undoubtedly a causal story to tell about the way in which normal perceptual awareness comes about. Furthermore, this causal process does involve a connection between external objects that impinge upon the body, and sensory contents.

The question now is whether this understanding gives rise to the further view that since the content of perceptual acts is often caused in the soul by the interaction of external objects with the body, these perceptual contents are meant to be of, or to stand in for these external objects. This is the view, I take it, that Howard Robinson rejects when he combines the causal argument with the argument from hallucination and claims that it is the production of a particular brain state that is properly understood to cause a sensory content, and if it is possible to recreate this brain state, and, in so doing, reproduce the perceiver's awareness of the same perceptual content without the existence of a corresponding external stimulus, then it makes sense to think that the content that is produced in perception is something that results from a physiological mechanism that creates a brain state, and is thus something independent of any external object.²² Furthermore, it appears, as was argued in the previous section, that based on what Plato says about the status of dreams and hallucinations the same argumentative strategy employed by Robinson is open to Plato. Dreams, for Plato, as we mentioned before, are the result of motions that remain in the body after the senses have been shut off. This shows that perceptual content can arise independent of any specifically identifiable and simultaneous external stimulation. But perhaps more illuminating are Plato's comments about hallucinating and misperceiving. Unfortunately he doesn't say much about these conditions, but he clearly thinks that they do occur, and if he thinks there is a genuine scenario in which someone can possess a perceptual content that has no corresponding external object, then the claims put forward by Robinson would hold for Plato's theory. Furthermore, if it is the case that there are perceptual contents that arise in the soul that do not correspond to any external objects, then it would have to be the case that perceptual content is individuated by certain effects on the soul, but not by external objects. And

²² Ibid. 151.

if perceptual content is not individuated by external objects, then it cannot be the case that this content is of, or stands for those external objects.

Thus although it is the case that, for Plato, perception does have, as its cause, objects external to the perceiver, the content of perceptual acts is ultimately generated by the affection of the soul, and not the external object. If the same affection of the soul that gives rise to a particular perception can be produced without a corresponding external object, then it is clearly the case that the external object is not the immediate cause of the perception, and the content of the perception can, therefore, be understood independent of any external object. In addition to these remarks there is a further point to be made concerning the properties of external objects that give rise to the disturbances that cause perceptions. A longstanding tenet of many of those who hold that perception is indirect is the view that perceptual qualities are secondary qualities of objects. According to this view, certain qualities that objects possess intrinsically – primary qualities – are directly responsible for the perceptual awareness that arises as the result of the interaction between these primary qualities and a perceiver's sensory apparatus. According to Robinson, the argument from secondary qualities is "persuasive, if not definitive"²³ against naïve perceptual realism. There is some theoretical evidence based upon the claims that have been attributed to Plato thus far, that his views on perception are consistent with such a position on secondary qualities, such as the claim that the immediate cause of a perceptual content is the affection of the soul, not the property of an external object. Although at this point there is not enough evidence to attribute such a view to Plato, the discussion in the next chapter will delve into this issue, and will show that there is evidence in the way in which Plato characterizes the features of external objects that affect the body, and which ultimately give rise to perceptions, that the content of these perceptions are not themselves the features that give rise to them, but are rather different features, and are, as such, like secondary qualities.

3.6 Conclusion

This chapter has argued for a number of important and contentious claims about Plato's theory of perception in general, and about the status and function of the objects of perception and perceptual content in that theory, in particular. It began with

²³ Ibid. 89.

the basic claim that the objects of perception, for Plato, are simple sense qualities only. The evidence for this claim comes primarily from the specific terms that Plato uses when referring to these objects in the later dialogues, as well as his articulation of the *idion* claim at *Theaetetus* 185. Thus although Plato doesn't explicitly state that the faculty of perception is only able to apprehend simple sense qualities, his naming of colors, sounds, tactile qualities, etc. as opposed to complex objects such as trees, building and human beings as the objects that comprise perceptual content, coupled with his limiting of sense content to only those features of the world which can be apprehended by means of the individual sense modalities gives one good reason to think that it is only these simple sense qualities that can be apprehended by the faculty of perception, and not any of the common features that apply to multiple sense qualities.

The next task was to show that the the *idion* claim itself – the ever important claim that both limits the content of perceptual acts, and grounds the distinction between perception and thought – is justified. Since this claim plays such a crucial role in Plato's cognitive psychology, it is important to show that its articulation is prepared for and justified within the context of the argument in which it appears. The justification for this claim was found in the way in which Plato characterizes the process of perception at *Theaetetus* 184 – 185a1 immediately before the claim itself appears. This process, it was argued, is consistent with the view that perception is indirect. On this view, perception consists of a causal process that begins in an external object and ends in the perceiver's soul; the senses are those things which bridge the gap between the world of external objects and the soul, and which, therefore, serve as the means by which the soul is able to come into contact with the disturbances that give rise to perception. The notion of indirectness that is relevant here has to do primarily with the causal process itself, and thus relies, in large part on the so-called causal argument. For Plato, perception is indirect to the extent that that which constitutes the end state of the causal perceptual process – i.e., the soul's awareness of a perceptual content – can be characterized for what it is without necessary reference to the object that stands at the beginning of that process. The justification for the *idion* claim then comes naturally from the view that since each of the senses is distinct from the others, and since the soul is only able to perceive by means of the senses – i.e., its access is limited to what it can obtain through the senses – then the objects with which the soul can come into cognitive contact must, first of

all, be dependent upon what can be conveyed to it by the senses, and secondly, must be different depending upon the sense since each of the senses is distinct. What allows for this view is the notion that, while in the analogy of the wooden horse Plato denies the fragmentation at the level of the soul, that disconnection persists at the level of the senses.

The view that the perceptual process that Plato articulates in the *Theaetetus* is an indirect process, coupled with his statement of the *idion* claim, duly supported, as it is, by the claim of indirectness, gives rise to the view that the objects of perception are not the same as the external objects that stand at the beginning of the causal chain, but are rather internal psychical objects. This view arises primarily as the result of the two-step process that results in perception. According to Plato, the first step of this process consists of the interaction of the insensate sensory organs, as well as the powers that operate through them, with objects in the external world. In the second step, the results of these interactions are conveyed to the soul, which is able to perceive as a result of the action of these disturbances upon it. Since the immediate and proximate cause of perception is a particular state of the soul induced by the interaction between the soul and a sensory power, and not the interaction between the soul and an external object, there is good reason to think that the content of the experiences that arise in the soul as a result of this process are not the same as the external objects, but are rather internal to the soul and to the experience itself. This view is reinforced by the language of internality that Plato uses to characterize the soul throughout this passage from the *Theaetetus* as well as elsewhere in the corpus. It is also further bolstered by what Plato says about the phenomena of misperception, dreams and hallucinations. For if it is possible, as Plato claims, to have a cognitive experience that is qualitatively similar to perception, and which arises from the same proximate cause, but which is not simultaneous with the affection of the body by any particular identifiable external object, then it follows that the content of at least some perceptual experience is internal to the soul. And if this is the case in certain instances, there is good reason to think that all perception, in general, operates similarly.

Finally, it was argued that although the objects of perception are internal objects that are distinct from their external causes, it does not appear to be the case that these objects merely stand for their specific external counterparts. The reason for this again comes from the causal argument that Plato gives for perception coupled

with his commitment to the possibility of perceptual illusion. For if it is correct to think that the existence of experiential content that does not correspond to any identifiable external stimulus is consistent with the view that that content is internal, then it is equally plausible to say that perceptual content is not individuated by the external causes. This would account for why the sort of perceptual illusion experienced in hallucination is possible. This is because the senses are transmitting a large array of sensory disturbances, and the objects to which these disturbances give rise in the soul do not always correspond, in any reliable way, to the objects that set the causal process in motion. Furthermore, as will be argued in the next chapter, the properties of objects external to the perceiver, as well as the effects that these properties have on the sensory apparatus do not correspond to the content of perceptual experiences. Thus, there is a sense in which, for Plato, the objects of perception, if they are thought to be properties of external objects at all, are secondary qualities of those objects. This understanding of the relationship between external objects and perceptual content serves to further justify the view that perception, for Plato, is indirect.

Chapter 4

The Physiology of Perception

4.0 Introduction

Thus far we have dealt primarily with the features of Plato's account that are characteristic of the cognitive and psychological aspects of the perceptual process. chapter 2 examined what, for Plato, constitutes the subject of perception, and argued that this subject – the soul – is distinct from the bodily sense organs that provide for the possibility of perception, but it offered little by way of discussion about these somatic sensory organs and the powers that operate through them. Similarly, chapter 3 was addressed to discussing the objects of perception, and although it dealt briefly with the relationship between the objects of perception and objects external to the perceiver, the reference to this relationship was only intended to distinguish the perceptual objects as separate from – i.e., not identical with – those external objects to which they are causally related. This chapter takes up the other main component in the perceptual process, as Plato conceives of it, and examines Plato's account of the role that the physiology of the body and the sense organs plays in that process. Here we will look more closely at Plato's account of the nature of the external objects, how their structure contributes to the way in which they determine how the body is affected, and then further how these bodily affections ultimately come to affect the soul, and culminate in perceptions:

We will begin by looking at the way in which Plato construes the general relationship between body and soul as it relates to perception with an eye to showing that although Plato does emphasize the role of the soul as the subject of perception, on his view both the somatic and the psychical are necessary in the perceptual process, and neither component alone by itself is sufficient. Following this general account of the relationship between soul and body are five sections, each dedicated to examining Plato's account of the nature of a particular sense modality – vision, touch, taste, smell and hearing. These discussions consist first of an exposition of Plato's account of how the body is affected by external objects, the capacity of the body to transmit these affections to the soul and the relationship between a particular bodily affection, and the perceptual object to which it gives rise. The expository component is then followed by an analysis of the philosophical upshots that follow from these accounts.

The final element in these sections consists of a comparison of Plato's views on the physiology of the perceptual process to the modern scientific accounts of the relationship between the body and the brain in perception. One of the important philosophical components of this analysis, which will be considered throughout the course of this chapter is, how precisely Plato understands the physiological to relate to the psychological in the process of perception, and how the objects external to the perceiver relate to the objects of perception. To this end, it will be shown that Plato's account is consistent with the view that the perceptual qualities perceived are distinct from the structural components of the external objects that cause the affections that result in the soul's awareness of the objects of perceptual experience.

The first section examines the way in which Plato develops the relationship between the body and the soul in perception. It begins by looking at the first moves in Socrates' second refutation of *Theaetetus*' definition of knowledge as perception at *Theaetetus* 184 – 185. As discussed above, Socrates' critique here is concerned specifically with a grammatical distinction that he draws between that "with which" and that "through which" we perceive. This distinction between the subject of and the means to perception serves as the foundation that ultimately allows Plato to develop his distinction between the functions that the body and the soul play in perceptual experience. The section then goes on to examine some further remarks that Plato makes in the *Philebus* about the specifics of the body/soul relationship as it pertains to the perceptual process. This discussion arises in the context of an examination into the nature of pleasure and pain. For, pleasure and pain, according to Plato, are psychical affections that are closely related to perception, insofar as they often accompany perceptual experiences, and are analogous to perception in the structural mechanism by which they arise. Plato's views on pleasure and pain, and their relation to perception are clearly stated in both the *Philebus* and the *Timaeus*, but are only explored in any great depth in the former. Certain crucial aspects of these discussions will be elaborated below. Finally, this first section concludes with an investigation into how the soul/body relationship is developed in the *Timaeus*, most notably through the account that Plato gives of the construction and constitution of the human soul and body by the demiurge, and the younger gods respectively. All of these accounts serve to reinforce the notion that although the soul, for Plato, is clearly

superior to the body in every way¹, the body is an essential component in the perceptual process. For the body is that which provides for the connection between the soul and the external world, and as such, it is that which, most of all, makes sense perception possible.

Sections 2 – 6 examine Plato's account of the physiology of perception from *Timaeus* 61c2 – 68d7. This discussion, within the context of the dialogue, arises as part of a larger argument about the structure of the elemental bodies – fire, air, water and earth – and the way in which the structure of these bodies determines how they interact first of all with human body, and then ultimately with the soul, by means of the faculty of perception. Each of these sections – which correspond one-to-one to each of the five sense modalities – consists first of an exposition of Plato's account of the different ways in which the elemental bodies, which, according to Plato are composed of geometrical figures consisting of a number of interconnected triangles, alter the organs of sense, and how this alteration ultimately results in the soul's awareness of the perceptual qualities that accompany each of these affections. Following the exposition, in each case, is an analysis of Plato's physiological account in the light of modern scientific theories about the physiology of perception. The purpose of this discussion is not to argue that Plato was correct about the physiology of perception, for although he did appear to be correct on a number of important points, much of what he held to be true about the details of how the body and soul (or brain) interact in perception has been shown to be fallacious. The purpose of these discussions is rather to use these modern scientific views to pick up on some important philosophical aspects of Plato's account, and to put Plato's comments in a historical context. This contextualization also provides a point of reference from which to compare the accounts of Plato and Aristotle as they pertain to the physiology of perception, and to indicate those particular elements in the physiological account that were important to each of these thinkers. For, as it will emerge, while, for Plato, there is clearly a physiological change that occurs in perception, whether such a change is necessary, or even possible on Aristotle's account is a matter of debate. This debate will be highlighted in the next chapter. One of the philosophical upshots that emerges from this discussion, and which is of particular importance for our

¹ The clearest articulation of this comes in the *Timaeus* where Plato stipulates that the body was designed for the service of the soul – the head as its vehicle and the torso arms and legs provide for its locomotion (*Tim.* 44d3 – 46b6).

purposes, is that the view that Plato develops of how the qualities of external objects give rise to perceptual qualities is similar to the account of the way in which the primary qualities of objects result in a perceiver's awareness of secondary qualities. That Plato's view is consistent with the idea that the sense qualities that serve as the objects of perception are secondary qualities of external objects provides further support for the view that perception, for Plato, is indirect.

The overall purpose of this chapter is to highlight the fact that although the soul plays a necessary, and even perhaps an exalted role, in Plato's theory of perception, the body's function in the perceptual process is equally necessary. The necessity of the body as a means to perception is clear and uncontroversial from the claims that Plato makes about perception in the *Theatetus*, *Philebus* and *Timaeus*, but what is quite remarkable is the complex account that he develops of the relationship between the soul and the body, and the way in which the senses operate in perception. This is particularly puzzling when viewed in conjunction with Plato's comments in the *Phaedo*² and elsewhere denigrating the body as a hindrance to the soul's pursuit of knowledge, and engagement in philosophy. It is undeniable, however, that Plato clearly thinks the body is important, and this is borne out by the space that he dedicates in these dialogues to discussions and explications of the role that it plays in perception. Furthermore, the passages examined in this chapter paint a picture of the body as more than just a conduit through which affections travel. Through an analysis of these sections one begins to see the body as an active partner with the soul in the perceptual process. Despite the fact that the reports of the senses can often be fallacious and misleading, it is clear that without these reports, and without the process that charts their progress from bodily affection to awareness of perceptual quality, the soul would be unable to have these experiences – experiences that as Plato tells us in the *Timaeus* form the basis from which philosophical inquiry begins.³ In addition, this chapter also serves to reinforce the claims made in the previous chapter about the indirectness of perception and the internality of the objects of perceptual awareness. For it is Plato's interposition of the body between the soul and the external world, and his stipulation that affections reach the soul only through the body, which ultimately justifies the claim that the subject of perception does not come into direct contact with the objects that cause those perceptions. Moreover, the idea

²See 65a9 – b8.

³See 46e6 – 47e2.

that the objects of perception are not external objects, but are internal to the perceiver is motivated, at least in part, by Plato's claim that the immediate causes of perceptions are the motions or affections that external objects impart to the body, not these objects themselves.

Furthermore, it will emerge through the course of the discussion here that Plato's account of the physiology of perception, coupled with the claims of indirectness and internality defended in the previous chapter have important upshots with respect to how we understand the sort of perceptual theory that Plato develops. This understanding emerges from what appears to be in Plato a two-part causal account of the perceptual process. The first part involves the affection of the body by some object external to it. The second part involves the transmission of these affections through the body and on to the soul. The force of this two-part process comes out in what, in Plato's account, can be understood as a metaphor in which the affections of the body knock on the door of the soul and that it is this interaction that is characteristic of the second part of the two-part process that serves as the immediate cause of perceptual experience. This understanding has further epistemological ramifications concerning the limits of perceptual knowledge. This stems from the way in which, on Plato's account, we understand the relationship between the objects external to the perceiver, and the objects of perception. If I am right in thinking that Plato conceives of perception as consisting of two related, but ultimately separate causal processes, or one process with two distinct parts, then there is good reason to think that it is not necessary to make mention of the external objects that stand at the beginning of the causal process, conceived of as a whole, in order to understand what perception – the act that stands at the end of the causal chain – is. In other words, Plato's characterization of the act of perception as resulting from the affection of the soul by disturbances transmitted through the body needn't be understood in terms of an external object. Furthermore, this fact serves to reinforce the claims made in chapter 3 that on Plato's account, the objects of perception are internal objects that are distinct from and are not of the external objects that provide for their possibility. This is because based on the view that will be developed below, there is good reason to think that, for Plato, external objects are those things that possess the potential to cause certain affections in the body, which, if transmitted through to the soul, result in perceptual experience. It is for this reason that it may be useful to keep the more modern distinction between primary and secondary qualities

in mind as we consider how Plato develops his account of the physiology of perception. For although Plato says nothing about the character of the external objects, other than identifying certain structural features that render them capable of causing particular affections in the body, it seems that since the effect they have on the body is a separable process from the effect that the body has on the soul in perception this effect is the only thing, on Plato's account, that can be known about these objects, viewed strictly from the perspective of perception. In this regard, it is also true that whatever knowledge can be had of these objects, this knowledge is mediated through the body, and is solely in terms of their capacity to elicit the reactions in the soul that are consistent with the sense qualities. These issues will be elaborated upon and will become clearer through the course of this chapter.

4.1 The relationship between body and soul in perception

Let us begin with an examination of the relationship between the soul and the body in perception. In chapter 2 it was argued that the soul, and not the body, is the subject of perception. This is, of course, true, but the body and the bodily sense organs, play an undeniably crucial role in providing for the possibility of perception. This view, however, is not always entirely evident, and a cursory reading of Plato's comments about perception, as well as his general comments about the relationship between the soul and the body, throughout the corpus can easily leave a reader with the impression that Plato exalts this soul to the detriment of the body. This view – namely, that the soul is superior to the body – is true of Plato insofar as he claims that it is the soul and not the body that actually perceives, but it is equally true that throughout his discussions of the perceptual process, Plato highlights that body has an essential role to play. For, as discussed above, since the soul has no immediate access to the external world, it requires the conveyances of the bodily sense organs in order to perform this particular function. It is the specific features this relationship in which the body stands to the soul that will be discussed in this section.

The primary evidence for the claim that Plato holds that it is the soul, and not the body, that is the subject of perception is found in the *Theaetetus* 184 – 185. Recall that in this now well familiar passage Plato focuses on correcting an erroneous notion developed earlier in the dialogue that it is the senses/sense organs themselves that actually carry out the act of perception when a perceiving subject is said to perceive. Plato defends this claim by illustrating the view that he rejects – the view that it is the

senses and sense organs that perceive – in the analogy of the wooden horse. This analogy underscores the fact that it is the disjunction between the senses themselves that make the view articulated in this analogy so strange, and after clarifying and characterizing it, he replaces it with a conception whereby the unified soul, rather than the individual senses, is that with which a perceiver perceives (*Tht.* 184d1 – 5). This analogy serves to solidify Plato's point that it is only by means of the senses that perception is made possible. As mentioned above, it is easy to read this passage as an exaltation of the role of the soul and a denigration of the role of the senses in perception, but while this motivation might be somewhere in the back of Plato's mind, it is certainly not evident from the passage in question that such an understanding would be accurate. In fact, if one looks closely at what Plato says here, this part of the dialogue is rather more properly understood as a clarification of the roles that two essential components play in the perceptual process. The soul, that which perceives, is clearly necessary since according to Plato the cognitive act of perception is not a function that can be fulfilled by the senses, but the senses themselves are also essential to the perceptual process, since it is they that bridge the gap between the soul and the external world. As mentioned at the end of the previous chapter, although the objects of perception are not, and are not of, external objects, they are, on Plato's account, causally related to external stimuli, and as such, rely, in large part, on the perceiving subject having some sort of contact with the external world.

It is hopefully relatively clear by now that the way in which Plato talks about the soul in the *Theaetetus*, and in particular in the analogy of the wooden horse, that the soul is internal to the perceiver, and that whatever access it does have to the objects external to it, this access is not immediate. This direct access, denied of the soul, is provided by the senses which, despite having no cognitive function themselves, are able to transmit the disturbances that result from their interactions with the objects of the external world to the soul. Furthermore, it is these affections, caused by these disturbances, once communicated through to the soul that result in perceptions. Thus although Plato at this point in the *Theaetetus* does emphasize the importance of the soul, and its role in cognition, it is only to help dispel the view that the senses are the subjects of perception. It is clear that when one looks at the process of perception, as a whole, the role that Plato envisions for both the senses and the bodily sense organs is a necessary one. And it is the necessity of the body in

perception that requires Plato to develop an account of the physiology of perception. For, in order for his account of perception to be complete, if the body is, if not always then at least usually, involved in perceptual acts (either immediately, or in some sense mediated, as through memory), Plato must indicate both how the body is affected by the external stimuli, and how the physiology of perception is related to the psychology. In other words, he must account for how the affections of the bodily organs by the external stimuli result in the awareness of the objects of perception. This he does most extensively in the *Timaeus*, but before we turn to an examination of Plato's account of the physiology of the senses, let's look at a few other sources in which he describes the relationship between the soul and the body in perception in order to reinforce the characterization developed just above.

In a passage from the *Philebus* that should also be fairly familiar by now, Plato states that there are certain affections of the body that do penetrate through to the soul, and there are those that do not; the former type result in perceptions, whereas the latter do not yield any perceptual awareness (*Phil.* 33d2 – 6).⁴ Thus, not only is it the case that perception can occur only when the soul is affected, but also that when bodily affections don't reach through to the soul, the soul and hence the perceptual faculty remains inactive. It appears, therefore, that based on this passage the physical aspect of perception is an entirely necessary component. For, although we know that there are cognitive states that resemble perception, but don't, at least immediately, involve the affection of body by a specific external stimulus, such as memory, which is defined later in the same argument as the preservation of perceptions (*Phil.* 34a10 – 11), and dreaming, which is understood as the result of the affections of the soul by motions that remain within the body after the senses have been cut off from external stimulation (*Tim.* 45e4 – 46a2), it seems equally clear that the contact between the body and the soul, and, in particular, the bridge that the senses provide between the

⁴ It is interesting to note that there is a sort of analogue to the phenomenon that Plato describes in this passage in the modern scientific understanding of perception. We know today that affections of the body are communicated via nerves to the brain where they are processed by the brain region specific to the affected sense modality. All of these signals, with the exception of those transmitted by means of smell, which appear to have a direct channel to the amygdala and hippocampus, must pass through the thalamus. The thalamus functions as a sorting station for perceptual input, and either stops an impulse or relays it through to the appropriate region of the brain. Those affections that make it past the thalamus result in perceptions, while those that do not remain unperceived. This accounts for why when focusing on and listening intently to a lecture, for example, a listener won't hear many of the noises that occur in the background. Plato might have had something like this in mind when he refers here in the *Philebus* to strong and weak affections.

soul and the external world, is necessary for the normal functioning of the perceptual capacity.

Similarly, in the *Timaeus*, in a passage also discussed briefly above, Plato describes the construction of human souls and bodies. The souls, which were fashioned by the demiurge, are to be affixed to the bodies, which have been designed by the younger gods. After these two components have been joined, Plato states that the first innate capacity that is to be endowed to these new creatures is sense perception (*Tim.* 42a5 – b1). The rationale behind this provision is that since the human body, unlike the body of the world, allows for material to flow into an out of it, the soul of a creature in possession of such a body needs to have the faculty of perception so that it can be aware of, and cope with this influx (*Tim.* 42a5 – b1). This shows that, setting the allegorical/mythological character of the *Timaeus* to the side, it is the nature of the human body, and its role as a link between the external world and the soul, that necessitates the endowment of the human soul with the faculty of perception. Furthermore, this passage shows that the soul and the body are, in principle, separable. Consistent with the characterization above, a bit later in this account, Plato indicates that perception occurs when the body comes into contact with elements external to it, and these disturbances are transmitted through the body to the soul against which they bang and in which they cause perceptions (*Tim.* 43b4 – d7, 45c7 – d3). This further indicates that, in most cases, the initial affection of the body is a necessary condition for perception to occur. Although Plato does say that there are instances of perceptual states that do not, immediately involve the disturbance of the body, such as dreams and memories, it is clear that even for these states to occur the body must, at some point prior to the soul's awareness of them, have been affected even if at the very moment of perception it remains still. In addition, this passage, with its reference to the affections from material external to the body causing perceptions, further reinforces the notion that the objects that cause perceptions are external to the perceiver, while the subject, which perceives, is internal. It seems clear, based on the foregoing discussion, that in order for the faculty of perception to be activated at all it is crucially necessary that the soul be affected by the body. For as Plato indicates in the *Philebus* perception occurs when body and soul are affected both in common and each individually (*Phil.* 34a3 – 5).

Now that we have a clearer sense of the general relationship that Plato develops between the two necessary elements of perceptual experience, and the

textual evidence for that relationship, let us turn our attention toward the specific accounts that he gives of the various bodily affections, and the ways in which they, in turn, affect the soul. With the exception of Plato's brief and general discussions of the relationship between the physiology and psychology of perception in the *Theaetetus* and *Philebus*, discussed above, all of the material for understanding the way in which he views the process by which each of the individual sense modalities and their corresponding sense organs operate is found in the *Timaeus*. This is because one of Plato's primary aims in the *Timaeus* is to give an account of the construction and function of the human body. And since, as noted above, Plato indicates in this account that sense perception is the first and primary capacity of the soul with which human beings are endowed, it is only proper that he here elucidates the means by which this capacity is actualized. We will begin with sight and examine in detail the way in which Plato characterizes the different disturbances that affect each of the sense modalities in turn. We will then further discuss the specific type of perceptual objects relative to each sort of affection. Finally we will look at the philosophical implications that emerge from each of these accounts, and how they relate to modern scientific theories on the physiology of perception.

4.2 Vision

Plato begins his discussion of the sense modalities with an analysis of the process of visual perception. This is most likely because, as he clearly states in the *Timaeus*, vision, for Plato, is the most important of all of the senses – it is vision, after all, that leads to the pursuit of philosophy (46e7 – 47e2)⁵. This view, that vision is the most important sense, is a view held by many in the history of philosophy who believe that visual perception furnishes the perceiver with more useful information about the world around her than any of the other sense modalities. It is only proper, therefore, that we begin our analysis of these senses with a discussion of vision. Plato's argument concerning the faculty of vision follows his general account of the

⁵ In this passage Plato refers to the great advantage of vision (ὅψις δὲ κατὰ τὸν ἑμὸν λόγον αἰτία τῆς μεγίστης ὠφελίας γέγονεν ἡμῖν), and goes on to say that it is our possession of vision that is responsible for our perception of the heavenly bodies, and that it is an awareness of these that has led to the development of the concepts of time and number, and furthermore that the study of nature and the world, which as come about as the result of vision has given rise to philosophy. Plato then gives a similar account of hearing without which, he says we would be unable to converse (and although he doesn't explicitly state it one might be tempted to think that he has the ability to engage in dialectic in mind here), or enjoy and appreciate music, harmony and rhythm.

construction of the rest of the body. Before launching into this account, Plato reiterates a point that he had first raised at the beginning of the dialogue indicating that the story that Timaeus gives in the dialogue is a likely account (*Tim.* 44c5 – d1). It seems reasonable, therefore, to take it that although the specific details about the construction of the human body and the reasons behind it might be allegorical, Plato thinks that the general philosophical claims are sound. In addition to this, we have good reason to think that the claims Plato makes here about perception, and the way in which the body operates in the perceptual process are claims that he would take to be accurate. This is because although it is necessary for him to couch his description of the mode and purpose of the construction of the body as a “likely account” (εἰκός λόγος), since nobody who was there is around to testify to its veracity, the claims that he makes about perception, and the way in which it operates, however, need not be thought of in the same way since almost everyone, including Plato himself, presumably has perceptual experiences on a daily basis. In his general account of the construction of the body Plato indicates that the head was designed to be the seat of the soul and, as such, was designated to be the most divine part of the human body. He further indicates that the rest of the body was created to serve as a vehicle for the head, and the organs of the face – the organs of sense – were placed on the head to serve the soul (*Tim.* 44d3 – 45b2). After describing the construction of the head and the organs of sense, Plato immediately launches into his discussion of the eyes, and his first, of two, accounts of vision. The eyes, he says were created to conduct light – the light that comes from a gentle fire, which is not burning or corrosive. This gentle fire which lies within the perceiver, is akin to the fire that constitutes the light of day, and due to the structure of the eye, in general, and of the pupil in particular – smooth and dense – this internal fire, on account of its light and fine nature, is able to permeate through the eye’s membrane and escape alone while all coarser types of material are prevented from penetrating the eye (*Tim.* 45b3 – c2). The internal fire that travels through the eye comprises a visual ray, when this ray coalesces with the external fire, constituted by the light of day, it forms a homogeneous body that extends both out from the body to the external world, and from the external world back through the eye. Furthermore, the direction and orientation of the ray is based on the position and direction of the eye. In other words, the visual ray can be understood as extending outward from the eye and back toward it in the direction in which the eye is pointed, and is thus oriented in the direction that the perceiver is looking. When

this visual ray encounters objects in the external world, there is a motion that results from the interaction between the two. The motions from these disturbances of the ray are transmitted along the visual ray itself, through the eye and through the whole body until they eventually bang up against the soul and result in the soul's awareness of the objects of visual perception (*Tim.* 45c2 – d3).

Plato, after laying out this general account of the visual process, then identifies two related scenarios in which visual perception is occluded. The first occurs when night falls, and the gentle external light dissipates. When this happens, the fire that comes from the eye has nothing with which to join, and so the visual ray is unable to extend beyond the eye. The other, which according to Plato tends to occur in conjunction with the first, comes about when the eyelids close and prevent the internal fire from escaping altogether. Thus, whenever the visual apparatus of a perceiver is operating properly and the conditions are right for the visual ray to extend beyond the eye – one's eyes are open and there is sufficient light – vision will occur. When the eyelids close, and sleep descends upon the perceiver, those motions that remain in the body after vision has been obstructed are calmed so that they no longer impinge upon the soul. If, however, the motions are particularly violent and are not sufficiently calmed, they continue to strike against the soul after the perceiver has fallen asleep and these interactions result in the sort of perceptions that are characteristic of dreams (*Tim.* 45c3 – 46a2).

After going through all this, and describing the way in which visual perception operates, both how it is actualized and how it is occluded as well as accounting for the occurrence of certain anomalies of vision, such as dreams, Plato indicates that all of these causes that relate to the affections of the physical components of visual perception – namely, the eye and the fiery visual ray – are merely auxiliary explanations. He goes on to say that the ultimate explanation for vision has to do with its allowing the perceiver to observe astronomical phenomena, and in particular the revolutions of the heavens, which he says give us insight in to the revolutions of our own souls. Furthermore, it is this ability to observe not only astronomical phenomena, but also the world around us that has, as mentioned above, led to the invention of number, the notion of time, and has contributed greatly to the impetus to pursue philosophy, which, according to Plato, is the supreme good that vision affords us (*Tim.* 46c7 – 47e2). Thus whereas the discussion recounted above represents a purely causal account of how vision works, on the physiological level, the true explanation

of vision for Plato is a teleological one which takes into account the purpose for which the gods furnished this capacity to human beings.

At this point in the dialogue Plato takes a lengthy sojourn in order to consider certain metaphysical matters. In this section he proposes to add one additional component (the receptacle of becoming (space)) to the two aspects of the universe that he had identified at the beginning of the dialogue (that which always is, and that which never is and is always becoming) (*Tim.* 48e2 – 49a6). He then moves on to discuss the metaphysical structure of the four elements, earth, air, fire and water, which serve as the building blocks of all other substances. Although Plato does say some interesting things about perception in these passages, they are not strictly pertinent to the topic of this chapter, so I will pass over them in relative silence.

After discussing in detail the structure of the elements and the process by which one element is able to transform into another, Plato moves on to discuss the details of the way in which the elements affect the various sense modalities. Although Plato only addresses vision again at the end of this section, I think it would be best to consider these claims now and to hold off on commenting on the philosophical implications of Plato's remarks on vision, recounted in the foregoing discussion, until we have examined it in conjunction with this later account. We shall then analyze both of these discussions together. In this second discussion of vision, which runs from 67c3 – 68d7, Plato first indicates that vision has a great deal of variation in its objects, and that these variations are known as colors. Colors are produced by, and are thus related to the flames that emanate from various external objects. These flames must be proportional to the flame that constitutes the visual ray in order to have any causal efficacy on it, and to cause visual perception (*Tim.* 67c3 – d2). The fire that emanates from various objects and is proportional to the visual ray might be so proportional in one of three general ways: it can be equal to the ray, in which case, the ray remains essentially unaffected, and the resulting perception is translucent; the flame might be larger than the visual ray, and in such a case the ray is contracted resulting in the perception of a black color; or the ray might be dilated, this occurs when it comes into contact with a flame that is smaller than it, and in such a case the resulting perception is of white. When a very penetrating fire dilates the visual ray right up to the eye and through its channels, it melts these channels and results in the physiological reaction that we call a tear – a glob of moisture and fire secreted as a result of the melted ocular passages. In addition to this, when the penetrating fire from

the outside joins with the internal fire that comprises the visual ray and is quenched by the moisture that it encounters in the eye the resultant perception is commonly referred to as “dazzling” and the flame that causes such a perception we call “bright or brilliant”. Plato then indicates that when the fire causes a disturbance that affects the visual ray by dilating it to a degree somewhere in between that which causes a white perception and that which causes an extremely bright perception, meets with the moisture of the eye the resultant perception is red, or as he says, the color of blood (*Tim.* 67d2 – 68b5).

These three colors – namely, white, black and red – on this account, form the building blocks that serve as the foundations upon which the remaining colors are built; it is some combination of these elemental hues that serve to produce all other colors. Plato, however, at this point indicates that it would be unwise to speculate on the precise proportions of contraction and dilation of the visual ray that causes the perception of each of these various colors, since not even a likely account of this can be given, he therefore instead sticks to generalities and merely identifies the combinations of the colors, the causes of which he has already identified, that serve to comprise the remaining colors. I will just state these briefly here. Red mixed with white produces orange; red mixed with black and white yields purple; when the mixture that results in purple is heavier on the black, violet results; grey comes from the combination of black and white; orange and gray together produce amber; beige consists of white mixed with orange; white mixed with bright and submerged in black results in cobalt blue; this cobalt blue, when white is added becomes turquoise; green comes from amber and black. Plato leaves the reader to deduce what combinations serve to produce the remaining colors, but adds that only the divinity has the ability to mix a plurality into a unity or to dissolve a unity into its constituent parts in order to indicate that this function of combining the elemental colors into the various compound colors is not the work of human ability or ingenuity, but is rather an indication of divine craftsmanship (*Tim.* 68b5 – d7).

This concludes Plato’s two discussions of the physiology of vision in the *Timaeus*. The first account serves primarily to reiterate and provide more detail about the way in which visual perception is, in general possible. Recall that Plato had previously characterized perception as occurring when motions from external objects affect the bodily sense organs which then, in turn, transmit these motions thorough the body to the soul which eventually is able to perceive by means of the disturbances

that are caused when these motions bang up against it (*Tim.* 43b5 – d4). The organs of vision are quite obviously the eyes. Plato first addresses a potential worry concerning the ability of the eyes to transmit information from external objects to the soul in light of the fact that they don't themselves come into direct physical contact with these objects; he does so by postulating the existence of a visual ray. This ray, which happens to be constituted by a part of the internal fire that composes the body and soul, is transmitted through the eyes; thus the role of the eyes in perception lies in their ability to conduct the fire that comprises this visual ray. The constituent fire of the ray is related to the fire that illuminates the external world, and as a result, when the internal fire escapes through the eye it creates a homogenous body by joining with this external fire. It is this fact – namely, that the internal fire is able to extend outward and come into contact with external objects by means of its joining with, and becoming one with the light that surrounds these objects – that accounts for how it is possible for something internal to a perceiver to be able to access something that is both external to that perceiver and at a distance from the organ of perception. Furthermore, it is this idea, that the visual ray becomes one with the external fire and is, as a result, extended, that accounts for how when this singular body hits an external object, the resulting disturbance is then transmitted back along the ray and through the permeable eye. It is interesting to note that since the visual ray is identified as being composed of a certain type of fire, the ray itself, just as the light that illuminates the external world, is, to some extent, a physical body. It might be helpful to think of this ray almost as an appendage, a physical element that reaches out from the body and comes into contact with external objects. This analogy, however, is not perfect, and could be potentially misleading, since for other appendages, like arms and legs, in order that they act there must first be a volition, whereas in the case of vision if the eyes are open, and are working properly, then the visual ray cannot help but to operate, and thus the perceiver cannot help but to see. This analogy should not, however, be taken too seriously. For it could lead one to conclude that, on Plato's view, the eyes are mere conduits through which the soul reaches in order to come into direct contact with the objects of perception. This, however, is not the case, for although Plato does characterize the visual ray as emanating from the eye, the direction of the affection runs inward to the soul rather than the soul reaching outward to external objects. This view is further corroborated by the position that the soul is largely passive in the perceptual process. Evidence for

this idea comes from the way that Plato characterizes the reports of the senses as converging (συντείνειν) to the soul in the analogy of the wooden horse in the *Theaetetus*. Thus although it does make sense to think of the visual ray as connecting the eye with the external world, it makes more sense to think of the direction of the flow as from the external world to the eye. For this is the direction in which, on Plato's account, the affections travel. This brings us naturally to Plato's discussion of the occlusion of vision. As mentioned above, Plato identifies two ways in which vision, in a perceiver whose eyes are working properly can be cut off. The first is the result of an act of the perceiver herself, and occurs when the eyelids are closed and, as a result, the visual ray cannot make contact with the external light. The second way in which vision is cut off is when the external light disappears, i.e. when the sun goes down, and the internal fire has nothing with which to coalesce and cannot extend beyond the eye. Thus, through this earlier discussion, we can see the way in which, in general, it is possible for the soul to be visually affected by objects which are at a distance from the eyes.

The second discussion deals with the specifics of color perception, and the way in which the particular disturbances of the visual ray result in certain visual perceptions. Plato begins this account by indicating, more explicitly than he does anywhere else, that the objects of visual perception are colors. He then indicates that visual perception – i.e., the soul's awareness visual perceptual objects (colors) – is caused by the contraction and dilation of the visual ray, identifying three primary colors, and the particular affections that cause each of them. These three colors represent elemental building blocks of visual perception insofar as they serve as the constituents from which all other colors are formed. White (caused by dilation of the visual ray), black (resulting from contraction of the visual ray) and red (which is ultimately the result of a dilation of the visual ray that is more intense than that which causes the perception of white, but is less extreme than a dilation that results in the perception of something bright or dazzling) in different combinations and to varying degrees result in the perception of all other colors. I won't dwell here on any of the specific details of these combinations, or the resultant colors, since they were all mentioned in the above discussion, instead let's examine some questions that arise from Plato's account of the process of visual perception, and his proposal that the array of color perceptions is the result of the combination of three primary colors.

The most obvious question that arises from this account is how is it possible for the visual ray to be affected in contrary ways simultaneously? Particularly since such simultaneous contrary affection is necessary for the production of various colors. For example, if, according to Plato, black and white, which are caused by contraction and dilation of the visual ray respectively, must mix in order to cause a visual perception of gray, how is it possible for the fire that constitutes the visual ray to suffer both contraction and dilation concurrently? There are several potential responses to this question that Plato could give. He could maintain that the visual ray has different parts that can be affected individually, but which ultimately affect the soul together – just as he says that in order for perception to occur the body and soul must be disturbed each individually and both together. If different parts of the visual ray are affected differently, then it is possible for one part to be dilated, and thus cause an affection consistent with a white color perception, while another part is contracted and thus results in a disturbance of the soul that ultimately leads to a black color perception, and for these two types of perception to mix culminating in an awareness of gray. Another way in which it is possible for vision to be affected in contrary ways simultaneously is if there are multiple visual rays. If we think of vision as a fire escaping from the eye, we can think of it as extending in all directions, accounting both for vision of what is straight ahead, as well as of objects that are to the periphery, and as such we can think of it as either a large singular ray, or as divided into a number of smaller rays. If it is understood as one large ray, then we run into the same difficulties with regard to the physiology being consistent with the notion that contrary affections can lead to the mixing of primary colors and thus to further color perceptions. If, however, this ray is not understood as being large and singular, but is rather divided into a number of smaller rays, then these contrary affections could take place in different rays. These first two potential responses, in the end, amount to the same thing. There is, however, a third possibility. It could be the case that Plato takes it that each specific color is caused by a particular dilation or contraction ratio, but that, as he indicates, it would be useless to speculate about the precise ratios since this is not something that can be definitively determined. Unfortunately Plato doesn't advocate for any of these interpretations, but it seems to me that this apparent contradiction could hardly have escaped his notice. Of the three options presented here I take it that Plato, based on what he says in the *Timaeus*, would favor the third. In addition to being the most plausible, this option is also most

closely related to modern views on the physiology of visual perception, as we shall see presently. Perhaps, however, since, as Plato indicates at the beginning of his discussion, this is only a likely account he doesn't think it is necessary to resolve every inconsistency and elucidate every detail of the process, but rather provide only the general features that characterize the perceptual process. Whatever the case may be we can see that Plato's account certainly is not necessarily doomed to incoherence.

Although Plato's account of vision will, on an initial encounter, no doubt appear to a modern reader to be both simplistic and wrong, there are many important senses in which Plato was correct with regard to the physiological and biological aspects of visual perception. For one thing, Plato clearly knew that light was a necessary condition for vision, not only insofar as the external world needs to be illuminated in order that one may come into visual contact with its objects – i.e., that humans cannot see in the dark – but also that light is that which carries the motions caused by objects into the eye, which then subsequently communicates them through to the soul. For today we know it is the light reflected from various external objects that causes visual perception.⁶ This light travels to the eye, through its permeable outer membrane, and to the retina, in the back of the eye, where it is absorbed and processed by the retinal receptor cells. Based on the messages that are communicated by these retinal components, via the optic nerve, to the brain, certain colors are perceived.⁷ The difficulty here, however, is that Plato maintains that both an internal and an external light are necessary for perception, when, in fact, it is only the external fire that is required, and the flow of light seems to run in only one direction – from the external to the internal – rather than, as Plato maintains, both into and out of the eye. In addition to recognizing that light is a necessary condition for vision, Plato also identified certain characteristics of light that are relevant for visual perception. He understood that light is a form of fire, and that it is a substance. We recognize today that light is a particular part of a large spectrum of electromagnetic radiation, and is thus a form of energy and, as such, is related to heat. In fact, heat is a way of producing electromagnetic radiation – the specific heat of an object determines the size of the wavelength of the electromagnetic radiation that it emits.⁸

⁶ Livingstone (2008) 12.

⁷ Ibid. 24 – 27.

⁸ Ibid. 16.

Furthermore, it appears that Plato was correct about the role of motion in visual perception. For many centuries, scientists disputed whether light was a particle or a wave, eventually Newton, who performed the appropriate experiments, tentatively claimed that it was a particle, but was never fully happy with this conclusion. In 1802, however, Thomas Young, using Newton's experiments as a basis, argued for the contrary view, concluding that light was, in fact a wave. Although, we now know, as a result of work done by Einstein, that what Newton must have suspected but couldn't completely endorse is true – namely, that light has properties of both a wave and a particle – the relevant characteristic of light with regard to our ability to perceive by means of it, however, is the fact that it moves like a wave.⁹ This is because the receptors in the retina of the eye are sensitive to and are specially suited to absorb light of a certain wavelength when it passes through the eye. Although it is highly unlikely that Plato understood, or at least fully comprehended the wave-like properties that we now know light to possess, he clearly did correctly recognize that particular motions in the light that enters the eyes is responsible for visual perception.

In addition to his insights on the physics of light, and how it relates to visual perception, there are certain elements of Plato's account of the physiology of vision, and in particular the details concerning the causal properties that the movement of light has on color perception, that are consistent with modern scientific theories. Plato is correct in the view that the entry of light into the eye is not the end of the line in visual perception, but that it is rather necessary for these motions to be processed and transmitted on to a separate entity which is responsible for perceiving the objects. As mentioned above, on Plato's view the particular color that is perceived in an act of visual perception is determined by the degree of contraction or dilation of the light that comprises the visual ray. This motion travels along the ray, through the eye and is then transmitted through to the soul which perceives the color that is consistent with the specific motion. We now know that the process of color awareness, which is rather more complex than Plato conceives of it, involves the processing of the light that enters the eye by the photoreceptor cells (rods and cones) in the retina. These photoreceptors possess the ability to absorb light, a process which in turn results in the generation of a neural signal, or pigment; this signal is transmitted by the ganglia

⁹ Ibid. 14 – 16.

to the optic nerve which carries it to the brain.¹⁰ The two types of photoreceptors serve different functions: the rods, which are more sensitive to light, are optimal when light is dim; cones, on the other hand, are less sensitive, and are thus activated only in good light. There are three types of cones, each of which is sensitive to a particular range of wavelengths on the visual spectrum, and only one type of rod, which means that in dim light colors cannot be distinguished. It is the cones, therefore, that are responsible for color perception. This is because color perception is dependent upon the comparison of different neural signals caused by light of various wavelengths. Thus, although there are only three types of cones that correspond, in general, to the three wavelength/color ranges on the visual spectrum, and although there is no variation in the extent to which an individual cone can fire (it either fires or doesn't), we are able to perceive many different colors as a result of the number of neurons that fire from each type of cone, and the frequency at which they fire.¹¹

The reason for going into all of this detail about the modern view of the relationship between the physiology and psychology of color perception is to show that there are similarities between Plato's claim that vision operates based on its apprehension of three primary colors, and that all other colors are perceived through a combination of these three. The color ranges that correspond to the different types of cones in the retina are red, green and blue. Thus in addition to correctly indicating that there are three primary colors, Plato also correctly identifies red as one of these colors. The other two colors mentioned by Plato as primary, white and black, it turns out result from the combination of light of many wavelengths, and the lack of any light reflection at all respectively. Furthermore, the three cone types, identified above, are each sensitive to long middle and short wavelengths of light, and their activation results in perception of red, green and blue respectively. Plato notes that red color perception results from a dilation of the visual ray to a magnitude that lies between brilliant and white, thus, no doubt coincidentally, the color which Plato identifies as being caused by a relatively large motion in the light that enters the eye is, on a modern scientific understanding caused by the ability of the eye to process light of the longest wavelength on the visual spectrum. Thus we can see that although Plato was clearly unaware of many of the complexities that are involved in the composition of the eye, the physiology of vision, and the process of color perception, he provided

¹⁰ Ibid. 24 – 26.

¹¹ Ibid. 24 – 27.

many important insights that are consistent with current scientific knowledge on the topic. And despite his errors, he was accurate, coincidental though it may be, on a number of important claims about the features of vision, claims which weren't settled definitively by scientists until the middle of the twentieth century.

The foregoing section examined, in detail, Plato's account of the process of visual perception, including the structure of the eye, the physics of light processing, and the details of how that processing results in the soul's awareness of different colors. There are several important claims that emerge from this discussion. The first, which will be common to all of the accounts of the perceptual modalities, is that, on both the modern view and on Plato's, visual perception consists of two distinct causal events: (1) the affection of the bodily element by an external stimulus; and (2) the subsequent affection of some cognitive element by the bodily element. This process underscores the indirectness and internality in perception, and will be discussed in greater detail below. In addition, and along similar lines, another important point to keep in mind is that, on Plato's account, the eye, construed as bodily sense organ, is interposed between the soul and the external world, and that without the involvement of this bodily element, and without the proper conditions for its operation, visual perception, is not possible. Finally, color perceptions, on Plato's account, are the result of the disturbances caused to the visual ray, through the motions that are imparted to it as a result of its encounters with external objects. These disturbances are communicated to the soul, and awareness of various colors arises from this interaction. In the subsequent sections we will consider, in similar fashion, the way in which Plato treats the remaining four sense modalities. The order of these sections will mirror the structure of Plato's discussion of the perceptual modalities in the *Timaeus*. We will, therefore, examine, in the next section, his account of the sense of touch.

4.3 Touch

Although Plato engages in a brief account of visual perception earlier in the dialogue, his primary discussion of the way in which the body is affected by external stimuli, and the resulting perceptual qualities that arise from these affections, begins with an account of the sense of touch. The role of this discussion within the broader context of the dialogue is to clarify and reinforce Plato's views on the nature and composition of the elemental bodies through an enumeration of the ways in which these elements,

which comprise external bodies, act upon the human body, and the perceptual properties that result from these interactions. The reason why it is important for Plato to address perception in this context is because, as he notes, perceptual awareness is the only mode of cognition that relates to the external objects, and their constituent elements.

First, we need at every step in our discourse to appeal to the existence of sense perception, but we have so far discussed neither the coming to be of flesh, or of what pertains to flesh, nor the part of the soul that is mortal. It so happens, however, that we cannot give an adequate account of these matters without referring to perceptual properties, but neither can we give an account of the latter without referring to the former, and to treat them simultaneously is all but impossible. So we must start by assuming the one or the other, and later revisit what we have assumed. Let's begin by taking for granted for now the existence of body and soul. This will allow our account of these properties to succeed the account we've just given of the elemental kinds (Trans. Zeyl) (*Tim.* 61c6 – d5).¹²

Thus Plato opts, as a methodological strategy, to assume body and soul – the two necessary elements in perception – at this point rather than delve into a long account of the structure and composition of these two constituent components of living beings. In addition, he has already given a brief account of this earlier in the dialogue when he considered the construction of the soul by the demiurge and the constitution of human bodies by the younger gods. He thinks it more appropriate to the structure of the account at this point to continue with his discussion of the properties of external objects by analyzing their effects on the body, and how those effects are eventually cognized by the perceptual faculty, and to go on later in the dialogue to address the specifics about the nature of body and soul.

Since there is no specific organ associated with the sense of touch, Plato doesn't begin his account by identifying one, he does, however, indicate toward the end that it is the whole body that is sensitive to the affections that result in tactile perceptions (*Tim.* 64a2 – 3). In his account of touch Plato identifies three general tactile quality-types that are caused by affections of the body's surface. The first of these types with which he deals are temperature-based qualities. These result from the

¹² πρῶτον μὲν οὖν ὑπάρχειν αἴσθησιν δεῖ τοῖς λεγομένοις αἰεὶ, σαρκὸς δὲ καὶ τῶν περὶ σάρκα γένεσιν, ψυχῆς τε ὅσον θνητόν, οὕτω διεληλύθαμεν: τυγχάνει δὲ οὔτε ταῦτα χωρὶς τῶν περὶ τὰ παθήματα ὅσα αἰσθητικὰ οὔτ' ἐκεῖνα ἄνευ τούτων δυνατὰ ἱκανῶς λεχθῆναι, τὸ δὲ ἅμα σχεδὸν οὐ δυνατόν. ὑποθετέον δὴ πρότερον θάτερα, τὰ δ' ὑποτεθέντα ἐπάνιμεν αὐθις. ἵνα οὖν ἐξῆς τὰ παθήματα λέγεται τοῖς γένεσιν, ἔστω πρότερα ἡμῖν τὰ περὶ σῶμα καὶ ψυχὴν ὄντα.

affects of fire and moisture on the body. He indicates that when fire operates on the body in its characteristic way – namely, by cutting and separating the flesh – the resultant perception is what we refer to as hot (*Tim.* 61d5 – 62a5). Plato cites the compositional properties of fire that he had identified in the foregoing discussion as accounting for the causal efficacy that fire has on the body. In this earlier account Plato had argued that the elemental kinds are composed of yet smaller geometrical components – these are bodies, like tetrahedrons, octahedrons, icosahedrons and cubes of various sizes that are themselves composed of half-equilateral and scalene right triangles – and that these combine in various proportions to form the bodies of the four elemental kinds (*Tim.* 53c3 – 55c6).¹³ The variation in size of the constituent triangles that comprise one type of element accounts for the differentiation within the element itself, according to Plato, and the difference in constituent figure and proportion accounts for the resultant element. There is much that could be said about Plato's account of the geometrical structure of the elemental bodies, but I will only refer to it here to the extent that it is relevant to his discussion of the physiology of perception.¹⁴ Returning to the discussion of touch, Plato had indicated in his earlier account that fire is composed of the smallest geometrical figures, and he now states that it is a combination of its small size, the sharpness of the angles and the speed at which it moves that gives fire its ability to divide and cut the flesh, and it is this cutting motion that is communicated through to the soul and results in the awareness of the quality known as hot. The experience of cold, on the other hand, is caused not by fire, but by the lack thereof. According to Plato, when excessive moisture enters the body and forces out the fire, which, as mentioned above, consists of smaller particles than those that constitute water, and there is nothing left of an appropriate size to fill these spaces vacated by the particles of fire, the moisture compresses in an attempt to fill the empty space. This, however, causes the compressed moisture to push back outward and results in the bodily reaction known as shivering. In addition

¹³ For an in-depth discussion of the geometrical constitution of the elemental bodies see Cornford (1937) 210 – 219. And Brisson (1999) 148 – 149.

¹⁴ It is interesting to note that Plato's view here on the structure of the elements, and the way in which the structure affects the quality of the element itself, as well as other bodies, like sense organs, has certain affinities with later corpuscular theories in the philosophy of science, like those of Locke or Newton. This is evidenced by the fact that since these geometrical figures, which are substantive and possess mass, comprise the elemental bodies, and the elements are ubiquitous in the universe, with the gaps that exist between the elements composed of larger geometrical figures being filled in by those are constituted by smaller triangles, this means that there is constant interaction between these elemental forms, and the individual motion of the forms as well as the interactions between them results in many types of affections and observable phenomena.

to this physical reaction, the abundance of moisture in the body also causes a perception of coldness in the soul (*Tim.* 62a5 – b6).

Having established the causes of these temperature-based sense qualities, and having accounted for the relation between the qualities and the structure of the elements that bring them about, Plato then addresses the source of the second type of tactile qualities – namely, resistance-based qualities. These fall into two general groups of opposites: hard and soft, heavy and light. Plato first treats the qualities hard and soft, indicating that these sorts of experiences come about when flesh encounters a body that either gives way to it, or does not yield in the encounter (*Tim.* 62b6 – b8). He further indicates that there are two factors that determine the level of resistance that a particular item has when flesh presses against it. The first is the size of the base of the geometrical figures that comprise the item; thus items with square bases tend to be more resistant, while items with angular bases tend to be more easily displaced. The second characteristic is the density and compactness of the item: those objects that are more dense possess a greater characteristic resistance (*Tim.* 62b8 – c3). After investigating the causes of hardness and softness, Plato addresses a second set of resistance-based qualities – namely those features that result from an object's level of characteristic resistance to being lifted. Heavy and light, Plato says, are typically associated with notions of above and below, but this, he claims, is an erroneous association since, earlier in the dialogue, he argued that the universe is spherical and extends equally in all directions from the center to the extremities, no matter where one is standing, there can be no above and below (*Tim.* 62c3 – e10). He, therefore, characterizes heavy and light in terms of an element's tendency to remain with that which is like it, and to resist entering a region populated by that which is unlike it. Thus when, for example, says Plato, one stands on the earth and attempts to move a certain quantity of earth away from its kin and to a foreign region, like that populated by air, the lifted earth will be resistant to such relocation, and the degree of resistance – i.e., the weight of the item – is dependent upon the size of the quantity being displaced (*Tim.* 63a6 – e8). This is why when one attempts to move a large amount of earth into the air and away from the earth itself it is heavier than when one uses the same force to move a smaller quantity of earth.

Plato then accounts, in his shortest discussion of any of the tactile qualities, for the occurrence of, what I will here refer to as contact qualities. Roughness, he indicates, is the result of the characteristics of something that gives to a perception of

hardness coupled with non-uniformity of composition, whereas, smoothness is the product of the body's interaction with a dense and uniformly composed object (*Tim.* 63e8 – 64a1). Thus, since Plato claims that the hardness of an object is the result of either the object's having a strong structural base, or the density of the object in question, and roughness is the result of hardness coupled with non-uniformity, it must be the case that a rough object has a strong base, coupled with a non-uniform structure. This conclusion is reinforced by Plato's claim that smoothness is the result of the uniform structure of an object contributing to its density. Since the two marks that determine an object as producing a perception of hardness are the density of the object, and/or the steadiness of the base of the geometrical figures that compose the object, and since the density of the substance is due to its uniformity in composition, the cause of the hardness that accompanies the structural non-uniformity that causes roughness must be the integrity of the base of the structures that compose the object.

To round off his treatment of the sense of touch, Plato raises the issue of pleasure and pain. Plato first asserts that this is the most important point that is left to consider concerning the affections that reach the soul by means of the sense of touch, however, the experience of pleasure and pain is not specific to touch, but rather accompanies, to one degree or another, all perceptions that come through the body. I will provide a general exposition of what he says about pleasure and pain here, and will then raise certain important claims about the causes of pleasure and pain in individual senses as we get to those senses. Plato first indicates that in the case of the sense of touch there is no specific bodily organ that is responsible for transmitting the disturbances characteristic of touch to the soul, but it is rather the case that the whole body can be affected so as to produce these perceptions. He further states that that which is easily moved readily transmits the affections to the soul, while that which is difficult to move, when disturbed tends not to communicate these affections to the soul, or at least does not do so with ease, and as a result, the disturbances that affect the latter sort of bodies tend not to result in perceptions. Furthermore, these parts, which are difficult to move, tend to be composed of earth – bone and hair are the examples that Plato gives of these – while those that are easily moved tend to be composed of fire and air (*Tim.* 64a2 – c7). In general, Plato characterizes pain as being associated with intense disturbances that come suddenly, and that wrench the body away from its natural state, while pleasure typically accompanies the cessation of these disturbances, and the restoration of the body's natural condition (*Tim.* 64c7 –

d3). He further states that bodies that are composed of smaller geometrical figures – fire and air – are easily moved, and as a result the disturbances that affect the organs of sense that are composed of these elements are not accompanied by pleasures and pains. It is rather the case that the degree of disturbance corresponds to the vividness of the perception when these organs are involved. This is the case with sight, for example, since neither pleasure nor pain accompanies the affections that disturb the visual ray, it is only vividness of perception that results from particularly strong visual affections (*Tim.* 64d3 – e4). Bodies that are composed of larger geometrical figures, on the other hand, don't easily move when affected, and so violent disturbances to organs composed of these types of bodies are communicated through the body to the soul and are accompanied by pains, while the return of such organs to their natural state yields pleasure (*Tim.* 64e4 – 65a2). This is consistent with Plato's account of the nature of pleasure and pain in the *Philebus* in which pain is characterized as a reaction to a bodily lack, or the alienation from the body's natural state, and pleasure is understood to be the filling of a lack or the return to the natural state (*Phil.* 31d4 – 32b9). Finally to round off his discussion of pleasure and pain, and his treatment of touch in general, Plato indicates that when a body is gradually led away from its natural state, but experiences a sudden return, this tends also to lead to the experience of pleasure without pain, whereas those bodies that are wrenched from their natural condition and return to it only gradually cause experiences of pain without pleasure. The former, says Plato, is typical of the olfactory system when it comes into contact with a stimulus that causes pleasant aromas, while the latter is characteristic of the body in general (and the sense of touch) when it is burnt or cut (*Tim.* 65a2 – b3).

There are a number of interesting aspects to Plato's discussion of touch that I'd like to highlight and discuss. The first concerns the perceptual objects that Plato claims are made available to the soul by means of touch. As mentioned above, these fall into three general categories: temperature qualities (hot and cold); contact qualities (rough and smooth); and resistance based qualities (heavy, light, hard and soft). These are roughly the same qualities that modern science recognizes as being associated with tactile perception. Today we know that the seat of receptivity to somatic stimulation that ultimately leads to the awareness of tactile perceptual qualities is the primary somatosensory cortex which is located at the front of the parietal lobe and immediately adjacent to the primary motor cortex which lies immediately in front of the somatosensory cortex at the back of the frontal lobe. The

somatosensory cortex is comprised of a number of nerve fibers that are sensitive to the inputs from different body parts. Furthermore, those body parts that are more sensitive to touch command a larger proportion of the nerve fiber real estate in the somatosensory cortex (with the lips and the fingertips receiving the lion's share). It is also the case that this cortex is responsible for receiving the inputs that correspond to all the different types of touch perception, which Faith Brynie in her book *Brain Sense* identifies as heat, cold, pressure, contact and pain (although she nowhere indicates that this is a complete or exhaustive list, most scientists seem to agree that these are the qualities that one is made aware of by means of touch).¹⁵ The specialization, which determines the particular sort of affection that corresponds a specific type of tactile quality, occurs at the level neurons rather than with the nerve receptors. In other words, there are neurons near the surface of the skin that are sensitive to heat and cold, while others are sensitive to pressure, and still others to contact qualities, however, all of these different types of neurons fire to the same receptors.¹⁶

Now let's look at the way in which these different types of neurons are activated so as to produce, by means of the somatosensory cortex, touch perceptions, and compare this to the way in which Plato characterizes the process by means of which these sorts of perceptions occur. Heat and cold sensations are caused by the activation of neurons that lie very close to the epidermal level. Just as in vision certain rods and cones are activated by particular wavelengths of light, in touch there are many and various types of neurons that are activated when the body comes into contact with different levels of heat and cold. For example, there are specific neurons that correspond to the sensations that range from bitterly cold, to a mild chill, to room temperature, to warm to scalding hot and everything in between. Generally speaking, when the body comes into contact with something cold, receptors on the membrane of the nerve cell detect the molecule of the chemical that causes the physiological reactions consistent with feeling cold (there are a number of chemicals that accomplish this), and causes ion channels to open which allow positively charged ions to flood into the cell and momentarily alter the cell's charge from positive on the outside and negative on the inside to positive on the inside and negative on the outside. This alteration in the cell charge affects the membrane of the next cell

¹⁵ Brynie (2009) 7.

¹⁶ Ibid. 11 – 12.

causing the ion channel in that cell to open, and this process continues along all of the cells that comprise the nerve fiber until the impulse reaches the brain where it is processed by the somatosensory cortex and culminates in a cold sensation.¹⁷

Recall that on Plato's account of cold perception, for example, the primary cause of the sensation involves the displacement of the fire present in the body by moisture. Although this does appear, especially when considered in conjunction with this modern theory, to be rather simplistic, Plato did appear to understand that the physiological conditions that result in cold perception are attributable to alterations at the molecular level. This is evidenced by his claim that a perception of coldness results from the displacement of fire by moisture, and that moisture's subsequent attempt to fill in the gaps left by the geometrical figures that comprise fire, which are smaller than those that constitute water. Although this particular process – namely, the compression and expansion of moisture in the body as it tries to fill the vacancies left by the expelled fire – is the cause of shivering which is merely a physical reaction related to the perception of cold, the fact remains that the ultimate cause of this experience is the alteration of a bodily component from one molecular structure to another, i.e., from the geometrical figures characteristic of fire to those characteristic of water. Furthermore, in his discussion of pleasure and pain Plato indicates that he was aware of something like the process of neural transmission described above. In discussing the greater propensity of mobile components to produce perceptions, Plato says, "When something that is naturally mobile is invaded by even a slight affection, it spreads it all round, one particle passing on the same effect to another, until they reach the consciousness and report the quality of the agent" (Trans. Zeyl) (*Tim.* 64b3 – 6).¹⁸ This quote clearly shows that Plato had some sort of chain-reaction type mechanism in mind to explain the transmission of an affection of the flesh through the body to the soul. Which also further serves to reinforce the notion that for Plato, just as on the modern conception, the bodily elements are necessary, but the necessary role that they play is to provide a means by which the soul (brain) can become aware of and process these affections.

Let's now look at the three different types of qualities that both Plato and modern theorists identify as the objects of tactile perception. Just to reiterate, these

¹⁷ Ibid. 12 – 14.

¹⁸ ὅταν καὶ βραχὺ πάθος εἰς αὐτὸ ἐμπίπτῃ, διαδίδωσιν κύκλῳ μόρια ἕτερα ἑτέροις ταῦτ' ὅν ἀπεργαζόμενα, μέχριτερ ἂν ἐπὶ τὸ φρόνιμον ἐλθόντα ἐξαγγείλῃ τοῦ ποιήσαντος τὴν δύναμιν:

categories are: temperature-based qualities (hot and cold), contact qualities (rough and smooth) and resistance or pressure qualities (hard and soft, heavy and light). It is interesting to note concerning these qualities that, unlike the qualities that are proper to vision, the tactile qualities don't all arise by means of the same sort of process. For example, the first two types of qualities tend to be the result of affections that occur at or just below the epidermal level, whereas resistance qualities come about from affections that occur at the level of the bones and muscles. In Plato's discussion of the causes of the qualities of hot and cold he mentions the effect that the elemental kinds associated with these qualities have on the body – in the case of heat he notes that fire, due to the sharp angles of its constituent triangles, cuts and separates the flesh, while in the case of cold, moisture quenches the fire and tries to fill the gaps left by the departed fire with its small constituent triangles. Plato's brief discussion of the causes of perceptions of the qualities rough and smooth, however, makes no mention of any affections of the flesh that result in these perceptions; it rather focuses on the structural properties of the external objects that render them suitable to cause such perceptions. The same holds true for the resistance-based qualities; instead of discussing how the muscles contract when the body comes up against something hard or attempts to lift something heavy, Plato focuses on the properties of objects that specifically determine them as suited to give rise to these properties. The one exception to this is when he says that something hard does not give way to flesh while something that is soft does. Thus in his discussion of the qualities associated with touch, Plato rarely mentions the flesh or the effects that external objects have on it. He is, however, clearly aware that the affection of the flesh is involved in tactile perception, as evidenced by the comments he makes about hot and cold, hard and soft. Although Plato was aware of the different qualities that come about by means of the sense of touch he appears not to have been sensitive to this distinction between tactile qualities that are the result of affections of the flesh and those that relate to the movement of the bones and muscles. This is evidenced in his discussion of pleasure and pain where he indicates that earthlike bodies that are difficult to move (such as hair and bone) don't communicate affections to other elements in the body, and thus these affections do not result in perceptions as they never reach the soul (*Tim.* 64b5 – c5).

Finally, I'd like to round off my discussion of Plato's views on touch with some observations about his remarks on pleasure and pain both in the *Timaeus* and in

the *Philebus*. It seems to be appropriate to address pleasure and pain at this juncture because, as Plato indicates, after his description of the various qualities of touch and the explanation of these experiences, the topic of pleasure and pain, is the greatest (μέγιστον) topic that remains regarding the disturbances that affect the whole body (*Tim.* 64a2 – 3). However, rather than focusing exclusively on the remarks that Plato makes about pleasure and pain in the *Timaeus* (these observations have been recounted above), I would instead like to examine more closely what he says in the *Philebus*. In particular I would like to look at how the discussion of anticipatory and false pleasures and pains between Socrates and Protarchus in the *Philebus* relates to the phenomenon that is today referred to as the placebo effect. First let's examine the course of the *Philebus* discussion. As mentioned above, pain¹⁹, in the *Philebus*, is defined broadly as a reaction to some perversion of the body's natural harmony. "What I claim is that when we find harmony in living creatures disrupted, there will at the same time be a disintegration of their nature and a rise of pain" (Trans. Frede) (*Phil.* 31d4 – 6).²⁰ Pleasure, on the other hand, is characterized as accompanying the body's return to its harmonious state. Plato uses the conditions of hunger and thirst to illustrate this point, and to show that a somatic condition – the lack of food or moisture in the body – can, and often does, result in a pain (hunger or thirst), which is a psychical condition, and which is related to the desire for the opposite state from that in which the body currently finds itself. Therefore, pleasure and pain arise in the soul, and while Plato indicates, with his hunger and thirst example, that these states frequently accompany particular bodily conditions, he also claims that there are pleasures and pains that are of the soul alone (*Phil.* 32b9 – c7). There are not, however, according to Plato, pleasures and pains that involve the body alone, for, as mentioned above, the body itself lacks the requisite capacity for cognitive awareness.

Plato then investigates a particularly complex and problematic psychological phenomenon whereby a subject experiences pain in the typical way – namely, as the result of a certain bodily deficiency – but through the faculty of memory this individual is also in touch with the pleasure of having had that particular affliction assuaged at some time in the past. In such a case the individual, says Plato, is simultaneously in a state pleasure and pain: pain through the soul's reaction to the

¹⁹ That is to say a certain type of physical pain that involves both soul and body, for Plato also identifies a type of pain, and pleasure, that does not involve the body.

²⁰ λέγω τοίνυν τῆς ἁρμονίας μὲν λυομένης ἡμῖν ἐν τοῖς ζώοις ἅμα λύσιν τῆς φύσεως καὶ γένεσιν ἀλγηδόνων ἐν τῷ τότε γίγνεσθαι χρόνῳ.

body's condition, and pleasure through the expectation of the relief from pain (*Phil.* 35d8 – 36c1). The claim that such a condition is possible naturally gives rise to the question whether one of these cognitive states is false, and, therefore, whether it is possible to have a false pleasure or pain. In order to demonstrate the possibility of false pleasures, Plato first draws an extensive analogy between pleasure and judgment, asserting that in both cases one can be mistaken about the object of one's judgment and one's pleasure, but cannot be deceived as to whether or not one actually judges or is actually pleased (*Phil.* 37d6 – 37e8). After establishing that, in the case of pleasure and pain, like in the case of judgment, one can be mistaken only with respect to the content of the pleasure or pain, Plato, having already established that there can be pleasures and pains which do not arise through the body, but are rather of the soul itself, claims that there *can* be anticipatory pleasures and pains. The content of these cognitive states consists of the hope of bodily replenishment coupled with the memory of having experienced such replenishment in the past (*Phil.* 39d1 – 5). Thus one way that false pleasures come about is through false judgments, either about one's current condition or what one's condition will be in the future. Plato goes on, however, to identify another sort of false pleasure. This breed of false pleasure is related to desire which Plato had earlier identified as a condition of the soul in which it happens to be in touch with the condition opposite to that which it is currently experiencing through the body. As a result of this, Plato claims that in such an instance, the body and soul part ways as they are in different conditions (*Phil.* 41b11 – d4). In this situation, pain and pleasure are experienced simultaneously, and the pain is the result of the body's condition being communicated to the soul, while the pleasure is the result of the soul being in touch with the relief from the experienced bodily affection. The pleasure, in this instance, says Plato, appears to be greater than the pain, but this is only a matter of degree. This could account for why when an individual is in such a condition, the pleasure experienced often drowns out the pain. Plato goes on to indicate, however, that the degree to which the perceived pleasure is greater than the pain is merely an illusion, so that if the individual were separated, and the pain were cut off from the pleasure itself one would see that the increased intensity of the pleasure is actually false (*Phil.* 41d5 – 42c3).

The above exposition represents a simplified summary of Plato's discussion of a number of complex psychological and physiological phenomena, but what I'd like to focus on is his claim that pleasure, actual pleasure, can, and frequently does result

from anticipation, and I'd like to claim that this is similar to, if not a precise example of, the phenomenon that we refer to today as the placebo effect. The placebo effect refers to the psycho-physical phenomenon whereby an individual who is experiencing pain or who is afflicted with a disease ceases to suffer from the pain or the disease without the administration of any potent pharmaceutical agent, but merely as a result of the anticipation of relief. An example of such an occurrence might be the alleviation of a headache from the consumption of a tablet that one is told is a new strong pain killer when it is, in fact, no more than a sugar pill.²¹ It is thought by many in the fields of medicine and psychology that in such instances the explanation of the remission of pain is the brain's expectation that, since it is receiving what it takes to be a pain killer, the pain should dissipate. "The placebo effect is not deception, fluke, experimenter bias, or statistical anomaly. The human brain anticipates outcomes, and anticipation produces those outcomes."²² Thus Plato is correct that not only do anticipatory pleasures exist, but also, just as he claims, they truly are pleasures (even though the object toward which they're directed is false). Plato is further correct that these pleasures of anticipation only come about if the relief from pain is a real possibility. Just as might be expected, the placebo effect only works if the sufferer is told that he or she is receiving or undergoing something genuinely therapeutic, or is at least under the impression that that is what's going on. Similarly, Plato says that one can only experience anticipatory pleasure if relief from the felt pain is imminent, or is at least a possibility (*Phil.* 36a7 – b2). Thus, although Plato appears to be unaware of the physiological implications of the placebo effect – i.e. that it appears that, arguable though it may be, in certain circumstances, the expectation of relief from a physical malady can bring about the resolution of that condition – he clearly is aware that desire, hope and anticipation can relieve pain that is associated with the body, and, in some cases, even be a source of pleasure. This is because, as Plato says, pain, although often connected with a disharmonious physical condition, is ultimately a psychological phenomenon, and the fact that, for Plato, the psychical is separable from the physical means that other psychical functions like memory and anticipation can have an influence on whether and to what extent bodily pain *is* actually experienced. Thus corroborating the old adage, mind over matter.

²¹ Brynie (2009) 22 – 23.

²² Ibid. 24.

4.4 Taste

After examining the nature and causes of the qualities associated with the sense of touch, Plato turns his attention to taste. He begins his discussion of taste, similarly to the way in which he approached the other sense modalities, by indicating first that taste is the result of the disturbances that are communicated to the soul by the power that operates through the tongue. Next he states that the sense of taste, similar to vision, is a function of contractions and dilations, but also, taste, more than any of the other sense modalities, after touch, is sensitive to characteristics of objects that are consistent with roughness and smoothness (*Tim.* 65c1 – 10). Plato next indicates that the affections that culminate in taste perceptions result from the disturbances of the small veins that run from the tongue to the heart; these veins are responsible for receiving and communicating the affections imparted to the tongue to the soul. Following these general remarks about the process of taste perception, Plato begins to enumerate the particular taste qualities that result from these affections of the tongue. The first two tastes with which Plato deals are sour and tangy. These particular qualities are the result of earthlike elements coming into contact with the vessels of the tongue, causing them to contract and become dry. In addition to the contraction and drying, when the objects that cause these perceptions have features characteristic with roughness, the resultant perceived quality is sour (astringent), whereas when they are smoother, the flavor is perceived to be tangy (harsh) (*Tim.* 65c10 – d5).²³ Plato then addresses the tastes referred to as salty and bitter, which he claims are related to one another in so far as they are both caused by a rinsing and washing of the vessels of the tongue. The latter is perceived when this rinsing is extreme, to the

²³ There is an obvious question that must be addressed here regarding Plato's identification of roughness and smoothness as, at least in part, qualities that determine the character of taste perceptions. Although one might be tempted to think that taste, on Plato's account, is the result of the particular contraction or dilation of the vessels of the tongue, coupled with some perceived roughness and smoothness in the object that causes the perception, I think that if the implication is that the tactile qualities (roughness and smoothness) are perceived by means of the sense of taste, this must be wrong, not least because it contravenes the *idion* claim. Unfortunately, as with many of the issues discussed above, Plato doesn't give us any concrete indication of how he intends these tactile qualities to contribute to taste perception, but there are a couple of different ways in which we can understand this claim while salvaging the *idion* claim. (1) It could be the case that the perceptions that come about by means of the tongue involve both the contraction and/or dilation of the vessels of the tongue, as well as the perceived roughness or smoothness that is caused by the external object in question. On this view two separate sensory powers are operating through the tongue – taste and touch. This is possible because, as Plato says it is the sensory power, not the sensory organ that can only transmit the information relative to the quality specific to it. Or (2) it could be that the object that causes the taste perception possesses a structure consistent with producing a rough or smooth perception, but since it is the tongue that comes into contact with the object this structure is interpreted differently – namely, as a taste – by the perceptual faculty.

extent that a portion of the tongue is dissolved, and the former comes about as the result of a rather more gentle washing of the tongue's vessels. These particular qualities are said to be agreeable (salty) and disagreeable (bitter) respectively (*Tim.* 65d5 – e3). Items which cause a pungent (or hot) flavor do so because they are specifically suited to absorb the fire that is present in the mouth, which, in turn, sets them alight, and causes them to return this heat in kind. The fact that these types of heat conducting objects tend to be light as well causes them to be carried upward and to affect the other senses that reside in the head – specifically the nose and eyes – (*Tim.* 65e3 – 66a2).

After identifying the causes of these five qualities, Plato digresses briefly in order to identify the physiological effects of those items that are small enough to enter the vessels and agitate the earth and air components that make-up the inside of the vessels. As the earth and air particles interact and intermix with one another, small pockets are created in the spaces that arise between the geometrical constituents of these two different elements. When this happens, and when an area of moisture surrounds a particle of air, the result is an area of moist air, or a thin film of water surrounding and enclosing a region of air. When this moisture is translucent and akin to the air, the result is a bubble, whereas when the moisture is more earthlike, the reaction is a belch. Plato then further adds that these physiological reactions are caused by elements that also cause the awareness of an acidic flavor (*Tim.* 66a2 – 66b7). In addition to these items which disrupt the natural harmony of the tongue, Plato also indicates that there are those that restore this harmony. This is accomplished either by smoothing and lubricating rough parts, or by constricting those areas that are unnaturally dilated, or opening up the areas that are contracted. In whatever way it is accomplished, this restoration of the tongue's natural harmony results in the perception of sweetness (*Tim.* 66b7 – c7).

As we can see, Plato's discussions of the sense modalities are gradually getting shorter, and the number and variety of qualities with which they put the perceiving subject in touch are decreasing. Taste, on Plato's account, is related both to vision and touch insofar as it involves contraction and dilation of the vessels of the tongue, as well as the roughness and smoothness of both in the tongue itself, and in the elements that affect the tongue and ultimately lead to taste perception. The similarity between taste and touch is obvious, for taste is the only other sense that involves direct contact between the organ of sense and the object that stands at the

beginning of the causal perceptual process. Plato identifies at least six, and possibly seven qualities that are perceptible by means of taste, sour, tangy, salty, bitter, hot, acidic and sweet. The reason why I say that there definitely six, and possibly seven, is because it is unclear in Plato's account to what extent acidic is actually a taste or whether it is rather just the explanation for certain physiological reactions. There is very little known today about the nature of taste, how it works, what differentiates taste from flavor and what, precisely its objects are. Most scientists, however, agree that there are five tastes – sweet, bitter, sour, salty and umami (which is understood as being responsible for one's sensitivity to savory foods). In addition to these core five tastes, preliminary evidence indicates that there could be at least two other potential tastes to which human are sensitive – namely, fat and calcium.²⁴ This indicates that Plato was at least correct on the five primary tastes, and was also sensitive to the fact that this number could be as high as seven.

As with the other senses, taste occurs when an electrical impulse is sent along a nerve to the brain which processes the impulse and results in the perception of a particular taste. The receptors that are sensitive to those chemicals that are responsible for taste perceptions are located in the cells that comprise the taste buds. Each bud is composed of between fifty and one hundred cells, and the buds are all connected to nerves, although the cells themselves are not, so in order for a signal to be sent the receptors in the cells have to communicate with and alter the cell itself which then communicates with the taste bud ultimately resulting in the transmission of a signal characteristic of the taste that accompanies the specific chemical captured by the cell receptors. This is quite obviously a different process from the one that Plato describes, which involves the tearing, drying, rinsing or restoration of the vessels of the tongue. But, as with the other sense modalities discussed thus far, on both Plato's and the modern account there is a molecular alteration in the organ specific to the sense – in this case the tongue – which communicates, via pathways that link the components in question, to another entity, in the case of Plato, it's the soul, while on the modern view the destination for these messages is the brain.

In addition to the five tastes identified by modern scientific theories of taste perception, many scientists and psychologists also draw a distinction between taste and flavor. According to this distinction, taste refers to the raw sense qualities that

²⁴ Brynie (2009) 76 – 77.

arise as the result of the stimulation, by the appropriate chemicals, of taste receptors in the taste buds. Whereas flavor is the complex sense experience that results from a combination of smell, taste, texture, temperature, etc. In other words, taste is a reaction to certain chemicals transmitted by means of the tongue, whereas flavor is an experience that involves the perception and combination of a number of qualities that are perceived by means of the senses of taste, smell and touch, and is the result of eating certain foods. Although Plato appeared to be unaware of a distinction between taste and flavor, or at least he made no such distinction himself, he did know that certain aspects that are involved in touch are involved in taste. As mentioned above, touch and taste are the only sense modalities that require that the sense organ through which they are actualized come into direct contact with the object that causes the perception. This means that since the whole body is sensitive to the affections that result in tactile perceptions, there must be a sense in which even the other organs of sense, like the tongue, are organs of touch. Plato further notes in his discussion of taste that roughness and smoothness (which in the discussion of touch are identified as objects of touch) are involved in taste perception. I take it, however, that Plato's reference to roughness and smoothness here is a reference to the property of the object that causes the particular taste sensation, and not a perceived roughness and smoothness. For if Plato were claiming that roughness and smoothness are perceptible through taste, this would be inconsistent with the *idion* claim. Since, however, Plato indicates that the whole body is sensitive to the disturbances characteristic of touch, there is no problem in his saying that the roughness and smoothness to which a particular object gives rise is perceived by means of the sense of touch, while the sweetness or bitterness that results from the tongue's interaction with that object arises in the soul by means of the transmissions of the sense of taste. Furthermore, if flavor, in the modern sense, is something that Plato thinks is experienced at all it would not be, strictly speaking, perceptible, or if it is perceptible it would involve not only perception, but also the activation of another psychical faculty, like thought, memory or imagination. For, as it was argued in the previous chapter, perception for Plato is limited to the immediate conveyances of the individual senses, and any experience that involves a combination of sense qualities must be the result of a separate psychical function. Thus, in order for a perceiving subject to have an experience of a world of objects composed of multiple sense qualities, reflective thought in addition to perception is necessary. Now that we've examined Plato's

discussion of the perceptual objects that come through the tongue, let's turn to his discussion of smell – a sense modality often thought to be related to taste – and the olfactory system.

4.5 Smell

Plato's account of the sense of smell is extremely short. It is no mystery that he thinks the sense of smell is the weakest of all of our senses and provides a perceiving subject with very little information. He begins by indicating that the nose, and in particular the nostrils, is the means by which odors reach the soul. Very early on in the discussion, however, he claims that there are no types within the objects of olfactory perception, and says that smell is in all respects a half-breed (ἡμιγενές). His justification for this claim comes from the idea that none of the geometrical figures that comprise the four elements are able to penetrate the vessels of the nose. These vessels are too small, and as a result, none of the elements themselves can cause a scent, furthermore, none of the objects composed of these elements can cause a scent either. Instead, Plato maintains that odor is a function of dampness, decay, melting and evaporation (*Tim.* 66d1 – 8). This is because all of these processes involve the alteration in state from one element to another, and it is a reaction to this transition – in particular the transition from water into air, or from air into water – that gives rise to scents. The characteristic of mist, which results from the transition from air into water, and vapor, which is the product of the change from water into air, is that they are grosser than air, but finer than water (*Tim.* 66d8 – 67a1). They are thus perfectly suited in size to enter the nostrils. After making these claims, Plato says that although there are no distinguishable kinds among the objects of smell, they can be classified in terms of two general categories – pleasant and unpleasant. As he did with his accounts of pleasure and pain in touch and taste, Plato indicates that the physiological condition that typifies foul odors is a disorder within the upper part of the body, while pleasant aromas occasion a restoration of the natural condition within this area (*Tim.* 67a1 – 67a6). This concludes Plato's account of the sense of smell. Now let's turn to some of the philosophical upshots that follow from it.

Let us begin with the olfactory process and the objects of smell as Plato conceives of them. According to the modern view of olfactory perception, smell beings with the affection of the nostrils. This affection is then communicated along a chain until it is processed in the brain and results in the awareness of an odor. Today

we know that this is caused by odoriferous molecules that attach to specifically suited receptors which lie in the hairs that stand at the end of the olfactory neurons which populate the olfactory epithelium.²⁵ The impulse begins when a molecule binds to an odor receptor and that receptor dispatches a G protein. This protein effects a neighboring molecule and the resulting nerve impulse travels along the axon to the axon bundle which connects to the olfactory nerve. The impulse is then communicated via the olfactory nerve to different parts of the brain where it is processed.²⁶ There are many types of molecules that have odor-inducing properties, but there is no consensus among scientists as to how to classify them. The variety and subtlety of scents to which the olfactory apparatus is sensitive makes it difficult to determine how many and what sort of classifications there can be within this sense modality. This ambiguity might have also led to Plato's inability or unwillingness to differentiate and categorize scents any further than the two designations to which he does commit. Finally, Plato claims that smells result from the effects that the change in state from water to air or from air to water has on the olfactory system. This claim is particularly interesting when viewed in light of the fact that two of the features of a molecule that determine it as being capable of producing an olfactory perception is that it be water soluble, and be able to be evaporated into the air.²⁷

Plato also makes the claim that the elemental bodies do not give rise to the awareness of any scents because the proportions of their geometrical constituents are not suited to affect the nose (συμμετρία πρὸς τὸ τινα σχεῖν ὁσμὴν (*Tim.* 66d3 – 4)). This statement gives us a good opportunity to briefly discuss what has been mentioned in passing several times thus far – namely, that Plato's view of the relationship between the physiology and psychology of perception is consistent with the view that the objects that constitute the content of perceptual experience are not qualities that are possessed by external objects intrinsically. If this view is correct, it would seem that Plato's conception of the way in which the physical features of external objects interact with the body to give rise to perceptions is consistent with the distinction between primary and secondary qualities. The classic formulation of this distinction, as it appears in Locke, is as follows: "The ideas of primary qualities of bodies are resemblances of them, and their patterns really do exist in the bodies

²⁵ Ibid. 39.

²⁶ Ibid. 40.

²⁷ Ibid. 40.

themselves, but the ideas produced in us by these secondary qualities have no resemblance of them at all.”²⁸ Locke continues:

The particular bulk, number, figure and motion of the parts of fire and snow...but light, heat, whiteness, or coldness are no more really in them than sickness or pain in the manna. Take away the sensation of them...and all colours, tastes, odours and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, i.e. bulk, figure and motion of parts.²⁹

The question, then, is, on Plato’s account, is it the case that the qualities that we perceive exist in the objects that cause those perceptions intrinsically, or is it rather on account of those objects possessing different, intrinsic, properties that we come to perceive the perceptible qualities? As mentioned above, Plato indicates, in his account of the sense of smell, that the suitability of an object for having a smell is dependent upon its ability to affect the olfactory apparatus. Similarly, in his account of hearing, Plato will claim that sound is the motion of air which impacts upon the ear and the brain. Thus it seems that the very definition that Plato gives smells and sounds – i.e. the account of what they are – necessarily involves the mention of the organs of sense. This would indicate that, for Plato, our understanding of certain sensible qualities must be in terms of our perception of those qualities, and cannot be in terms of the qualities as they exist in external objects themselves. This certainly doesn’t say anything definitive about Plato’s view on whether external objects possess perceptual qualities intrinsically, but it does begin indicate in the direction of the view that perceptual qualities are dependent, for what they are, on being perceived. If, however, we look again at the accounts given of the other sense modalities, we can see that in each case the cause of the perceiver’s awareness of a particular perceptible quality appears to be some structural feature of the external object, which is distinct from the perceptible quality itself. In the case of vision it was a fire that causes the dilation or contraction of the visual ray. In the case of touch it was the composition of the constituent triangles that comprise the elemental bodies, and which determine the macrostructure of an object as being, for example, dense and/or uniform. These macrostructures then interact with the flesh so as to give rise to the awareness of roughness or smoothness. Finally, in the case of taste perception, the qualities of which a perceiver is aware are due, on Plato’s account, to an object’s tendency to

²⁸ Locke *Essay* II, viii, 15.

²⁹ Ibid. II, viii, 17.

rinse, dry out, contract or dilate the vessels of the tongue. Thus, it seems that in each case the properties of external objects that are causally efficacious, and which result in a perceiver's awareness of a perceptual quality are distinct from those perceptual qualities themselves. Plato, of course, never says this explicitly, and it could be that he thinks that it is the very perceptual qualities themselves that give external objects the ability to affect the sensory apparatus in the characteristic ways in which they do. It seems to me, however, that, on balance, the evidence, based on the way in which Plato defines certain perceptual qualities – namely, as necessarily involving their effects on the organs of sense – as well as the account that he gives of the interaction between external objects and the bodily sense organs points to the view that the intrinsic features of these external objects that cause, in a perceiver, the awareness of perceptual qualities are distinct from the perceptual qualities themselves.³⁰

4.6 Hearing

Finally we turn to Plato's discussion of hearing, which despite having, on Plato's account, a greater variation in the types of objects to which it gives rise, takes up even less space than Plato's discussion of smell. Plato begins by identifying the physical cause of sounds, which constitute the objects of hearing, and says that sound is the percussion of air, by means of the ears, on the blood and brain, the effects of which are then transmitted to the soul (*Tim.* 67b2 – 3). After identifying the nature of sound, Plato articulates the general causes of hearing itself. Hearing, he says, is caused by the motions that result from the percussive action of the air upon the brain and blood. These motions, which, according to Plato, begin in the head and travel down to the area around the liver, where the perceptual soul resides, are the immediate causes of the perceptual power that is actualized through the ears.

³⁰ Silverman (1990) holds the opposite view. He claims that, "Plato thinks that sensible qualities are *both* absolute properties of objects *and* the causes of the affections of sense. In virtue of what red is, red objects are capable of causing the determinate affections in the visual stream, sense-organ and soul that is seeing red" (157). He, however, offers little in the way of an argument for this claim. "While I believe that there is evidence to suggest that sensible qualities are absolute objective properties (of physical objects), my argument proceeds from elimination. None of the alternatives, e.g. that sensible qualities are dispositional properties, saves the phenomena of Plato's texts" (150). Silverman goes on to argue that based on Plato's claim that sensible qualities recur throughout the world, coupled with his assertion that the same material constitution consistently gives rise to a perception of the same quality indicates that these qualities must be absolute and objective. Neither of these claims, however, is inconsistent with the view that perceptual qualities are secondary qualities of objects. For it could easily be argued that a certain physical microstructure present in any number of external objects will always, under normal circumstances, give rise to the awareness of a certain perceptible quality when it interacts with one's sensory apparatus. And that this microstructure, and any macrostructure to which it gives rise, is distinct from the sense quality, and that the quality is not reducible to that structure.

After identifying the general causal processes that result in hearing, Plato enumerates the different types of sounds, and the corresponding characteristic percussions that cause the motions, which result in hearing. The discussion of these sounds comes in three groups: the first sound-types that Plato identifies are high-pitched and low-pitched. These, he says, are related to the motions caused by rapid and slow percussions respectively. Next Plato claims that the sound resulting from the motions caused by a constant percussion is uniform and/or smooth, while an irregular percussion produces motions that result in the perception of a rough or broken sound. The final sound type that Plato discusses is loud and soft which are the result of motions caused by hard and soft percussions on the brain and blood (*Tim.* 67b3 – c3). This concludes Plato's account of the perceptual aspects of the sense of hearing as he indicates that matters relating to musical harmonization will be taken up later.

There are a couple of important philosophical observations that can be made about Plato's discussion of hearing. The first has to do with the fact that he accurately identifies the three components of sounds: pitch, intensity and timbre. In addition to this, it is striking that Plato doesn't speak in terms of specific sounds, but rather refers to a range of sounds within each type. This could mean that Plato sees sound perception as operating along a continuum. If this is the case then the sounds that can be perceived are potentially infinite. Furthermore, based on the three types of which Plato speaks, every sound must consist of all of these components, i.e., each sound must have a pitch, a level of intensity and a timbre quality. On Plato's view then the objects of hearing are similar to those of sight in that they are extremely varied, and just as all colors are composed out of three primary colors, all sounds possess three essential features, and these three features which are present in every sound combine in different ways to constitute every possible sound heard.

Today we know that auditory perception occurs when sound waves enter the canal of the ear via the horn shaped pinnae. They travel through the canal to the membrane, known as the eardrum, which separates the canal from the middle ear. The waves cause the eardrum to vibrate, which, in turn, sets the adjacent bone, called the hammer, moving. The hammer is attached to another bone, the anvil, which is itself attached to a third bone known as the stirrup. Through a sort of chain reaction the air vibrations cause each of these components of the middle ear in turn to quiver, until the stirrup ultimately passes on the vibrations to the oval window, which leads to the inner ear. The inner ear is composed of the three-chambered cochlea and is filled with

fluid. When the oval window moves from the vibrations imparted to it by the stirrup, it causes the cochlear fluid to slosh and ripple. Each chamber of the cochlea is separated by a membrane, and attached to the basilar membrane are three rows of hair cells totaling between 16,000 and 20,000 in all. The motion of these hair cells, of which there are several different types, serve to amplify sounds. At the end of these hairs are tiny filaments which are positioned such that they are able to brush up against the tectorial membrane. When such contact between the filaments on the end of the hair cells, and the tectorial membrane does occur, a force is created which causes the hair cell to release a neurotransmitter. This neurotransmitter then causes the neurons that comprise the spiral ganglion to release a nerve impulse. The impulse travels along the auditory nerve and terminates in the cochlear nucleus in the brainstem. After a signal enters the brain stem it is divided, and the different components are sent to different areas of the brainstem and the midbrain (this accounts for the ability to perceive changes in particular sounds, as well as physiological reactions to sounds). Eventually, like most other perceptual impulses, the signal reaches the thalamus where it is either blocked or transmitted along to the left and right auditory cortices nestled in the temporal lobe just above the ears.³¹

Unlike in his accounts of vision, touch and taste, Plato's discussions of the physiology of smell and hearing are quite short. He emphasizes the causal process, and the role of the body, but says more about the types of qualities that are perceived, and the types of external stimuli that cause them, rather than the procedure by which they are perceived. Plato does recognize that auditory perception is a function of the motion of the air, which due to its percussive action on the body (Plato indicates that the bodily elements that the air impinges upon are the brain and the blood) is communicated to the soul which perceives by means of these disturbances. He does not, however, recognize that the various components of the middle and inner ear are also involved in this process. It is almost as if the brain and the blood are standing in for the eardrum, its attached bones and the cochlear fluid in the fact that it is they that transmit the affection received from the air to the cognitive element. Péter Lautner argues that since Plato claims that the motions of the air travel easily through the ear, and affect the brain and the blood, we ought to assume that the perception of sound

³¹ Brynie (2009) 148 – 149.

qualities is made available to the rational part of the soul.³² There is, however, no evidence for this claim in the text, and it seems unlikely that this is a view that Plato would endorse, for if it is the case that certain perceptual content is perceived by the rational part of the soul, while other objects of perception are perceived by the appetitive part, then Plato would need to provide an argument for why this doesn't put us right back in the wooden horse from the *Theaetetus*.

4.7 Conclusion

Throughout the course of this chapter it has been demonstrated that although Plato does certainly speak of the soul as if it has an exalted role in the perceptual process, he also conceives of the body as being an essential component in this process; one which provides for the possibility of the soul's coming to be aware of perceptual content. For Plato first develops a close relationship between the soul and the body in perception by indicating that it is the motions that are caused by the interaction between external objects and the body that are transmitted through to the soul, and it is by means of these disturbances that the soul is able to perceive. This understanding is reinforced by Plato's claim in the *Philebus* that only the stronger bodily affections are able to penetrate through the body and reach the soul, whereas those that are weaker do not affect the soul, and thus remain unperceived. Plato's interposition of the body between the soul and the external objects, which serve as the causes of the objects of perception, gives further credence to the indirectness and internality claims defended in chapter 3. Recall that in this chapter it was argued that the notion of indirectness is necessitated by Plato's claim in the *Theaetetus* that what is perceived by means of one sense cannot be perceived by means of another (the *idion* claim). Plato's assertion of the *idion* claim indicates that the soul, which is the

³² Lautner (2005) claims that on Plato's account of hearing the ear plays the role of little more than a channel (236). He then further claims that since the motions of air bang up against the brain, in which the rational soul is positioned, we should assume that reason, as well as appetite, is in touch with sound perceptions. "One may suspect that sounds can affect the faculty of the soul located in that part of the body. Thus it must get in touch with the rational soul, for Plato locates the reasoning part of the soul in the head" (237). Plato, however, says nothing in this passage to indicate that the rational soul is in touch with sounds. He doesn't indicate that the head is the terminus for auditory motions, he only indicates that they bang up against the brain and the blood before they are communicated to the liver (the house of the appetitive part of the soul). Lautner uses his claim about hearing being a function of the rational soul to argue for a distinction between rational perception and irrational perception, along the lines of the distinction between perception and sensation (244). Plato, however, never refers to any sort of rational perception, whereas he does explicitly refer to irrational sense perception (*Tim.* 69d4), and, as argued above, he seems to have made no distinction between sensation and perception as functions of a single faculty.

subject of perception, does not come into direct contact with the external objects that stand at the beginning of the causal chain that culminates in perception. It is rather the case that it only comes into contact with these objects, to the extent that it does, by means of the conveyances of the senses. The senses are themselves actualized through the body, and Plato's characterization of the body as the first port of call for the affections that external objects cause, and also as the communicator of these disturbances to the soul reinforces the notion that the soul's access to the external objects is mediated through the bodily sense organs and the sensory powers that operate through them. This view is also in keeping with the idea that the objects of perception are internal to the perceiver since the soul's awareness of these objects is immediately caused by the disturbance that results from the interaction between the external objects and the body.

In addition to the general importance of the body, vis-à-vis its relationship to the soul in the perceptual process, and in order to further underscore the necessity of the body, Plato develops a complex account of the physiology of the senses and sense organs, and physiological process that leads to perception. This account involves the structure of the elements that comprise the external objects, the structure of the sense organs themselves, and the ability of these bodily sense organs, and the powers that operate through them, to convey the disturbances to the soul. In each case this process involves a two-part process: the first part concerns the stimulation of the sensory power by means of the physical interaction between the sense organ and the external object – in particular the structure of the triangles that comprise the elements of the external bodies; the second part concerns the transmission of the motions that result from these interactions to the soul which is able to perceive by means of them. This indicates that Plato envisions perception as involving a causal process with two parts. Furthermore, since the objects of perception are sense qualities that are separate from the external objects that stand at the beginning of the causal process, and since the soul's awareness of these objects is immediately caused by the effect that the motions transmitted by the sensory powers have on the soul, it makes sense to think that, on Plato's view, the second part of the causal process is separable from the first, or at least in order to understand the second part, one need not make ineliminable reference to the first part of the process. Moreover, the view that perception, for Plato, is indirect is strengthened by the fact that his account of the relationship between the physiology and psychology of perception is consistent with the distinction between

primary and secondary qualities. This is born out both by Plato's characterization of sense qualities as necessarily involving their being perceived, and his discussion of sense qualities as resulting from the body's interaction with features of objects that are distinct from those qualities themselves.

Finally, there is one further aspect of Plato's discussion of the link between the physiological and psychological components of perception that deserves mention. It is notable that although Plato develops a complex and interrelated view of the physiology and psychology of perception, he does not offer an answer to a crucial question that has vexed, and continues to vex, philosophers and psychologists alike – namely, how is it possible for a particular sort of motion, or a particular sort of neural signal to result in a reaction in the soul, or brain, that is consistent with the awareness of a particular sense quality? This is a question that must trouble any philosopher who suggests that perceptual access is not direct, and that the objects of perception are not, and are not of, the external objects that occasion one's perception of them. For if the subject of perception comes into direct contact with the object that causes the perception, then the direct theorist has no difficulty in arguing that the perceptual object just is, or is of, the quality possessed by the external object. This, as we shall see, is the route that Aristotle takes. There is, of course, some explanation that needs to be given for how this is possible, but the explanatory gap for the direct theorist is much smaller than it is for the indirect perceptual theorist. For someone who holds a view like that of Plato, and who suggests that the perception, and its object, is caused by a bodily disturbance which is the result of an interaction between the body and the external object, it is clear that neither the perception nor the quality perceived is, or is of the external object, since its immediate cause is a motion and not the external object. Plato unfortunately doesn't even raise this question in a hypothetical way, which might indicate that it didn't occur to him, or that he didn't know how to answer it, or perhaps that he thought the best answer, which is still often given, is that the capacity for perception within the soul, or brain, just is the tendency of the perceiving subject to react in this characteristic way to these types of disturbances. There is, of course, something quite philosophically unsatisfying about this response, but if one holds the view that the only access that we have to the external objects is through the reactions that result from the disturbances that penetrate through the body to the soul, then it is hard to see how one can say anything further about how these disturbances result in these types of reactions, and whether these perceptual responses have any

resemblance to the external objects themselves. Aristotle, unlike Plato, does have an answer to this question, and in the next chapter we will examine his position on this issue, in order to highlight some of the important features of his theory of perception. It will be argued that Aristotle holds a direct theory of perception. This theory will then be used as a point of comparison in order to further bolster the claim that perception, for Plato, is indirect.

Chapter 5

Plato and Aristotle

5.0 Introduction

Now that we have a more or less complete view of the various significant features that comprise Plato's theory of perception, the task that lies before us is to make sense of these features in terms of a broader theory of perception. We must, therefore, analyze the claims that Plato makes about the perceptual process with an eye to arriving at a determination as to the sort of perceptual theory with which these claims are consistent. The purpose of this chapter is to clarify and reinforce the general commitments of Plato's theory of perception that have been argued for thus far by comparing the view developed in the preceding chapters to that articulated by one of Plato's direct successors. Aristotle, who presents his most fully developed account of perception as a part of his treatise on the soul, and its various faculties in the *De Anima*, presents, to be sure, a more clearly worked-out view of the perceptual process, than Plato does. This isn't to say, however, that Aristotle's theory is more compelling or more consistent than that of his predecessor, it is merely easier, based primarily on the extent to which he treats the subject, and the directness of that treatment, to discern, at least in a general way, in what Aristotle takes perception to consist. That being said, however, in keeping both with the nature of the subject matter, and with the fact that the views we are considering have been the subject of commentary and interpretation for some 2,500 years, there is no scarcity of interpretive differences and contrasting views among scholars on the specifics of Aristotle's understanding of what is involved in the perceptual process. Although we will entertain a number of these interpretations in what follows, the purpose of considering them is not to ultimately come down in favor of one or the other, but is rather to highlight a certain general feature of Aristotle's theory upon which many of these commentators agree. This chapter will not, therefore, engage in a full analysis of Aristotle's views on perception, but will rather concentrate on those aspects that serve as corroborations of, or counterpoints to, Plato's account, and which help to further clarify, in general, the sort of perceptual theory that Plato holds.

The first section consists of an account, primarily through exposition, of Aristotle's view of the soul. It is crucial to begin our analysis with a discussion of

Aristotle's conception of the soul because it is in the context of developing this account that Aristotle engages in an extensive discussion of the perceptual process. Furthermore, since the soul is a central component in the perceptual theories of both Plato and Aristotle, it stands to reason that if we are to understand their diverging views, we ought first to consider the psychological basis for these differences. However, just as this chapter does not constitute a complete analysis of Aristotle's theory of perception, so too will it fall short of presenting a new contribution to the scholarship on Aristotelian psychology. Instead, the primary purpose of the first section of this chapter is to argue that the distinction between the conceptions of the soul developed by Plato and Aristotle hinges on the relationship of the soul to the body. For, as argued above, the former holds that the soul is an independent substance that is separable from the body, and is not only responsible for, but also the sole subject of the various cognitive capacities of the living being, while the latter holds that although the soul is a substance, it is not, or at least does not appear uncontroversially to be, in principle, separable from the body, and furthermore, there is something over and above the soul – namely, the living being itself, understood as a compound of body and soul – which is said to carry out the cognitive functions, and this it does it does *with* the soul. This discussion is not indeed to be merely a restatement of the old debate between hylomorphism and dualism, but is rather meant to be a new and different point – namely, that the co-dependent relationship of soul and body developed by Aristotle is crucially distinct from Plato's notion that the soul while closely related to is, in principle, distinct from the body. As we shall see in the subsequent sections, it is this understanding of the soul/body relationship that provides the foundation upon which Aristotle builds his theory of sense perception.

The second section will begin the investigation into Aristotle's views on perception. Here we will lay out the preliminary discussion that he gives in *De Anima* II.5 in which he indicates the particular sense in which the perceptual capacity is potential rather than actual, and the conditions under which it is actualized. In clarifying these matters, Aristotle makes an important claim concerning the objects of perception. This claim, which indicates that the objects of perception are external to the perceiver, although quite general, and, within the context it is made, is meant only to distinguish perception from thought, forms the basis for developing an important distinction between the perceptual theories of Plato and Aristotle. In this section we'll

look at the importance of this claim, and prepare for a full analysis of Aristotle's account of the objects of perception.

Aristotle claims, curious as it may be, that if we are to reach a definition of any particular activity, we must first come to understand the objects toward which that activity is directed (*DA*. 415a14 – 22). Section Three examines Aristotle's discussion of the objects of perception, and engages in a comparison between view that Aristotle holds concerning what constitutes an object of perception, and what these objects are, and Plato's understanding of the objects of perception. It will be argued that Aristotle significantly expands the content of perceptual acts, and includes in his tripartite division of perceived objects, items that Plato holds to be more properly understood as the objects of thought. This understanding naturally gives rise to a question concerning the possibility of perceptual judgments. Both the Platonic and Aristotelian views will be considered in this regard, and it will be shown that whereas Aristotle's view of the objects of perception is consistent with the view that certain, albeit simple, judgments can be made by the faculty of perception, on Plato's view, no such judgments are possible. As it will emerge, this discussion of the objects of perception, as well as the answer to the question about perceptual judgments is crucial for defending the claim that while Plato holds an indirect view of the perceptual process, Aristotle's theory is more consistent with the idea that perception is direct. The precise conception of directness and indirectness will be spelled out in greater detail below.

After examining Aristotle's account of the character and status of the objects of perceptual awareness, the fourth section focuses on explicating Aristotle's views on the process of perception. In other words, this section looks at how Aristotle thinks the living being who possesses the perceptual faculty comes into cognitive contact with the objects of perception – objects, which, as we shall see, also populate the external perceptual environment. This analysis is extremely important for our purposes, because it is here, more than anywhere else, that the specific character of Aristotle's theory of perception becomes apparent, and is linked back to and tied in with his views about the soul. Furthermore, it is the claims that Aristotle makes about the perceptual process that, coupled with his views on the objects of perception allow us to defend the claim that, for Aristotle, perception is a direct process, whereby in an act of perception, the subject of perception comes into contact with the external object

that is perceived without the necessary intervention of an intermediary on the part of the perceiver.

The fifth and final section examines a number of interpretations of Aristotle's famous claim in the *De Anima* that perception consists in the sense modality receiving the sensible form of the perceptible object without the matter. Although this phrase has been variously interpreted over the centuries, the debate concerning the particular type of change (ἀλλοίωσις) that Aristotle thinks is involved in the perceptual process heated up when Myles Burnyeat in his article "Is an Aristotelian Theory of Mind Still Credible?" responded to what has been taken to be a literalist interpretation of Aristotle's formulation by Richard Sorabji. Burnyeat's and Sorabji's original positions as well as the various responses to which these views have given rise have been catalogued in a recent article by Victor Caston. In this section a number of these views will be presented and examined with an eye to demonstrating that notwithstanding their differences, they are, for the most part, consistent with respect to the view of Aristotle's theory of perception developed in this chapter – namely that it consists of a direct, one-step process. In addition to examining certain views presented in Caston's article, this section will also look at two important issues related to the claims that are made in these views. The first examines the relationship between the cognitive and physiological components in perception, if indeed perception consists of these two components. The question at issue here is whether the cognitive awareness of a perceptual object is causally dependant upon some physiological change, or vice-versa. The second issue, also concerned with the precise causal structure of the perceptual process, considers what features of objects operate on the sensory apparatus in order to give rise to the awareness of the objects of perception. Before we delve into these issues, however, let's first turn our attention to Aristotle's works in order that we may outline the major features of his theory.

Although Aristotle speaks about various aspects of perception in a number of works, including the *De Sensu*, the *De Caelo*, and the *Categories*, the text within the Aristotelian corpus that speaks most extensively about perception, and which is most relevant to the project here, is the *De Anima*. Thus, since this chapter aims only to outline some of the general features of Aristotle's theory of perception, it will deal exclusively with the *De Anima*. The analysis of this text which follows will proceed in light of the thematic elements of Plato's theory of perception explored in the preceding chapters. It will emerge from a consideration of these passages that

Aristotle, despite certain points of agreement with Plato develops a conception of the subject and objects of perception, as well as the relationship between that which perceives and its objects and the process by which perception occurs which is quite different from Plato. It will be argued that when one considers the content of these differences, they betray a fundamental rift between these two thinkers regarding our mode of access to the objects of perception, and their relationship to objects in the external world. Along these lines it will emerge that whereas for Plato the soul's access to external objects is indirect and mediated through the body, for Aristotle perceptual access is direct consisting in a one-step process whereby the percipient comes to perceive the quality that belongs to the external object, and ultimately the object itself. The defense of these conceptions will be developed in greater detail below.

5.1 Aristotle's conception of the soul

As mentioned above, Aristotle's most fully articulated discussion of the perceptual process, as well as his thoughts concerning the details about the various components that comprise that process, are found in his treatise on the soul (*De Anima*) and in the natural works (*Parva Naturalia*), in particular his work On Sense and Sensible Objects (*De Sensu*). In the *De Anima* Aristotle gives his definition of the soul, his characterization of the differences between types of souls, and a general account of the different faculties of the soul. The *De Sensu*, on the other hand, serves as an elaboration and clarification of some of the details concerning the different elements of the perceptual process that remain obscure following the discussion of the *De Anima*. Since it is not the primary purpose of this chapter to present and argue for a full interpretation of Aristotle's theory of perception, I will pass over a number of most interesting issues addressed in these pages in silence. The purpose of this chapter is rather to further elucidate the sort of perceptual theory that Plato holds, by contrasting certain general features of Plato's theory with corresponding features in Aristotle's works. More specifically, the aim here is to argue that Aristotle's views are consistent with a direct theory of perception whereby in the causal process that culminates in perception, the end state of that process, i.e. the perception itself, involves ineliminable reference to the object that stands at the beginning of that process – the external object, or the qualities possessed by that object. As mentioned at the end of the previous chapter, for Plato, on the other hand, the end state of the

perceptual process need not make any necessary reference to the object that sets the process in motion. This chapter examines certain relevant passages from Aristotle's works and develops a justification for the view mentioned above. It then examines these passages, and the view they are consistent with in conjunction with the analysis of Plato's theory developed in the preceding chapters. This section will present and discuss the basis for Aristotle's conception of the soul. It will be argued that whereas for Plato the soul is an entity that is separable and distinct from the body, on Aristotle's view the soul and the body constitute a more co-dependent unit. Since both Plato and Aristotle claim that the soul is central for perception, a proper understanding of Aristotle's conception of the soul will provide a foundation upon which to develop his views on perception. Let us, therefore, turn our attention to the text of the *De Anima*.

As mentioned above, Aristotle's topic in the *De Anima* is soul. His project is to determine what the essence of soul is, and, in so doing, answer certain crucial questions concerning the nature of living things (*DA.* 402a5 – 10). His investigation begins with a very general characterization of the soul as something like the principle (ἀρχή) of life in living things (*DA.* 402a6 – 7). He then goes on to raise a number of important questions about the nature of the soul: inquiring into which capacities are specific (ἴδιον) to it, as opposed to those which are common to it and the living thing which possesses it, and what sort of relationship might obtain between soul and body. He then goes on to say that, as a methodological strategy it is necessary consult the views of his predecessors in order to answer the questions concerning the soul that he raises in the first chapter of the first book. He quickly indicates that the two capacities that have been most commonly associated with soul are motion, perception, and in general, cognitive awareness (*DA.* 403b25 – 26) – he later adds incorporeality to this list (*DA.* 405b11). Aristotle devotes a great deal of the first book of the *De Anima* to criticizing the view, espoused by many his predecessors, that the soul is the principle of motion for the body, and that it is the soul's own motion that explains the motion of the body. His criticism here takes explicit aim at Plato. Critiquing the view put forward in the *Timaeus*, Aristotle argues that Plato's claim that the revolutions of the same and different, which comprise the world soul, account for the revolution of the heavenly bodies, is a physical account of the operation of soul (φυσιολογεῖ) (406b26 – 407a2). This, of course, is problematic because Plato also claims that the soul is

incorporeal. Aristotle goes on to further critique Plato's account of the soul in the *Timaeus* claiming that it amounts to asserting that the soul as a magnitude (μέγεθος), and such a characterization runs contrary to the soul's incorporeality. The basis for Aristotle's criticism here relies upon the absurdities that arise from the view that the soul, understood as a magnitude, is that which thinks (*DA*. 407a2 – 34).

Aristotle levels several other objections against what he takes to be Plato's view of the relationship between the soul and the body, but all of these objections are centered on the notion that the soul is moved, and it is this psychological motion that is the principle of bodily physical movement (*DA*. 407a34 – b13). There is a further general criticism that Aristotle makes of Plato's psychology, as well as other earlier theories of soul, in the first book of the *De Anima*, and that is that none of these theories provide an adequate justification for how and why the soul and body – understood as two distinct and separable substances – are joined in the living thing, or why a particular soul, or type of soul is joined with a particular type of body (*DA*. 407b13 – 26). There is also a specific point which Aristotle seems to make against Plato and the physiology and psychology developed in the *Timaeus* – namely, that the process by which the soul moves the body, as it is presented in the *Timaeus* is a mechanistic one. The difficulty with this understanding is that it not only forces Plato to speak about the soul as if it were a spatial magnitude, which is a claim he would most certainly deny, but it also makes it unclear exactly why both soul and body are necessary to explain motion if the soul merely acts like a second body – such an understanding could be understood as similar to the homunculus view of psychological activity.

After concluding the zetetic first chapter, and the polemical third chapter of Book I, Aristotle begins to develop a positive conception of the soul. Toward the middle of the fourth chapter, Aristotle makes a claim regarding the relationship between the soul and the living being that is important to highlight and keep in mind as we consider the differences between certain aspects of the psychologies of Plato and Aristotle. After arguing against various conceptions of the soul proffered by his predecessors, he remarks that despite the fact that the soul is a necessary condition for certain affections, like anger, passion, love, etc., it is incorrect to say that it is the soul that does these things; the correct locution would be to say that the living thing does this with its soul (*DA*. 408b14 – 15). This is exactly contrary to the way in which Plato characterizes the soul/body relationship toward the end of the *First Alcibiades*. Here Socrates considers what it is that can properly be called a man. In other words

the question that Socrates is investigating is, when we refer to a particular man, what is it that constitutes the identity of that individual, and to which we refer? He gives three options claiming that a man is either body, or soul, or a combination of the two. Based on conclusions that had been reached from a preceding argument, he maintains that the soul uses, and has control over, the body and thus the man is most properly understood to be the soul of the individual. In the course of this discussion he indicates that when Socrates speaks to Alcibiades, it is more appropriate to say that Socrates' soul speaks to Alcibiades' soul (*Alc.* I 130d8 – e6). This is precisely the sort of understanding that Aristotle denies. Stephen Menn recognizes this, and comments on it in his article on Aristotle's definition of soul when he says:

Aristotle is reflecting, not just on these particular Platonic passages, but on the more fundamental Platonic thought that we should care more about the good condition of our soul (i.e. about virtue) than about the good condition of our body or of our external possessions, because the soul *uses* the body and its possessions either well or badly, as it is virtuous and wise or vicious and foolish; and it is better to have a good doctor with bad instruments than a bad doctor with powerful instruments that he will misuse.¹

Furthermore, it is interesting to note that the locution that Aristotle employs here in the *De Anima* when making the claim that it is the man who experiences passions *with* the soul (τῇ ψυχῇ in the dative) is similar to the locution and grammatical formulation that Plato uses in the *Theaetetus* when he says that we perceive *with* the soul through the various sensory powers and organs. It is clear, however, that Plato and Aristotle are expressing different sorts of views in these passages. Whereas Plato, as discussed in the preceding chapters, is indicating that it is the soul that perceives, and that the senses are necessary, but only instrumental, in a certain sense, in that process, Aristotle appears to be claiming that there is something over and above the soul – namely, the living being – which is the ultimate and proper subject of psychical affections, even if the soul is, in some more immediate sense, that which properly receives those affections. Since, as it will emerge later, Aristotle conceives of the living being as a compound of matter and form (body and soul), neither of these elements individually can constitute the ultimate subject of the passions and affections that are proper to the living being. It is rather the case that both body and soul, on Aristotle's view are instrumental from the perspective of the compound. For

¹ Menn (2002) 112

Plato, on the other hand, since, as mentioned above, he conceives of the living thing (the man, for example) as coextensive with the soul, the soul must be the ultimate subject of the affections that the man is said to suffer, for there is nothing over and above the soul for which or to which these affections can occur.²

Although Aristotle staunchly denies that the soul is moved in any direct sense, he does maintain that the soul is moved incidentally (κατὰ συμβεβηκός) insofar as it is linked with the body and the body is moved. Thus he says that the soul is moved to the extent that the body is moved, since it is closely associated with the body, and he further maintains that the soul can even be said to be moved by itself since it is the principle of motion in the body, and the soul is moved as the result of its relationship to the body (*DA.* 408a29 – 34). It is important to keep in mind that Aristotle characterizes this sort of movement as incidental, so although it is the case that the soul is moved, the sort of motion that it suffers is only by virtue of the direct movements of the body. Save for his reference to this special sense in which the soul is in motion, much of the first book of the *De Anima* is dedicated to arguing that the soul is not moved, either by itself or from without. In addition to this, toward the end of the book, Aristotle raises a number of questions concerning the possible partition of the soul, and offers some theoretical and anecdotal pieces of evidence against the view that it is divided into distinct parts (*DA.* 411a7 – b30).

After recounting, and arguing against, the views of the soul propounded by his predecessors in Book I, Aristotle begins anew in Book II and sets himself the task of determining what the soul is (τί ἐστι ψυχή). His definition comes 22 lines later when he says that the soul is the “first actuality of a natural body potentially having life”

² Stephen Menn (2002) argues that part of Aristotle’s project in the *De Anima* is to develop the soul body relationship along the lines of the relationship between an artisan or art, and the necessary tools for the practice of that art. Menn claims that this represents Aristotle taking on a familiar Platonic point, but in so doing he changes it slightly. Aristotle makes the body’s explanation, at least in part, teleological by claiming that the relationship is like that between master and slave, where the slave operates for the sake of, or for the benefit of the master. In addition to this, Menn claims that Aristotle’s view of the soul/body relationship, although it is left open whether it is more like the relationship between an artisan and his tools or an art and its tools, is most properly thought of in terms of the relationship between the art and the tools. This understanding underscores Aristotle’s claim, and critique of his predecessors, that it is not the case that any sort of soul can be clothed in any sort of body (112—115). It is certainly true that, for Plato, the soul rules the body, and that one should care more for one’s soul than for one’s body, however, as we have seen in the foregoing discussion, when it comes to perception there is a sense in which the body is active in directing its disturbances toward the soul, and the soul is the passive receptor of these disturbances. Furthermore, to the extent that perception is understood to be beneficial to the human soul, the soul’s interaction with the body is likewise beneficial. So although it is correct to say that, for Plato’s the soul is more important than the body, and in many cases, particularly that of appetite, etc. the soul’s intercourse with the body is detrimental, in the case of perception this view doesn’t seem to be entirely accurate.

(διὸ ψυχὴ ἐστὶν ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ δυνάμει ζωῆν ἔχοντος) (*DA.* 412a29 – 29). It isn't entirely clear what this means here, and the way in which this definition ought to be interpreted has been the topic of much scholarly debate. All I will say about Aristotle's definition here is that it is clear that Aristotle, unlike Plato, does not conceive of the soul as a separate substance that is ensconced within the body – that Aristotle's conception of the soul would not be developed along these Platonic lines was hinted at in his criticisms of Plato in Book I – instead, the soul is the principle of life that makes a living creature the particular creature that it is and endows the body with the faculties characteristic of the living creature to which it belongs. This is more easily seen when we think of it in terms of Aristotle's conception of potentiality and actuality: the soul is the first actuality of a natural body that possesses life potentially. Thus the soul is what completes the living being, it is the principle of life and it is that in virtue of which the being is the very being that it is. Aristotle concludes the first chapter of Book II by explicitly distinguishing his account of the soul from that of Plato and stating just what we may assume based on his definition – namely, that the soul is not separable from the body (*DA.* 413a4 – 5).

There is no mystery about which faculties Aristotle takes to be characteristic of a living being in virtue of its possessing a soul. He explicitly identifies these in the second chapter of Book II as self-nutrition, perception, thought and movement (*DA.* 413b11 – 13). Based upon a soul's possession of one or more of these faculties Aristotle develops his distinction between the different types of souls. He first indicates that self-nutrition is a mark of any organism possessing soul, as it is the most basic attribute of a living being. The faculty of perception is what separates the souls of plant organisms from those of animals; Aristotle also adds here that any organism which possesses the sensory faculty of the soul, will also, of necessity possess appetite, and all that comes with it – namely, desire (ἐπιθυμία), pleasure, pain³, passion and wish (*DA.* 414a29 – b4)⁴. Finally, Aristotle indicates that although non-human animals possess the capacities of self-nutrition and perception, only humans possess, in addition to these, the capacity for thinking and thought

³ Although Aristotle doesn't mention pleasure and pain explicitly in the list of phenomena that accompany a soul in possession of the faculty of perception, it is clear from what he says two lines later – namely that touch is the most basic of perceptual faculties, and pleasure and pain always accompany touch – that he intends them to be included.

⁴ Aristotle spends about 16 lines here making various claims about the distinctions between the perceptual modalities and their objects. We shall return to these claims in the later sections of this chapter, on Aristotle's view of perception.

(διανοητικόν καὶ νοῦς) (DA. 414b19). From these reflections, Aristotle draws a general methodological conclusion – namely, one overarching definition of soul is insufficient to capture the significance of the differences between the types of souls, and that in the case of each type, one must pursue a separate and adequate definition (DA. 414a14).

This concludes Aristotle's general account of the soul. For in the remaining chapters of Book II and the whole of Book III he investigates each of the capacities of the different types of souls. It is important to note the differences in the conceptions of the soul developed by Plato and Aristotle, and the relationship between body and soul in both of these thinkers. Although Plato does argue for a close relationship between body and soul, especially in perception, whereby the former is able to communicate the affections that disturb it through to the latter, it remains the case that for Plato the soul is a substance that is distinct and separable from the body. The evidence for this is plentiful in the Platonic corpus. In a number of dialogues he characterizes the soul as being imprisoned within the body, and in the *Timaeus* Plato claims that the body and the soul are not only created at different times, but also by different architects – indicating that the one is riveted to the other. For Aristotle, on the other hand, the existence of the soul is, in a sense, dependent upon the existence of the body, and vice-versa. Since, as mentioned above, Aristotle conceives of the soul as the first actuality of a natural body having life potentially, which means that there must be a natural body with the potential to be actualized in the way that soul actualizes such a body in order for it to exist in the first place. But similarly in order for a body to be the very body that it is, it must possess a soul, or form. Thus, soul, conceived of as a form of life, doesn't make much sense if considered independently from the body, and it is an open question for Aristotle whether it, or any part of it, is separable from the body. In addition to this, although the faculties associated with the soul, are properly speaking psychological faculties, for Aristotle, the tasks characteristic of these faculties are said to be carried out by the living being itself – the combination of body and soul – rather than the soul alone. This represents a further important distinction: for Plato the individual is coextensive with his soul, whereas for Aristotle, the individual is comprised of the combination of form and matter represented by soul and body. Thus the hylomorphic conception of the soul developed by Aristotle, as well as his view of the relationship between body and soul represents a clear departure from the Platonic notion that the soul and the body are distinct and

separable substances with the former superior to and in control over the latter. These considerations will become crucial when we consider Aristotle's theory of perception, and how it relates to that developed by Plato. In the next section we will look closely, and in a thematic way, at the features of Aristotle's theory of perception. Since Aristotle considers sense perception to be one of the primary functions of the soul – a mark of distinction between two types of soul (those characteristic of vegetation and those specific to animals) – he does treat rather extensively the various important features of this psychical capacity.

5.2 Aristotle's views on perception: the preliminaries

At the beginning of the fourth chapter of the second book of the *De Anima*, Aristotle indicates, as a methodological consideration, that it is necessary for one to come to a definition (τί ἐστίν) for each of the three types of soul, and for the capacities proper to them (understood as the powers of thinking, perceiving, etc.), that he had identified at the end of the preceding chapter, and if one is to do this, then he must first come to an understanding of what the psychical activities of thinking and perceiving consist in. He then further maintains that before examining these activities one must consider the objects of the activities (*DA.* 415a14 – 22). This outlines the order of inquiry for Aristotle's investigation into the three types of soul. His discussion of the nutritive soul, which he indicates possesses the capacities of nutrition and reproduction, and that these are the most widely distributed capacities, as they are possessed by all souls (*DA.* 415a22 – 25), occupies just one chapter of the *De Anima*. Aristotle begins Chapter Four with some general claims about why we ought to think that the soul is the cause of the living body (*DA.* 415b9 – 27). Ultimately Aristotle arrives at a general characterization of the nutritive/reproductive soul as that which tends to maintain the being that possesses the power in question (*DA.* 416b17 – 19). He concludes this discussion by indicating that the three components that comprise the elements of this type of soul are as follows: that which is fed, is the body; that which does the feeding, is the soul; and that which it is fed, is food (*DA.* 416b20 – 22).

After concluding his discussion of the nutritive soul in Chapter Four, Aristotle moves on to consider the faculty of perception. Chapter five represents a characterization of some of the general features of perception, particularly in response to certain puzzles (ἀπορίαι) set out by Aristotle at the beginning of the chapter.

Aristotle makes a number of both curious and revealing statements in this chapter. He first states that the perceptive capacity is so only potentially, not actually (*DA.* 417a6). This statement appears in response to the question posed just three lines earlier – namely, why do we not perceive the senses themselves (*DA.* 417a2)? He goes on to clarify what he means here by discussing different senses of actuality and potentiality. Aristotle claims that there are two senses in which a capacity may be potential: the first is if the thing possessing the capacity is such that the capacity could be actualized – i.e., the thing that is potential is the sort of thing that could, in principle become actual; the second is if the thing possessing the capacity has the tools to actualize it, but isn't, at the current moment, doing so. The example that he gives here is of knowledge: in a human being, for example, knowledge is potential in the first sense in so far as a human being is the sort of creature that is capable of having knowledge; and knowledge is potential in the second sense when the human in question knows a particular thing, but isn't employing that knowledge (*DA.* 417a23 – 28). The perceptive soul is potential with regard to perception in the second of these senses. It is potential in this way because the being which possesses the perceptual capacity is the type of being that can perceive – i.e. can actualize the perceptual capacity – and there is nothing further that must be acquired in order to actualize this potentiality. This, Aristotle says, is equivalent to the condition of an individual who possess knowledge, but is not using that knowledge (*DA.* 417b17 – 19). Thus, the perceptive soul, which isn't at any given moment perceiving, is like the mathematician who knows the Pythagorean theorem, but isn't using it. When the perceptual capacity is actualized, the perceiver is like the mathematician employing the theorem.

These general clarifications give rise to a crucial claim, and one that is particularly important for our purposes. Aristotle has, through the course of Chapter Five, been drawing an extended analogy between thought and perception. The primary purpose of this analogy is to clarify the sense in which perception is potential, and how it can be actualized. As noted above, Aristotle's point is that one who possesses of the capacity for perception is like one who possesses knowledge of a particular thing, but isn't using it, while perceiving something is like making use of that knowledge. Aristotle adds, however, that there is a difference between perception and knowledge in that the objects that affect the perceptual powers – the seen and the heard ($\tau\omicron\delta\ \acute{\omicron}\rho\alpha\tau\omicron\nu\ \kappa\alpha\iota\ \tau\omicron\delta\ \acute{\alpha}\kappa\omicron\upsilon\sigma\tau\omicron\nu$) – are external to the perceiver ($\acute{\epsilon}\xi\omega\theta\epsilon\nu$) (*DA.* 417b20 – 22). Aristotle then adds that while the objects of perception are external to

the perceiver, the objects of thought are within the soul, and require no external stimulation. In addition to the difference in location of the objects of perception and thought, Aristotle remarks that the ground for this distinction is that the former capacity apprehends particulars, while the latter addresses itself to universals. This is why, says Aristotle, a man can think about what he wants to when he wants to, but in order for him to perceive a particular object, that object must be present in his external environment (*DA*. 417b21 – 25). Aristotle ends this section with a final and striking statement about our knowledge of perceptible objects, in which he again indicates that the objects of perception are individual and external (τὰ αἰσθητὰ τῶν καθ' ἕκαστα καὶ τῶν ἔξωθεν) (*DA*. 417b26 – 27).

It is important to note that although this passage does not represent Aristotle's complete view of the objects of perception, it does reveal a crucial element of his position concerning the status of these objects. The passage is particularly important because it states, in no uncertain terms, that the objects that are perceived are external to the perceiver. This runs contrary to the view of the objects of perception attributed to Plato and developed in Chapter 3 of this dissertation. According to the features of Plato's theory, the objects of perception are, despite their external causes, internal to the perceiver. This general understanding of the difference between the views of Plato and Aristotle concerning the status of the objects of perception – namely, that Aristotle conceives them as being objects that are external to the perceiver, whereas Plato understands them to be objects that are internal to the soul that are causally related to, but distinct from objects that are external to the perceiver – forms the foundation of the distinction that I would like to highlight between the perceptual theories of Plato and Aristotle, and which will be carried through and developed throughout the remainder of this chapter. This view maintains that while Plato conceives of perception as indirect, Aristotle's view of the perceptual process involves the soul's direct apprehension of the objects that are external to it. These views will be elaborated as we continue with this thematic investigation of Aristotle's theory of perception. Let us now turn to a more thoroughgoing analysis of Aristotle's discussion of the objects of perception. For, as he indicates in Chapter Four, in order to understand a particular activity, one must first become clear on the objects of that activity (*DA*. 415a20 – 22).

5.3 Aristotle on the objects of perception

In keeping with his methodological program set out in Chapter Four, after concluding these introductory comments, Aristotle turns his attention toward clarifying and expanding upon his conception of the objects of perception. This discussion occupies the bulk of the remainder of Book II, with the better part of Chapters 6 – 11 dedicated to explicating not only the general claims about the objects of perception, but also identifying the objects of each sense, and clarifying the physiology that is involved in their perception. Since it is the stated purpose of this chapter is to address the general features of Aristotle's understanding of the perceptual process, it is the first of these six chapters that is most revealing to our investigation. In Chapter Six, Aristotle introduces the topic, identifies the three types of perceptual objects, and makes a number of general claims about these objects. This section concentrates primarily on the general remarks that Aristotle makes in Chapter Six, and relates them to Plato's views on the status of the objects of perception. On many of the specific details of the physiology that Aristotle develops in Chapters 7 – 11, however, I will remain silent.

Chapter Six is very short, consisting of only 19 lines, but makes a number of very important claims concerning the objects of perception, what they are, and how we ought to conceive of them. Aristotle begins by dividing the objects of sense into three types, two of which are perceptible in virtue of themselves (καθ' αὐτά), the third is perceived incidentally (κατὰ συμβεβηκός). Of the two types of objects that are perceptible in virtue of themselves, there is one which is constituted by the special (ἴδιον) objects of each sense (*DA.* 418a10 – 14); these are the objects which are perceived by the individual sensory powers, and which cannot be perceived by multiple sense modalities – i.e., colors for sight, sounds for hearing, etc. This passage immediately calls to mind Plato's claim at *Theaetetus* 185 that what is perceived by means of one sense cannot be perceived by means of another – the *idion* claim discussed in Chapter 3 above – and for all intents and purposes, we find here in Aristotle precisely the same claim, but as we will see, in the Aristotelian context it serves a different purpose and gives rise to different consequences. After identifying this type of perceptual object, Aristotle adds the caveat that our perception of these objects is not subject to error. Clarifying what he means by this, Aristotle adds that if one perceives a color or a taste, one cannot be mistaken that what one is perceiving is

a color or taste, however, one could perhaps be mistaken in thinking that the object is green when it is, in fact, blue (*DA.* 418a14 – 17).⁵

Aristotle here articulates his *idion* claim for the purpose of identifying the character of one of the three classes of perceptual objects, and one half of the objects that are perceptible in virtue of themselves. This claim holds no additional theoretical importance for him, or for his perceptual theory, and he passes over it quickly and without further comment. Recall that, for Plato, on the other hand, despite also articulating the claim and quickly moving on, the *idion* claim is of paramount importance for the way in which we understand the perceptual process, and this is why, as was argued in Chapter 3, it is so important that Plato's articulation of the claim is motivated and theoretically justified within the context of his argument. The *idion* claim, for Plato, serves two primary purposes; it is the means by which he identifies the one and only type of perceptual object, and it also serves to establish a criterion by which Plato can distinguish the objects of the faculty of perception from the objects of the faculty of thought. Thus, whereas for Aristotle the claim serves only to separate out one sort of perceptual object from another, for Plato it tells us something crucial about the scope of the perceptual capacity, and perhaps more importantly, provides the necessary foundation upon which to ground a distinction between two importantly related, but separate and distinct psychical faculties – perception and thought. Aristotle has, of course, already done this, when toward the end of Chapter Five he indicates that the objects of thought are universals and are internal to the soul, while those of perception are individuals and populate the

⁵ Stephen Everson (1997) engages in a discussion of this passage in which he argues that Aristotle's claims about the ἴδια αἰσθητά are not intended to indicate that there are some cognitive objects to which a perceiver has privileged access and about which he cannot make a false judgment, like the sense data of Russell. Everson says that this is, at least in part, because Aristotle isn't here explicitly discussing judgments or beliefs (18 – 19). I agree with this, but I think that although Aristotle isn't explicitly discussing judgments, his view of the objects of perception imply that there are certain judgments and beliefs that are possible in perception (this will be discussed in greater detail below). What is significant about the ἴδια αἰσθητά, on the other hand, and what, to my mind, indicates that Aristotle does not have in mind here anything like sense data is to be found in the clarification that he makes after the initial claim. In stipulating that a perceiver cannot be mistaken about the fact that he is in contact with a sound, or a color, whereas he can be mistaken about the content of the perception – namely, the specific color or sound that it is – indicates that on Aristotle's view, although there is a sense in which it is the case that if a particular object is in a perceiver's perceptual environment he must perceive it, and cannot be mistaken that he is perceiving an object of that particular type (this, no doubt has to do with the fact that, for Aristotle, a perceiver, through perception, is aware of his sense modalities, and thus must be aware that the particular sense that is activated is in contact with the sort of object specific to it (424b13 – 21)) this, however, does not mean that the perceiver has any privileged and infallible access to the specific content of that perception.

external environment. The further significance of the different uses to which Plato and Aristotle put the *idion* claim will be developed presently.

After identifying and clarifying the first set of perceptible objects that are perceptible in virtue themselves (καθ' αὐτά), Aristotle introduces the second type, and identifies them as the common perceptible objects (κοινᾷ αἰσθητά). The specific examples of this type of object given here are movement (κίνησις), rest (ἡρεμία), number (ἀριθμός), figure (σχήμα) and magnitude (μέγεθος). Aristotle goes on to clarify what distinguishes these objects from the ἴδια αἰσθητά maintaining that the κοινᾷ αἰσθητά are perceptible by multiple sense modalities. So, for example, Aristotle claims that there are certain types of motion that are perceptible by sight and touch (*DA.* 418a18 – 19). He will ultimately claim that all of the κοινά αἰσθητά are perceptible in virtue of the perceptibility of motion (*DA.* 425a18 – 19).

Just as Aristotle's thoughts on the ἴδια αἰσθητά brings to mind Plato's *idion* claim, so too does his reference to the κοινά αἰσθητά conjure thoughts of Plato's discussion of the *koina* from the *Theaetetus*. In Plato, this extensive and important argument begins immediately after his articulation of the *idion* claim at *Theaetetus* 184e8 and runs from 185a4 – 186d1. Without going into too much detail about the specific contours of the argument, for it is territory that has been explored many times by many different commentators, the general purpose of raising and discussing the *koina* at the stage in the *Theaetetus* at which it appears is to further delineate the faculties of perception and thought by distinguishing their objects. According to Plato, the *koina*, which he identifies as being (οὐσία), not being (τὸ μὴ εἶναι), likeness (ὁμοιότητα), unlikeness (ἀνομοιότητα), the same (τὸ ταὐτόν), the different ([τὸ] ἕτερον), one (ἓν), number (ἀριθμός), even (ἄρτιος) and odd (περισσός) (*Tht.* 185c9 – d3), are epithets that apply in common to all of the objects of perception. The lists given by Plato and Aristotle concur explicitly only on number, but we'd be justified in thinking that, based on his criterion for determining whether a particular property is a κοινόν αἰσθητόν – namely, that it is perceptible by means of multiple sense modalities – Aristotle would agree, at least that odd and even could be included in his list. The important point, however, is that whereas for Aristotle these common features are merely a second class of perceptual object perceived in virtue of themselves, for Plato it is not only significant that these objects cannot be perceived, but also that they represent the ground for a theoretical distinction between that which

is apprehended by perception, and that which is apprehended by the distinct but related psychical faculty of thought. For as Plato goes on to say in the argument from the *Theaetetus*, the objects of perception are apprehended by the soul through the various individual sense organs, while the objects of thought – of which the *koina* are one class – are apprehended by the soul itself, without the use of the body.

In order to make this distinction a little clearer, it is necessary to articulate more precisely the sorts of objects that Plato thinks are *not* included in perception, how we come to be aware of these objects, and what relation they have to the objects of perception. This will also help us to make more perspicuous the distinction being drawn in this section, and in this chapter, between Plato and Aristotle. As mentioned above, both Plato and Aristotle speak of common (*koina*) objects, but for Aristotle these are objects that *are* perceptible, and are perceptible by means of multiple sense modalities – for example, number is perceptible through both vision and touch – whereas, for Plato the objects that are, strictly speaking, perceptible are only those objects of which we become aware through the individual sense modalities, and there cannot be an object that is made available to the soul through multiple sensory powers – there cannot be, for Plato, a single object that is perceptible by means of vision and touch. The *koina* for Plato are rather properties that are shared by all perceptible objects, and our awareness of them is a function of the faculty of thought rather than perception. Thus although perception and thought are separate faculties of the soul with their own distinct sets of objects, they are related in this one significant way – namely, in that a certain set of objects among the objects of thought are properties that belong to all objects of perception, and that a function of the faculty of thought is the application of these *koina* to the objects of perception⁶. For Plato, the soul's awareness of the *koina*, unlike its awareness of the objects of perception, is not dependent upon bodily affections, it is rather the case that the soul is able to apprehend the *koina* by means of itself alone. This is stated clearly at *Theaetetus* 185d7 – e3. We will look at some of these issues in a bit more detail toward the end of this section, but for now, let us complete our account of Aristotle's views on the objects of perception.

After discussing the καθ' αὐτά objects of perception, Aristotle indicates that objects that are perceived incidentally (κατὰ συμβεβηκός) are those further objects

⁶ That this is the case will be argued for later in this section.

that are perceived on account, or in virtue of perceiving the καθ' αὐτά perceptible objects (*DA.* 418a20 – 24). An example of this would be that in perceiving the reddish brown thing in front of me, I also perceive that the reddish brown thing is a pint of stout. Although these incidental objects are, for Aristotle, objects of the perceptual faculty (since they pertain to individuals rather than universals), they do not themselves, he says, affect the sensory powers. Although I do *perceive* the pint of stout, in perceiving the other features of the pint, the pint, qua pint, doesn't affect my senses, because my sensory apparatus is not specifically suited to be sensitive to such objects. It is rather the case that I perceive a reddish brown thing of a certain shape in a certain context, and since that particular reddish brown thing is also a pint of stout, since I perceive the sensible quality of the object, I also perceive the pint itself. Based on the addition of the κοινά αἰσθητά, and the objects perceived κατὰ συμβεβηκός to the panoply of perceptual content, Aristotle's view represents a significant augmentation in the quantity and variety of objects with which perception puts us in contact. As Richard Sorabji says, "he [Aristotle] gives to perceptual content the most massive expansion in the history of Greek philosophy."⁷

The foregoing discussion shows us that perception, for Aristotle, is a far more informative capacity than it is for Plato, it puts us in touch with a greater number of objects and provides us with much richer information about our perceptual environment, but this discussion also gives rise to an interesting question: are, according to the theories of Plato and Aristotle, perceptual judgments possible? If so, what sort of judgments are they? If not, how do we arrive at judgments about perceptual objects? Let us begin with Plato: recall first that the objects of perception for Plato, as discussed in Chapter 3, are simple sense qualities – namely, colors, sounds, tastes, etc. Also, on Plato's view, the objects that are not included in perception are certain properties of perceptual objects, such as being, not being, likeness, unlikeness, number, etc. The fact that the *koina* are excluded from perception means that there is quite a bit of information about perceptual objects that is only made available to the soul through its own peculiar operation understood as the faculty of thought. For example, according to Plato's view when I perceive the reddish brown color caused by the pint of stout, it is by means of the capacity of perception that I become aware of the color quality, but it is through thought rather

⁷ Sorabji (1992) 196.

than perception that I come to hold that the color patch that I perceive is one, that it is the same as itself, and different from the adjacent (brown) color patch, etc. The most important *koinon* that Plato identifies, and the one that we must examine closely in order to come to a conclusion about whether perceptual judgments are possible is being (οὐσία). We can think of Plato's use of being here in two ways: he is either using being in an exclusively existential sense, such that the application of the *koinon* to a particular object signifies that the object in question exists; or he is using it in both an existential and predicative sense, such that the application of being indicates both that the object exists, and that it is the particular object that it is judged to be. As was argued in Chapter 3, since we have no clear evidence in the argument itself that will allow us to come down definitively in favor of one of these options or the other, we have reason, based on a number of studies of the use of being in Greek to think that Plato's use of it here is at least predicative. Furthermore, there are some hints that Plato gives throughout the argument that corroborate this view. For example, in order to gain more clarity about the *koina*, Socrates asks Theaetetus to give his thoughts on the status of a number of different characteristics that apply to multiple perceptible objects. At 186a8 Socrates asks Theaetetus about good and bad, beautiful and ugly to which his young interlocutor replies that these above all are considered in relation, to one another by the soul itself (*Tht.* 186a9 – b2). Socrates, however, reins Theaetetus in and brings the discussion back to perception saying that “the soul perceives the hardness of what is hard (τοῦ μὲν σκληροῦ τὴν σκληρότητα) and the softness of what is soft (τοῦ μαλακοῦ τὴν μαλακότητα ὡσαύτως) by means of touch” (*Tht.* 186b2 – 4), “but their being and what they are (ὅτι ἐστὸν) and that they are opposite to one another, and the being of this opposition are things that the soul itself investigates for us by reviewing and comparing them to one another” (*Tht.* 186b6 – 9). The crucial phrase here comes in the second quote when Socrates indicates that in considering the being of the qualities hardness and softness, the soul investigates *what* they are (ὅτι ἐστὸν)⁸. I take it that the whole phrase, τὴν δέ γε οὐσίαν καὶ ὅτι ἐστὸν

⁸ ὅτι here can be, and has been, translated as both “that” (Levet/Burnyeat (1990), Polansky (1992)) and “what” (McDowell (1973), Jowett (1892)). I don't think ultimately too much hangs on whether *hoti* here is translated as “that” or “what,” because even if it is translated as “that” it could still mean something like “that it is hard” or “that it is soft.” Ronald Polansky, for example, renders the whole phrase as “but their being, and that they are” and takes it that being (οὐσία) refers to essence of the thing – namely, the hardness or softness, the predicative is – while that it is (ὅτι ἐστὸν) refers to its existence (169). Similarly, I think that we can take it that in using ὅτι here Plato means both “that” and “what.” Since he makes reference to their being (τὴν δέ γε οὐσίαν) earlier in the sentence, it would be

indicates that the soul investigates both that the sensible qualities perceived exist, and what sort of sensible qualities they are – namely, the hard and the soft sort – through its own activity. If this is correct then the *koinon* of being, which for Plato is an object of thought, and expressly not given in perception, is likely to be both predicative and existential.

In the remainder of this argument from the *Theaetetus* Plato uses his previous designation of being as an object of thought, and as a feature of perceptible objects that is not available to perception, to ground his claim that knowledge is not perception. The argument runs roughly as follows: (1) a mark of knowledge is that it requires an awareness of truth (*Tht.* 186c9 – 10); (2) an awareness of being is a necessary condition for the assessment of truth (*Tht.* 186c7); (3) perception cannot apprehend being, since it is a *koinon* (*Tht.* 186a2 – 4); (4) perception cannot assess truth (from 2 and 3) therefore (5) perception cannot be knowledge (from 1 and 4). The question that we have set ourselves, however, is not whether perception is knowledge, but whether perception has the capacity to form judgments, even simple judgments such as the identification of a particular sense quality perceived as the very quality that it is.⁹ The answer to this question lies both within and outside of the *Theaetetus*. In order to become clear on whether Plato holds that perception is a judgment-forming capacity, we need to determine what he thinks is involved in the process of judgment formation. At *Theaetetus* 187a Plato characterizes judgment generally as the activity that the soul is engaged in when it is occupied itself by itself about the things that are (*Tht.* 187a5 – 7). A bit farther on in the discussion, Plato clarifies his

strange if he, in the “ὅτι ἔστων” clause, is clarifying this by saying only “that they are,” for this is surely implied by “τὴν δὲ γε οὐσίαν.” In addition to this, later on in the sentence, he refers to the soul’s recognition of the opposition between hard and soft, and the being (τὴν οὐσίαν) of that opposition. Again, I take it that it would be strange if Plato were saying that the soul itself considers the opposition between hard and soft, and that the opposition is – i.e. exists. It makes much more sense to think that an awareness of the existence of the opposition is part of recognizing the opposition, and that the further step is to acknowledge that it is, in fact, opposition.

⁹ J. Cooper (1970) and D. Modrak (1981) both affirm that, based on Plato’s argument from the *Theaetetus*, it can be concluded that perception can, indeed, make simple judgments. They, however, base their claim on different evidence. J. Cooper claims that since a sense quality, say red for example, is not a *koinon* we have reason to think that, for Plato, the perceptual capacity is capable of labeling a perceived red patch as red, since nothing that isn’t contained in the perception itself need be involved in such an operation. Thus Cooper attributes to perception the simple capacity to label its content with labels like “red,” “hard,” “sweet” etc. D. Modrak, on the other hand, argues that Plato’s reference to being, when he speaks about the *koina*, represents a deeper awareness than merely acknowledging that a thing exists, or that it is red, for Modrak an awareness of the *koinon* of being here represents an awareness of the mode of being of the perceived thing – namely, what it is to be that thing. Thus, she argues that judgments of the form “x is s,” where s represents a sense quality, are possible in perception. Both of these views will be considered and argued against in what follows.

position somewhat and indicates that judgment is the result or conclusion of thought (διάνοια), and thought consists of speech which the soul goes through itself with itself (*Tht.* 189e6 – 190a2). This topic of judgment, and the possibility of false judgment, is revisited in the *Sophist*. Theaetetus and the Eleatic Stranger, in an effort to determine whether there is truth and falsity, first raise the issue of speech and belief to see whether truth and falsity apply to these forms (*Soph.* 260b10 – 261a3). The Stranger first establishes that speech (λόγος) divides into two components, names and verbs. He further states that in order for an utterance to count as an act of speech it must involve both elements. In other words, speech cannot be constituted by a string of names, without any verbs, or a string of verbs without any names, but must involve at least one verb and one name (*Soph.* 261d1 – 262d7). After showing that false speech is possible, The Stranger again states, just as Socrates had in the *Theaetetus*, that thought (διάνοια) consists of a silent dialogue of the soul with itself. Furthermore, judgment or belief (δόξα) is the result of that internal discourse. Finally, the stranger rounds off the conversation by indicating that when this process occurs in conjunction with the conveyances of the senses, the result is called appearance (φαντασία) (*Soph.* 263e3 – 264a2).

From the passages discussed above, it seems clear that the claims made in these two dialogues can be married, and viewed together from a number of compelling perspectives, which show that Plato does not think perception is a judgmental capacity. One such argument runs as follows: (1) being (understood both existentially and predicatively) is a *koinon* since it applies to all of the objects of perception (*Tht.* 185a – 186b). (2) The *koina* are not objects of perception (*Tht.* 185a). (3) The *koina* are objects that the soul considers itself by itself (*Tht.* 185d – e). (4) Being is not an object of perception (from 1 and 2). (5) An awareness of being is a minimal condition for an awareness of truth (*Tht.* 186e). (6) Perception cannot attain to truth because it cannot attain to being (from 4 and 5). (7) Thought is the soul's activity when it considers things itself by itself (*Soph.* 263e). (8) Being is an object of thought (from 3 and 7). (9) Judgment is the result of thought (*Soph.* 263e – 264a). (10) Judgments are assessable as true or false (*Soph.* 264a). (11) Perception cannot result in judgments because it cannot attain to truth (from 6 and 9).

Another argument along similar lines would run as follows: (11) thought is internal speech when the soul is in dialogue with itself about the things that are (*Tht.* 189e – 190a, *Soph.* 263e). (12) Speech consists of a weaving together of names and

verbs (*Soph.* 261 – 262); (13) a thought must consist of at least one name and one verb (from 11 and 12); (14) a judgment is the result of an internal statement involving at least one name and one verb (from 8 and 13); (15) perception cannot apprehend being (*Tht.* 185a – d); therefore (16) any judgments that elicit from perception cannot involve the verb “to be” (from 14 and 15). This latter argument clearly runs contrary to the view held by D. Modrak that judgments of the form “x is s” are possible in perception, because the crucial “is” cannot be apprehended by perception. In addition, the view held by J. Cooper is also vitiated by these arguments. For if it is the case that judgment is the result of internal speech, and in order for speech to occur there needs to be a weaving together of names and verbs, then a simple labeling capacity, if it is a function of perception at all, cannot make any sense, and cannot constitute a judgment. This is because labels like “red,” “hard,” and “sweet” are only names, and don’t incorporate any verbs. Furthermore, if one objects that these labels are just short hand for “x is red,” “x is hard,” then the same argument leveled against Modrak’s position still holds.

There is another compelling claim that tells in favor of the view that, for Plato, perceptual judgments are not possible. This can be found in Plato’s claim from the *Sophist* that appearance (φαντασία) results from the combination of perception and the activity of the soul when it thinks. This indicates that even for images (φαντάσματα) to appear there must be some element of reflective thought added to the conveyances of the senses. The precise meaning of this is, of course, ambiguous, but I think that, at the risk of sounding overly Kantian, the view that Plato is expressing here is that in an act of perception the soul is provided with undifferentiated sense content, which, through the application of the *koina*, as well as other functions of thought, is made intelligible to the soul and rendered into what we consider to be appearances. This view is corroborated by Plato’s claim that “one” (ἓν) and “number” (ἀριθμός) are also *koina*, and hence, objects of thought. For without the application of these notions to the conveyances of the senses, one lacks the necessary conceptual components to differentiate between different elements of sensory content.

For Aristotle the situation appears to be quite different. Although he, like Plato, doesn’t explicitly say whether the faculty of perception is judgmental, we have good reason to think, based on the items that he identifies as the objects of perception,

that he does think that certain sorts of judgments can be made in perception. First of all, Aristotle's claim that we can perceive the κοινά αἰσθητά immediately indicates that raw perceptual content, on Aristotle's view, is much richer than it is for Plato. For in addition to particular colors, tastes, scents, etc., we are also able to perceive the number, figure, movement, etc., of the objects to which these sense qualities belong. This means that whereas for Plato perception alone cannot differentiate one sense quality from another, or even individuate a single sense object because it cannot apply the concept of number to its content, this is not a problem for Aristotle. Perhaps even more revealing, however, is Aristotle's addition of the incidental objects to the list of perceptible objects. If in perceiving a pint of stout, it is not only the case that I perceive the reddish brown patch, the white head, the shape of the glass, the singularity of the object, but also that in perceiving all of these, I *perceive* that it is a pint of stout, then it would seem that my perceptual capacity clearly makes a judgment – namely, “this is a pint of stout.” Thus it seems that the conceptual content that Plato denies of perception, Aristotle affirms of it.

It could, however, be the case that Aristotle thinks that although one does perceive the pint of stout in perceiving the various features of the pint, he might not necessarily think that the perceiver is aware that the object is a pint of stout. This, however, seems unlikely since if the perceptual capacity does not make us aware of the object, then that object wouldn't be an object of perception. Aristotle would need a further argument to defend the view that the incidental objects are objects of perception, but that the perceiver is not made aware of them as the objects they are by the perceptual capacity. Moreover, for Plato it seems clear that it is not possible to perceive the sorts of objects that Aristotle identifies as incidental objects of perception. For if the only objects of perception are those that the soul is made aware of through the individual sense organs, and there are no objects that are common to multiple sense modalities, and being is something that cannot be apprehended by perception, then since “pint of stout” is not an object of perception, it is surely the case that a judgment like, “this reddish brown patch *is* a pint of stout” would not be possible, for Plato, without the input of reflective thought. Thus, although Aristotle doesn't include being in his list of κοινά αἰσθητά, it seems reasonable to think that, on his view, being is something that is available to the perceptual faculty since it is necessary to make sense of his claim that we can perceive the incidental objects.

Aristotle, in Book III of the *De Anima* makes some further comments which tell in favor of the view that he believes that certain types of simple judgments are possible in perception. In *DA.* 3.II, in an effort to clarify various points already made about the perceptual capacity, Aristotle discusses the relationship between the sense and the perceived object. He indicates that each sense is relative to its sensory subject matter, resides in the sense organ and discerns difference in the respective subject matter (κρίνει τὰς τοῦ ὑποκειμένου αἰσθητοῦ διαφοράς) (*DA.* 426b10 – 11). In the very next lines, he goes on to say that vision discriminates between white and black, while taste discriminates between sweet and bitter (*DA.* 426b11 – 13). This passage seems to clearly indicate that the sort of judgment involved in the labeling and discrimination of sense content is a function of perception. Aristotle, however, is unclear on, and raises a question about whether such judgments are possible between different sense modalities – for example, discriminating a taste from a color – and if so, which sensory power would be responsible for these judgments. In addition to this, in *DA.* III.3, we find Aristotle engaged in a discussion of the faculty of imagination (φαντασία) trying to discern what its function is, what its objects are, and what relation it has to perception and thought. In this discussion, Aristotle claims that one wouldn't say, "I imagine that it is a man," when one's senses are functioning properly with regard to the object, but that such a statement would only be necessary if perception is indistinct (*DA.* 428a12 – 15). This further indicates that the identification of a sensory object as the very object that it is – namely, as a man – is, for Aristotle a proper function of sense perception. The only instance in which a separate faculty would need to be brought to bear in this instance is if the perception isn't sufficiently distinct to come to a conclusion. Finally, toward the end of *DA.* III.3, as Aristotle is wrapping up his discussion of φαντασία, we find a characterization of the process of perception. In this passage Aristotle claims that the perception of the ἰδία αἰσθητά – namely, the awareness of whiteness and roughness – is true, or false to the least degree. Aristotle follows this by claiming that the perception of these features as being attributes of things, is the point at which the possibility of error in perception is introduced; for error is not possible in perceiving *that* a thing is white, but only in perceiving if the white thing is one thing or another (*DA.* 428b18 – 22). This passage, like those above, seems to indicate that there are a number of different sorts of judgments that are possible in perception. These lie along a scale, with each

level on the scale subject to a greater degree of possible error. If I am correct in my interpretation of these passages, then the sorts of judgments that are ruled out by Plato's discussion of the objects of perception, are affirmed as possible through Aristotle's account of the objects of perception, and the other psychical faculties related to perception.

There are a couple of points that are important to note from the foregoing discussion. The first is that Aristotle clearly expands the content of perceptual awareness. While he does maintain, like Plato, that what is properly perceived are the *ἰδία αἰσθητά*, he further maintains that it is possible to perceive the *κοινά αἰσθητά*, in virtue of themselves, and that in perceiving these, a perceiver is able also to access the *κατὰ συμβεβηκός*, or incidental objects of perception. This coupled with his claim from *DA. II.5* that the objects of perception are external objects indicates that, for Aristotle, when a perceiver perceives an object, she not only perceives certain colors and tastes, which are the very same properties that belong to the external object, but she also perceives the shape and position of that object, and in perceiving these, perceives the external object itself, understood as a complex object composed of multiple sense qualities. Thus Aristotle's claim in the first chapter of Book III, that when our senses are directed at two separate sensible qualities of the same object, for example the yellowness and bitterness of bile, we are able to perceive that it is the bile that is both yellow and bitter (*DA. 425a30 – 33*), shows that perception, for Aristotle, is able to provide an intelligibility and unity to its objects that, on Plato's view, is simply not a function of the perceptual faculty. This gives rise to the view, defended above, that while perception, for Plato, has no judgmental capacity, even for very simple judgments like the labeling of sense content, for Aristotle, perception is not only able to label its content, but can also achieve an awareness of what the object is that is being perceived. For Plato, on the other hand, in order for the soul to cognize the complexity that is involved in Aristotle's view, it is necessary for the faculty of thought to contribute further elements not contained in the perceptions themselves. The upshot of this is that on Aristotle's view perception provides us with much richer and more intelligible access to the external world. In the next section we will examine how this access is made possible by looking at the way in which Aristotle conceives of the perceptual process.

5.4 Aristotle on the perceptual process

Following his general discussion of the objects of perception in *DA*. II.6, Aristotle goes on to examine each of the individual sense modalities in *DA*. II.7 – II.11. In these chapters, Aristotle identifies the special objects of each sense, and develops an account of the physiology of perception, concentrating on the external conditions that are necessary for the perception of each of the *ἰδία αἰσθητά* to occur. In *DA*. II.12 Aristotle turns his attention toward addressing some of the specific issues surrounding the perceptual process. After having laid the requisite groundwork by engaging in a discussion of the various objects of the faculty of perception, and sufficiently addressing certain issues surrounding these objects, Aristotle, in keeping with his methodological approach, is able to turn his attention toward the activity of perception itself. In *DA*. II.12 Aristotle raises a number of interesting questions, and makes some crucial points concerning the way in which the perceptual capacity is actualized. The questions that this investigation is geared toward addressing are: what is it that perceives? Under what circumstances can the percipient part of the living being come into contact with the objects of perception? And by what process does this perceptual contact occur? This section, which will examine Aristotle's response to these questions, focuses on Aristotle's claim that perception consists in the sense taking on the sensible form of an object without the matter. The investigation of this claim will serve primarily to give a clearer sense of how Aristotle conceives of the perceptual process, with an eye to defending the view presented in the preceding sections, that according to Aristotle's theory, our awareness of the objects of perception is direct, and that these objects, or qualities of objects, populate the external world. It will also provide the background for the next section in which we will examine a number of interpretations of the passages in order to show that they are, for the most part, consistent with this general view of Aristotle's theory.

Aristotle begins *DA*. II.12 by defining what he means by sense (*αἴσθησις*). His famous and controversial definition runs as follows: a sense, he says, we can call that which has the power to receive the sensible form (*αἰσθητῶν εἰδῶν*) of objects without the matter (*ἄνευ τῆς ὕλης*) (*DA*. 424a19 – 20). Although it is unclear precisely what this formulation means, it does harken back to his discussion of soul, and the notion that a living being is composed of soul, understood as form, and body, understood as matter. Aristotle immediately expands upon this enigmatic definition,

and attempts to clarify it by giving an analogy. This process, he says, is like the way in which a piece of wax takes on the impression of a signet ring without the bronze or gold of which the material object is composed (*DA*. 424^a19 – 22). The sense, according to Aristotle is affected in the same way as the wax is by objects that are colored or scented, not, however, in virtue of what they are, but rather in virtue of their having a sensible form. Although there is still quite a bit that remains obscure about this statement, there are some immediate conclusions that we can draw from it. There are two necessary conditions for perception to occur: there must be an external object with a perceptible form, and an organism that possesses a sense. The sense itself is a potentiality which has a capacity to undergo a particular sort of alteration; this alteration consists of the reception by the sense of the form of the sensible object without the matter – namely, it becomes like the sensible object insofar as the sense becomes like the essence of what is sensible in the object. This will become more perspicuous as we continue, but for the moment, it is useful to recall that, for Plato, a sense is a capacity that operates through a sense organ, to transmit affections (understood as motions), that impinge upon the body, through to the soul.

Aristotle goes on in *DA*. II.12 to claim that the senses are seated in each of the primary sense organs, and that the two (the senses and their organs) are the same, although distinct in essence (*DA*. 424^a24 – 25). What perceives, says Aristotle, is a spatial magnitude, but the sense, conceived of as power or capacity, is not itself a magnitude, but rather a capacity within a magnitude (*DA*. 424^a25 – 28). This indicates that the relationship between sense organ and perceptual capacity is, at least in some sense, like the relationship between matter and form. As Aristotle had indicated previously, the capacity to receive sense impressions is the essence of a sense organ – an eye which cannot perceive, a painted eye, for example, is only an eye homonymously it is not an eye in the sense that it does not function like an eye is meant to function. It is unclear whether Aristotle is here claiming that it is the sense organ itself which perceives, or whether it is the living animal which perceives. He had earlier said that it is proper to say, for example, that the man perceives with his soul, but his reference here to perception being carried out by a spatial magnitude, and the sense being seated within the sense organ indicates that perhaps, for example, it is the eye that perceives with the sense of sight. This would, of course, be in keeping with his notion that the soul is the first actuality of a natural body potentially containing life. Analogously the eye can be understood as a certain type of natural

body whose purpose is to contain the power of visual perception. Thus since the soul, for Aristotle, isn't something distinct and separable from the body it makes sense to think that just as the body with its actuality, the soul, is understood as a living body, so too is the eye, with its actuality, the power of sight, understood as a seeing eye. This is also consistent with Aristotle's claim that it is not the soul that perceives, but the living being (understood as combination of body and soul) that perceives with the soul, because if the sense of sight is the actuality of the eye and the soul is the actuality of the potentially living body, then the sense of sight is the element of soul that corresponds to the eye. This understanding, coupled with Aristotle's claim that the sense, in perception, takes on the sensible form of the object without the matter means that perception consists of some sort of alteration in the power that operates through a sense organ such that the power itself assumes a certain element of the object that it perceives.

The next section will examine various views about what exactly the alteration that Aristotle refers to in this passage consists in. For the moment, it is important to distinguish the sort of view that we find in Aristotle from the view of the perceptual process put forward by Plato and discussed above. Recall that for Plato, the perceptual faculty is first and foremost a faculty of the soul, and the soul is the subject of all perceptual acts. In order for this psychical faculty to operate, however, it requires the necessary contribution of the body. The sensory powers, which operate through the bodily sense organs, are each specially suited to transmit the various motions that result from the affections that external objects create on the body through to the soul. All of these sensory powers converge to the soul, and the soul is able to perceive by means of their various reports. Plato, however, goes to some length to stress the notion that the sense organs and their corresponding senses do not themselves perceive. There are two primary reasons for this. The first is that he doesn't want to attribute any cognitive function to the body – although the body is necessary in perception it cannot itself perceive or think; the second is that he wants to be sure that he can account for the unity of perception, which is accomplished on his theory, by claiming that there is one single entity that is responsible for receiving and perceiving the conveyances of each of the various senses, and that this entity is the very same as the subject of thought. Thus Plato's theory is able to account for the variety in the objects of sense by claiming that each sense organ has its own power that is suited to transmit the specific motions relative to it, and also maintain the unity

of perception by indicating that it is a singular entity, the soul, which is able to actually perceive by means of all of these different conveyances.

It is clear, therefore, that although both Plato and Aristotle conceive of the body as playing a necessary role in their discussions of the perceptual process, for Plato the body can clearly be said to be devoid of all cognitive abilities, and, in this way, serves a role that is largely instrumental in the perceptual process. This is because for Plato the bodily sense organs do not represent the end of the process; they, and the corresponding powers that operate through them, are the means by which the soul is able to perceive the objects of perception. For Aristotle, on the other hand, the bodily sense organs, understood as the seat of the sensory powers, do represent the end of the perceptual process. It is important to note, however, the fact that the sense organs represent the end of the perceptual process, for Aristotle, does not place him in the wooden horse. This is because Aristotle, unlike Plato, posits a common sense, which provides for the perception of a complex object composed of multiple sense qualities as a singular object (*DA* 425a14 – b12). Aristotle's postulation of the common sense is consistent with what has been said thus far. For Aristotle stipulates that there is no further entity responsible for perceiving the objects of the common sense, they rather arise incidentally when all of the sense organs are functioning together. Since, for Aristotle, perception consists of a certain alteration of the sensory power by an external object, a bodily sense organ endowed with the power of sensation has everything it needs to perceive. This, again is contrary to the theory developed by Plato which holds that the bodily sense organs and their corresponding sensory powers lack the necessary cognitive ability, which requires the postulation of a further entity capable of cognizing their transmissions.

In addition to this, if we take what Aristotle says about perception consisting in the sense's receiving the sensible form of the external object without the matter, and we couple this with his claim, discussed above, that the objects of perception are external, we can begin to see Aristotle's understanding of the perceptual process as being direct. Recall that when we characterized Plato's theory as indirect, this stemmed from his view that perception consists of a two-step process and that the objects of perception are not external objects, but are rather internal to the perceiver. Thus, according to the conception of indirectness that was attributed to Plato, the end state of the causal perceptual process can be characterized for what it is without necessary reference to that which sets the process in motion, and which represents the

beginning state of that process. Based on the discussion of Aristotle's theory above, we now have good reason to think that, based on the indirectness of Plato's theory, Aristotle's view is that perception is direct. This is because if, for Aristotle, the objects of perception are constituted by features that belong to external objects, as well as these objects themselves, and if the process of perception consists of a one-step process by which the sense comes to take on that which is perceptible – the form – in the external object, then an explanation of the end state of the causal process – the perception itself – will have to make necessary reference to the object that sets the process in motion. This is because, unlike for Plato, for Aristotle the act of perception itself is constituted by the sense taking on an element of the external object, and must, therefore, be understood in terms of that object.

Based on the general features of the perceptual process, as Aristotle characterizes it, coupled with the claims that he makes about the status of the objects of perception, we can see how his views on perception are consistent with the idea that perception is direct. Furthermore, this understanding allows us gain some further clarity on what it means to claim that perception, for Plato, is indirect. For, as we can see, the directness of Aristotle's view stems from the close association between the objects of perception and the objects external to the perceiver. This relationship is further reinforced by Aristotle's view that the act of perception consists in the sense taking on the perceptible form of the external objects without the matter. For this means that the end state of the causal perceptual process must be understood in terms of the object that stands at the beginning of that process. It is hopefully clear how this view differs from Plato's. For Plato the end state of the causal perceptual process consists in the soul coming to be aware of an internal, psychical object that results from the intercourse between the bodily disturbances and the soul. Furthermore, these bodily disturbances are caused by the body's interaction with objects external to it. Thus, although, for Plato, the perceptual process is set in motion by objects that are external to the perceiver, no necessary reference need be made to these objects in order to understand the second part of the process: the part which constitutes the act of perception. Now that we have a sense of some of the general features of Aristotle's theory of perception, let us turn our attention toward a certain aspect of the perceptual process. In the next section we'll shore up the view expressed here – namely, that perception, for Aristotle is direct – by demonstrating that this understanding is consistent with a number of different interpretations of Aristotle's crucial claim that

the act of perception consists in the sense receiving, or taking on the sensible form of an external object without its matter.

5.5 Aristotle's direct view of perception

If there is somewhat of a famine with regard to secondary literature on Plato's theory of perception, there is certainly a feast, or perhaps more appropriately, a glut of articles and books, both ancient and contemporary, on the various aspects of Aristotle's views on perception and the perceptual process. Since, as has been mentioned several times already, this chapter is not meant to be a full account of Aristotle's theory, I couldn't possibly hope to address all, or even most, of these pieces, or even attempt to consider all of the many topics with which they are concerned. What I will do, however, is look at a number of interpretations of Aristotle's view of the process of perception that are based primarily on the passage discussed in the previous section in order to determine whether it is, in fact, consistent with a direct view of perception. Thus far we have been largely assuming that Aristotle's theory is indeed direct, and that it is this directness that he tries to capture in characterizing perception as the senses' receiving the form of the external object without the matter, but this is not uncontroversial. Furthermore, this phrase that Aristotle uses to characterize the perceptual process has been the topic of great debate in recent scholarship. It will, therefore, be the task of this section to show that, on the whole, most of the views about the way in which Aristotle characterizes the perceptual process are consistent with the idea that, for Aristotle, perception is, in fact, direct.

The textual basis for the views that will be discussed below comes primarily from three chapters of the *De Anima*. In *DA*. II.5, as discussed above, Aristotle characterizes perception generally; he notes that that which can perceive is potentially what the object of perception is actually. He attempts to clarify this by claiming that when the subject of perception is being affected, it is unlike the object that affects it, but once it has been affected, it becomes like that object (*DA*. 418a3 – 6). These comments are echoed in a number of the chapters dedicated to explicating the operation of the various individual sense modalities (*DA*. 422a7, 422a34 – b3, 423b30 – 424a2). The next crucial statement comes in *DA*. II.12 when Aristotle, again clarifying what he had said before, indicates that the sense is that which can receive the sensible form of the object without the matter (*DA*. 424a17 – 19). The final

passage that should be highlighted in this regard comes from *DA*. III.2, where Aristotle, in attempting to determine how awareness of perception is possible indicates that if, for example, we perceive that we see, such a perception must be carried out thorough sight, and if it is carried out through sight, it must be because that with which we see has color (*DA*. 425b17 – 20). All of these passages in which Aristotle describes the way in which perception comes about are problematically vague, and the varying interpretations to which they have given rise bear out this ambiguity.

The views that I will be considering below differ specifically with regard to whether or not these passages are consistent with the view that there is any necessary material change that accompanies perception. This is an issue which has been commented upon since antiquity, but the debate has been given new vigor in the last 35 years. As Victor Caston notes, “It [the debate] has developed into a sea battle, on which virtually everyone in the discipline has their own entrenched views.”¹⁰ Regardless of whether or not this is an overstatement of the case, it is certainly true that there have been quite a few articles written on the topic since the debate, which originally featured the contrasting views of Richard Sorbji, and Myles Burnyeat, was begun. In a recent article, Victor Caston presents and examines the views of the major antagonists in this debate, and offers his own interpretation, which he takes to be a middle road between the “literalist” view, a form of which is attributed to Soabji, and the “spiritualist” view, of which Burnyeat’s position is taken to be a token. Although, to be sure, the topic of the debate is important, for again, as Caston notes, “At issue is nothing less than how psychological phenomena fit into the natural world for Aristotle, and consequently whether his approach is a viable one for our own investigations”¹¹ what is relevant for our purposes, however, is not ultimately whether, for Aristotle, in perception the sense organs come to actually materially instantiate the quality perceived, but rather, whether the positions expressed in the various views on this issue are consistent with the idea that perception, for Aristotle, is direct. It is important, therefore, to spell out carefully once more the conception of directness with which we are concerned here. I take it that the view expressed by a direct perceptual theory holds that perception consists of a causal process, which originates in an external object, and culminates in perception. This is, of course, a

¹⁰ Caston (2005) 246.

¹¹ Ibid. 246.

conception that can be held in common by both direct and indirect theories. For the direct theorist, however, the end state of the process, which constitutes the act of perceiving, cannot be characterized, in so far as it constitutes the act of perceiving, without reference to the external object, and hence to the beginning state of the causal process. Furthermore, I take it that this is the sort of view that Aristotle wants to convey when he uses the phrase, taking on the perceptible form without the matter, to describe the process of perception. For, taking into consideration Aristotle's identification of the objects of perception, and the sensible qualities of objects external to the perceiver as the very same things – i.e., his view that the perceiver, in perception, comes into contact with these very external qualities that belong to external objects – it seems reasonable to think that any characterization of the object of perception, for what it is, must include reference to the external quality of which it is a perception. The advantage, for Aristotle, of holding this sort of view is that it allows him to maintain that perception can provide a basis for knowledge of the external world. However, a problem for this interpretation arises if we understand Aristotle's claims in the *De Anima* as defending the view that the end state of the causal perceptual process consists in the sense organ coming to instantiate an intrinsic – non relational – property. If this is the case, then there is good reason to think that Aristotle's theory is not direct. For in this case, the characterization of the end state – the sense organ's coming to intrinsically instantiate the very quality that is perceived – need not make any necessary reference to the object that stands at the beginning of the process. The details of these accounts will become clearer below.

In what follows, it will be argued that the interpretations of the passages mentioned above, which have been very neatly laid out and explicated in Caston's article, lie along a scale with regard to this issue: at the opposing poles of this scale are, a dogmatic form of literalism, which Caston refers to as "fundamentalism," and Myles Burnyeat's conception of spiritualism. We shall examine these conflicting positions, as well as a number views that can be seen as attempts to forge a middle ground between them in order to see whether these views are consistent with the conception of directness attributed to Aristotle and outlined above. My examination of these interpretations will take a rather different course than Caston's. For although the question of whether these positions are consistent with the claims that Aristotle makes in the treatises in which he addresses the issues related to his theory of perception is of serious importance, I find this to be a distinctly difficult question to

answer with any modicum of certainty, even for the most learned of Aristotelian scholars (as the debate itself shows). I will rather consider where each of the views stands with regard to the conception of directness given above, and thus preserve, what I take to be, the meaning of Aristotle's comments on perception, and to follow from his conception of the relationship between body and soul.

Let us begin with Burnyeat's form of spiritualism. This view, which was originally presented in his article "Is an Aristotelian Philosophy of Mind Still Credible? A Draft," and further defended in "How much happens when Aristotle sees red and hears middle C?" holds that for Aristotle there is no underlying physiological change that occurs in perception. It is rather the case that perception just is a perceiving subject's becoming aware of a perceptible quality. This view is clearly articulated when Burnyeat says, "Aristotle believes that when he sees a colour or hears a sound, nothing happens save that he sees the colour or hears the sound."¹² Burnyeat argues for this conclusion by claiming that the alteration that occurs in perception is a quasi-alteration, which is analogous to the way in which Aristotle understands the medium in perception to be affected by the perceptible object. This, however, is no mere analogy since, for example, Aristotle claims that the eye *is* a medium insofar as it is composed of water, which is itself a visual medium. Burnyeat claims that the medium, in vision, has no color of its own, but rather comes to be colored in a derivative way when there is a colored object suitably positioned with respect to it, and a perceiver. He spells out this notion of being colored derivatively by saying that such coloration of the medium occurs when the color of a particular body appears though it.¹³ This he understands to be a quasi-alteration – a coloration that occurs without the medium *really* becoming colored. Similarly, says Burnyeat, the eye, which is transparent, undergoes the same sort quasi-alteration when the perceiving subject becomes aware of a color – namely, it becomes colored derivatively.¹⁴ This action of color on the eye is identical with – i.e. constitutive of – seeing. Therefore, seeing just is the color of the object appearing to the eye; as Burnyeat points out, the only difference between the alteration that occurs when the color affects the medium, and when it affects the eye, is that the medium is incapable

¹² Burnyeat (1995) 421.

¹³ Ibid. 425.

¹⁴ Ibid. 427.

of the awareness of the color of which the eye is capable.¹⁵ Thus Burnyeat denies what, as we shall see, Richard Sorabji affirms – namely, that the alteration (what Burnyeat characterizes as a quasi-alteration) that is constitutive of the act of perception involves the sense organ *really* taking on an “alien” color. This will be spelled out in greater detail below, but suffice it to say that whereas for Sorabji it is possible for a separate subject to observe the quality of which the perceiver is aware in the sense organ of the perceiver, on Burnyeat’s view, no such observable coloration occurs. In other words, on Burnyeat’s view, in vision, the eye does not become colored. It is rather the case that if a perceiver perceives a red thing, and another individual were looking through the eye of that perceiver – i.e. were positioned behind the perceiver and were able to look through the perceiver’s eye in the same direction – then that second individual would also be able to see the red thing.¹⁶ Not, however because the original perceiver’s eye jelly is literally red, but because the perceiver’s eye is such that the red thing can appear through it, just as is the case with the observer’s eye – the eye, on this view just is a medium, construed as something suitable to allow a perceptible quality to appear through it.

There are a number of important and interesting issues surrounding Burnyeat’s reading that could be taken up, but I’d like to focus on two of the major claims that he makes in order to show that his interpretation of the way in which the medium is affected by the objects that appear through it is most consistent with the notion that Aristotle holds the view that perception is direct. The evidence for this comes from Burnyeat’s claim that in perception the sense organ and the medium take on the quality of the object derivatively. Recall that on this view in vision, for example, the eye’s being colored derivatively means that the color quality is visible through it. This could mean one of two things, it could either mean that: (1) the perceptible object causes the eye to become colored and it is through the coloration that one is able to perceive the color of the object, in which case the eye is colored intrinsically; or (2) there is no real causal interaction between the matter of the eye, as such, and the external object beyond the awareness of the color of the object by the sensory power seated in the eye. In the first instance, the organ becomes colored intrinsically, and, as noted above, since this intrinsic coloration constitutes the act of perceiving, the act of perception need not be characterized in terms of the external object. According to

¹⁵ Ibid. 428.

¹⁶ Ibid. 428.

latter view, on the other hand, the eye is understood to be just such a thing that is specifically suited to allow for the sensible quality to appear through it, and if it is also endowed with the capacity of sight, this appearing will give rise to the awareness of the quality. In this case, the eye's coloration is essentially relational, since it is only colored to the extent that its material constitution allows the perceptible object to appear through it, and the presence of the object is necessary for the perception to occur. It is clear from what Burnyeat says about the relationship between the way in which the medium is altered and the way in which the sense organ is altered in perception that he understands derivative alteration in the latter of these two senses. This is evident when he says, "In the case of sight we have verified that it is not a real coloration or a real assimilation, but only a quasi-alteration/assimilation/coloration. A matter of appearances alone."¹⁷ We can, therefore, understand perception, on this view, as the appearance of a perceptible quality (taken to be a property belonging to an external object) to a sense faculty through the organ of sense, which is such as to allow for the quality of the object to appear to the faculty. Thus the coloration of the eye in perception *is* the coloration of the sense object that is able to appear to the sense of sight. In this way, we can understand the awareness of the sense quality as direct, since the end state of the causal process is nothing other than the appearance of the sensible quality to the sense faculty. The eye's coloration, therefore, must be necessarily relational because what the end state is – namely, the appearance of an external perceptible object – necessarily involves reference to the object that appears, and which sets the process in motion. Burnyeat, therefore, is able to preserve the directness of Aristotle's theory through denying that there is any real material alteration involved in perception.

Now let's turn our attention to the view that stands at the other end of the spectrum from that articulated by Burnyeat. The extreme literalist, or fundamentalist (Caston), view holds that in an act of perception two things happen: (1) the perceiver becomes aware of the sensible quality, and (2) the organ of sense becomes like the object of perception in that it takes on the sense quality and comes to acquire the same material disposition as the object. This is a view very similar to that expressed by Stephen Everson, and is illustrated when he says, "For the organ to take on the form

¹⁷ Ibid. 428.

of the sensible object, then, is for it to take on a property of the substance's *matter*.¹⁸ Similarly, Everson also notes, "In virtue of having the material constitution it does, the organ will be altered by its proper object so that it takes on the property of the object—just as any relevantly similar but inanimate substance would. Indeed given its material constitution the organ *must* be so altered."¹⁹ This means that for the fundamentalist, an act of perceiving involves not only the perceiver's awareness of the perceptual object, but also the instantiation of the sensible quality perceived in the relevant sense organ. In other words, in vision, for example, the eye jelly literally goes red, and materially instantiates redness such that it would be true to say of the eye that it is red in the same way that the perceived object is red. Caston characterizes this view in the following way: "if a subject S comes to perceive a perceptible quality F at time t, then S literally takes on F in the relevant organ at t, such that the organ will be F in the same way that the perceived object is F, in virtue of having the same material disposition."²⁰ In this alteration, the sense organ clearly comes to possess the sense quality intrinsically. For since the organ comes to have the same material disposition as the external object, the organ becomes red in just the same way as the external object is, and this quality it comes to possess in virtue of itself, not in virtue of anything else.

Just as Burnyeat's reading represents the ideal preservation of the notion that perception for Aristotle is direct, the fundamentalist reading is perfectly consistent with the view that Aristotle's theory of perception is not direct, at least on the view of directness outlined above. This is because if, as the fundamentalist maintains, the end state of the causal perceptual process consists both of the perceiver's awareness of the sense quality, and the sense organ's material instantiation of that quality, then this end state can be characterized for what it is without any necessary reference to the object which set the process in motion. The reason why no such reference is necessary is because everything that is needed to account for the awareness of the sense quality – namely the material quality itself – is contained in the instantiation of the sense quality by the organ. And since the organ possess this quality intrinsically and not relationally, there is nothing further to which an explanation of the end state of the perceptual process must appeal. Thus the fundamentalist understands perception, for

¹⁸ Everson (1997) 102.

¹⁹ Ibid. 84.

²⁰ Caston (2005) 250

Aristotle, to be like a piece of paper receiving the form of a rubber stamp without the matter; once the paper has been stamped, the characterization of the end state of that process for what it is – namely, a piece of paper with a particular marking on it – is possible independent of any reference to the stamp itself. In addition to this, whereas for Burnyeat the sense organ is only colored derivatively, or relationally to the extent that the colored object appears to the sense faculty within an organ specifically suited to allow for such appearance, on the fundamentalist view, the organ clearly possesses and instantiates the quality intrinsically.

The difference between the Burnyeat reading and the fundamentalist reading appears to hinge on whether, for Aristotle, there is a material as well as a formal change in perception, regardless of whether or not we take it that Aristotle understands the relationship between the sense organ and the sense faculty in terms of the relationship between matter and form. For as Burnyeat says, “According to the Aristotelian theory of perception there is no physiological process which stands to the awareness of a color or a sound as matter to form.”²¹ I take it that by physiological process here Burnyeat is referring to a material change rather than to a material cause. For the eye is surely the material cause of visual perception, regardless of whether we think that the act of perception is constituted by an underlying physiological change. But as Burnyeat indicates the process of perception involves a “physics of form.” That it isn’t at all clear what such a physics would be like is precisely Burnyeat’s point,²² but regardless the phrase itself shows us that nothing physiological, in the normal sense of the term, is going on in perception. Everson, on the other hand, maintains that, “A sense organ, then, is a living body—that is, a body which essentially possesses a capacity for an activity which is distinctive of animate substances—and is, as such, a composite of form and matter.”²³ This means that, for Everson, since the eye and the sense of sight stand to one another in the same relation as body and soul – namely as matter to form, any formal change must be accompanied by a corresponding material change.

Burnyeat’s view on this issue seems to be considerably more plausible. For, although Everson is right in saying that Aristotle does conceive of the sense organs as being a compound of both matter and form – with the matter specifically suited to

²¹ Burnyeat (1995) 421.

²² For as he says elsewhere, “I think it is difficult to understand what Aristotle says about perception because it is difficult for us to believe it” (1992) (16).

²³ Everson (1997) 78.

allow for the operation of the form, which is its function, this structure does not necessitate the further view that an act of perception involves both a formal and a material change. For Aristotle nowhere indicates that the relationship between form and matter implies that an alteration in one necessitates an alteration in the other. In fact, there are plenty of changes in the soul which do not involve a corresponding bodily change – thought, for example. Moreover, Burnyeat’s view doesn’t deny that material change can occur in perception, he merely denies that perception necessarily involves any underlying physiological change, or that the act of perception is constituted by a material change in the sense organ. For, Burnyeat claims, that the change that occurs in perception is analogous to the change that occurs in the medium, which is just what Aristotle says. Thus, while Burnyeat is able to preserve the directness perception through denying any material change in the perceptual process, Everson, in claiming that there is a literal and intrinsic material alteration in perception loses the sense of directness.

Richard Sorabji has defended a view on this issue that was originally presented in his article “Body and Soul in Aristotle” which has been taken to be a certain form of literalism, but proves ultimately to be a less extreme form than that characteristic of fundamentalism. According to Sorabji’s view, in perception the sense organ does literally instantiate the sense quality, but it does so in a different way from the way in which the external object possesses the quality. For Sorabji, the material disposition of the sense organ in perception remains unaltered, but the quality received by the matter of the organ is, in principle, visible to other observers. Sorabji compares, although imperfectly, he notes, the sense in which the eye is colored in visual perception to the sense in which the sea is colored.

This throws light on what I meant by my interpretation according to which the eye jelly takes on colour patches for Aristotle in the course of perception quite literally. It does not do so by the same mechanism as that by which the sea takes on colour, which depends on the distance of viewing. But it has this much in common. It lacks the material basis of a body’s own colour, but it looks the way a body’s own colour looks, as opposed to being, for example, a mere encodement, and it could excite the transparent medium in such a way as to permit an ophthalmologist to see it.²⁴

²⁴ Sorabji (2001) 53.

Caston refers to this view as “latitudinariansim” and characterizes it in the following way: “if a subject S comes to perceive a perceptible quality F at time t, then S literally takes on the quality F in the relevant organ at t, even if it does not come to have the same underlying material disposition and so does not come to be F in the same way that the object perceived is F.”²⁵ Thus, on Sorabji’s view although the possession of the color by the sense organ is literal, it lacks any material basis. It cannot be said, therefore, that, for example, the eye *is* red, but only that it appears red. The precise meaning of Sorabji’s view is rather mysterious, but we can make some sense of it if we think of it in terms of the other views already considered. It is clearly distinguishable from the fundamentalist position because whereas for the fundamentalist the organ takes on the quality materially, there is no such material alteration on Sorabji’s view. Sorabji’s view is, however, more difficult to distinguish from Burnyeat’s, for as Caston notes, the change that Sorabji suggests is a change only in the formal characteristics of the sense organ, and this is precisely what Burnyeat claimed against Sorabji.²⁶ The difference seems to lie in the fact that for Sorabji, in vision, for example, the eye jelly becomes colored and can be said to possess the color *in the same sense* as physical object possesses it – i.e. it *appears* to be colored just as the external object does – despite the fact that the color possessed by the organ is not instantiated intrinsically on account of the material constitution of the eye jelly, but only extrinsically based on its capacity to receive the form of that which is intrinsically colored. Caston claims that the sense of the coloration of the eye jelly that Sorabji is working with here can be said to be a derivative coloration. It seems, however, that derivative here cannot mean derivative in the same sense as Burnyeat means it. For on Burnyeat’s view the sense organ cannot take on the sensible quality such that the organ can be said to possess the quality (whether intrinsically or extrinsically), whereas for Sorabji this is precisely what happens: the eye can be said to *be* red even though it doesn’t possess the same material constitution as the red thing, but is only red because of its position relative to the red thing.

Despite the difficulties, mentioned above, in characterizing Sorabji’s view, it seems that although on his view the sense organ does take on the sense quality literally, it does so only relationally. This is because the extrinsic nature of the possession of the quality by the organ means that the eye, for example, is only colored

²⁵ Caston (2005) 251.

²⁶ Ibid. 251.

in virtue of the external object being colored, and thus the account of the coloration of the eye must include reference to the colored object that appears. It is in this way that Soabji's view is able to preserve the direct realism that, I take it, is a crucial feature of Aristotle's theory. The reason why this view is conducive to this understanding of Aristotle's theory is because, on Sorabji's reading, although the eye is literally colored, its coloration is dependent upon the external object's coloration, and the eye becomes colored only to the extent that the object is suitably placed with respect to it. In addition, the literal coloration also allows Sorabji to maintain that there is a physiological process, and material change, that underlies perceptual experience, although it is difficult to see precisely what this material change consists in. Based on the understanding that, on Sorabji's view, the coloration of the eye in visual perception is relational, it might be more illustrative to contrast his view with that of Everson rather than Burnyeat. For although the views of Sorabji and Everson are both technically "literalist" in that they both claim that, in visual perception, the eye literally instantiates the color of the external object, based on the understanding that, for Sorabji, the coloration of the eye is relational, his view seems significantly closer to that of Burnyeat. The differences between the two readings notwithstanding, the views of both Sorabji and Burnyeat preserve the idea that perception, for Aristotle, is direct.

Victor Caston also proposes a view on whether or not there is a material change in perception, and, if so, what sort of change it is. Caston takes this view to be a middle road between the literalist views of Everson and Sorabji, and the spiritualist position of Burnyeat. According to this view, while there *is* a physiological change in perception, this change does not involve the sense organ instantiating a perceptible quality. What Caston claims is that in perception a certain type of transduction occurs whereby the sense organ is able to take on the form of the sensible object without the matter by taking on the form and matter of some other quality that is suitably related to the sensible object. He further indicates that this transduction involves the transfer of information from the sensible object to the sense organ without the quality being replicated in the organ. He characterizes this as an analogical view, according to which, "if a subject S comes to perceive a perceptible quality F at time t, then S undergoes some physiological change in the relevant organ at t such that it becomes like F, even if it does not become true to say that the organ is F in just the same sense

that the perceptible object is F.”²⁷ This is the general statement of Caston’s reading. It shows that although this view is not a literalist view, in the sense characterized above, it does maintain that there is an underlying material change in perception.

Caston goes on to further articulate his understanding of the way in which the sense organ becomes like the sensible quality by claiming that it takes on the same proportion between contraries that is instantiated in the sense quality. This, says Caston, can occur in two ways: the organ can either take on the proportion of the contraries that comprise the sense quality itself, or it can take on the same proportion of two different contraries. According to the first possibility, for example, if a color consists of a particular proportion of white and black, then the eye, in perceiving that color would come to instantiate the same proportion of white and black. Caston indicates, however, that if perception were actualized in the first way, the sense quality would indeed be replicated in the organ, so it must be by means of the proportion of two different contraries from those that comprise the sense quality that the sense organ comes to take on the sensible form of the quality without the matter. Caston clarifies this by saying, “the resulting states of the organ are thus *not* ‘abstract ratios,’ such as could be represented purely in numbers or with barcodes. They *concretely embody* the proportions of the qualities of the object in their own contraries.”²⁸ This means that, on this view, perception does not consist in a decoding of an abstract proportion, but it rather arises along with a concrete proportion instantiated in the contraries of the sense organ which are distinct from the contraries that give rise to the quality in the external object. Furthermore, it is important to note that for Caston this physiological change is necessary, but not sufficient for perception. Since, however, it is not Caston’s purpose to determine all of the relevant conditions for perception that Aristotle identifies, but only to determine what sort of physiological change occurs in perception, he doesn’t indicate what further elements are necessary to characterize the act of perceiving.

It is no easy task to determine where this view falls on the conception of directness that we have been considering here. It is clear that according Caston’s reading of Aristotle, the sense organ in perception does come to instantiate an intrinsic property, and, as such, undergoes a necessary material change, but it is equally clear that that this physiological change is not constitutive of the act of

²⁷ Ibid. 299.

²⁸ Ibid. 315.

perceiving, since it is only a necessary and not a sufficient condition for perception. This point certainly distinguishes Cason's view from that of Burnyeat and Sorabji, who were characterized above as holding that any property that the sense organ comes to possess in perception is held extrinsically and relationally. However, the intrinsic property that the organ comes to instantiate, on this view, is, to be sure, not the same property that is possessed by the external object itself. The property that is instantiated in the organs is, however, on Caston's view, supposed to be linked to the property in the external object. The link that Caston proposes has to do with the transduction that occurs between the external object and the sense organ, whereby information about the former is transmitted to, and instantiated in, the latter. Caston interprets this transduction in terms of Aristotle's analogy between a sense, in perception, receiving the sensible form of an object without the matter, and a piece of wax instantiating the seal of a signet ring. According to Caston, this analogy tells us that in the process the wax comes to literally and intrinsically instantiate the contours of the signet, and in so doing, it also comes to possess the information contained in the stamp – namely, the identity of the stamp's owner, and the associated authority of that individual. Similarly, says Caston, when the sense organ comes to instantiate the proportion possessed by the external object, information about that object is also transferred to the organ, and, as a result, perception has the backing of the authority of the external world.²⁹

Based on this understanding, we can characterize perception, on Caston's view, as occurring in the following way: in perception the sense organ of a perceiver comes to intrinsically instantiate a proportion between the opposites that constitute that organ. This proportion, while it is the same as the proportion that is possessed by the external object, is exemplified in different contraries. Furthermore, this material change involves the transfer of information from the external object to the perceiver – i.e. information about the sense quality possessed by the external object. The question now is where this view stands on the directness of perception? The answer to this question lies in the way in which we understand the relationship between the proportion of the external object, and the proportion that the sense organ comes to instantiate. I take it that, despite the fact that, on this view, the material change that occurs in perception involves the sense organ coming to instantiate an intrinsic

²⁹ Ibid. 307.

property, this property must be understood in terms of the property of the external object. This can be illustrated in terms of wax analogy. Since, as Caston says, the information that is transferred to the wax when it is impressed with the signet pertains to the identity and associated authority of the ring's owner, the impression of the contours of the ring on the wax, and the information that goes along with it, cannot be understood without reference to the subject of that information – namely the ring's owner. I take it that similarly, in perception, the information that is transferred to the sense organ through the instantiation of the proportion of the external object in the contraries that comprise the sense organ pertains to the perceptible quality of that external object. Furthermore, it is difficult to see how the transmission of information, thorough the instantiation of a particular proportion, in unrelated contraries, can make one aware of the sense quality, unless the material change is intended to refer to the proportion as it is instantiated in the original contraries. In other words, if, for example, a perceptible color consists of a certain proportion of white and black in the external object, and a perceiver comes to perceive that quality, which involves the perceiver's eye coming to instantiate the same proportion of moist and dry, then since the object perceived is the object that is instantiated in the proportion of white and black, then the characterization of the perceiver's awareness of that object cannot be characterized solely in terms of the proportion instantiated in the sense organ, and must make reference to that proportion as it is embodied in the original contraries. Thus we can see that Caston's view is able to preserves the idea that there is a material change in perception, whereby the sense organ comes to instantiate an intrinsic material property, but he also is able to maintain the sense of the directness in Aristotle's theory by indicating that the material change does not also constitute the perceiver's awareness of the perceptible quality, and thus that the relationship between the property instantiated by the sense organ, and that possessed by the external object is essentially relational.

What I hope to have shown in the foregoing discussion is that although there are clear and important differences amongst scholars commenting on Aristotle's theory of perception as to what sort of material change, if any, occurs in perception, many of these views are consistent with the idea that perception, for Aristotle, is direct. As mentioned above, this view is most clearly expressed in Burnyeat's treatment of the issue, according to which the end state of the causal perceptual process *is* just the appearance of the external sense quality to the perceiver through

the medium of the sense organ. The positions of Sorabji and Caston are less clear, on this issue, and thus make it more difficult to determine precisely where they stand with regard to directness, but it seems that for both, despite the literal and, for Caston, intrinsic, physiological change that occurs in perception, the characterization of the perception itself must make reference to the object that stands at the beginning of the causal process. For Sorabji this is because the property instantiated by the sense organ is possessed only extrinsically and, as such, is relational to the extent that its identity is crucially dependent upon the very property that belongs to the external object appearing in the sense organ. For Caston, on the other hand, although in the act of perceiving the sense organ comes to instantiate a literal property, and it instantiates that property intrinsically, this physiological change only represents a necessary, and not a sufficient condition for perception. Furthermore, if one is to understand the information that is conveyed through the material change involved in the act of perception, reference must be made to the quality possessed by the external object that occasions the perception. In other words, the proportion that is instantiated in the sense organ must be linked up with the proportion in the object in order to make sense of the act of perception. Everson, on the other hand, claims that in perception the material disposition of the sense organ changes so that it comes to instantiate the sense quality possessed by the external object in precisely the same way as it is instantiated by that object. This view stands in contrast to that of Burnyeat since the sense organ for Everson comes to instantiate a literal property, and from Sorabji since the sense organ, on Everson's view comes to instantiate the quality of the object intrinsically. It is also crucially distinct from Caston's view since, for Caston, the intrinsic property received by the sense organ is not the same property that is possessed by the external object. For Everson the quality that is instantiated in the sense organ *is* the very quality that is perceived, and thus no reference need be made to the external object in order to account for the end state of the causal perceptual process.

5.6 Conclusion

The importance of this foregoing discussion, however, is not, of course, to ultimately determine whether or not Aristotle holds that there is any material change that perception, but rather to further explicate an important feature of Plato's theory of perception through contrasting it with that of Aristotle. We have seen that based on a

number of important features of Aristotle's discussion of perception his view is most accurately characterized as a direct theory. Direct here meaning that the causal perceptual process cannot be divided into distinct parts, but that the end state of the process must be characterized for what it is in terms of the beginning state, and accordingly, the process must be taken as a simple unity. This conclusion, as was argued for throughout the course of this chapter, follows from the way in which Aristotle characterizes the relationship between the body and soul, as well as his view on the specific features of the perceptual process. Recall that, for Aristotle, the body and soul are not separable substances, as they are for Plato, but they rather comprise two necessary parts of a unitary functional entity – the living being. Furthermore, perception, for Aristotle, involves an individual's awareness of the qualities of external objects through the intercourse of the body and soul with those objects. The process of perception, for Aristotle, consists in the sense organ, and the sensory power seated within it, becoming like the object of perception in that they takes on the sensible form of the external object without the matter. However we understand the precise details of this process, it involves an undeniably close, and as I have argued, direct link between the perceiver and the external object perceived.

Furthermore, the understanding of Aristotle's theory, developed above, allows us to gain greater clarity on the notion of indirectness that emerges from Plato's characterization of the perceptual process. The important respects in which Aristotle's view differs from the theory that Plato articulates in the later dialogues concern the process of perception, and the objects of perceptual awareness. For Plato, as we have argued in the preceding chapters, the process of perception consists of two distinct and separable steps. The first of these involves the interaction between the body and objects external to the body, while the second consists in the communication of the disturbances that result from this interaction to the soul, and the soul's subsequent reaction to these bodily disturbances. Furthermore, through this characterization of the process of perception, a view emerges concerning the objects of perception, according to which these objects, although they are causally related to objects external to the perceiver, are, ultimately, objects that arise within the perceiver's soul. The indirectness of this view becomes apparent when we compare it to the Aristotelian view developed above. For, as it was argued, Aristotle maintains that the perceptual process consists solely of the sense organ taking on the sensible form of the object without the matter, and is, in this way, a simple, one-step, process. Thus,

for Aristotle, there is nothing that is interposed between the perceiving subject and the qualities of external objects, and the process of perception, on this view, consists in the perceiver becoming aware of those objects through the process of becoming, in some sense, like them. Therefore, the objects of perception, for Aristotle, are not internal objects, as they are for Plato, in part because there is no distinction in Aristotle between external and internal³⁰, but also, because perception, for Aristotle, just consists in the perceiver's awareness of the sensible qualities that belong to objects. Thus the major difference between the perceptual theories of Plato and Aristotle, and that which determines the one as being indirect and the other as direct, stems from their divergent views about the way in which living beings fit into the natural world, and the cognitive access that these creatures have to that world.

³⁰ Sarah Broadie (1993) makes this point in an article in which she argues that Aristotle's comments are consistent with the view that he is a naïve realist about perception. "On this view, then, the object perceived is literally (i.e. spatially) external to the perceiver. (But on this view there is no 'external world,' since the world is the totality of physical things and therefore includes the perceiving animal)"(139).

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