

Topos eidōn

The role of the noetic faculty in Aristotle's *De anima*

Leinonen, Mika Tapani,

mika.leinonen@helsinki.fi,

Master's programme in theoretical philosophy,

University of Helsinki,

Supervisors: Prof. Filipe Pereira da Silva & Dr Mika Perälä.

Abstract

Faculty: Faculty of Arts

Degree programme: Master's programme in philosophy

Study track: Master's programme in theoretical philosophy

Author: Leinonen, Mika Tapani

Title: *Topos eidōn*

Level: Master's thesis

Month and year: June, 2021

Number of pages: 81

Keywords: Philosophy of history, ancient philosophy, Aristotle, *De anima*, philosophy of psychology, philosophy of rationality, rationalism, the intellect, *voūς*, *voēiv*

Supervisor or supervisors: Prof. Filipe Pereira da Silva & Dr Mika Perälä

Where deposited: E-THESIS

Additional information: -

Abstract: The topic of this work is Aristotle's doctrine of the intellect (*ὁ νοῦς*) as the noetic faculty of the soul in the psychology of the *De anima*. The work is based on scholarly exegesis of Aristotle's text and philosophical analysis of his arguments. This work also reviews some of the most prominent interpretations of the topic up to the present. While most research on the topic seems to have focused primarily on ontological issues, the aim of this work is to assess the question of what kind of an activity Aristotle ascribes to the intellect as a faculty of the soul.

To this end, I separate between two forms of rationality in Aristotle's psychology, noetic and discursive rationalities. Close reading of Aristotle's considerations of rational capabilities in the *De anima* shows that he separates between these, and furthermore that the characteristic activity of the intellect (*voēiv*) is best understood in terms of the former. I also discuss the method of defining capacities in Aristotle's faculty psychology and give reasons for thinking that the doctrine of the intellect stands for a higher, separate reality in Aristotle's psychology and is not contained in the common account of the soul.

In approaching the topic of the intellect, I discuss the way that Aristotle aims to overcome the shortcoming of Anaxagoras' theory with his doctrine of the potential (*δύναμις*) intellect. The central account of the intellect's noetic activity in the *De anima* is given in terms of receptivity (*δεκτικός*) and is borne out of an analogy with sense perception. The analogy implies an explanation of the intellect's activity with the model of efficient cause. But Aristotle's considerations of the nature of the intellect also show him detaching it from the faculty of sense due its difference in scope, discussed in terms of limitlessness or neutrality of the intellect.

In this work I argue that the characterizations that Aristotle gives of the intellect's characteristic activity prevents from reading it as thinking in the broad sense of the term. However, it is possible to take Aristotle's focus to be with thinking in his account of the intellect. In this work my aim is to give reasons for why this reading is unsuccessful and to provide an alternative, which argues that the cognitive activity of the intellect in the *De anima* is rather best understood by associating it with theoretical knowledge. In my reading the activity of the intellect does not stand for ordinary thought but for the most successful form of rationality available to humans, which is a veridical and direct kind of cognition that is of starting points of explanatory sciences. The activity of the intellect is primarily for Aristotle reception of form (*εἶδος*), as is shown by his characterization 'place of forms'. In conformity with the traditional reading of Alexander of Aphrodisias, the noetic faculty of the soul is in my reading never the actual locus of forms but only the dispositional capacity for participating in the life of active understanding.

Contents

1. Aristotle's discontenting <i>νοῦς</i>	1
1.1 Introduction	1
1.2 Issues in translation	5
1.3 Aristotle's rationalism	11
1.4 Alexander's reading	17
1.5 The intellect as the place of forms	20
2. Knowledge of the soul	23
2.1 The method of inquiry into the intellect.....	23
2.2 Aristotle's faculty psychology	27
2.3 The common account of the soul	30
2.4 Parts and capacities of the soul	33
3. The topic of the intellect	38
3.1 The opening query.....	40
3.2 Reception of objects in the soul	43
3.2.1 Aristotle's realism	46
3.2.2 Perception as reception of form	49
3.2.3 Analogy of noetic cognition to perception.....	51
3.2.4 Is <i>νοεῖν</i> 'thinking'?.....	54
3.3 The limitlessness of the intellect.....	58
3.4 Johansen's broad reading	64
3.5 Further considerations	70
3.5.1 Combinatory and receptive functions	70
3.5.2 Thought and imagination	72
3.5.3 Thinking as motion	74
3.5.4 Theoretical reason and knowledge.....	76
4. Conclusion	78
Abbreviations	82
References	82

And it has been well said that the soul is a place of forms, except it is not the whole soul but the noetic faculty, and not forms in actuality but in potentiality.

καὶ εὖ δὴ οἱ λέγοντες τὴν ψυχὴν εἶναι τόπον εἰδῶν, πλὴν ὅτι οὔτε ὄλη ἀλλ' ἡ νοητική, οὔτε ἐντελεχεία ἀλλὰ δυνάμει τὰ εἶδη. (*De an.* 3.4, 429a27-9.)¹

1. Aristotle's discontenting *νοῦς*

1.1 Introduction

The topic of this dissertation is the role of *νοῦς*, taken as the faculty of reason or *intellect*, in Aristotle's psychology of the *De anima*.² Considerations on the nature of the intellect is something that ties together the acme of development of thoughts in most, if not all of Aristotle's major philosophical treatises, including the *Nicomachean ethics*, the *Metaphysics*, the *Posterior analytics*, and the *De anima*. In the *De anima* Aristotle considers the intellect as part or faculty of the soul (ἡ ψυχή).³ The topic of intellect is known to have certain discontenting effect on readers of the *De anima*. There seems to be no clear consensus about its role in the psychological hierarchy. The intellect is the focal point of a few dense chapters (*De an.* 3.4-6), which provide a great challenge for any reader of the treatise. This is at least partly due to the fragmentary, even incomplete nature of the text itself. But clarity into it is brought by following the programme of *De an.*, which states that the role of a faculty is decided by the cognitive activity that belongs to it, and the activity in turn is determined by the object it concerns. The main question, in the context of this work, concerns the cognitive activity of *νοεῖν* that Aristotle ascribes to the intellect as part or faculty of the soul; what kind of phenomenon does Aristotle intend to explain with his notion of *νοεῖν* in the psychology of *De an.* As noted, in the contemporary readings there seems to be no clear consensus about this question. In the following section I will narrow down this question to two opposed readings, one which takes Aristotle's focus to be with a general faculty of thinking, as is implied by the standard translation of *νοεῖν* as 'thinking', and another which sees *νοεῖν* rather as pointing towards some specific form of cognition, separate from our ordinary notion of thinking. In this work I will argue that it is infelicitous to think of the role of the intellect in Aristotle's psychology as explaining our ordinary notion of thinking,

¹ References to Aristotle are according to the standard by page, column and line in the standard Bekker-edition (1831). The Greek of *De an.* in this work follows Ross (1956). All translations in this work are mine unless otherwise noted.

² 'The intellect' is very prominent choice for translating *νοῦς* in the literature on Aristotle's psychology. Other candidates include 'the mind' (e.g. Polansky 2007, Wedin 1988) and 'the understanding' (Reeve), but these are not as viable in my view, but I will return to issues about translation and to my reasons for preferring this notion in the next section of this chapter.

³ See 3.4, 429a10-11; a23, cf. 1.5, 411b5-7; 2.1, 413a4-7.

because the activity of *voεĩv* marks for him a specific cognitive achievement, which is a direct and veridical form of cognition that is best understood in the context of his theoretical science.

The majority of readers, however, seem to assume that Aristotle has in mind some kind of general notion of thinking, rather than any specific form of cognition, in his considerations of the intellect in *De an.* In this work I will provide reasons against this view with a close reading of the characterizations that Aristotle gives of the intellect's noetic activity, focusing especially on the early part of the context that begins his positive doctrine of the intellect (*De an.* 3.4, 429a10-29). A close reading of this context shows that Aristotle intends to explain the intellect by referring to a specific noetic activity, which is discussed in terms of reception of forms. Furthermore, Aristotle's considerations on the nature of the intellect as faculty shows that he is not discussing our ordinary conception of thinking but something rather exceptional, discussed in this work in terms of limitlessness or neutrality. Further considerations also show that the faculty of the intellect is separated from, rather than conflated with, the various forms of cognitive activities that are in this work discussed in terms of discursive rationality. The noetic activity, discussed in terms of limitlessness or neutrality, that Aristotle ascribes to the intellect in the late context of *De an.* is best understood in the context of his theoretical science, as it is laid out in the work of the *Analytics*. This narrows down significantly the role of the intellect in Aristotle's psychology from the general, with which it is tasked by majority of readers of the psychology of *De an.*

Although the topic of the intellect is quite widely studied in contemporary research of *De an.*, most the studies on it seem to have focused primarily on ontological questions. Most readings seem to want to place the intellect into an ontological picture, where it is seen in continuation with the lower capacities of the soul, perhaps dependent in some sense on them. But a closer reading shows that this task of explanation is not the focal point of the context where Aristotle aims to define the intellect as faculty of the soul. Not many studies have been dedicated to the question of what kind of activity is implied by the central account of the intellect in *De an.* 3.4. In the context where Aristotle defines the intellect according to its noetic activity he focuses on the activity of reception (*δεκτικός*), which implies an account of causal determination, as explained by David Charles (2000, 110-46). I argue in section two of chapter three in this work that the fact that the activity of the intellect implies a causal picture prevents us from thinking of Aristotle's notion of noetic activity of the intellect in terms of ordinary

thought. It is plausible to think that Aristotle's notion of noetic activity of the intellect is in some sense independent or separate of the various psychological phenomena, which belong to the common account of the soul. As I explain in chapter two, Aristotle assumes for the intellect a separate treatment due to its separate nature.

The intellect receives a specific treatment due to its exceptional nature in the ontology of *De an.* The intellect is in several places characterized as somehow separate or separable (χωριστός),⁴ although, as Sarah Broadie (1996, 163) notes, Aristotle is not too explicit in *De an.* about what is the intellect separate from. The characterizations of the intellect as separate have given ground to speculations about its relation to the body, characterized in terms of mind-body problem, familiar from contemporary philosophy of mind.⁵ There is a live debate about the ontology of the intellect.⁶ But in the limits of this work I will not approach the ontological topic of the intellect, which can be seen as logically separate from the topic of its cognitive activity. Indeed, as Caleb Cohoe (2014, 601) notes, the best way for understanding the role and character of the intellect as faculty or power is by focusing on the specific activity that belongs to it, following the programmatic idea of *De an.* (2.4, 415a15-22). In what follows I challenge the plausibility of treating the intellect as a general faculty, such as 'the mind'. Instead, when Aristotle defines the intellect as noetic faculty (τὸ νοητικόν) as the place of forms (3.4, 429a27-9), he has in mind a specific and narrowly defined psychological capacity, not our ordinary, run-of-the-mill notion of thinking. In *De an.* Aristotle operates with a distinction, which is unfortunately not made too explicit in the text, between noetic and discursive planes of rationality, where the former but not the latter is considered as the proper activity of the intellect by which it is defined.⁷ While our ordinary notion of thinking refers to the activity of forming ideas and thoughts, Aristotle's notion of noetic cognition has a specific noetic object, which is best understood in the setting of

⁴ *De an.* 1.1, 403a3-16; 1.4, 408b18-9; 2.1, 413a4-7; 3.5, 430a17-25.

⁵ See Charles' recent monograph 2021, *The Undivided Self*, for reformulation of this problem in Aristotelian terms.

⁶ See for example Broadie 1996, Caston 1996, Modrak 1991. Gerson (2004) argues that there is really only one unified intellect in Aristotle's psychology, which seems to agree with Burnyeat (2008), which is "not in need of any deflationary therapy" (Gerson 2004, 349), against the conceptions of such naturalists as Wedin (1988), who aim to distinguish a separate human intellect, which possibly could afford a naturalist analysis (as Caston 1999 also speculates), from Aristotle's divine intellect of *Met. Λ.*

⁷ The main difference is between τὸ νοητικόν and τὸ διανοητικόν (2.2, 413b13; 3, 414a32; b18; 3.7, 431a14), between noetic and discursive faculties of the soul. This distinction can be associated to the distinction between demonstrative and non-demonstrative or unqualified knowledge in *APo* (1.2, 71b9-12), which has precedence in Plato's metaphor of the divided line in the *Republic* VI (509d6-511e5), where the two highest segments of the line can be associated to διάνοια and νοεῖν in Aristotle's psychology. See Bronstein 2016, 8-9.

explanatory sciences. The intellect, as faculty, is in Aristotle's view not the actual locus of forms but only the dispositional capacity for reception being determined by its activity of reception of forms.

A few words about the limits of the scope in the current work: This work does not aim at an exhaustive discussion or exegetical overview of the topic. The topic of the intellect contains undoubtedly some of the most contested questions in Aristotle. The treatment of the intellect in *De an.*, especially in *De an.* 3.5 (which is one of the most obscure of Aristotle's whole philosophical edifice, as Johansen 2012, 237 notes), is extremely difficult and contains many vexing issues, which are left open in the boundaries of current work. Due to the specific focus of the current work on the cognitive activity, I will not be able to give an extensive discussion for questions relating to the ontology of the intellect in *De an.* Consequently, the relation of noetic activity of the intellect to various other forms cognitive activity, such as perception and reasoning, which belong to the common account of the soul, is left quite abstract in the current work. For the purposes of the argument of the current work I have to simplify the picture of rationality in Aristotle's psychology to fit into the distinction between noetic and discursive rationality, although this arguably can be found in the text and is used by many other readers as well, as I will show in this work. Further research could be made with more fine-grained distinctions between forms of rationality in Aristotle's psychology, especially in the context of agency. In this work my aim is to assess the argumentation about the role and nature of the intellect in Aristotle's psychology with a close reading of characterizations of intellect as receptive (δεκτικός) and potential (δύναμις) in the context of *De an.* 3.4-6. An important follow-up question in this regard would be, can Aristotle's notion of noetic activity be considered as basically discriminative (κρίνειν).⁸ Moreover, in the current work I will not approach the question of how to apply the three stages of potentiality and actuality, in Aristotle's model of affections of the soul of *De an.* 2.5, to the faculty of the intellect.⁹ An exhaustive discussion about the intellect should take these issues all into consideration, but it would be unreasonable to promise that in the boundaries of the current work.

⁸ In 3.4, 429b10-22 Aristotle discusses the difficult questions of how to discern the essence of perceptible objects, such as flesh and water, on the one hand and on the other hand pure essences (τὸ δὲ τί ἦν εἶναι, 429b19). For a discussion about the discriminative capacity Aristotle's psychology see Perälä 2018.

⁹ See Burnyeat 2002; 2008, 19-28, Vasiliou 2013, 171-2.

1.2 Issues in translation

Although the current work professes to be a philosophical rather than philological treatment of the topic, one of the main issues in it is how to translate the main terms *νοῦς* and *νοεῖν*. The main argument of this work relates to the different ways of understanding the meaning of these terms. There is an issue about how to approach these Greek terms from the contemporary perspective, as I aim to show in this section. This argument becomes more fully developed in chapter three. But here I want to emphasize the fact that we cannot just presuppose that we have a ready meaning for these terms and just translate them without an explicit argument, which is based on careful reading of Aristotle's treatment of them in his text (although this kind of practice might be more prevalent than one would expect). The way that we choose to translate these terms is going to colour the way that we read their role in Aristotle's psychology, but this translation itself must be based on an argument about how to see their role in the system as a whole.

Νοῦς has emerged as an especially problematic or even disconcerting notion for readers of Aristotle's psychology in this regard. There seems to be no clear consensus about the way to translate it, and some even prefer to leave it altogether untranslated (Menn 2020; Vasiliou 2013). The ordinary meaning of *νοῦς* in Greek is 'the mind' (LSJ). The mind in this sense is something that enables having a belief, espousing an idea, or producing thoughts. In a broad sense it can also denote sound understanding or common sense (Reeve 2017, 75). For the philosophical use, though, no English term can be the perfect equivalent. All choices are in some sense compromises, which might be an argument for leaving it untranslated. In older translations of Aristotle's text of *De an.* it has been treated often as 'the mind',¹⁰ but luckily this is not a prevalent practice anymore today. The main problem with treating *νοῦς* as 'the mind' is that it risks suggesting that what Aristotle is concerned about, in his discussion of *νοῦς*, is just the common conception of the mind, the mind that thinks, perceives, imagines, and so on, which is familiar from the contemporary discourses about the mind, but quite questionable from the Aristotelian perspective. Even at the outset one can say that this is the least applicable translation. There are many good reasons, but the main reason that I want to emphasize is that it would be extremely odd for the common notion of the mind to be something that can be defined in contrast to sense perception, because, as noted already, the

¹⁰ As in Hicks 1907; Ross 1961. Also Lear 1988, Wedin 1988, and Driscoll 1992 treat it as 'the mind'. In more recent times Polansky 2007 has adopted this approach.

common notion of the mind includes perception as one of its functions.¹¹ As I will show in this work, Aristotle defines *νοῦς*, as a faculty of the soul, according to its function. And its function, *νοεῖν*, is in turn defined in contrast to sense perception. Mind is something that includes perception to its functions, but it would be patently wrong to think that perception is a function of *νοῦς*.

In this work I will settle for the neutral term ‘intellect’, although this, as noted, represents a compromise. But it can be noted that ‘intellect’ is very prominent choice in contemporary literature on Aristotle’s psychology for translating *νοῦς*. The other two viable options, in my view, are ‘reason’ (Shields 2016) and ‘*the* understanding’ (Reeve 2017), because both of these terms capture the special sense that *νοῦς* has as a faculty of the soul. Stephen Menn (2020, 126), however, takes issue with using the term ‘intellect’ and prefers to leave *νοῦς* untranslated, because in Aristotle the intellect can mean an acquired state (ἔξις), as well as the dynamic capacity of our soul. It can also denote in Aristotle a separate, higher beings (as I explain in chapter two), and for Menn it would be odd if we were able to talk about higher, separate ‘intellects’ in this way. But, on the other hand, I do not see how the term ‘intellect’ could not be fitted to this role, because the term is quite neutral and capable of capturing many different meanings. If we are able to bear with the oddity of talking about separate, higher intellects, then there is no reason not to use the neutral term ‘intellect’ for translating Aristotle’s *νοῦς*.

The only real problem, in my view, in translating Aristotle’s *νοῦς* as ‘the intellect’ is how to translate its cognate verb *τὸ νοεῖν* (as Burnyeat 2008, 15 recognizes). ‘The intellect’ seems to lack a cognate verb in current usage.¹² This brings the main problem of current work to the fore. There is a controversy amongst contemporary readers as to how to understand the role and function of *νοεῖν* in Aristotle’s psychology. This controversy is not too often confronted by readers of *De an.*, which risks presupposing that we have a ready understanding of how Aristotle’s use of the term without an explicit argument. The term *νοεῖν* seems to allow for various, even opposed readings, depending on what kind of cognitive activity one sees Aristotle discussing with it, that is, depending on the role that one interprets to it in Aristotle’s psychology. This dispute can be boiled down to the contrast between two, sharply opposing views about the function of *νοεῖν*, which in this work are discussed in terms of broad and narrow

¹¹ Burnyeat (2008, 11-4) gives an informative account of how the contemporary notion of the mind is broadened by the Cartesian turn to include also perception to its functions.

¹² ‘Intellection’ does not seem too do the trick.

reading. I will explain this contrast more fully in chapter three, but the gist of this contrast is between readers who take Aristotle's concern to be with our ordinary, run-of-the-mill notion of thinking, which I call the broad reading, and readers who take Aristotle to have some kind of special focus in discussing the intellect as a faculty, that is, some kind of exceptional part of psychology that cannot be captured by using only our ordinary notion of thinking. The broad view is most prominently represented in contemporary discussion by Johansen (2012, Ch. 11). In this work my aim is to give reasons for supporting the latter view and to argue against the reading provided by Johansen. I argue that the broad reading of the intellect, as a general faculty for 'thinking', risks presupposing that there is no special function denoted by the term *voeĩv*, and that this gives reason for detaching the notion of the intellect in the psychology of *De an.* from the notion of the intellect that is tied to Aristotle's picture of epistemology, as explicated in the *Posterior analytics*. While I cannot go into it more fully in this work, it is clear that the picture of epistemology that is presented in the *Posterior analytics* narrows down significantly the role of the intellect. Rather than thinking of Aristotle as separating his notion of the intellect in his psychology from his epistemology, a close reading of his characterization of the intellect in *De an.* shows a structural similarity in the role assigned to the intellect in both. Since the notion of intellect in *De an.* can be accommodated to the picture of epistemology, as I argue, the activity of *voeĩv* that Aristotle allocates to it should not be treated as his general notion of thinking, but instead something along the lines of immediate and veridical form of understanding, as already argued by Myles Burnyeat (2008). The upshot, then, of the current work, if successful, is to provide additional support for the reading that Burnyeat develops and to argue that the reading that Johansen places against him is unsuccessful. I aim to substantiate Burnyeat's reading further by providing certain pieces of evidence for what I call the narrow reading of the role of the intellect. The definition of the intellect follows Aristotle's standard procedure of defining cognitive operations in the way that they are actualized in the most optimal conditions, as argued by David Charles (2000, 116): a capacity of the soul, such as the intellect, is defined by for Aristotle what it can do when it is at its most successful.

Burnyeat's central claim is that the intellect that Aristotle discusses in the *De anima* book 3 is the same intellect as the divine intellect of the *Metaphysics* Λ (Burnyeat 2008, 9), which is, as he admits, "of course a contentious interpretation," which fits well with another claim, namely anti-naturalism concerning states of the thinking mind: "One of

the lessons we gain from the history of philosophy is that psychological states are not given to us as part of the natural order.” (Ibid., 10.) The point is that the way that we conceive the mind philosophically, in any given historical epoch, is determines to a large extent what it is. Another way of putting it would be that there is no pre-determined way of conceiving the nature of the mind, since philosophy of mind is not a matter of recording things that are fixed by some antecedent natural state of things.

The standard choice for translating for *νοεῖν* is as 'thinking'. This choice can be seen as reflecting the preference of what I have called above the broad reading. There are, as I see it, three main reasons for preferring the broad reading, the first of them quite general and the other two more substantial. The first reason is that perhaps it is more intuitive, for contemporary approaches to Aristotle's psychology of *De an.*, to think of the treatment of rational soul to be with an explanation of the activity of thinking, that is, with the task of explaining the capacity for producing thoughts and ideas in the mind. For this approach some emphasis is placed on the fact that in ordinary Greek *νοῦς* and *νοεῖν* do not have any restricted, technical meaning, and maybe, for some readers of Aristotle, it would be preferable not to see him as abandoning the ordinary sense use of these terms (see Madigan 2013, 182-3). However, as anyone who has had contact with Aristotle's use of these terms have to admit, at least in their definitive use, they do contain a highly specific and technical sense for Aristotle, and this use might seem alien from the ordinary viewpoint. It is not an argument for the broad view that Aristotle's use of these ordinary terms seems alien from the viewpoint of non-philosophers, because it is a customary practice of philosophers to take terms away from their ordinary context and develop them further in their philosophical usage.

The second reason for the broad view is that *νοῦς* and *νοεῖν* do seem to be sometimes used by Aristotle in a broad sense, as a genus covering various loosely related cognitive states, or as an umbrella term without denoting any specific activity. But this is not as prominent practice in Aristotle's discourse as the broad reading would have us expect. In *De an.* 3.3 Aristotle seems to be using the term *νοεῖν* in a general, unspecified way, mainly to distinguish it from perception (427b28). In *De an.* 3.4, 429a10-11 Aristotle begins the inquiry into the intellect by considering it as “that by which the soul knows (*γινώσκει*) and understands (*φρονεῖ*)” further specifying, in an offhand way¹³ later, that “by intellect I mean that by which the soul reasons (*διανοεῖται*) and supposes

¹³ Indeed, in a sentence which Ross has put into parentheses.

(ὕπολαμβάνει)” (429a23). The generality of the cognitive terms associated to the intellect, as a faculty, is taken usually to indicate that the faculty itself also has a general, broad function. For example Deborah Modrak (1987, 114) states that, since these terms do not have any strict epistemological connotation, this gives “a final bit of evidence that the faculty referred to as” the intellect as noetic faculty “is the general capacity for intellectual activity possessed by a human being”, rather than a capacity that points towards some exclusive or special form of cognition. However, this is less than a final word on the issue.

It is evident that the kind of activity of *νοεῖν*, that Aristotle focuses on in *De an.* 3.4-6, does in fact denote a specific form of cognition, which is veridical in its activity of reception of forms, as explained in the chapter three of current work. The broad reading threatens to suggest the implausible thesis that, for Aristotle, there is no specific cognitive activity denoted by the term *νοεῖν*, since it seems to allow for *νοεῖν* only the taxonomic function in Aristotle’s psychology of gathering various cognitive states under one universal heading. I argue that, even if there is some kind of loose connection of *νοεῖν* to these various cognitive terms, this does not do away with the crucial difference that Aristotle establishes between *νοεῖν* and the various cognitive terms which are associated to it in some way. The main difference, as I explain in the following section, can be placed between two forms of rationality, discursive and noetic rationality. Aristotle, in associating various terms to *νοεῖν*, such as knowing (in the ordinary sense of *γινώσκω*), understanding (*φρονέω*, which is usually taken as practical understanding) and thinking (*διάνοια*) to the intellect, may have many different implications in mind, and the connection between *νοεῖν* and these terms is rarely explored in any length in the literature.¹⁴ The context of *De an.* 3.4 does not seem to offer much material for establishing anything else than that there is some kind of relation between them. However, the nature of this relation is not the focus of the current work but must be sought in elsewhere. In this work I focus on the function of *νοεῖν* and emphasize the asymmetrical nature of this relation: the intellect is posited, for Aristotle, as a prior, basic faculty in relation to various discursive functions, as a faculty whose characteristic and defining function of *νοεῖν* denotes a highly specific form of cognition, not our ordinary notion of thinking. It is due to the nature of this activity that the intellect can be seen as standing in a prior, asymmetrical relation to various forms of

¹⁴ An exception in this regard is given by Pritzl 1984, who explores the connection of the intellect and thinking (*διάνοια*) in *De an.* 3.4 and 3.6.

discursive rationality. Furthermore, it is possible to take the relation between discursive rationality and *voεĩv* as analogous to the relation that Aristotle establishes between demonstrative and non-demonstrative forms of knowledge in his epistemology: discursive rationality belongs to the order of demonstration, whereas *voεĩv* denotes a direct grasp of forms as starting-points of demonstration.

The third, and final reason, is that there is also an odd occurrence, where Aristotle seems to allow falsity for *voεĩv* (*De an.* 3.3, 427b9).¹⁵ For the intellect to be capable of also comprising falsity in its activity, the broad view argues, the intellect cannot stand for the kind of specific role that it evidently has in Aristotle's epistemology. Therefore it would be better to translate the intellect's activity as 'thinking', because, similarly with this construal of *voεĩv*, it does not seem to be the case that the ordinary notion of thinking has a truth-entailment either. Thus we also have reason for detaching the notion of intellect discussed in *De an.* from his notion intellect that is incorporated into his epistemological edifice, as explicated in the *Posterior analytics*. However, this argument is perhaps the easiest to dissolve. The overwhelming majority of occurrences of *voεĩv* show Aristotle insisting that it is strictly truth-entailing. But rather than placing Aristotle into contradictory position, one must show that he does not dissolve the relation between *voεĩv* and discursive rationality,¹⁶ as the broad reading would have us assume. If we do not recognize the difference between these two, serious problems loom, as Burnyeat (2008) argues.

My argument is that, in the three crucial chapters (3.4-6) which contain the nucleus of Aristotle's doctrine of *voδ̃ς*, the definitive activity of *voεĩv* does not denote our ordinary, run-of-the-mill notion of thinking but a highly specific form of cognition which is veridical and direct contact with forms (*εĩδος*) as starting points of theoretical knowledge. The overwhelming majority of Aristotle's considerations of *voεĩv* show that for him it is a veridical form of cognition that has certain special object to it, and this object cannot be understood without relating it to his picture of epistemology. Moreover, Aristotle's considerations in this context do not do away with the crucial difference that he establishes in his psychology between ordinary forms of thinking and *voεĩv*. For this reason it is wrong-headed to translate *voεĩv* as 'thinking', as I will aim to

¹⁵ As I discuss in 3.5.1, in *De an.* 3.6, 430a27-b6 Aristotle distinguishes the receptive function of *voεĩv* from combinatory function that also belongs to *voũς*, which broadens the role of *voũς* and seems to allow for it also falsity. This combinatory side of *voũς* is given a separate treatment, which is why it does not affect the role of *voεĩv* as veridical reception of forms.

¹⁶ Indeed, it is *διανοεĩσθαι* that affords falsity, not *voεĩv*, in 3.3, 427b13.

explain further in chapter three of this work. *Noetiv* denotes for Aristotle a highly specific form of cognition, and it is translated in this work as ‘noetic cognition’ to preserve this specific meaning. ‘Cognition’ could perhaps apply as translation of *noetiv* as well, were there no requirement of truth-entailment involved for it, as David Bronstein (2016, 16-7) argues. There is a clear truth-requirement for *noetiv* which does not seem to apply to ordinary use of the term ‘cognition,’ since, as Bronstein (ibid.) claims, there can be such a thing as false cognition as well. The qualification of ‘cognition’ with ‘noetic’ in translating *noetiv* should suffice for restricting it to veridical cognition. ‘Noetic’ can be taken as referring to the apprehensive activity of understanding, which can be contrasted to the grasp of sensuous data by the sense faculty.¹⁷ It may be taken as denoting the apprehension of the true meaning of an object of theoretical inquiry. This is an activity of the mind which presupposes something stronger than sense perception and the various capacities that rely on it, such as memory and experience (in Aristotle’s sense of the term). For example, when our sense faculties receive sensuous information about lines and dots of ink on a paper, this activity alone does not yet grant us with the true meaning of the theoretical item in question. A separate noetic activity of apprehensive capability is required for this purpose. Understanding the true meaning of a theoretical item is not a matter of seconds, as the activity of forming a thought might be for most people, but the result of a period of sustained effort, but perhaps also leisure (in the sense of *σχολή*), of philosophical inquiry.¹⁸ It would also make sense to translate *noetiv* as ‘understanding’ as well, instead of the standard ‘thinking’ (for which Aristotle’s term is *διανοεῖσθαι*), so as to preserve its veridical and direct nature, as Burnyeat (2008, 18-20) argues, but in this work I prefer to use terms that are more neutral in contemporary use, so as to presuppose as little of it in advance as possible.

1.3 Aristotle’s rationalism

Rationalism can be defined as a philosophical position that places certain precedence to reason or rationality. But there are many ways of placing precedence on reason or rationality, and the term ‘reason’ also does not seem to have any universally shared meaning. It is a philosophical commonplace to say that Aristotle defines human beings as rational animals (e.g. in *NE* II.1). A human being is in some sense a rational being,

¹⁷ See Kahn 1992, 361-4 for a broader sense of ‘noetic’ in the sense of human culture.

¹⁸ Perhaps it would be interesting to discuss Aristotle’s notion of noetic cognition in terms of pattern recognition, since noetic cognition is for Aristotle defined in reference to forms, and forms can be taken, in the Aristotelian ontology, the patterns or structures governing the being of things, for example the structure or pattern of water or flesh (429b10-22) as it is discernible from instances of water or flesh.

which is to say that rationality, in some form or another, constitutes the characteristic trait which separates humans from other sublunary creatures.¹⁹ But it is far less well recognized, what notion of rationality is included into Aristotle's philosophy. The term 'rationality' itself can have many different meanings. In its ordinary usage it is taken as something that can be contrasted to irrationality, to courses of action and beliefs that go against common sense or good reason. What is rational, in this ordinary sense, is just something that ought to be opted for in any given circumstances. But rationality can also serve a more informative philosophical role in designating the various cognitive capacities that enable certain high-order activities, usually involving the use of language, concepts, and high order reasoning. Gregorić and Grgić (2006) argue that in Aristotle we have to distinguish between two forms of rationality, between what they call basic rationality and noetic rationality. The main argument of Gregorić and Grgić (ibid.) is that we have to distinguish between rationality, in its basic and noetic forms, from Aristotle's notion of experience, ἐμπειρία, as it is involved in his picture of development of knowledge in *Met. A* and *APo* 2.19. This enables to take experience in Aristotle as unified capacity or disposition, which concerns the accumulation of facts concerning particulars and, coupled with rationality, allows for organizing facts into a coherent, universal proposition (ibid., 30). Basic rationality, or what in this work is discussed as discursive rationality, denotes the various cognitive capabilities that are implicated in acquiring, expressing, applying concepts, and in the process of forming judgements about things. Discursive rationality is enough for forming propositions and universal judgements of the kind 'All *x*'s are *F*'. But this kind of rationality is not the only one, and, indeed, not even the fundamental one in Aristotle's philosophy of rationality. Aristotle keeps this, as Gregorić and Grgić (ibid., 23 n41) argue, separate from the higher order rationality, which they call *noetic* rationality, which is a capacity that "enables one to achieve immediate grasp of the most fundamental and self-explanatory items" of theoretical sciences.²⁰

All humans by nature desire know (*Met. A*.1, 980a21), which is supported by the fact that we enjoy our senses even independently of their practical utility. In a famous passage Aristotle (981a1-5) explains that true knowledge grows out of experience

¹⁹ It is actually Alexander of Aphrodisias who draws the line between human and animal beings with the criteria of rationality (see *In de an.* 30.9-10), distinguishing humans as what is rational in contrast to the irrational. Although implicit, this is "never explicitly drawn by the Stagirite" (Fotinis 1979, 293). In this work I will not focus on the problem of what kind of rationality is best seen as characterizing humans.

²⁰ *De an.* 2.3, 2.3, 415a8-12 clearly shows, as Burnyeat (2008) also argues, that Aristotle draws this distinction in his psychology, see also 3.10, 433a12-5; *NE* VI.1, 1139a3-15; *Pol.* VII.15, 1334b10-25.

(ἐμπειρία). Aristotle's notion of experience is usually taken as emphasizing certain empiricist leanings. Experience is something that is gathered from memory (980b28-1a1), and memory in turn is grounded in particular instances of perception and the individual senses. There is a temptation to take knowledge for Aristotle as reducible in certain sense to particular instances of sense perception. But the crucial obstacle of this reading of Aristotle's epistemology is that true knowledge requires grasp of items that are not yielded by mere sense experience, namely of causes and principles of knowledge (ἀρχαί).²¹ For Aristotle the search of ἀρχαί, of principles, is the search of the cause of the being of things, which are the elements or grounds that account for them being what they are. Principles are the secure ground of things that exist, and in Aristotle's epistemological sense they refer to the most basic, indemonstrable objects of knowledge, which secure the grounds for all demonstrable knowledge. This is to incorporate principles as structural elements into epistemology. Principles owe their status as principles of knowledge by being, as Michael Frede emphasizes, by being "seen by reason to be immediate truths" (emph added, Frede 1996, 157). The analogy with seeing, as we shall see in this work, is central to Aristotle's theory of the intellect in his psychology. The driving assumption of Aristotle's rationalist epistemology is that we have to transcend experience to gain true insight into the principles of knowledge, which Frede (ibid., 158) takes as the epistemological lesson of both *Met. A.1* and *APo 2.19*. It is only when we have been able to establish universal and necessary connection between our objects of knowledge that we can be said to have true knowledge of the issue at hand and, as Frede emphasizes, this is possible only by possession of the powerful cognitive capacity faculty of reason or intellect (ibid., 161-2). This makes, as Frede (ibid., 158) emphasizes, all knowledge strictly speaking into rational knowledge. Knowledge is for Aristotle true on the basis of being grounded in principles, but also by being about the universal nature of the issue at hand (981a5-12). Senses and the various derivate capacities from the senses enable us to know only facts but not causes.²² Experience, even at its most developed state, will fall short of producing knowledge of

²¹ The word for principle, ἀρχή, refers back to Anaximander's fragment about ἀπείρων, infinity, and in this Archaic period it has the meaning of "the source, origin, or root of things that exist" (Sandywell 1996, 142). Well-established or founded things must have their principle or origin secure, and the most secure ones are those provided by the gods, the "immutable and eternal orderings of things" (ibid., 143). To search for ἀρχή is to search for well-established grounds. Originally it did not have a causal denotation, but this comes from later innovations of Plato and ultimately Aristotle. This transforms the archaic meaning of ἀρχή into the indemonstrable, immutable conditions of possibility of things (ibid.).

²² A point about perception that is repeated in Aristotle's epistemological considerations of the *Analytics*, see *APo 1.31*, 87b39-8a8.

causes and principles (981a21-3). A person who has experience only knows *that* something is the case, but a person of science and art knows also *why* it is the case (981a24-30, see also *De an.* 2.2, 413a13-16). Senses enable us to know facts, but they do not yield knowledge of what Gregorić and Grgić call *explanatory items* (*ibid.*, 6). Explanatory items are items of knowledge that are not grasped by the sense faculty, but they are just as real as perceptible items as “part of the inventory of the world” (*ibid.*). Knowledge of them is knowledge of a superior sort, because explanatory items are *causes* of things: their presence is what “explains why these things are what they are and behave in the way they typically do.” Gregorić and Grgić take the lesson about knowledge (in 980a21-1a12) to be that the capacities of the soul are organized, for Aristotle, in such a way as to be capable in proper conditions to “cause the realisation or acquisition of higher cognitive capacities or dispositions.” Higher cognitive capacities enable superior form of knowledge, and the highest capacity, noetic rationality, will afford the most perfect knowledge available. Knowledge of ultimate kind is for Aristotle wisdom (σοφία), theoretical knowledge of first causes and principles. (*Ibid.*) Theoretical wisdom is the most exact form of knowledge and concerns the ultimate starting points and causes of things (*NE VI.7*, 1141a9-20).²³ The specifically human drive to knowledge (*ibid.*, 7), “manifest at the lowest level in the love of the senses, is ultimately fulfilled in the understanding of the first causes and principles.”

Human beings’ use language and concepts, which is constitutive of discursive rationality, allow for forming universal propositional thoughts, which improves tremendously our ability to organize facts. This is an activity which is based on various observations and stored in memory. Universals, which discursive rationality uses, enable us to cognitively organize things and form general judgements, but they do not, “without further qualification,” as Gregorić and Grgić emphasize, explain anything (*ibid.*, 26). Discursive rationality enables to form propositions and universal judgements about facts. But it is, for Aristotle, altogether different thing to form a universal judgement on the basis of experience than to form universal judgement on the basis of noetic rationality. Experience can enable one to form universal judgement; what distinguishes experience from art and science is not its lack of generality “but lack of explanatory power” (*ibid.*, 18). When discussing judgement that belongs to art (981a10-2), Aristotle’s (*ibid.*) “emphasis is not on its universality (πᾶσι) as much as on the fact

²³ Wisdom does not denote a single genus but separates into practical and theoretical, but in the scope of this work I will not be able to discuss practical wisdom.

that it makes use of one explanatory item,” eidetic object or form (τοῖς τοιοῖσδε κατ’ εἶδος ἐν ἀφορισθεῖσι).²⁴

In a sense, everything required for knowledge is for Aristotle already included into experience. But if mere experience were enough, there would be no reason to distinguish between causes and facts, because recognition of causes as causes would be already attainable for experience. What experience lacks is what Frede (1996, 160-2) calls insight into universal, salient traits of objects of inquiry. For this purpose another, more powerful form of rationality is required, namely noetic rationality. Judgements on the basis of experience are judgements that lack short of picking and making use out salient, explanatory traits, whereas judgements of art and science “are informed by an insight into them” (Gregorić and Grgić 2006, 18). As in Aristotle’s medical example (981a5-12), where a person is capable, on the basis experience, of forming a judgement about what is efficient for treating certain persons of certain disease, universal judgement of experience “is always particular-oriented, since the only justification that can be given for it comes from particular cases” (ibid., 19). Recognition of an explanatory item in a field of science or art, as Gregorić and Grgić argue, has little if anything to do with memory, perception, or experience, “whether aided by concepts and language or not, and everything to do with an altogether different, higher cognitive capacity” (ibid., 20). There is no intermediate state for Aristotle between scientific knowledge and experience, which is why experience must somehow already contain all the relevant information, including principles of knowledge, as Gregorić and Grgić (2006, 21) note.²⁵ However, the way that experience provides principles is an extremely vexed question in Aristotle’s epistemology. Gregorić and Grgić (ibid., 22ff.) read clues from the notoriously difficult chapter *APo* 2.19 about this issue, where they read 99b34-100a3 as explaining how *λόγος*, taken as the capacity of reason, develops out of experience when universal settles in the soul.

Judgements formed on the basis of experience do not require universal justification. Universal justification, as explained above, is for Aristotle is the criteria of true knowledge. Judgements of art, in contrast, are “based on insight into the relevant

²⁴ An alternative conception might be provided by Modrak, for whom the crucial thing about the noetic activity of the intellect is not recognition of explanatory power but the level of generality or abstraction of the object; the noetic object, in her reading, is only “abstracted from or built up by *generalization* from the data of sense” (Modrak 1978, 123, *emph. added*); the noetic object is constructed by the mind “by ignoring the particularizing and concretizing features of sensible objects” (ibid., 125).

²⁵ This is stated in *APr* 1.30, 46a17-22.

explanatory items, which provide justification of their truth” (ibid., 21). In a field of explanatory science, some items “are more explanatory than others.” Aristotle thinks that there are also items in a domain of science “which are self-explanatory.” Insight into these items of a field of science “explain all other items, but which themselves stand in no need of explanation. Such items are *principles* of a domain. So, to have full master of an art or science, a person has to be able to grasp the principles of that art or science” (ibid., *emph. in original*). For Aristotle, to understand a field of science or art is to understand how to grasp the principles of that art or science. This picture of rational epistemology requires an immediate and veridical cognition of eidetic objects, forms and principles of knowledge, and it is this kind of cognition that I see Aristotle as focusing on, when discussing his notion of intellect in the central chapters of *De an.* (3.4-6). What is at issue in the context, where Aristotle approaches the task of defining our higher cognitive capacities in his psychology, is not some kind of ordinary form of thinking, as the standard translation of *νοεῖν* as ‘thinking’ suggests, but an altogether different and higher form of rationality, which can be discussed in terms of noetic rationality, as I aim to argue in chapter three. Noetic rationality is required for reception of the highest, most explanatory objects of knowledge, which are discussed as forms and essences in the context of *De an.* 3.4-6. What one must understand about the form of rationality in this context is not the collection of the lower capacities of the soul, perception, memory, taken with discursive rationality, but rather the idea that there is a higher, more powerful capacity that is necessary for gaining true theoretical knowledge.

Noetic rationality denotes the activity that belongs to the intellect and narrows its role in our mental life. In *APo* the intellect is called principle (*ἀρχή*) of theoretical or scientific knowledge (in the strict sense of *ἐπιστήμη*, 1.3, 72b24; 33, 88b38; 2.19, 100b15). The object of the kind of activity that belongs to noetic rationality is what Aristotle, following Plato, calls form (*εἶδος*), which is an item that is present in particular items of knowledge and is responsible for them being what they are (ibid., 28). They are the causes of being of objects of philosophical inquiry, and knowledge about them explain their existence. Hence, they can be called explanatory items. The sequence of different stages from perception, memory, experience, to true knowledge is not a sequence that culminates in highest universality, but it is a sequence that terminates in achieving explanatory power in a field of theoretical knowledge. The crucial qualitative shift takes place between last two stages of knowledge, between experience and noetic rationality. The role of the intellect is to enable this qualitative shift in gaining true knowledge. One

could say that the role of the intellect is not to add anything to a domain knowledge, but only to enable this qualitative shift in the accumulation of knowledge (in the strict sense of ἐπιστήμη). Experience already contains everything necessary for knowledge, but experience is blind to the explanatory power of some items in the domain of knowledge: experience does not recognize the causes among the items of inquiry (ibid., 29).

Recognizing that a cause is the cause of a thing is the role of the noetic activity of intellect, of noetic cognition (in the sense of νοεῖν). In Aristotle's epistemology the intellect is taken as responsible for the necessary insight into the principles that govern a field of science, allowing for the explanatory item to settle in the soul.

1.4 Alexander's reading

The traditional name for the doctrine discussed in this work is potential intellect (νοῦς δυνάμει, Fotinis 1979, 301). This is a name that is introduced into Aristotelianism by the first great commentator, Alexander of Aphrodisias, "the best and most purely Aristotelian of the ancient commentators" (as Burnyeat 2008, 36 claims). The view expressed in the current work is in conformity with Alexander's traditional reading, according to which the intellect as part of the soul is never the actual locus of forms but only the dispositional power for participation into forms. The potential intellect is also characterized by Alexander as the material intellect (νοῦς ὑλικός), which does not signify another intellect but only clarifies the way that the potential intellect acts as matter for the reception of forms (Fotinis 1979, 286; 159; 301-7): "whatever has the capacity to receive something is matter with respect to the thing received" (*In de an.* 1.81.24-5, translations of Alexander's text are by Fotinis). Material intellect of the soul, curiously enough, is non-material; matter only refers to "that substrate which can become this or that particular thing through the presence of some form" (*In de an.* 2.106.20-1). The comprehensive scope of the potential or material intellect gives its characteristic trait, discussed in section three of chapter three of this work in terms of limitlessness or neutrality. The intellect is separate from matter by being capable of becoming all things, by being capable of receiving the form of all things, which is to say that the potential intellect is in some sense infinite or neutral (429a18-22; 3.5 430a14-5). The material or potential intellect, for Alexander, "embraces everything that exists, since everything is a possible object of knowledge; this fact is what it is to be an intellect which is potentially all that exists" (2.107.8-11). The comprehensive scope of the intellect, as the highest power of human soul, is such as to encompass all possible objects of knowledge. This is what is indicated by the most important characterization about the intellect, πάντα νοεῖ (*De an.* 3.4, 429a18).

Alexander is also responsible for introducing the distinction within the intellect into agent (ποιητικὸς νοῦς) and patient (παθητικὸς νοῦς) intellects – although this distinction arguably is present in Aristotle’s text. For Aristotle the intellect, as part of the soul, is nothing in actuality before its noetic activity takes place and has no other nature than potentiality (3.4, 429a21-4). While it is not my purpose to elaborate on this distinction of the intellect on any depth, the separation of patient and agent intellects helps in distinguishing the nature of the topic of current work. Alexander’s reading identifies this potential intellect as the patient intellect (in 3.5, 430a24-5, as Menn 2020, 100 agrees). But Aristotle also recognizes another intellect which is actuality in its essence (τῆ οὐσίᾳ ὧν ἐνέργεια, 3.5, 430a18). This intellect he characterizes as immortal and eternal (430a23). It is possible, with Alexander, to identify this intellect with the divine intellect of the *Metaphysics* Λ, which is Aristotle’s God (see De Koninck 1994). The divine intellect is in its essence actuality without any unactualized potentialities, so that in every moment it is doing the only thing that it ever does, which is a life of eternal, uninterrupted contemplation.

The patient intellect is identified as the dynamic power that exists in our soul as humans. Intellect on this side is seen as the receptive power. Intellect seen on the active side is the power that acts upon the patient intellect. Potential or material intellect is present in us from birth (82.19-20) and it becomes an acquired intellect or habitus (ἔξις) later in life by receiving forms (82.19-83.2). The potential intellect is not, however, ever a locus of actual forms but only the dispositional power for receiving forms. Its activity requires intervention of a separate productive intellect (Fotinis 1979, 286). The noetic operation of the potential intellect requires the act of transcendent intellect, which is identified as the immortal cause of all things (ibid., 287). The power that is ultimately responsible for all noetic activity is the productive intellect, which is a separate, higher intellect that operates by illuminating the intelligible forms to the potential intellect, rendering what is potentially intelligible into actually intelligible. The potential intellect is put into activity by the agent intellect and becomes habitus or acquired intellect. (Ibid., 159.) Acquired intellect or habitus is human power that is developed through learning and instruction, but its actualization requires a transcendent power, which is the immortal cause of all things (ibid., 286-7).

Alexander reads the intellect in *De an.* as the divine intellect (ibid., 157). The intellect is identified with the intelligible object (τὸ νοητόν), which is the divine intellect of *Met.*

Λ.²⁶ For Aristotle the universe is through and through material in the sense that in every part it must have a material aspect and moving cause it (*Met.* Λ.5, 1071a33-4). The first moving principle is for Aristotle without a material aspect and is in its essence (οὐσία) actuality (ἐνεργεία) (Λ.6 1071b20-1). In a step that, as Menn (2020, 96) notes, is not made too explicit in the text Aristotle moves into characterizing the first principle as the intellect and investigates its activity of νοεῖν (Λ.9), arguing that its activity can only concern the first principle itself. Aristotle's first principle is in its essence nothing but actuality with no unactualized potentialities, so that in every moment of its existence it does only what it ever does: νόησις νοήσεως νόησις (1074b33-5).

In Alexander's reading the noetic activity of the intellect requires the intervention of the transcendent, divine intellect. The patient intellect is identified in Alexander's reading with the potential intellect that belongs to human soul, which is read as the capacity for receptive activity on which the agent intellect acts upon as cause (Fotinis 1979, 301-3; 311). Alexander holds that the power that is responsible for intellectual activity is ultimately the agent intellect, which acts by illuminating the intelligible objects to the material or potential intellect, rendering what is potentially intelligible into actually intelligible. The intellect, put into activity by the active intellect, is intellectual habitus (ἔξις) or acquired intellect. While the agent intellect is identical to the immortal divine intellect, the potential or material intellect is read as the capacity of the human soul for reception of forms. (Ibid., 159.) The potential intellect is in Alexander's reading taken as a purely dispositional capacity of the soul (see ibid., 307; 312). The intellect is not, as capacity of the soul, ever the actual locus of forms but merely the dispositional capacity for participating into the actuality of the divine intellect. The actuality that defines the intellect is Aristotle's divine intellect, which acts upon the potential intellect as cause. The dispositional reading of Alexander is opposed by other readings, for example by Theophrastus and Themistius, who opt for reading the intellect as simple and incorruptible substance that exists apart from matter (ibid., 307). St. Thomas Aquinas also considers the notion of material intellect *qua* pure potential to be false: he thinks that pure potentiality cannot be the recipient subject of intelligible forms, for no disposition can be a subject in the Thomist reading (*Summa Contra Gentiles*, II, 62).

²⁶ See *In de an.* 1.87.24-88.5; 89.21-91.6; 2.108.7-26; 109.23-110.3 The identification of the intellect with the intelligible object, as Fotinis notes (1979, 157), can be seen as the background of Plotinus' identification of the intellect with its object in *Enneads*.

It is plausible that humans enjoy only a limited access to rational activity in Aristotle's picture (as implied by 3.4, 430a6-7), so it would not be feasible to say that our intellect is eternal in its activity, although Aristotle does not make this inference explicitly in the text. The salient point about the agent intellect in *De an.* 3.5 for my purposes is, as explained by Menn, that the separate agent intellect cannot be our soul nor part of any soul, since otherwise we would be committed to absurd consequences: we would have to take our souls to be "eternally knowing and contemplating all the intelligible truths that we are ever capable of knowing, which is absurd" (ibid., 99).²⁷ The power of potential intellect constitutes the highest power of humans, identified as the patient intellect whose activity is caused by the activity of the agent intellect. This potential for knowing all things is put into action by the intervention of active or divine intellect. The material intellect is the material substrate (ὑποκείμενον, *In de an.* 2.101.24; 106.21), but in its natural propensity to receive forms it becomes an instrument (ὄργανον, 2.112.14-5). It becomes an instrument for the active intellect, because its activity is "directed towards matter and carried out through the agency of matter" (2.112.16-8). The material intellect retains its potential character throughout its activity, which is to stress its purely dispositional character, and it becomes operative by being used by as the instrument of the divine intellect and its activity of knowing the forms. In receiving form, the potential intellect is put into activity by the agent intellect and becomes an acquired intellect or habitus. But the intellect, as habitus, is never the actual locus of forms but remains as the potential for receiving forms or for participation into forms. Intellect as power is merely potential without form, which becomes acquired intellect, as the highest power of the human soul, through the divine intervention of the agent intellect. (Ibid., 286.) The noetic operation, while not actual locus of forms, is the potential of the soul for participating into forms, which requires the act of transcendent divine intellect as the immortal cause of all things.

1.5 The intellect as the place of forms

In *De an.* Aristotle gives very few positive characterizations of the intellect as a faculty of the soul. His account of it has to be constructed from a minimum of material, mostly from the way that he characterizes its activity of noetic cognition. One could also say

²⁷ An important thing separating man from God is the lack that human beings experience due to their material needs. In God there is no lack, but there is also no desire (ὄρεξις) either, because desire always involves a lack of something, which is "a psychic tendency to get something good for oneself" (Calvo Martinez 2019, 42). Aristotle also never discusses praxis (πρᾶξις) in connection to theology. He only refers to the activity of the divine being as ἐνέργεια; divine thought is ἐνέργεια but not *praxis*. (Ibid.)

that he deals with the intellect as a faculty mostly in negative terms, offering at most an account, in the first half of *De an.* 3.4, that discusses how it differs or can be distinguished from the faculty of sense perception. But in the following passage he gives his most extensive elaboration of his positive doctrine of the intellect of the soul as the noetic faculty (τὸ νοητικόν) in terms of ‘the place of forms’ (3.4, 429a27-9):²⁸

And it has been well said that the soul is a place of forms, except it is not the whole soul but the noetic faculty, and not forms in actuality but in potentiality.

καὶ εὖ δὴ οἱ λέγοντες τὴν ψυχὴν εἶναι τόπον εἰδῶν, πλὴν ὅτι οὔτε ὅλη ἀλλ’ ἢ νοητικὴ, οὔτε ἐντελεχεία ἀλλὰ δυνάμει τὰ εἶδη.

The notion of ‘place of forms’ can be taken as metaphorical in this passage: the noetic faculty is characterized metaphorically as a place, which is inhabited by forms. The critical purport of this characterization is threefold (cf. Shields 2016, 303-4; Vasiliou 2013, 175): α) it is not the whole soul but the noetic faculty that has forms as its objects, forms taken as formal causes of explanatory sciences, β) the forms are not actually in the soul (or in the sense of fulfilment, ἐντελεχεία), but γ) are related to the soul as actuality is to potentiality.²⁹ The first of these points can be taken as clarifying the notion of form in Aristotle’s psychology: although in *De an.* he has been talking about forms in connection to sense faculty (τὸ αἰσθητικόν), in this passage he can be seen as clarifying that what he means by forms are not objects of perception but noetic objects. The intellect is further characterized in *De an.* as the ‘form of forms’ (ὁ νοῦς εἶδος εἰδῶν, 3.8, 432a2), because it deals solely with the formal characteristics of objects that affect the soul independently of sensible contents. In subsection 2.1 of the third chapter of this work I will discuss how Aristotle distinguishes between sense contents or sensible objects (τὰ αἰσθητὰ) and noetic objects (τὰ νοητὰ). But what is crucial about this point, for the purpose of my argument, is that the intellect as noetic faculty is clearly defined in connection to forms and can be contrasted to sense faculty in this sense. In my view this goes against the broad reading of Johansen (2012, Ch. 11), which takes *λόγος*, and not *εἶδος*, as the object of the intellect. In section 3.4 of this work I will further elaborate on Johansen’s reading and why he sees it necessary to take *λόγος*

²⁸ Apparently this passage has served as a standard reference in Aristotelian Scholasticism for the so-called ‘spiritual memory’, contrasted to sensory memory as the seat of intellectual content of the mind, retrieved in intellectual operations that are done by the soul solely by itself without any causal transference of sensory content (see Aho 2016, 201). But Aristotle is hardly concerned here with memory of any kind, and it seems that the forms are not internal to the soul for Aristotle.

²⁹ The last two can also be taken as constituting a two-pronged criticism to Plato’s doctrine of recollection from *Meno* 80e-6d (or alternatively to some member of Platonic Academy), as Shields 2016, 303-4 suggests. But the details of this discussion exceed the boundaries of the current work.

rather as the object. But here I want to emphasize how this first point can be taken as saying that forms, in the psychology of *De an.*, are objects of noetic faculty rather than sense faculty, allows for contrasting noetic objects with objects of sense. Noetic objects can be taken here as formal causes, which are not objects of sense faculties of the soul. This is to say that the intellect is posited as the faculty that enables reception of formal, explanatory characteristics of objects of theoretical inquiry. The form is for Aristotle the cause of being of individual substances, as argued by Charlotte Witt (1989). Form is, as Witt argues, for Aristotle that which explains the being of individual substance, because it is the cause of them being unity rather than multiplicity.³⁰

The second of these points can be taken as the claim that there are no forms in the soul. Within the soul Aristotle only recognizes potentialities but not forms. Faculties of the soul have the status of potentialities that are definable only in relation to the activity that they enable, and the activity in turn is determined by the external object that it concerns, as the theoretical programme of *De an.* (2.4, 415a14-22) states. But, in keeping with this second point, Aristotle never claims in *De an.*, as Vasiliou (2013, 175) argues, that forms are within the soul, not even in potentially. This relates to the third point, which states that the noetic faculty is related to forms as potentiality is related to actuality. This point is elaborated best by Alexander's dispositional reading of the faculty of the intellect (see Fotinis 1979, 307; 312), according to which the intellect is not the actual locus of forms but merely the dispositional capacity for participating into the receptive activity of understanding. This gives certain externalism to Aristotle's theory of the intellect.³¹ This is not the externalism that states that the contents of the mind are determined by external things, but an externalism where there is no determinate internal content but only potentiality within the soul, potentiality or capacity for the activity that is determined by its external object.

The argument of the first half of *De an.* 3.4 holds that, in contrast to perceptual faculty, for intellect there can be no organ that would enable the activity of noetic cognition, due to its unrestricted capacity, discussed in section 3.3 of this work. In perception organ is necessary for reception of objects, whereas for the intellect there is no organ. For

³⁰ Although I cannot go further into the metaphysics of form in this work, Witt's view goes against certain standard reading of form as the function of placing an individual substance into a natural kind or species. Witt places several arguments against this view, but most crucially she argues that it is wrong to think of the function of form or essence in this sense, because form is for Aristotle "the cause of being of individual substances" (Witt 1989, 3; Ch. 4).

³¹ This can be contrasted to the internalist readings for example by Wedin (1988, 59; 115-22; 202-5), for which the mind somehow produces noetic objects, making them internal to the soul or the mind.

example, in sight the eye is the receptive organ that enables seeing in normal cases of perception, and the properties of the material organ determines the way that sight functions. But in contrast for intellect there is nothing in the material body that could determine its intellectual activity. In chapter three I will relate this point to how Aristotle adopts the self-determining character of the intellect from Anaxagoras' theory. Vasiliou takes the characterization as the place of forms to suggest that the relation of the noetic faculty and its object is not that of one *thing* to another, where one thing is inside another or that one thing has another in some way, as a container would have an object in it. For Aristotle, it is clear that the intellect "is nothing [or, more literally, none of the things that are, τῶν ὄντων] in actuality before cognizing (οὐθέν ἐστιν ἐνεργεῖα τῶν ὄντων πρὶν νοεῖν)" (429a24), which is to say that the intellect is nothing before the activity of reception of forms takes place. And in its activity the intellect is determined by its received object, which makes the actuality of the intellect, as Vasiliou claims (ibid., 174), into the type of apprehension or understanding that is immediately one with its object or is directly identical to its object. This is to say that, for Aristotle, perhaps in contrast to Plato (as Vasiliou ibid., 176 claims), there is no *thing* that thinks or understands, because the intellect is not a separate thing that does the understanding, but is identical with the activity whereby it is determined by its object. The intellect of the soul, in Aristotle's psychology, can be taken as standing for the process of understanding which is identical to its object. In Plato's *Phaedo* there is receptive subject, a mind or soul, and its object, namely Forms, but it seems for Vasiliou that this is the point that Aristotle is rejecting by saying that the soul is not actually such as to contain forms but only in potential (ibid.). Forms are the objects of the intellect, which are not within the soul, but are related to the soul as actuality is to potentiality. This gives a picture, as claimed above, of externalism, where the life of understanding and forms are, as Vasiliou explains, "as it were, *there* for us" to participate into. This participation-thesis dovetails nicely with an understanding of the nature of the intellect in Aristotle's psychology as a dispositional capacity, as is explained by Alexander's reading, where the role of which is to enable the activity of reception of forms as explanatory objects of theoretical science.

2. Knowledge of the soul

2.1 The method of inquiry into the intellect

In Aristotle's overall view, the actuality of the object determines the proper method inquiry into it. In the case of the power of intellectual understanding, the realisation of

the object is the highest fulfilment possible for humans, even deserving to be called the divine aspect within man (*NE* X.7, 1177b26-35). The intellect is what enables humans to tap into higher states of knowing, philosophy, and contemplation of eternal truths.³² In Aristotle's overall picture there is some nature that is specific for each living being, and life lived according to this nature is what constitutes the best and most successful way of living for them (1178a4-7). For humans it is life according to the intellect, because this is what makes us happiest (1178a2-8 also *Protr.* B58-70). The pleasures that characterize the most successful and pleasant human life are not the pleasures of the body, since these they share with the beasts of the wild. Instead, they are pleasures afforded by the activity of the intellect, by contemplation (θεωρία) of eternal truths. The best form of happiness (εὐδαιμονία) for Aristotle consists, controversially enough, solely of theoretical contemplation of eternal truths (*NE* X.7-8). Contemplation is the best and most successful activity available, because it concerns the most excellent objects (τῶν τιμιώτατων, *NE*, X.7, 1177a22-5). Indeed, as a novel reading of the theoretical intellect in *De an.* 3.4 by Vasiliou Iakovos (2013) emphasizes, it is “a key and under-appreciated Aristotelian doctrine” that it is “not simply the accuracy or truth of what you know that is valuable,” but the value of the state of contemplation is affected essentially by “the *object* of one's knowledge or comprehension” (emph. in original, *ibid.*, 165). Theoretical wisdom is for Aristotle the most pleasant activity available, which gives certain privilege for philosophy (1177b25-8, transl. of *NE* are by Reeve 2014):

philosophy seems to involve pleasures that are wondrous for their purity and stability, and it is quite reasonable that those who have attained knowledge should pass their time more pleasantly than those who are looking for it.

Life lived according to the dictates of reason or intellect (νοῦς) is for Aristotle something that far surpasses human life in dignity, and it is “insofar as he has some divine element in him, and to the degree that this element is superior to the compound (τοῦ συνθέτου)” that this activity is available to him. This leads Aristotle to consider the intellect as “something divine in comparison with the human element,” and so also “a life in accord with it is divine in comparison with human life.” (1177b26-31.) The intellect is “the element in us that is most excellent,” or, in fact, what we *are* most of all,

³² Philosophy, along with wisdom (σοφία), in broad sense is for Aristotle just about any science that aims at truth about a given issue rather than to action (*Met.* α.1, 993b19-21). In narrower sense philosophy refers only to the sciences that have scientific knowledge (ἐπιστήμη) as starting-point (*Met.* K.1, 1059a18; *NE* VI.7, 1141a16-8). Practical philosophy is a consideration of human affairs (*NE* X.9, 1181b15), to which his ethical writings mostly belong (*Pol.* III.12, 1282b18-23). (Reeve 2017, 80.)

because it is the “the controlling and better element” (1177b35-b2).³³ The capacity for understanding and knowledge understandably deserves its separate treatment, most extensively elaborated by Aristotle in his psychological major treatise the *De anima*. The *De anima* is Aristotle’s treatment on the soul (ἡ ψυχή). It is the first systematic work into psychology and contains an incredibly rich development of ideas, starting from the very foundations of the existence of living beings in nutrition, locomotion, and desire, with an extensive focus to the capacity of perception, culminating in considerations of the highest forms of understanding available to man, in the state of (ἔξις) understanding provided by the faculty of reason or intellect (νοῦς). Aristotle held the study of the soul to an exceptionally high regard, as is evinced by the opening lines of the treatise (1.1, 402a1-4 transl., Vasiliou):

When one considers the knowing (εἶδησιν) of fine and worthy things (τῶν καλῶν καὶ τιμίῳν), one is more than another either on account of its accuracy or in virtue of its being about better (βελτιόνων) and more amazing (θαυμασιωτέρων) things: on account of both these things, we place with good reason inquiry into the soul in the first rank.

The reason for why the study of the soul is for Aristotle, at least in part, of such high esteem or worthiness (τιμή, as Vasiliou 2013, 166 notes), but also of amazement or wonder (θαυμάζω), is surely because of the fact that it contains an excursion into the topic of the intellect, which broadens the scope of psychology into first philosophy.

Psychology is for Aristotle mostly within the purview a natural scientist (φυσικός), which gives certain naturalism to his treatment of the soul. The soul is treated as the principle of life in natural beings. While Aristotle tells that it is important for a natural scientist to have a theoretical grasp on the soul (*Met.* E.1, 1026a4-6; *De an.* 1.1, 403a16-28), he never claims that psychology, the study of the soul, belongs wholly to the purview of natural scientist. Affections of the soul (τὰ πάθη τῆς ψυχῆς) do not allow, for Aristotle, a clear distinction into material and psychological aspects, because what is psychological cannot be exhaustively defined without reference to the psychical.³⁴ The phenomena that concern a psychologist are for Aristotle logical and material, which is to say that the affections of the soul are enmattered *logoi* (403a25, τὰ πάθη λόγοι ἔνυλοι εἰσιν). Aristotle separates between the approach of natural scientist and the dialectician (διαλεκτικός), where the latter considers psychological phenomenon in terms of its end

³³ The notion of the intellect as the ruling or dominant element in us is quite prominent in Aristotle’s thinking, see *De an.* 1.5, 410b14-5; 3.4, 429a19; *Met.* A.7, 1072a25-b30; 9, 1074b33-5; 10, 1076a3.4.

³⁴ As Charles 2009 argues, Aristotle’s account of psychological activity does not distinguish purely material processes, which supposedly lie underneath psychological processes, but concerns affections of the soul as one process that is determined by the form.

or goal (403a30), whereas the former, the natural scientist, is concerned with activity as activity of certain kind of matter (403b11-12). The dialectical approach gives a definition, in psychology, with only the end in mind without reference to material conditions, whereas the natural scientist gives a reference to the material conditions without defining the goal-oriented activity involved in the phenomenon. Aristotle takes this to highlight the way that affections of the soul are inseparable from their matter (403b9-10). Psychological phenomena grasped in abstraction are empty; they cannot have meaningful content without the material conditions that are involved in them, which gives reason for contrasting them with geometrical objects (403b14ff.). The dialectician considers psychical affections in terms of their end-point, which are realized in the subject's conscious life, but affections of the soul are inseparable from matter, which means that leaving out the material aspect causes one to lose sight of the phenomenon itself (as Charles 2009, 11-4 argues). But, for things that are separate or separable, Aristotle introduces the approach of the first philosopher (κεχωρισμένα, ὁ πρῶτος φιλόσοφος 403b15-6). The introduction of the first philosopher, otherwise puzzling in this context, is reminiscent of Aristotle's critique of dialectical method in the *Metaphysics*. Dialectical reasoning proceeds from the endoxa, generally accepted views or beliefs (*Top.* 100a30), where the generally accepted views are either those of the majority or of the wise (100b21-3). Dialectical thinking takes, for Aristotle, these views as starting-points and proceeds from them. But, whereas the domain of the dialectician remains tentative and critical, a philosopher is able to attain knowledge about a given issue (*Met.* Γ.2, 1004b22-6). (Witt 1989, 12.)

Psychology cannot be taken for Aristotle as entirely within the purview of natural science. The method of the natural scientist cannot give an exhaustive treatment of the soul, because it contains an excursion into the topic of intellect, and, for principled reasons, it is not possible for the natural scientist to give a sufficient account of the intellect. Neither the method of the dialectician seems to suffice for Aristotle, because the dialectician is not capable of knowing the intellect's true nature. The approach of the first philosopher is introduced into the psychology of *De an.*, because the regime of the intellect (νοῦς) transcends the material realm of the perishable (τῶν φθαρτῶν). In this chapter I will give reasons for thinking that in *De an.* Aristotle asserts the divinity of the intellect as theoretical capacity (θεωρητικῆς δυνάμεως) of the soul (see 2.2, 413b24-7; 3.9 432b26-3a9). The intellect goes beyond physics; every capacity of the soul requires

an organ (*GA* 4.1, 766b35), with the exception of the intellect.³⁵ The intellect, as capacity, is nothing prior to its activity, and in its activity it is identical with the form that determines its activity. The intellect is unmixed with the body and nothing in actuality before its activity (429a22-5). This prevents it from being within the purview of the common account of the soul, as explained in the following discussion of this chapter.

2.2 Aristotle's faculty psychology

In this section I will discuss Aristotle's faculty psychology, as delineated by Johansen's recent reading. In the psychology of *De an.*, the few faculties that receive an extensive discussion are posited as necessary presuppositions for the various actions that living beings are characteristically engaged in. And to posit the potential intellect to the soul is to say that there is a capacity or faculty of the soul which is responsible for the characteristic activity (or activities) that belong to it. In the psychology of *De an.* Aristotle aims to explain various psychological phenomena by analysing them into a few basic activities, which are enabled by the soul (ἡ ψυχή). While it is not entirely right to say, with some scholars, that for Aristotle the soul is a 'set' or 'group of capacities', because the soul is also for him not a set in any sense of the term and not an aggregative entity at all (Shields 2016, xxviii-ix),³⁶ this does reflect to some degree his method of procedure in the psychology of *De an.* The soul is approached by concerning its few fundamental capacities, which are taken as capacities for various actions. The capacities exist in two ways in the soul, either as dormant potentialities for activity or as activated faculties. This implies for Aristotle a picture of two levels of potentialities and actualities, as discussed below.

Psychology is a form of inquiry, which aims to gain knowledge of the soul (ἡ ψυχή, *De an.* 1.1, 402a7-8). As claimed in the introduction to this work, it is not entirely misleading to think of the theoretical framework of *De an.* as mainly naturalistic. The mainstay of recent reading of Aristotle's psychology by Johansen is that the various capacities and parts of the soul can be analysed within the framework of natural science (Johansen 2012, 2; 226). The soul is for Aristotle the principle of life (ἀρχὴ τῶν ζώων,

³⁵ As noted also in *PA* 1.1, 641a32-b10, the place of the soul is in physical science, but the intellect poses an obstacle to a naturalist account of the soul. (Polansky 2007, 11.) If physical science were to encompass the intellect and its objects, then it would seem to have the whole of being at its purview and thus be considered first philosophy. Physics does not, however, give for Aristotle a complete theory of the soul, because the power of intellect goes beyond it (*ibid.*, 12).

³⁶ The soul is responsible for "non-aggregative form of unity" as Shields 2020 emphasizes, see *De an.* 2.3, 414b28-32, 432a22-b6.

1.1, 402a6-7).³⁷ The soul as principle is what explains life in its various manifestations. Things that have soul are natural beings, but, as Johansen points out, it is not by having a soul that things are natural beings for Aristotle. Rather it is by having the soul as an internal principle of change and rest that the connection to nature comes about (ibid.). Aristotle's naturalism with regard to soul does not begin with the claim that spirited beings, beings that have soul, are compounds of matter and form, nor with the claim that they are subjects of generation and corruption, but rather with the claim that they have within them the principle of change and rest, and soul is for them this principle (ibid.). Johansen suggests that we can take Aristotle not only as originator of psychology as science but also of a specific approach to psychology, which is known as faculty psychology.

Faculty psychology is an approach to psyche that aims to explain the multiplicity of various ways in which life manifests with reference to only a few inborn or relatively stable basic capacities or faculties. (Ibid., 2.) Faculty psychology approaches psychological phenomena, for example pitying and learning and thinking (Aristotle's examples, *De an.* 1.3, 408b14), by considering them as activities that are enabled by a few basic capacities or faculties that belong to the soul. The reason for maintaining the number of basic capacities or faculties at minimum, when explaining the various ways in which life manifests, is because the explanatory strength of the theory comes from its ability to show how this multitude is caused by only a few inborn or relatively stable faculties. The explanatory strength of the theory reduces, when it posits too many capacities, say, a separate capacity for walking, for talking, for sitting down and knitting. Introducing too many capacities leaves the explanatory work vague, but on the other hand positing too few capacities risks leaving certain phenomena out of the purview of the theory, thus reducing its explanatory scope unnecessarily. Aristotelian faculty psychology aims at steering a middle path between explanatory redundancy, i.e. positing too many capacities, and reductionism which reduces its scope. (Ibid., 4.) Unlike any of his predecessors, in *De an.* Aristotle takes considerable pains on defining the method of inquiry for psychology, which brings about a rich account of various ensouled activities that are connected to just a handful of basic, explanatory capacities of the soul. What we have in *De an.* is the first sustained effort for bringing various manifold aspects of living beings under one systematic account, which is unified by few

³⁷ Which is confirmed in 2.2, 413a20ff., as Corcilius and Gregoric 2010, 86 point out.

key methodological premises, and which is continuous with a scientific approach to nature as well.³⁸

The way for connecting Aristotle's *De an.* to faculty psychology is for Johansen afforded by taking the notion of capacity or faculty of the soul as *principle* (*ibid.*, 7). A principle is, for Aristotle, a structural item: it is what ties together a field of knowledge, giving it a systematic ordering. A *principle* is a basic explanatory item, which is known non-inferentially (by the intellect) in a science and works as the basis of demonstrable knowledge. Acquiring knowledge about a subject, such as the soul, is in Aristotle's epistemology dependent upon knowledge of the principles, as Aristotle claims at the beginning *Physics* (I.1, 184a10-6, transl. Irwin 1990, 3):

In every systematic inquiry where there are first principles, or causes, or elements, knowledge and science result from acquiring knowledge of these; for we think we know something just in case we acquire knowledge of the primary causes, the primary first principles, all the way to the elements. It is clear, then, that in the science of nature as elsewhere, we should try first to determine questions about the first principles.

Knowledge is for Aristotle possible on the basis of first principles or starting-points, the first basis from which anything is known (*Met.* Δ.1, 1013a14-5). As Johansen (2012, 9) demonstrates, the explanatory model of positing capacities for ensouled activities in *De an.* follows the epistemological model that is laid out in the *Posterior analytics* (*APo*). Psychology represents for Aristotle a form of knowledge that is the most precise (ἀκριβής, 402a2), since it deals with the essence or nature of the issue at hand, the 'what it is to be this' (τὴν οὐσίαν καὶ τὸ τί ἐστὶ, 402a13; 17).³⁹ Aristotle's essentialism holds that the essence or form of something is a basic explanatory item for a science, a basic item in a field of inquiry which explains other features that are related to it (Charles 2000). The aim of psychology is to define the soul by getting to know its essence, and knowing its essence will then allow understanding the various ways in which it manifests in the life of natural beings (402a8-10). The relation of the essence to different attributes of a thing is analogous to the relation that holds between principles or starting-points to the conclusions that obtain from them by way of demonstration (see

³⁸ Johansen 2012, 2-3 records Aristotle's debt to Plato in this regard also: in the *Republic* V Plato explains powers as class of things that enable us to do what we do (477c), identifies the criteria for power as that which stays the same over things (477d), distinguishes belief and knowledge (477d-8c), and gives the intellect a separate nature from various rational and calculative activities (532b-c). In this work my intention is not, however, to compare Plato and Aristotle as psychologists but to focus on understanding Aristotle, who relies on these developments given by Plato but who has the merit of being the first systematic psychologist.

³⁹ In *De an.* 3.4 (429b19) Aristotle takes essence as object of the intellect. The knowledge of the intellect along with theoretical or scientific knowledge (ἐπιστήμη) is the most precise (*APo* 2.19, 100b8-9).

402a20-2; 402b25-3a2). To take psychological capacities as principles is to say that they are explanatorily basic in relation to various psychological phenomena that are tied to them, to phenomena that relate to having a soul as principle (Johansen 2012, 2). Capacities can then, as Johansen argues, be taken as having the role of principles or elements from which other features are drawn and demonstrable.

Knowledge can be gained by demonstrating how conclusions follow from premises, or alternatively by gaining insight into the premises of knowledge. Knowledge about the premises is indemonstrable and known directly by the intellect. Aristotle assumes this model to hold in psychology, when he says that the way of knowing the attributes of the soul from the essence is by demonstration (ἀπόδειξις, 402a15). (Ibid., 9.) As Johansen explains (ibid., 10), an opening passage in *De an.* (1.1, 402b16-403a2) takes several pages from *APo*: the definition of the soul is intended as the principle that is used in demonstrating other attributes (*APo* 1.2, 72a7), the object of definition is presented as the cause of various subsequent attributes (2.10, 93b38-4a9), and when a definition of a field of knowledge is grasped, when we can also demonstrate subsequent attributes. In Aristotle's essentialism we know that we have identified the essence when we are able to demonstrate other attributes through it (Charles 2000, 200-9). But a demonstration can also serve as an aid to identifying the essence (2.8 93b15-21).

2.3 The common account of the soul

The first step towards a constructive account of the soul is afforded by identifying a common account or definition for it (κοινότητα λόγος, *De an.* 2.1, 412a5-6). Johansen proposes to read commonality here as meaning that it is α) applies for all kinds of souls in common, and β) utilizes the most general or common notions or categories, substance, matter, form, etc. (Johansen 2012, 11). Aristotle's general account of the soul in *De an.* utilizes his technical notions of ἐντελέχεια and δύναμις, which he develops in his natural scientific works and which are his most general terms of characterizing anything (*Met.* Λ.5). The latter is commonly treated (with the Latin background) as potentiality (but it could just as well be discussed as power or capacity), whereas there is some ambiguity about the former, which I want to discuss in this section. Aristotle's notion of ἐντελέχεια is often translated with actuality (as in Shields 2016), which puts it in contrast with potentiality, as if it is interchangeable with ἐνέργεια. But there is a slight and important difference to be made here, as Johansen points out. Aristotle's notion of ἐντελέχεια is inherently teleological. *Met.* Θ.8 (1050a21-3) shows that the term refers to a completed or fulfilled state, of something achieving its end or telos. Hence, when

Aristotle is describing the soul as *ἐντελέχεια*, he is relying on certain teleological picture, where the soul is seen as that which fulfils or completes the body's inherent potential for being thus fulfilled. (Johansen 2012, 16.) The notion of *ἐντελέχεια*, or *fulfilment*, is distinct from *ἐνέργεια*, which is Aristotle's notion for actuality, in the sense that while actuality is always a fulfilment, the reverse is not necessarily the case: it is not the case that every fulfilment is activity (as in *De an.* 2.1 distinction of two uses of fulfilment, discussed below). It is one thing to be in actuality and another to achieve a level of completion, since completion or fulfilment indicates a state of completion relative to another state, which is potentiality (for being fulfilled) but may also be fulfilment but of lower level. (Ibid., 23.)

To motivate his common account of the soul, Aristotle separates three ways in which one can speak of substance (οὐσία), either as matter (ὕλη) or as shape and form (μορφή καὶ εἶδος), and thirdly as that which comes from them (412a6-9), a compound substance. Matter is identified with potentiality, whereas form is fulfilment (a9-10). Matter is for Aristotle “what is not in itself ‘a this’ (ὁ καθ’ αὐτὸ οὐκ ἔστι τόδε τι.)” (a6-7).⁴⁰ Johansen proposes to read matter here in terms of *indeterminacy*: matter is not in itself anything determinate, since it is only “in relation to *form* that something is said to be something determinate” (emph. added, *ibid.*, 15), ‘a this’ or a determinate thing. Matter is not in itself a determinate thing, but it can be said to be *determinable* in relation to form (*ibid.*). The strategy of defining the soul in Aristotle's common account, which is meant for applying for all kinds of souls, is to show how the soul is the *determining* factor *qua* form for certain natural bodies, for natural bodies that are determined by having soul as their form.

The description of the body as potentially alive can be taken as indicating that the body is conceived here as a thing that is inherently suited for being determined by its form, by its soul (*ibid.*). Aristotle also emphasizes that the body has to be a right kind for the soul to inhere in it (414a14-28), which reflects the idea that the soul is the fulfilment of a specific natural body, not just any body, but a body whose matter is right (οἰκεῖος, 414b27). That the matter has to be appropriate suggests certain level of specificity at material level, which can be taken as Aristotle's reproach for the predecessor's laxity in their conception of matter for living beings, as Johansen (*ibid.*, 16) points out. Aristotle identifies the soul as *substance* (rather than as quality or property), and furthermore

⁴⁰ Aristotle repeats this formula at 2.2, 414a14-7.

substance as *form* (rather than as matter or as compound, 413a20-1). So, when matter in this case is identified as potentiality, it is taken as specific potentiality that is determinable by the form in the teleological sense of fulfilment: the form is that which fulfils the body's inherent potential for being thus and so determined: "in having a soul, the body realizes its potential to be a certain kind of living being." (Ibid.) In Aristotle's general account of the soul as 'first fulfilment of a natural instrumental body' (412b5-6)⁴¹ the soul is what fulfils the potential of the body for being a certain type of living individual, making it determinate and specific thing, 'a this' (τόδε τι, 412a7-8). The claim that the soul is the first *fulfilment* is consistent with the claim that there are few basic capacities, that are constitutive to it, since the capacities that are characteristic of the soul can be dormant, in the state of potentiality with regard to their activity (ibid., 23). Capacities have the status of potentiality, but in the common account they are considered as fulfilment rather than potentiality. Aristotle's common account of the soul aims at characterizing the soul as the *first level* of fulfilment in relation to the body. While it is a complex question, what does it mean for Aristotle that the body is a potentially living thing, as Johansen (ibid. 13-22) explains, the way to understand Aristotle's conception of the relation between body and soul is by the way that he introduces a distinction within fulfilment to first and second fulfilment.

Aristotle separates two ways of speaking about fulfilment, between first and second fulfilment, by using an analogy with knowledge and contemplation (412a22-3):

Fulfilment is spoken of in two ways, firstly as knowledge (ἐπιστήμη) and secondly as contemplation (θεωρεῖν). It is apparent that the soul is fulfilment as knowledge.

Contemplation, as second fulfilment, is the activity that is enabled by having knowledge. Knowledge is taken here as analogous to the way that the soul is the first fulfilment: it is the first level of fulfilment which enables calling a body ensouled. But it is also taken as a capacity for the activity of contemplation: having knowledge is what enables contemplation, which is analogous to the way that the soul is what enables the various life-activities that are typical for ensouled beings. The analogy between soul and

⁴¹ ἐντελέχεια ἢ πρώτη σώματος φυσικοῦ ὀργανικοῦ. In the literature it is a controversial matter whether we take ὀργανικὸν σῶμα here to mean 'organic body' or 'instrumental body', which is the more literal translation. This way of translating follows the argument given by Menn 2002, which states Aristotle's theory of the soul follows the model of art in characterizing the soul as an unmoved mover of the body (ibid., 113): "the art, or the artisan *qua* artisan, is an unmoved mover, of the ὀργανα and of the bodies that the ὀργανα are applied to, and Aristotle thinks that the soul must be an unmoved mover of the body in order for it to be constantly a source to the body of the same teleological order." For Aristotle the whole body is instrumental because it is suited for being used as an instrument by the animal, ibid. 108-10; see also *PA*, 1.1 642a9-13; 5 645b14-7.

knowledge and between various life-activities and contemplation is meant for highlighting the way in which the soul is the thing that enables various activities that are typical for living beings, such as nutrition, perception, and thinking. Having soul is what enables these various activities, and a dead body, in comparison, is no longer a body that has a soul as the principle of life-activities. But, in analogy with a sleeping person, the living body is such that it can possess various capacities for activities, even when it does not manifest them in its overt activity. This is what requires, in Aristotelian terms, to take capacities or powers as real and explanatory. If, on the other hand, we think that only the overt activities are real and explanatory, then this leaves us unable to account for the fact that a capacity can exist, even if it is not manifested in overt activity. When a body is alive, this suffices for us to say that the soul is its first fulfilment, which is at the level of potentiality, because it enables the various actions that are typical for living beings. When the inherent potentialities of the natural living body are actualized, brought into action, then the potentialities become fulfilled in the sense of second fulfilment, which defines them.

2.4 Parts and capacities of the soul

After giving his common account (κοινότατος λόγος) of the soul Aristotle gives a fresh start for his inquiry, which begins with listing different ways in which life (τὸ ζῆν) is said (2.2, 413a20ff.). Life is, as Corcilius and Gregoric (2010, 86) point out, after all the thing that soul is supposed to explain.⁴² The first step towards systematization of psychology is made when “the soul is established as the *explanans* of life.” Aristotle identifies four basic life-activities (413a23-5): 1. intellect (which seems to be discussed here in broad sense), 2. perception, 3. movement with regard place or locomotion, and 4. decay and growth. Occurrence of any of these is a sufficient condition for Aristotle to call something living, which he does not see the need to justify since he thinks this is obvious enough (ibid.). The second step towards systematization of the soul is to establish “differences in the *explanandum*: to live is to engage in at least one of the four types of activity.” The third step is to posit the “the established differences of the *explanandum* - - into the *explanans*;” the four ways in which life manifests are corresponded to four different capacities, which are posited in the soul. (Ibid., 86-7.)

The soul, as discussed above, is analysed into various capacities or faculties that belong to it. But Aristotle also discusses his view of the soul often in terms of parts of the soul

⁴² The account of the criteria of separability of parts and capacities by Corcilius and Gregoric 2010 can be seen as improving the account provided by Whiting 2002.

(*De an.* 2.2, 413b7, 27; 3.4, 429a10; *PA* 1.1, 641a32-b10). In the opening chapter of the treatise, the question of whether the soul has parts or not shows a prominent role (*De an.* 1.1, 402b9-11). His positive account of the soul in books 2 and 3 strongly suggests that he recognizes separable parts of the soul and that he has some criteria determining how the parts are separable from each other. In the work itself Aristotle does not explicitly tell what criteria he has in mind for separating parts of soul. Systematization of the work itself seems to require that there is some way of distinguishing between parts and capacities of the soul, because if there is no distinction of this kind to be made, then it is questionable if the work itself can have a systematic organization. (Ibid., 84.) A preliminary answer to the query about whether these are parts of the soul or souls on their own right is reached in the following passage (2.2, 413b11-6, transl. Corcilius and Gregoric):

At present we must confine ourselves to saying that the soul is the principle of those [activities in 413a20-b10] and is divided into these, viz. *threptikon*, *aisthêtikon*, *dianoêtikon*, *kinesis*. But whether each of these is a soul or a part of the soul, and if a part of the soul, whether in such a way that it is separable in account only or also in place, in some cases it is not difficult to see, whereas in others there is a problem.

With the exception of locomotion (which Corcilius and Gregoric 2010, 110 argue is intentional) the three items in this passage ending with *-ikos* are substantive adjectives, with the suffix *-ikos* suggesting that they denote things that enable something, in this case the life-activities mentioned in the preceding passage (413a20-b10). The four items in this passage are taken as faculties of the soul, but this is not to say that they are all parts of the soul on their own right, but only *prima facie* candidates for being parts of the soul. (Ibid., 87.) The programmatic idea of *De an.* seems to be that a sufficient consideration of these four activities constitute treatment on the soul that can be taken as satisfactory (2.3, 415a11-3; 2.4, 415a14-22). Corcilius and Gregoric claim that this is “indicated by the fact that the structure of the rest of the *De anima* is governed by the list of four capacities” listed in the passage above (ibid., 89). But should the criteria of determining what are parts and what capacities of the soul not be arbitrary, it needs to be something stronger than mere observation of various life-activities.

In this work I will not discuss the types of separability in the psychology of *De an.*, discussed by Corcilius and Gregoric (2010, 96). What is remarkable about this discussion, for my purposes, is that exceptional nature of the intellect (ὁ νοῦς) returns in consideration of parts and capacities of the soul. In this context Aristotle says (2.2, 413b24-7):

About the intellect (νοῦς) and the theoretical capacity (θεωρητικῆς δυνάμεως) nothing seems yet evident, but it seems to be another kind of soul (ψυχῆς γένος ἕτερον), and this alone (μόνον) can be separated (ἐνδέχεται χωρίζεσθαι), in the way that (καθάπερ) eternal is from perishable

The intellect, qualified as the theoretical capacity (as Burnyeat 2008, 18 emphasizes), is here for some reason considered as separate from the various capacities that belong to natural creatures. This reminds of how at the very beginning of *De an.* Aristotle considers the possibility that the topic of the intellect might be exempt from his natural philosophy, perhaps rather belonging to the purview of first philosophy, as Johansen (2012, 227) notes (see 1.1 403b16). In the aporetic first book the intellect is considered to come about as a ‘sort of a substance’ (οὐσία τις) and not to perish with the body (1.4, 408b19). The intellect, in initial consideration, seems for Aristotle to be something divine and unaffected (408b29).

In several places Aristotle seems to be separating the intellect from the perishable due to its divinity (*De an.* 1.1, 403a3-16; 1.4, 408b18-9; 2.1, 413a4-7; 3.5, 430a17-25). The separation of the intellect in the context of considering various life-activities and corresponding capacities also harkens back to the clause that Aristotle leaves to his common account (κοινότατος λόγος) of the soul as the first actuality or fulfilment of the natural body capable of living (2.1, 412b5-6). The common account is supplanted with a clause that there might also be some part of the soul that does not yield to this account, because of not being the actuality or fulfilment of any natural body (2.1, 413a4-7), and in this he has intellect in mind (as Shields 2016, 178 and Reeve 2017, 113 claim, see 1.4, 408b18ff.). Although this is not explicitly stated in the text, the common account is supplanted with this clause so as to include the intellect, which does not belong to the purview of natural philosophy, into psychology. This broadens the scope of psychology from natural science to first philosophy. The intellect, while considered as psychological phenomenon, is not the form of any natural instrumental body; “its existence”, as Corcilius and Greoric (2010, 91) claim, “is not tied to the ephemeral existence of any body or part of a body.” This can be read from the way that Aristotle specifies the form of separability that he has in mind (in the passage quoted above) with the phrase ‘in the way that (καθάπερ) the eternal from the perishable’, allowing to consider it as ‘another kind of soul’ (ψυχῆς γένος ἕτερον, 2.2, 413b26).⁴³

⁴³ Also in *PA*, 641a32-b10 Aristotle confirms that the place of the soul is in natural science, but also denies that the whole soul, namely the intellect or theoretical capacity, belongs to natural science (Polansky 2007, 11).

In humans the intellect constitutes a part of their soul, but for Aristotle there also exists living beings whose whole life is constituted solely by the activity of the intellect, “namely God and perhaps the movers of the celestial spheres” (Corcilius and Grecoric 2010, 91).⁴⁴ For Aristotle, there exists: “other things that are far more divine in nature even than human beings – the most evident ones, certainly, being those from which the cosmos is composed” (*NE* VI.7, 1141a34-b1, transl. Reeve). These divine beings refer to perhaps to the celestial spheres, which are eternally living divine beings with souls similar to ours (Reeve 2017, 117, see *Cael.* 2.12, 292a14-22; *Met.* Λ.8, 1073a23ff.) In these entities the intellect is found without any other capacity of the soul. Hence, it would not make sense to call the intellect a part of the soul of such beings, since it makes no sense to call something a part if it cannot be separated from others in a whole. This is relevant to take into consideration here, because it allows for coming to an understanding of Aristotle’s criteria of determining the difference of parts and capacities of the soul.

There is an interesting and enlightening affinity that the intellect shares with the nutritive capacity. Similarly the nutritive capacity seems to be a kind of a soul, because in plants it constitutes their whole soul (1.5, 411b27-30):

It seems to be the case that in plants the principle is a kind of a soul (ψυχή τις); for this alone plants and animals have in common, and this is separated from the perceptual principle, whereas nothing has perception without it.

This is also affirmed in 2.3, 414a32-b1 (transl. Shields):

This can be separated from others, but among mortal beings the others cannot be separated from this. This is evident in the case of plants. For no other capacity of soul belongs to them.

Separability apparently applies to both the intellect and the nutritive capacity, because both of them are found in some creatures without any other capacities, constituting part of soul in some cases and the whole soul in others. All animals constitutively have also perceptual capacity (413b3-4), which cannot exist for Aristotle independently of the nutritive capacity, whereas nutrition can exist without perception (415a2ff.). The fact that for Aristotle both the intellect and nutrition are found without any other capacities allow, according to Corcilius and Grecoric (2010, 93), for forming the criteria of determining the difference between parts and capacities of the soul: a capacity, that can be found without any other capacities in some beings, counts *eo ipso* as a part of the

⁴⁴ See *De an.* 1.4, 408b18-29; 3.5, 430a22-5; *Met.* Λ.7, 1072b26-30; *NE* VI.7, 1141a34-b2..

soul. (Consequently Aristotle never discusses perceptual capacity as part of the soul.) But, as Corcilius and Grecoric (*ibid.*, 94), note, this does not mean that part and capacity are mutually exclusive categories, since a capacity can be also a part of the soul, which depends on whether it is also found to exist alongside other capacities. Separability simpliciter is applicable to cases where something can exist independently of other capacities (*ibid.*, 95), but when it exists as part alongside other capacities, it can also be taken as a capacity or faculty of the soul. In plants the nutritive capacity constitutes the whole soul.

The distinction between plants and animals is given by the capacity of perception. In some beings there is also “the thinking part (διανοητικόν) and intellect (νοῦς), for example humans and anything else there may be of this or of a more elevated sort (τιμιώτερον)” (2.3, 414b18-9).⁴⁵ For the purposes of this work, it is crucial to note that this remark does not conflate what Aristotle discusses as the thinking or reasoning faculty (διανοητικόν) with the intellect. In fact, a crucial part of my argument relies on the distinction between these two separate capacities of the soul. Among psychological capacities that belong to the perishable (τῶν φθαρτῶν) the rarest ones are “ratiocination and thought (λογισμὸν καὶ διάνοιαν),” and for those in possession of these, all the rest also belong (415a7-9). But it is important to remember that Aristotle has already distinguished the intellect ‘in the way that (καθάπερ) the eternal from the perishable’. It is these discursive capacities which are at the top of the hierarchy of the capacities of the soul of mortal beings, and not the intellect, since the intellect is separated from the consideration of the capacities that belong to the perishable. Aristotle explicitly separates the intellect (which has been qualified as theoretical capacity) from the various discursive capacities in this context: “About theoretical intellect another definition is required (περὶ δὲ τοῦ θεωρητικοῦ νοῦ ἕτερος λόγος.)” (415a11-2). In this statement I have translated *λόγος* as ‘definition’ rather than as the standard ‘account’ to emphasize the following point. The intellect, unlike other faculties of the soul such as perception and nutrition and imagination (φαντασία), is not meant to be included in the common account, which is why it demands a separate definition. The intellect is not under discussion in the context which deals with the rational capacities of perishable, because it can allow for separate existence in beings whose existence is solely constituted by the intellect. The intellect, as part of the soul, is taken as an explicit object of inquiry later in

⁴⁵ About Aristotle’s notion of elevation *MM* 1.2, 1183b21-3; *Cat.* 12, 14b3-7; happiness as starting point elevated sort *NE* I.12, 1102a2-4; most exact science *Met.* A.2, 982a25-7; or theoretical science *E.*1, 1026a21-2; considering gods *NE* IV.2, 1122b19-21.

the work in the beginning considerations of *De an.* 3.4, which open a fresh inquiry in the work. Apart from separating the intellect from imagination (3.3, 428a16-8, on the criteria of being always true), Aristotle is quite reticent about the intellect until it is approached again later in *De an.* as a separate topic with another definitive approach.

So, to take stock, Aristotle has introduced discursive rationality, namely thought and reasoning, as phenomena that belong to the purview of psychology. But he has also separated the intellect on the criteria of being separable as ‘the eternal is from the perishable.’ The various discursive capabilities discussed in *De an.* apparently can belong to the perishable without the intellect. The intellect belongs to humans and to other more elevated things out there in Aristotle’s ontology. In the early part of the treatise of *De an.* it is postponed as a separate topic and separated from the various psychological phenomena that touch the perishable entities, and these in turn yield to the common account of the soul. The intellect deserves a separate treatise due to its separate nature, and this Aristotle focuses on only in the beginning of *De an.* 3.4.

3. The topic of the intellect

When finally approaching the task of defining the intellect as part of the soul, Aristotle has at his disposal a richly enhanced account of the soul and its various capacities. In this chapter I will discuss the way that Aristotle approaches the topic of the intellect in the psychology of *De an.* I aim to limit the discussion to the activity of the intellect as part of the soul, which is mostly contained in the early part of *De an.* 3.4 (429a10-29). This focus is unfortunately at the expense of the more complex and challenging ontological discussion about the intellect, which contains the distinction of the intellect into agent and patient intellects (see Charles 2000, 130-5 for discussion of the agent intellect as cause). I will begin by considering the question that Aristotle sees as pertinent in consideration of the intellect as psychological phenomenon. After that I will focus on the way that Aristotle aims to explain the activity of the intellect according to his causal picture, which is contained in the analogy that he gives of noetic activity with sense perception (3.4, 429a13-8). Aristotle positive doctrine of the intellect is centred around this analogy, as most commentators agree. However, the reason for why Aristotle sees it necessary to introduce this causal model into a discussion of the intellect is not often recognized in the literature. I argue that we can see his reason as best evinced by his critique of his predecessors’ account of the intellect, most importantly in his criticism of Anaxagoras’ theory. The introduction of the causal model shows that Aristotle aims to apply his account of scientific explanation in the case of

noetic cognition, which is something that he sees as lacking in the Anaxagoras' about the intellect. For Aristotle it is not enough to state the fact that humans and gods have the intellect, but he also wants to give a causal account of how the noetic activity of the intellect is brought about. Considerations of the characterizations that Aristotle applies to the intellect (429a18-24) shows that he also preserves certain important aspects of Anaxagoras' theory, which I will discuss in terms of limitlessness or neutrality of the intellect. My aim in this chapter is to argue that it is wrongheaded to think of Aristotle's explanation of the intellect in *De an.* as pertaining to our ordinary notion of thinking. This argument is further substantiated by showing how, in the later context of the psychology of *De an.*, Aristotle preserves certain distinction between the central account of the intellect, which is explained in the causal account in terms of reception of form, and other forms of cognitive activity that presuppose combination and motion, which can be discussed as discursive rationality. However, I will also show that it is possible to take Aristotle's focus, in the discussion of the intellect, to be with a broad notion of the intelligible, as argued most prominently in contemporary literature by Johansen. My aim is to show that the reasons that he gives for considering Aristotle's notion of *voeĩv* as 'thinking' are unsuccessful and why it is better to think, with Burnyeat, that *voeĩv* stands for a specific noetic achievement, which implies the picture of theoretical knowledge of *APo*.

The methodology of *De an.* states that one should approach the definition of a faculty of the soul by considering the activity that it enables, and that the activity of the soul is determined by the object it concerns (2.4, 415a14-22, which answers the query about the proper procedure in 1.1, 402b10-4). The characteristic activity of the intellect is identified by Aristotle as *τὸ voeĩv* (1.1, 402b12-3). One's reading of the role of the intellect as faculty of the soul, that is, the way that it is involved in our mental life, is thus determined in Aristotle's psychology by the way that one reads his treatment of the activity of *voeĩv*. However, as further considerations show, Aristotle also ascribes a broader role for the intellect than only the central account, which defines it by its activity of *voeĩv* in *De an.* Contrary to the broad reading of Johansen, I argue that this does not give a broad role for the noetic activity, which is central in Aristotle's account of the intellect, and furthermore that this does not do away with the distinction of noetic activity with discursive capabilities of the soul. Aristotle's central account of noetic cognition shows that he is concerned by the highest fulfilment of cognitive operations, not just our ordinary notion of thinking, even though ordinary thought is somehow in

his account related to it also. In his considerations of the intellect, Aristotle has in his focus the most successful state available to our cognitive faculties, which is in his terms the veridical cognition which consists of forms, forms as objects of explanatory sciences.⁴⁶

In the order of explanation, the object is prior for the faculty in the sense in which actuality is prior to potentiality. This is not a recommendation for the sake of convenience but a reflection of a deeper commitment in Aristotle's philosophy, which places priority on actuality over potentiality (*Met.* Θ.8, 1049b10-7; Λ.6, 1071b12-2a18). The order of explanation in the psychology of *De an.* is necessary, because activities of the soul belong to the level of actuality, whereas faculties or capabilities of the soul belong to the level of potentialities. Capacities or faculties are in themselves, considered in isolation, indeterminate, which is to say that in the psychology of *De an.* there is no determinate content within the mind or the soul but only potentialities that are functionally determinable in relation to the objects that they are correlated with. Faculties, in this sense, are not approachable directly but only in relation to the actualities that are individuated by the specific objects of the faculty. (Shields 2016, 199-220.) This gives certain externalism to Aristotle's picture of psychology, which is not the externalism in which the content of the mind or the soul is determined by external things, but an externalism where there is no determinate content in the soul but only potentialities for actualities that are determined and individuated by their objects. The first thing, then, in Aristotle's psychology is to identify the real, external objects that pre-exist subject's coming to cognize them in either perception or noetic cognition. A capacity of the soul can, in this sense, be taken as a capacity for conforming to the real objects that determine them. Another way of putting it would be that the object is what informs the capacity, making it conform to its characteristics. This implies an externalism and realism, in which the informed capacity is qualitatively identical to its object, which in Aristotelian terms is to say, identical in form (εἶδος).

3.1 The opening query

The topic of the intellect begins a fresh inquiry in the psychology of *De an.* with its own doxography. The intellect is considered as "the part of the soul by which it knows and the soul that understands" (3.4, 429a10-11).⁴⁷ One could say that Aristotle's intent in

⁴⁶ Above I have explained that for Aristotle the intellect has as its object the highest objects or the most excellent objects (τῶν τιμιώτατων, *NE*, X.7, 1177a22-5).

⁴⁷ περὶ δὲ τοῦ μορίου τοῦ τῆς ψυχῆς ᾧ γινώσκει τε ἡ ψυχὴ φρονεῖ. cf. 1.5, 411b5-7; 2.1, 413a4-6, 3.4, 429a23. Not much can be made of the fact that it is a part of the soul and not the whole human who

this is to make the intellect responsible for the specifically intellectual or noetic way of knowing. Otherwise we could have to take Aristotle as doing away with the distinction that is elaborated between various discursive capacities of the soul, which belong to the perishable, and the intellect, which is responsible for noetic rationality. Polansky (2007, 434) notes that the cognitive terms that he refers to here do not have fixed meaning in the literature. ‘Knowing’ (γινώσκω) can be taken as ordinary knowing or as scientific cognition, whereas ‘understanding’ (φρονέω) is usually taken as Aristotle’s term for practical understanding or intelligence in a field of action (ibid.). Here the use of ‘understanding’⁴⁸ can be taken to indicate that Aristotle intends to deal with the part of the soul by which it can know intellectual rather than just by perception (ibid., 435). Aristotle sets as his aim to distinguish the differentia (διαφορά) of this part of the soul and how it is that its activity of noetic cognition (τὸ νοεῖν) comes about (429a11-3).⁴⁹ It is safe to assume that noetic cognition is intended here as the characteristic activity that belongs to the intellect, considered as the noetic faculty of the soul. The use of the notion of ‘differentia’, in this opening inquiry, is not especially clarificatory. Shields (2016, 295) suggests that in seeking for the differentia Aristotle is not using the term in its technical sense, where it indicates a taxonomical scheme of specifying a feature whose presence orders a species under a genus (*Top.* IV.2, 122b12-24; 6, 128a20-37; *Met.* Δ.14, 1020a33-b1), but instead in a more relaxed sense, perhaps as asking what the distinguishing mark or definition of the intellect is. I argue that the differentia of the intellect can be associated to the main premise of the intellect (429a18), which holds that it is in certain sense neutral or limitless, as discussed in the section 3.3 of this work. The intellect is ‘unmixed’ with the body and separate on the basis of being entirely neutral, and it is in this sense distinguishable from the sensory activities of the soul that are based on the functioning of various sense modalities that utilize bodily organs.

The part about the opening inquiry which concerns the activity of noetic cognition is more interesting, because it relates to the overall programme of *De an.*, but also to Aristotle’s dialectical engagement with Anaxagoras’ account of the intellect. Shields thinks that the question ‘how is it that noetic cognition comes about’ (πῶς ποτὲ γίνεται τὸ νοεῖν, 429a13) allows for two readings, which he calls analytic and genetic. Shields

knows or understands, as in *De an.* 1.4, 408b1-15 (Shields 2016, 294). Themistius opts for substituting ‘soul’ for ‘human being’ in this passage (*In de an.* 92, 32). But this seems unnecessary, as Shields (ibid.) claims, since Aristotle is not denying that the soul can be a subject of predicates, only claiming that it is not subject of any intrinsic motions in 1.4.

⁴⁸ Used in previous chapter in reference to predecessors, see 3.3, 427a19, a21-2, a24, a28, b7.

⁴⁹ σκεπτόν τιν’ ἔχει διαφοράν, καὶ πῶς ποτὲ γίνεται τὸ νοεῖν.

claims that the phrasing itself can be taken as neutral between these two readings. (Ibid., 296.) In the analytic reading Aristotle's focus is on analysing the activity of noetic cognition, what is it like and how it is determined (by its object, which is form). In this analytic reading Aristotle aims to consider the activity of the faculty, what is it like, and how is the faculty affected by the object. In the genetic reading Aristotle's focus is on the developmental account, how it comes about. In this genetic reading Aristotle's focus is on how the activity of noetic cognition is developed out of prior soul's capacities, out of sense perception, memory, and experience, and in this sense the consideration of the intellect in *De an.* 3.4 can be seen as continuous with the epistemological account from other works (*Met.* A.1 and *APo* 2.19). Perhaps in this context it makes more sense to take Aristotle's focus to be on the analytic question of determining the activity of noetic cognition, what it is like, since in the programme of *De an.* it is taken as the determining factor for the faculty. But, as noted, it would be appropriate for Aristotle to ask both questions, given the background of the preceding discussions in *De an.*, although, as Shields notes, "then he would be packing a surprising amount into a pithy phrase" (ibid., 296-7). But even if that is the case, Aristotle can be seen as concerned with both of these issues. The intellect is determined by its activity of reception of forms, as discussed in the next section (3.2), but there is also reason for taking Aristotle to assume the genetic question of how the activity of noetic cognition comes about.⁵⁰

Posing the genetic question makes sense in the light of the dialectical critique that Aristotle places on Anaxagoras' theory of the intellect. Aristotle can be taken as adopting the crucial aspect of Anaxagoras' theory of the intellect (its self-determining character, discussed below in 3.3), while also improving its shortcoming. For Anaxagoras the intellect is the cause of the order of the existing universe (DK B12, 59 or TEGP 31 F15).⁵¹ Aristotle recognizes that the intellect is in Anaxagoras' theory what causes the universe to move (*De an.* 1.2, 404a25ff.; 404b13-8; *Met.* A.1, 980b15-20), which makes the intellect into something completely unlike anything else in the universe, because it must be separate from the universe so that it can set it into order.

⁵⁰ In Alexander's reading activity of the intellect, as faculty, requires the intervention of a transcendent, divine intellect, as discussed in section 1.4 of this work. An alternative approach would perhaps take the coming about of the intellect to be dependent on the lower capacities of the soul rather than a transcendent intellect, but this is an argument that exceeds the boundaries of current work.

⁵¹ It seems that in certain sense Aristotle also has room for the idea of the intellect as he cause of rational order in the existing cosmos (Reeve 2017, 82). Aristotle recognizes that every part of the intelligible universe must have a material aspect and moving cause to it (*Met.* Λ.5, 1071a33-4). The universe (τὸ πᾶν) refers to spatio-temporal realm, not to the whole of reality. Aristotle's notion of prime mover is itself without material aspect (Λ.6 1071b20-1).

But Anaxagoras seems also to be confused for Aristotle for treating the soul and the intellect as having a single nature, except when claiming that it is the principle (ἀρχή) of everything (405a13ff.).⁵² Aristotle sees something of great importance missing in Anaxagoras' cosmological picture of the intellect. In *Met.* A.4 (985a18-21) Aristotle argues that Anaxagoras' intellect represents a kind of a *deus ex machina* of cosmic production. Aristotle is probably thinking about certain crane-like constructions that were used by the Greek theatres to hang gods in mid-air, bringing them in at the end of a play to tie things together in an artificial way, resolving difficult situations with petty solutions (Reeve 2016, 277).⁵³ Aristotle argues that Anaxagoras is confused about the intellect's role, because it is on the one hand made responsible for order in the universe, but on the other hand it is left unaccounted for the way that the soul comes to grasp the forms. The intellect for Anaxagoras seems to be responsible for almost everything else than the cognition of forms that belongs to the noetic faculty of the soul. It is just dragged in to the theory by necessity and left unaccounted for any psychological activity. This is a complaint that Aristotle raises in *De an.* about Anaxagoras' theory, namely that it does not explain how the intellect comes about in the case of the soul (405b20-3). This is to say that Aristotle adopts the task of explaining the soul's intellectual activity, which is something that he thinks Anaxagoras misses in his cosmological picture. In Aristotle's theory the intellect is made responsible for the intellectual activity of the soul, which requires positing a prior potentiality to the soul that corresponds to the actuality of the intellect, potentiality that is brought into actuality (in the teleological sense of fulfilment) by an external, acting cause. In Aristotle's philosophy there is some way in which the intellect is brought into being in the case of the soul, perhaps because it is not the case for him that the human soul is an intellectual cognizer from the get-go. And it is this cleft in Anaxagoras theory that he is amending by positing the model of efficient cause to his theory of the intellect.

3.2 Reception of objects in the soul

In *De an.* Aristotle talks about two faculties of the soul whose primary activity is reception, the sense faculty (τὸ αἰσθητικόν) and the noetic faculty (τὸ νοητικόν). As Charles argues, to introduce the account of reception is to recognise a causal history of how the actual state or activity of the faculty is determined by the way that its object

⁵² Ἀναξαγόρας δ' ἔοικε μὲν ἕτερον λέγειν ψυχὴν τε καὶ νοῦν, ὥπερ εἵπομεν καὶ πρότερον, χρῆται δ' ἀμφοῖν ὡς μιᾷ φύσει, πλὴν ἀρχὴν γε τὸν νοῦν τίθεται μάλιστα πάντων. 405a13-6

⁵³ Anaxagoras seems also for Plato to be talking about the intellect as mechanical cause (*Laws* XII; *Phaedo* 98b-c).

affects it. The activity that belongs to the sense faculty, sense perception (τὸ αἰσθάνεσθαι) is defined in relation to that which is perceptible, to object of sense (τὸ αἰσθητόν), and noetic cognition (τὸ νοεῖν) is defined in relation to that which is intelligible, the noetic object (τὸ νοητόν). In this section I will discuss how Aristotle characterizes noetic activity as analogous to sense perception (in *De an.* 3.4, 429a13-8). The most important parallel between them is that both are taken as activities of reception (δεκτικός), namely reception of the form (εἶδος). The proper activity of the faculty, in both cases, consists of assimilation (or ‘likening’ for Charles 2000, 115) of its proper object, where successful assimilation results in state of perceiving, perceptual state (αἴσθημα) or noetic state, noema (νόημα) in the case of the noetic faculty.

The reason for characterizing the activity of perception and noetic cognition in terms of receptivity, as argued by Charles (*ibid.*, 110–46), is that Aristotle aims to analyse both activities of the soul with his model of efficient causality. The activity of perception and noetic cognition both imply a model of assimilation or ‘likening’ to an external, real object, which acts upon the faculty as efficient cause. Charles takes Aristotle to recognize a causal history for the noetic or perceptual state, because a proper and veridical contact with an external, real object is what determines the identity of the state in both cases. Charles’ reading of Aristotle’s model of efficient cause is particularly useful in approaching an understanding of the activity that belongs to the intellect as part of the soul. Noetic cognition (or ‘thinking’ in Charles’ terms, which I argue is a particularly ill-fitting term for this activity) is an activity that aims at noetic state, which is a successful contact with noetic objects. The object determines the identity of the state, as discussed above. This is to recognize a causal history for successful noetic or perceptual state terms of efficient cause, discussed as activity of assimilation or ‘likening’. This theory of assimilation forms the core of Aristotle’s theory of noetic cognition and perception, where the faculty is informed or determined by the characteristics of its object.⁵⁴

The model of affections of the soul, introduced in *De an.* 2.5, necessitates that the receptive capacity of the soul must be potentially the same as the object but not already be it, so that it can receive it. The receiving subject’s faculty is potentially what the object is actually, and the faculty is made alike or is likened to the object by being acted

⁵⁴ As Perälä 2015, 358 also argues.

upon by it (418a3-6, here discussed as relating to perception but applies also by analogy to noetic cognition). Aristotle's notion of reception of objects in the soul in terms of causal efficacy requires that the two relata in the relation of 'being acted upon' are same in genus but distinct in species (see 418a3-6, 'potentially such as the object is actually'). Charles explains that the claim about the identity of the faculty with the object in potentiality is not as perplexing as it first seems. What it amounts to, in the case of perception, is that "a given case of (e.g.) seeing is the one it is because it is a case in which (e.g.) blue is seen." (Charles 2000, 113.) What makes a case of perception what it is, is determined by the object. The analogy applied to noetic cognition gives, Charles claims, a general principle about the relation between noema to its objects in terms of determination of identity: what makes a noema what it is, is its object.

'Being made alike' is a case where *a* is made alike by being acted upon by *b*. When this 'likening' occurs, the patient is likened to the agent's efficient power and is made like by it in some relevant aspect (418a5-6). As Charles (2000, 114) claims, Aristotle refers in *De an.* 2.5 to his "general account of affecting and being affected as developed in" the *De generatione corruptione* A.7 (416b35-417a2, transl. Charles.):

Now, some say that the like is affected only by the like. But in the sense in which this is possible or impossible we have already stated in our general account of acting and being acted upon.

Aristotle's model of causal efficacy in *GC* holds that for one thing to affect another, they need to be distinct in species but same in genus, which is to say distinct in form but the same in matter (324a5-7). This model is challenged by the claim, discussed in *De an.* with reference to predecessors' account of perception, that like can be only affect like. Aristotle's solution is reached by saying (417a18-20, transl. Charles):

Therefore, as we have said, a thing is acted upon in a way by the like, and in a way by the unlike; for, while it is being acted upon it is unlike, but when it has suffered it is like, the object.

In Aristotle's general model of causal efficacy the agent and the patient of the relation are both like and unlike at the initial stage; they are unlike in respect to the aspect that is transmitted to the patient, but they need to have enough in common for the agent to be capable of acting upon the patient (cf. *GC* 323b29-324a5). The agent is what brings the potentiality of the patient into actuality by acting upon it as efficient cause, for example when a hot object acts upon a cold object, making it alike with itself by transmitting the form of hotness to it. They are necessarily unlike, because if we have two equally hot objects, there can be no causal process between them. When firewood is ignited by

some external source, the firewood as recipient receives the form of fire. The causal efficacy of the external source of fire acts on the firewood, actualizing the potentiality of the firewood of being ignited and making it alike with itself. For a causal relation of this kind to be possible the patient must be suitable for receiving the form. The firewood must be potentially receptive, meaning that it cannot be made of bricks or soaking wet etc., but it also cannot be already at fire, for otherwise it cannot receive the form of fire (*GC A.7*, 324a9-11, transl. Charles):

This is why it is indeed plausible to say that fire heats and the cold cools, and that, to speak generally, what is active (the agent) makes the patient like itself.

To use the example above, what is essential in the likening of fire to firewood is not resemblance between them but successful process of transmitting the form of fire: a bonfire does not necessarily resemble the match that starts it but is identical in certain essential aspects when likened in the aspect of fire. The model of efficient cause in Aristotle's psychological theory, as Charles argues, stresses the *process* of causation, in which a recipient in a relation is likened by an agent in some relevant aspect. "Aristotle identifies the result of being acted upon with the *activity* of being acted upon" (*ibid.*, *emph. added*, see *Met. Θ.8*, 1050a21-3).⁵⁵ The resulting perceptual state or noema is "*liken-ness* [sic] of the agent's active power" (*ibid.*, 114). One can add here that the contrary for a successful 'likening' for Aristotle would not be the case where the result fails to resemble the cause in its most relevant aspect, but the contrary case would be the case where there is no proper causal process to begin with. And there is no causal process of the kind that Aristotle recognizes in perception and noetic cognition if the subject is already like the object or alternatively misses the object entirely.

3.2.1 Aristotle's realism

In a concluding statement about the soul Aristotle gives an exhaustive distinction of things (τὰ ὄντα) that can affect the soul (3.8, 431b20-3):

Now, summing up what has been said on the soul, let us say once more that the soul is in a way all things (τὰ ὄντα); for things are either perceptible objects (τὰ αἰσθητά) or noetic objects (τὰ νοητά), and theoretical knowledge is in a way the theoretically knowable objects (τὰ ἐπιστητά) and perception the perceptible objects.

Νῦν δέ, περὶ ψυχῆς τὰ λεχθέντα συγκεφαλαιώσαντες, εἰπόμεν πάσιν ὅτι ἡ ψυχὴ τὰ ὄντα πῶς ἐστὶ πάντα. ἢ γὰρ αἰσθητά τὰ ὄντα ἢ νοητά, ἔστι δ' ἡ ἐπιστήμη μὲν τὰ ἐπιστητά πως, ἢ δ' αἴσθησις τὰ αἰσθητά.

⁵⁵ Efficient causality is an important aspect of Aristotle's understanding of becoming of things (see *Met. Z.17*, 1041a29-32), for example in his discussion about thunder and eclipse in *APo 2.8*, which can be taken as examples of this kind of production (Charles 2000, 115, n7).

That ‘the soul is in a way all things’ means that the distinction of things into two categories, into objects of sense (τὰ αἰσθητὰ) and noetic objects (τὰ νοητά), is intended as an exhaustive distinction of things that can affect the soul. The upshot of this passage is that Aristotle clearly recognizes separate noetic objects, which are not identical nor reducible to the objects of the sense faculty. As Shields (2016, 342) notes, there is some emphasis in this passage that the soul knows all knowable things: if the intellect knows all intelligible or noetic objects, and if perception all perceptible objects, and if there are no other kind of things to be known, then there isn’t anything the soul cannot be. Noetic objects are associated, in the latter half of this passage, to theoretically knowable objects. In a strong reading one could take them as constituting a single category, but it seems more plausible to take Aristotle as saying that noetic objects are things that can directly affect the soul and that are intimately related to theoretical knowledge (ἐπιστήμη). The upshot of the passage is that Aristotle clearly espouses a realism that covers both the objects of perception and noetic cognition. The distinction between them can be taken as exclusive, as is required by the general programme of *De an.* of defining faculties on the basis of their specific objects. This means that perceptual objects are not attained through the noetic faculty and *vice versa*. There are two separate kinds of objects that can affect the soul, which is to say that Aristotle espouses a realism that covers both the objects of perception and noetic cognition. This leaves open the question, because noetic objects are directly associated to theoretical knowledge in the passage, whether or not sensible objects can also be taken as epistemic objects.

The division of things into perceptible and noetic is followed with an important cautionary remark (3.8, 432a12), that in this division it is difficult to distinguish between primary concepts (πρῶτα νοήματα) and appearances (φαντάσματα). Appearances can be taken here as referring to sensuous content that is retrieved by the sense faculty. Shields (2016, 347) suggests that Aristotle is here thinking as ‘primary concepts’ the sub-propositional material that can be combined to form a coherent propositions, certain primary theoretical formations that do not by themselves predicate anything of anything but can be woven together to form a coherent proposition. As I will argue in subsection 3.5.1, Aristotle places a distinction between two fundamental operations in cognitive activities, between combinatorial and receptive operations. Aristotle gives a separate treatment for the reception of the simple constituents of propositional thoughts and for the combinatory action of cognition that gives a propositional thought. In Aristotle’s distinction between concepts and appearances they

can be taken as similar in the sense that neither, by themselves, constitute a proposition. Appearances or primary concepts do not predicate anything for Aristotle, but they can be combined to form a proposition, and it seems that he posits both as necessary for discursive reasoning to take place.

As claimed above, the informed capacity, which has received a form, is for Aristotle qualitatively identical to its intentional object, or, in Aristotelian terms, identical in form (εἶδος). The form is for Aristotle what explains the unity of a thing, it is the reason for why the object is a unity rather than plurality, and it is also that which is identical for both the faculty and the external object that determines it in the way of an efficient cause. On this basis Michael Esfeld (2000) argues that Aristotle's psychology operates on the assumption of what he calls direct realism. Direct realism can be defined in opposition to mediated forms of realism. Realism here pertains to the epistemic access of psychological subjects to objects. In mediated realism there is some universal intermediary between subjects and their epistemic objects, such as 'mental representation' as in the doctrine of representationalism.⁵⁶ For direct realism there is no such universal intermediary between our cognitive acts and their objects (ibid., 329). This is not to claim that there cannot exist any causal intermediaries, on the contrary several causal intermediaries, such as, in actual states of perception, such as light, sensory stimuli, brain processes, etc., can be taken as having a crucial enabling role for all cognition. For direct realism causal intermediaries can be taken as constituting necessary but not sufficient conditions for cognition. But, as Esfeld argues, when it comes to epistemic relations between subjects and objects in the world, for Aristotle there is no universal intermediary that intervenes in these relations. (Ibid.) Esfeld takes direct realism as the upshot of Aristotle's analysis of objects, in the sublunary sphere, into matter and form, because form is for Aristotle what grounds the identity of an object. The forms that affect the soul's receptive faculties are directly identical with the forms of external, real things in the world. (Ibid., 321.) Existence of external things is what grounds subjects' epistemic states; epistemological realism in Aristotle's philosophy is grounded in his ontology, where things are analysable into form and

⁵⁶ In this work I will not focus on explicating the doctrine of representationalism, my focus is instead in Aristotle's theory, but a strong attribution of universal representationalism can be found from Modrak's (1987) epistemological reading of Aristotle's psychology. Modrak's error is to attribute to Aristotle the claim that all epistemic objects are somehow constructed by the mind out of sense data, and, consequently, that forms are for Aristotle only representational units (see ibid., 179), which commits her reading to a strong psychologism and representationalism which is alien to Aristotle's psychological theory.

matter. In modern terms, Esfeld suggests, we can take Aristotle as presupposing reality to have conceptual structure, which is discernible by the cognitive activities of psychological subjects (*ibid.*, 334). For Aristotle reality has a structure that has causal power to affect the soul's receptive faculties, structure that is both independent of the thinking and perceiving mind and capable of becoming known in states of perception and noema. Esfeld's own preference is to take reality as neutral rather than as having conceptual structure (*ibid.*, 322; 336). From the Aristotelian perspective one may wonder how such an unstructured reality can be represented or demonstrated by any theoretical practice. Conceptual structures are for this view superimposed onto reality, and it becomes a mystery how, if ever, we could get to know anything about such purported unstructured reality.

The definition that Aristotle gives for perception, discussed in next subsection of this work, offers, as Esfeld argues, strong evidence for interpreting Aristotle's view of perception in terms of direct realism. Esfeld argues that this same applies also to noema (or 'thought'). The actuality (*ἐνέργεια*) of the epistemic state of noema consists of the identity of the cognitive state and its object.⁵⁷ Therefore Esfeld argues that we can read Aristotle's theory of perception and noetic cognition (or 'thinking') in terms of direct realism. (*Ibid.*, 327-8.) This, for Esfeld, also grants certain type of externalism to Aristotle's psychological theory (*ibid.*, 333). The externalism that characterizes Aristotle's theory of psychological subjects is not the externalism which states that the supposed content of mental states is determined by extramental objects, but that there simply are no identifiable mental states independently of contact with external things in the world, which comprise both noetic objects and objects of sense. In the soul there are only capacities or potentialities, which can be individuated and determined only in relation to the external objects that determine them.

3.2.2 Perception as reception of form

The paradigm case of perception is for Aristotle reception (*δεκτικός*) of object by the sense faculty. The actual analysis of perception for Aristotle is quite a complex matter and there is a vast literature on it, and it is simplified here for my purpose because my aim is not to analyse perception but simply to highlight the ways in which it is structurally similar to the noetic activity. Perception is characterized as a 'kind of an

⁵⁷ See *De an.* 3.4, 429b30-1; 430a3-5; 5, 430a19-20; 3.7, 431a1-2; 431b17; *Met.* Λ.7, 1072b21-2.

affection' or 'suffering' (πάσχειν τι),⁵⁸ in the sense of being acted upon by the object.⁵⁹ The reason for characterizing perception as a 'kind of an affection' is a consequence of taking perception as a 'kind of an alteration' (ἀλλοίωσις τις, 2.5 416b33-4, cf. 418a3-6), marking perception as a special case natural change. This is to say that perception is not a standard case of natural alteration in Aristotle's physics, where one attribute of an item is destroyed and replaced with another, for example in the case where a leaf changes colour from green to red come autumn. Perception, while characterized as a case of 'affection' or 'suffering', is not a destruction (φθορά) but a saving (σωτηρία, 2.5, 417b2-8, 14-6, 8a3-6), where the form is transmitted from an object to the faculty. Another reason for characterizing perception as 'affection' is because the activity of perception can in this sense be contrasted to activities that consist of production or doing (in the sense of ποιεῖν), to things that are done by the subject rather than suffered by it. Affections are things that subjects undergo or 'suffer', that happens to the subject as opposed to what the subject does or produces (Reeve 2017, 76). When an object acts upon the subject, and the resulting state is an affection (πάθη), this is a state which is the subject's undergoing. Perception is for Aristotle an activity that does not consist of production but of affection, which is not a standard case of alteration but a case of alteration where the affected subject preserves rather than destroys.

The activity of perception, or the perceptual state, consists of the faculty being likened or becoming like (ὅμοιος) to the external object that causes it. In the case of perception, David Charles argues that Aristotle is committed to the view that the perceptible quality, such as white or black, induces in the perceiver a result that is 'likeness' of the white or black that exists, albeit potentially before the causal relation, in the perceived object. Charles (2000, 115) takes this to stress the fact that the result would not be, what it is, unless it is produced by this particular quality in the object, which is to say that the quality in the object is what determines the identity of the resulting perceptual state. Aristotle's definition of sense perception is that it is an activity of reception of form without reception the material aspects of the object (2.7, 418a3-6; 2.11, 424a1-2; 3.4, 429b30-1). Aristotle's celebrated definition of perception goes as follows (2.12 424a17-21, transl. Charles):

⁵⁸ Perception as πάσχειν τι, see 2.5, 416b33-4, 418a5; 2.7, 419a17-8; 2.11, 424a1.

⁵⁹ Perception is caused by the object, see 2.5, 417b20; 2.10, 422b15-6; 2.7, 431a4-5.

The sense is what is receptive of the forms of sensible objects without the matter, just as the wax receives the design of the signet ring without the iron or gold, and receives the gold or bronze design, but not as gold or bronze.

The crucial point for Charles is that when the wax, or the perceptual faculty, is affected by some object, the signet ring or perceptible quality, this object affects the faculty by making it alike in the relevant aspect. The reason why Aristotle gives the analogy here of the signet ring and wax in analysing perception is because an imprint is what it is because of the *process* that has caused it. In this kind of process of causation the patient is likened to the object: the agent not only brings the resulting state about, but also and essentially determines the quality, or the form, of the state. (Ibid., 115-6.) The role of the efficient cause as process of determination is central for Aristotle's analysis of 'likening' or 'likeness' in his psychology of cognitive states. As Charles argues (ibid., 115), Aristotle's application of the causal model to cognitive activities does not require that the resulting state is characterized in terms of resemblance, of one thing resembling another, but rather in terms of successful assimilation, or in his terms, 'likening' of the faculty to the object. One could add to Charles' analysis that the process of likening determines the state, but this does not require an analysis in sense of resemblance or isomorphism, because the process is not characterized in terms of production (ποιεῖν). Perception is not an activity of production of a similarity of one thing with another, of the perceptual state with the object, that is, perception is not analysed in terms of resemblance but in terms of efficient causality for Aristotle, efficient cause as the determinant in the relation of the faculty to its object, where the activity of the faculty is qualitatively identical to its external cause.

3.2.3 Analogy of noetic cognition to perception

Noetic activity (νοεῖν) is for Aristotle analysed in same terms as perception in above discussion. Aristotle discloses his notion of noetic cognition as an activity of reception (δεκτικός) in both the *Metaphysics* Λ.7 (1072b22-3) and the *De anima*. Noetic cognition is an activity of reception that is caused by its noetic object (τὸ νοητὸν). After the opening inquiries in *De an.* 3.4 (429a10-13, discussed above), which open his positive doctrine of the intellect or noetic faculty in, Aristotle gives a broad analogy of noetic activity with sense perception.⁶⁰ The results of this characterization are central in my argument, and they are widely discussed in the interpretative literature on Aristotle's psychology. But it is rarely, if ever noted whether this can be taken as an analysis of

⁶⁰ Strictly speaking Aristotle does not posit the analogy directly, but the analogy emerges from an antecedent of a conditional proposition in the context, as Shields 2016, 298-8 notes.

thinking, that is, as an analysis of the activity of production of thoughts. The standard translation, as noted, for *voeĩv* is as 'thinking'. This choice of translation reflects the preference of what I have called the broad reading of the role of the intellect as Aristotle's general term for the faculty of thinking. A receptive faculty, in Aristotle's analysis, is determined by its activity, and the activity in turn is determined by its object. It remains an open question at this point, whether we can take 'thinking' as a process of determination of faculty by an object, but, as the analogy aims to show, this is the way that Aristotle intends his notion of noetic activity: it is an activity of reception that consists of qualitative identity of the actual state of the faculty with its object (3.4, 429a15-6, 429b29-30a2; 3.8, 431b20-3).⁶¹ This is the main consequence of applying the model of perception, discussed above, to noetic activity. The analogy of noetic activity with perception is contained in the following passage (429a13-8):

If noetic cognizing (*voeĩv*) is like perceiving, then it should consist of being affected by the noetic object or of something else of this kind. It must, therefore, be impassive, and receptive to the form, and potentially such [as the object] but not be this [object]; and it [*sc.* the faculty] must be similarly towards the noetic objects as the perceptual faculty is towards the perceptual objects.

εἰ δὴ ἐστὶ τὸ νοεῖν ὡςπερ τὸ αἰσθάνεσθαι, ἢ πάσχειν τι ἂν εἴη ὑπὸ τοῦ νοητοῦ ἢ τι τοιοῦτον ἕτερον. ἀπαθὲς ἄρα δεῖ εἶναι, δεκτικὸν δὲ τοῦ εἶδους καὶ δυνάμει τοιοῦτον ἀλλὰ μὴ τοῦτο, καὶ ὁμοίως ἔχειν, ὡςπερ τὸ αἰσθητικὸν πρὸς τὰ αἰσθητά, οὕτω τὸν νοῦν πρὸς τὰ νοητά.

Although the analogy of noetic activity to perception is not directly posited in this passage, it emerges from an antecedent of a conditional proposition, and the results of this analogy are widely accepted as the most important characterizations that Aristotle gives to his psychological notion of noetic activity in *De an.* The salient points of this analogy can be taken as follows: In both noetic cognition and in perception: α) the actual state of the faculty consists of a 'kind of an affection' (*πάσχειν τι*), of the faculties being affected upon by their respective objects, i.e. by sensible objects (*τὰ αἰσθητά*) in the case of perception and intelligible or noetic objects (*τὰ νοητά*) in the case of the noetic faculty; β) the activity of the faculty can be characterized in terms of reception (*δεκτικός*), which is reception of the form (*εἶδος*); and γ) the faculty is the same as its object, or is identified with its object, which is to say in Aristotle's terms

⁶¹ In *De int.* 16a3-11 Aristotle recognizes two aspects of the relation of concepts (*νοήματα*), taken as affections of the soul (*παθήματα τῆς ψυχῆς*), to external things (*πράγματα*): the conventional aspect of associating symbolic expression or utterance to the concept and assimilation or likening of concept to an external thing. Although this passage does not elaborate on the relation of likening (*ὁμοιώματα*) in any length, the notion of likening can be taken as a hint towards the picture of reception that is more exhaustively elaborated in *De an.*, as Perälä 2015, 352 argues.

that the faculty is its object in potentiality (*δυνάμει*) but not actually. The first of these claims is a result of taking perception as a ‘kind of an alteration’ (*ἀλλόιωσις τις*, 2.5 416b33-4), which is not a destruction but preserving. Apparently Aristotle’s intention in this passage is to apply the same characterization and its ramifications, discussed above, to his notion of noetic cognition: The activation of the faculty is taken as a kind of an alteration, where the faculty is brought into activity of noetic cognition by being affected or acted upon by its object, and the identity of the noetic state or noema is determined by the object that acts upon the faculty as efficient cause. This is what is implicated by the second point of characterizing the activity as a process of reception. That the faculty is ‘likened’ to the object or assimilates the object, although not the object itself but its form (*εἶδος*). Aristotle highlights later on in the treatise that it is not the object but its form that is assimilated to the faculty (*De an.* 3.8, 431b24-a1), which is what I have discussed above in terms of Aristotle’s direct realism. Both this second and the third point relate further to the application of the model of efficient cause to the analysis of perception, where the actuality or the state of the faculty is determined by its object. As discussed above, this model requires that the subject is potentially the same as its object is actually, which is to say, same in genus but different in species.

The model of affections that Aristotle gives in his psychology requires that the receptive faculty of the soul must be potentially the same as the object but not already it, so that it can receive the object’s form (2.5, 418a3-6). That the faculty is potentially and not actually the object, which is initially quite a puzzling thesis, is in this sense necessary, because of the model of affections requires that the relata, in the relation that perception consists in, are cannot be initially alike, for otherwise there cannot be efficient causal relation between them, but when the subject recipient is brought into activity, they are then made alike. This is to say that, as Charles argues (*ibid.*, 113), the model of causal efficacy requires that when the subject ‘suffers’ or is acted upon by the object, in the case of perception the perceptual state is determined by the perceptual qualities of the object, and, in analogy, in the case of noetic cognition the identity of the state of noema (or, in Charles’ terms, ‘thought’) is determined by its respective noetic object. The third and the second points are relatively well recognized and discussed in the contemporary interpretative literature. In what follows I want to emphasize the first point for our contemporary understanding of Aristotle’s notion of noetic cognition, namely the consequences of characterizing it as a ‘kind of affection’ or ‘suffering’ (*πάσχειν τι*). As explained above, this characterization allows for contrasting this kind of activity of

reception to activities that consist of production or doing (ποιεῖν), to something that is done actively by the subject rather than ‘suffered’ by it. Aristotle characterizes noetic cognition as a ‘kind of a suffering’, which allows for contrasting it with the activities that are active doing or producing. The resulting state, noema is an affection (πάθη) of a kind, which is the subject’s undergoing. What remains an open question, not usually recognized in the contemporary discussions, is whether or not we can really think of ‘thinking’ as a case of being affected in the same way, as would be implied by the standard translation of νοεῖν as ‘thinking’.

3.2.4 Is νοεῖν ‘thinking’?

As discussed above, Aristotle’s notion of νοεῖν, translated as ‘noetic cognition’, marks an activity that is brought from potentiality to actuality by an external cause. Noetic cognition can be taken as a process of determination, where the actuality or the state is of noema determined by its object cause. Now, the main question of the current work is how to understand the place of this activity in our mental life. The standard translation, as noted already, of νοεῖν is as ‘thinking’. This translation would have us assume that Aristotle’s concern, in his discussion of noetic rationality in *De an.* 3.4-6, is with the task of explaining our ordinary notion of thinking, that is, the process of producing thoughts and ideas in one’s mind. But, given the above discussion, it strikes me as obvious that our ordinary notion of thinking would be ill placed in Aristotle’s analysis of νοεῖν. I argue that it would be very odd if thinking, in our ordinary sense of the term, would yield to the kind of causal analysis of reception that Aristotle applies to his notion of νοεῖν. But then again, if thinking were to be the main issue here, the obvious question would arise: can thinking in the ordinary sense of the term be taken of as an activity of reception? Are thoughts received from somewhere? If they are, then how? This is to say that, if we were to accept this as Aristotle’s focus in the current context, there would also need to be a credible phenomenological account of thinking that is somehow able to reconcile with the characterization of ‘suffering’ or ‘being acted upon’.

But, in my view, it seems more reasonable to assume that the order of things runs in a contrary direction in our ordinary notion of thinking: When, for example, I think of eating a finely cooked, medium rare piece of steak in a restaurant, I neither receive the piece of steak nor the thought, but I produce the thought of the steak in my mind in absence of a real one. This a kind of productive activity that does not require for there to be any kind of direct, causal relation of the object to a receptive faculty of the soul. That

is to say that this example does not count, in my reading, as a case of *voeĩv* in Aristotle's considered sense of the term, because *voeĩv* has the necessary precondition of being receptive activity, reception of the determination of some external cause that acts upon the faculty. Thinking in our ordinary sense seems to be rather a privative affair, which consists of the activity of production of thoughts, and it can be practiced even without any immediate contact to external objects. It is possible that, in the psychology of *De an.*, this type of thinking is dependent in some sense upon appearances, which are produced by imagination (*φαντασία*), and not upon the intellect as faculty of noetic cognition, as I explain further in 3.5.2 of this work.

Above I have given reasons for taking Aristotle to espouse a direct form of realism in terms of both perception and noetic cognition. Noetic cognition has its own specific object that brings the activity about and determines the identity of the faculty. *Noeĩv*, in contrast to thinking, a process of reception, where the state of noema consists of successful, veridical contact of the faculty with intelligible determinations of objects of inquiry. This simple point seems to be lost on those readers who render *voeĩv* (alongside other possible cognitive terms in Aristotle's vocabulary, such as *διανοεῖσθαι*) as 'thinking'. The oddity of being able to talk about thinking as receptive activity is rarely, if ever noted in the literature. But for me it seems clear that Aristotle is not talking about production of thoughts and ideas in one's mind but about certain exceptional cognitive process, which consists of reception of intelligible determinations of an external, real object, and it can in this sense be best taken as the activity understanding the true meaning of an item in theoretical inquiry.

Further, and perhaps more serious confusions would arise from trying to accommodate our ordinary notion of thinking into Aristotle's considerations of the nature of the intellect in the context that follows the analogy with perception (in 429a18-24), discussed in the next section of this chapter. As Burnyeat argues, a good reason for not translating *voeĩv* as 'thinking' is that this allows us to make sense of several complex and otherwise obscure passages in *De an.*, including certain passage that is as famous as it is misconstrued namely 1.4, 408b11-29, which Burnyeat (*ibid.*, 30) calls the "the worst translated passage in ancient philosophy". Burnyeat records in footnotes (*ibid.*, 48-51 n29-40) brilliantly the "chaos and confusion" (*ibid.*, 29) that results from translating *voeĩv* with 'thinking', as is constantly done by authors who ignore the crucial difference between *voeĩv* and *διανοεῖσθαι* in this passage. The passage itself says two times that ordinary thinking (*διάνοια*) does not belong to the intellect. A good, *prima*

facie reason for considering the notion of intellect as marking a separate reality from ordinary thought in *De an.* is that this way of proceeding, as Burnyeat argues, makes the text less obscure.

Another reason for considering *νοεῖν* as separate from our ordinary notion of thinking is that it makes sense to assume that the discussion of *νοεῖν* follows Aristotle's standard practice of defining capacities by considering how they are actualized in their most optimal conditions. As Charles claims (2000, 116), "what a thing can do is defined by what it achieves when it is operating at its most successful." *Νοεῖν* and *θεωρεῖν* can be taken, in Aristotle's psychology, as marking the highest fulfilments available to humans intellectual life, which is to say, as the highest forms of understanding that can be achieved in the work of philosophical inquiry. This goes into disagreement with Broadie's statement, that "there is no such thing (at least on human level) as excellent intellectual activity pure and simple" (Broadie 1996, 172). There is no excellent intellectual activity, except the activity of the intellect itself. It is relevant to note that in her account, which can be representing what I call the broad reading, the list of examples of what she regards as noetic activities (see *ibid.*, 164) all belong to the order of what I have called discursive rationality. She makes no mention of receptive activity, which is to say that for her noetic activities seem to include almost anything except the non-inferential veridical form of cognition that is for Aristotle the reception of forms.

A consequence of this reading is that *νοεῖν* is a form of cognition that has certain necessary preconditions, which are not enjoyed by our ordinary notion of thinking. Thinking comes, so to say, free for the theory, given that we are already thinking when we engage with theoretical projects. But it is not the case that we are in the position of having received the true meaning of the objects of our inquiry before an extensive study has been made. And it is the point of reception of the true meaning of an item, after considerable inquiry into a theoretical topic, which can be taken as being marked by *νοεῖν*. This is why, as Burnyeat (2008, 18-20) argues, it would be better to translate *νοεῖν* as 'understanding'. In *De an.* Aristotle the term *νοεῖν* for a rare theoretical achievement, which is the "grasp of first principles" (*ibid.*, 27). Michael Frede's (1996 165) reading also emphasizes how *νοεῖν* is not the case of ordinary thinking but consists of intellectual insight, which allows for true knowledge. As Frede notes (*ibid.*, 163), Aristotle might assume that this highly specific role of intellect is also something that "colours, or even transforms our ordinary everyday thought and reasoning," but it seems

quite clear that his notion of intellect is not posited for explaining our ordinary activity of thinking.

In several places in *De an.* Aristotle tells that his notion of *νοῦς* stands for something different from ordinary thought and that it is divine in comparison to mortal life (1.4, 408b 3-29; 5, 410b12-5; 2.2, 413b24-32). In the previous chapter of this work I have discussed how Aristotle marks the intellect as a separate topic in his discussion of capacities that belong to the perishable (2.3, 415a7-12). The main difference there, in forms of rationality, is between *νοῦς* and *διάνοια*, where the former is reserved to a special role of theoretical contemplation and the latter for ordinary thought. Burnyeat argues that our ordinary conception of thought can be associated to *διάνοια*, which denotes the power for *thinking*, and together with *λογισμός* constitutes the specific difference of human beings, the rational powers that mark off human beings within the genus animal (Burnyeat 2008, 18).⁶² For Aristotle *νοεῖν* and *νοῦς* are reserved to the exceptional role of theoretical contemplation and are not to be treated on equal footing with our ordinary conception of thinking.⁶³ As recent reading by Iakovos Vasilios also emphasizes, “the bulk of what we ordinarily call thinking and thought is a function of the perceptual system together with” *διάνοια*, which is thought, and *λογισμός*, reasoning (Vasiliou 2013, 168). So, the example given above of thinking about a fine meal in a restaurant can be analysed in terms of perceptual activity that functions in accord with certain discursive formations. But, as Burnyeat notes, about this form of rationality Aristotle has remarkably little to say, “either in this or any other works,” which is symptomatic, because he reserves three whole chapters for the discussion about the intellect in his psychology (*De an.* 3.4-6), a separate chapter in his epistemology (*APo.* 2.19), plus “sustained attention in the theological context of *Metaphysics* Λ 7 and 9” (Burnyeat 2008, 19). Whereas ordinary notion of thinking is for Aristotle, Burnyeat argues (*ibid.*), taken much or less for granted, the intellect poses a separate topic, worthy of its own extensive discussion. In what follows I would like to highlight the exceptional character that the faculty of the intellect has in Aristotle’s psychology. I argue that the characterizations, with which Aristotle intends to analyse his notion of *νοῦς* in *De an.* (in 429a18-24), would be ill suited to our ordinary notion of mind or thinking. Rendering Aristotle’s discussion as being concerned with the mind and

⁶² See *De an.* 2.3, 414b18-9; cf. 1.5 410b24; 2.2, 413b12-3; 29-31; 414a12-3; 3, 414a31-2; *Met.* A.1, 980b27-8.

⁶³ See *De an.* 1.4, 408b 3-29; 5, 410b12-5; 2.2, 413b24-32.

thinking would ensue serious confusions about both our ordinary notion of thinking and of Aristotle's notion of *νοῦς*.

3.3 The limitlessness of the intellect

Although the topic of the intellect is first approached with an analogy of its function to perception, the overall tendency in the beginning half of *De an.* 3.4 is to highlight the difference between the intellect and the faculty of perception. Aristotle sees it important to make the distinction between noetic cognition and perception more pronounced than in his predecessors. In *Met.* Γ.5 (1009b1-1010a15) Aristotle accuses his predecessors of not recognizing properly the distinction between intellectual understanding and sense perception and thus having given ground to insufferable epistemological consequences. Similar analysis, although a bit less informative, can be found from the chapter of *De an.* 3.3 which precedes the treatment of the intellect, where Aristotle says that the ancients conceived of perception and *νοεῖν* as the same thing (427a21), supposing, erroneously for Aristotle, that *νοεῖν* is thus corporeal.⁶⁴ Philosophers who take perception to be the same as understanding identify what is true to what appears (1009b11-4). The cause of this belief, for Aristotle, lies in assuming that the only existing things are the perceptible ones (1010a1-3), which seems to go against to his realism about noetic objects, as discussed above. The result of this belief is skepticist position, which Aristotle surely wants to avoid. Skepticism is for Aristotle the inevitable result of taking perception as the sole source of truth, because of the transitory and vacillating nature of sense experience itself (1010a15-1010b1). For Aristotle, in contrast to skepticist position, intellectual understanding and scientific cognition must be based on real, existing objects, noetic objects, which are discussed as forms and essences in the context of *De an.* 3.4-6. Noetic objects are not attained for Aristotle on the basis of having the faculty or perception, but they are equally real, as required by his realism, which requires positing a separate noetic faculty that has a separate nature to it. It is clear, as Johansen states (2012, 228-30), that Aristotle carves out a notion of the intelligible as distinct from the perceptible. Noetic activity is characterized as analogous to perception, but the parallel between perception and intellectual understanding begins to break down, when Aristotle starts to discuss the proper nature of the intellect as such.

The basic difference between the sense and intellectual faculties of the soul emerges from the consideration of their range. Perception for Aristotle, as is widely recognized,

⁶⁴ Also in the first aporetic book Aristotle records the failure of pre-Socratics of not distinguishing the intellect from lesser forms of cognition, 1.2, 404a27-b6, 405a9-17.

concerns particulars (τὸ καθ' ἕκαστον, e.g. *De an.* 2.5, 417b22). Perceptual faculty has a limited range for the kind of information that it can receive, which is due to the fact that sense experience obtains through the use of sense organs, which have a particular material organization. The material composition of the sense organ is, as Johansen notes (2012, 230), in a way “geared to the reception of a particular sensory quality or set of sensory qualities”. The organ in has certain properties, which provides the sense faculty with capacity to be acted on by certain relevant qualities of external objects. Sense capacity is for Aristotle primed for receiving qualities, since it is already like them in certain general level of potentiality (ibid.). The perceptual faculty is responsive to a limited spectrum of information from the world, but in the case of the intellect Aristotle recognizes no similar limitation. My intention is not to focus into the differences between sense faculty and intellect in any depth, because it is not central to my argument. But the second major difference, discussed widely in the literature, is that the intellect, because unmixed with the body, cannot have an organ, because if it did have an organ, it would have some determinate property such as hot or cold, but in fact it has none (3.4, 429a24-6). The idea is that if the intellect were mixed with the body, then it would have some organ, and the material properties of the organ would determine its scope of activity by introducing some quality to it, which it does not have. The third difference is a consequence of this and concerns the impassivity of the faculty, which for Aristotle is evinced by the way that the faculty is affected by an especially intense effect from its object (429a29-b4).

The most important characterization about the nature of the intellect is, as commentators agree (Polansky 2007, 435; Shields 2016, 299-303), that it in certain sense is unlimited or neutral (as is indicated by πάντα νοεῖ in 3.4, 429a18). The activity of νοεῖν determines the nature of the faculty, and Aristotle’s datum is that it this activity is, in principle, unlimited in its scope, as is stated in the following passage (429a18-24):

Necessarily, since it cognizes all being (πάντα νοεῖ), it must be unmixed, just as Anaxagoras says; in order for it to rule, which is to say, in order for it to know. For if it were to be displayed alongside its object,⁶⁵ this would hinder and obstruct it. So, it has no other nature than this: to be capable (δυνατός). The part of the soul, which is called

⁶⁵ This is to follow the conclusion by Menn 2020, 104-5, who argues that παρεμφαινόμενον is subject and τὸ ἀλλότριον is object, and that this use in Greek context indicates that an object is displayed or reflected in a medium. The basic idea is that if the medium also displayed some quality of its own alongside its object, then this would be too bad for its object. Menn thinks that Aristotle is purposively echoing the passage from Plato’s the *Timaeus* 50d-e and thus accepting that the intellect must be in some sense neutral or not to have any determinate character.

the intellect (νοῦς) (I mean by intellect that by which the soul reasons and supposes) is nothing in actuality before cognizing (πρὶν νοεῖν).

ἀνάγκη ἄρα, ἐπεὶ πάντα νοεῖ, ἀμιγῆ εἶναι, ὥσπερ φησὶν Ἀναξαγόρας, ἵνα κρατῆ, τοῦτο δ' ἐστὶν ἵνα γνωρίζῃ· παρεμφαινόμενον γὰρ κωλύει τὸ ἀλλότριον καὶ ἀντιφράττει· ὥστε μηδ' αὐτοῦ εἶναι φύσιν μφδεμίαν ἀλλ' ἢ ταύτην, ὅτι δυνατός. ὁ ἄρα καλούμενος τῆς ψυχῆς νοῦς (λέγω δὲ νοῦν ᾧ διανοεῖται καὶ ὑπολαμβάνει ἢ ψυχῆ) οὐθέν ἐστιν ἐνεργεῖα τῶν ὄντων πρὶν νοεῖν.

The conclusion of this passage states that the intellect is in itself nothing in actuality before noetic cognition takes place. This can be taken as a necessary consequence of the premises that the intellect must be in potentiality such as its object is, and that its object is such as to be possibly anything, which is to say that it has an unlimited scope.

Vasiliou (2013, 173-4) reads this conclusion as saying that the intellect does not belong to those who have no theoretical grasp of the forms, which is why he thinks that it is controversial to take the intellect as a faculty rather than just as the process of understanding which is identical to its object. Nothing crucial, though, seems to hang in my reading on the question of whether or not we take the intellect as faculty in this context. But it is a difficult and controversial point that relates to the question of how the special kind of understanding that belongs to the intellect is related to ordinary forms of thinking. I leave this question open here and return to it in the following sections of current chapter.

In this passage Aristotle refers approvingly to Anaxagoras (also 429b24), interpreting Anaxagoras' theory of the cosmic intellect as referring rather to the cognitive power, that belongs to the soul, than to the principle of the order in cosmos.⁶⁶ Aristotle's interpretation of Anaxagoras' argument (in B12) seems to hold that if the intellect were to be mixed into the primordial ingredients of cosmos, then this would prevent it from being capable of ordering the lower concentrations of these ingredients in the pre-cosmic mixture, as Menn (2020 106 n16) notes.⁶⁷ But the basic statement about the intellect, shared by these thinkers, can be characterized in terms of limitlessness or neutrality (ibid., 104-6); if the intellect were such as to be displayed alongside its object,

⁶⁶ Aristotle cites the same characterizations from Anaxagoras in *Phys.* VIII.5, 256b24-7 as a point pertaining to unmoved movers.

⁶⁷ Menn also argues that Aristotle assimilates Anaxagoras' theory of the intellect to Plato's receptacle in *Timaeus*. The receptacle in *Tim.* is necessarily "unshaped by all those forms which it is going to receive from anywhere: for if it were similar to any of the things that enter into it, then when things of a contrary or entirely different nature come to it, it would not receive their likeness well, since it would display its own appearance alongside them (τὴν αὐτοῦ παρεμφαῖνον ὄψιν)" (50d7-e4, transl. Menn). Polansky (2007, 438) also notes the similarity between Aristotle's παρεμφαινόμενον (429a20) and Plato's παρεμφαῖνον (*Tim.* 50e3-4).

this would hinder and obstruct its activity of *νοεῖν* covering all possible reality. It cannot have any other nature than being capable (*δυνατός*), and it is nothing in itself prior to any actual event of noetic cognition, because of its unlimited scope. The basic datum here is that the unlimited scope of *νοεῖν*, which necessitates that the noetic faculty must be entirely neutral. This is a fundamental point about the nature of the intellect that is shared by Aristotle and Anaxagoras. It necessarily has no features of its own because it comprises all reality to its scope. In Aristotle's terms the intellect is capable of receiving all forms, which necessitates that it is in itself entirely formless. This seems to be the idea that is also implied by the metaphor of the intellect as blank writing tablet, which can be directly connected with the preceding passage (3.4, 429b29-30a2):

But being affected in virtue of something common has been discussed before, that the intellect is in a way the intelligible objects in potentiality, although nothing in actuality before cognizing (*πρὶν νοεῖν*) – and it is in potentiality in the same way as writing is on a wax tablet on which nothing is written in actuality. This is how it is in the case of the intellect.

ἢ τὸ μὲν πάσχειν κατὰ κοινόν τι διήρηται πρότερον, ὅτι δυνάμει πῶς ἐστὶ τὰ νοητὰ ὁ νοῦς, ἀλλ' ἐντελεχεία οὐδέν, πρὶν ἂν νοῆ· δυνάμει δ' οὕτως ὥσπερ ἐν γραμματείῳ ᾧ μὴ ἐν ἐνυπάρχει ἐντελεχεία γεγραμμένον· ὅπερ συμβαίνει ἐπὶ τοῦ νοῦ.

In this passage the connection both to the discussion about the receptive activity of noetic cognition and to the discussion about the unlimited potentiality of the intellect are quite evident. Charles seems to be confused about this statement. He seems to think that this is a characterization that applies to undeveloped thinkers and not to the intellect as such (Charles 2000, 140). Perhaps this is because he wants to apply certain two-stage model to the analysis of the intellect, where the intellect somehow first receives indeterminate content and then determines the content in reception of form, and in his reading this characterization would probably apply to the stage where the content is undetermined by any efficient cause. But clearly Aristotle's focus is here on the basic dispositional nature of the potential intellect as such, as also Alexander's reading emphasizes (*In de an.* 1.85.1-5, transl. Fotinis):

As the surface of a tablet in which there inheres a disposition for being written on would be affected if it were inscribed, but the disposition itself would undergo no change by being actualized, since it is not the subject [of the writing]; so the intellect is not a subject which is acted upon because it is none of the things which actually exist.

Spelling out the details, various controversies, and connections to Anaxagoras' theory and Platonic texts would be quite interesting, and would perhaps require another work on their own right. But, without lingering here on this topic for too long, I would like to

emphasize only the exceptional nature of the intellect, which emerges from these considerations. For the purposes of my argument it is crucial to note that it would be quite odd if we were to take Aristotle as discussing the ordinary notion of thinking or the mind with these ontological characterizations of the nature of the intellect. The main purport, then, of this discussion about the limitless nature of the intellect for the current work can be taken as highlighting the exceptionality of the intellect in itself, which marks it as a separate, higher form of understanding than ordinary thought and discursive rationality. It is open for us to assume that ordinary thought and discursive rationality does not yield to the same kind of analysis, although this is at this point quite speculative proposition. As already noted, Aristotle does establish a connection between the intellect and various forms of discursive reasoning. The context, however, of *De an.* 3.4 does not provide much resources for settling the question or the relation of this limitless intellect and discursive capacities of the soul, and it remains an open question how this unlimited potentiality somehow transforms into or is involved in the concrete acts of thinking in discursive practices.

The basic difference is in this context for Aristotle seems to be the difference between the faculty of perception and the intellect. Aristotle seems to characterize the intellect, as a faculty that belongs to the soul, mostly in negative terms, namely in the way that its nature differs from the nature of perceptual faculty in *De an.* It is also possible to discuss Aristotle's theory of the intellect in contrast to discursive rationality, as I aim to show in the rest of the current chapter. But while the difference between perception and noetic cognition is not the main focus of the current work, it should also be noted that the difference between them is often discussed as a difference that holds between particulars and universals. This difference between these two faculties is often spoken of as though it would consist in the difference between particulars and universals as objects of different faculties,⁶⁸ although this scarcely seems to be Aristotle's chief concern, when discussing the nature of the intellect itself. In certain line of Aristotelian thinking the intellectual operations of the soul are contrasted to perception, because they are considered as dealing solely with universals as objects (τὸ καθόλου), traditionally taken as universal kinds. In this discussion I want to give only a few brief comments on why I have chosen not to focus on this the topic of universals in this work: Firstly, the term itself does not show up in the context (3.4-6) in which Aristotle defines the

⁶⁸ See Charles 2000, 130; Irwin 1990, 320-2; Wedin 1988, 115; 119-36; 205. The proof for this view is often taken from another context, namely *De an.* 2.5 417b21-7, but, as Perälä 2015, 356 n23 argues, this confines knowledge and not 'thought' or noetic cognition to universals.

intellect as part of the soul. This gives a *prima facie* reason for thinking that Aristotle's interest is not in characterizing the intellect as a faculty that deals with universals.⁶⁹ Secondly, the characterization of the intellect as unlimited can be taken as saying that the intellect can be taken as pointing towards universality in an unconditional way, which does not limit its activity to universal kinds. The intellect can be taken as concerning all possible objects of intellectual operations, not just universal kinds, because of its unlimited character, although as yet this might be a controversial thesis. Thirdly, and perhaps more importantly, it is a possible consequence that taking Aristotle to be dealing, in the context of *De an.* 3.4-6, solely with cognition of universal kinds could leave him without a credible theory about cognition about individual objects.⁷⁰

But it seems quite clear that the contrast between the intellect and sense faculty in this context is not established as the difference between universals and particulars as objects. The intellect, in *De an.*, is defined in connection to theoretical knowledge. Theoretical knowledge depends upon universals, and, as is well known, they are not attained in sense perception (as he tells us for example in *APo* 1.31, 87b28ff.). It would then perhaps be intuitive to think of the faculty of intellect as responsible solely for cognition of universal kinds. But in this context the difference between perception and intellect, as faculties of the soul, is not characterized in terms of universals and particulars but rather in terms of either having a limitation or being limitless. I propose to read this as a difference between what is determined by some prior, existing reality and what is not determined by a something prior to it. Whereas the activity of sense faculty is determined by the prior existing material organization of the organs that it employs, the intellect is in this sense undetermined by any prior reality. This is to make clearer the connection of Aristotle's notion of the intellect to Anaxagoras' theory than is done in the readings where the difference is made with particulars and universals. As noted, Aristotle can be seen as adopting the crucial aspect of Anaxagoras' theory, which can be taken as the claim that the intellect is, for Anaxagoras, essentially self-determined or self-ruling (*αὐτοκρατέζ*) in its nature. This can be taken to mean that its activity is not determined by anything that is prior or external to it. In Anaxagoras' theory, as noted, the primordial state of the universe is a mixture, where everything is mixed into everything else (DK59B12). The intellect is essentially unmixed and separate, because it introduces order into the mixture. For it to be capable of introducing order into the

⁶⁹ Incidentally the commentaries that provide a close reading of this context (see Polansky 2007; Shields 2016) do not discuss universals as objects of the intellect.

⁷⁰ As Perälä (2015) argues.

universe, it must in itself be something entirely separate from the primordial mixture. That the intellect is unmixed for Anaxagoras means that it can rule (κρατῆ), which for Aristotle translates into its way of knowing (γνωρίζη, 429a18-20, cf. 405a16-7). It should be noted that Anaxagoras' intellect belongs solely to God (Polansky 2007 430), whereas Aristotle is somewhat more complex in this case, as is evinced by the complexities that pertain to the discussion about the relation between agent and patient intellects, which I will not be able to go into further within the boundaries of the current work.

3.4 Johansen's broad reading

The mainstay of the current work is to highlight the difference between the nature of the intellect in Aristotle's theory and our ordinary notion of thinking. However, it is also possible to construe Aristotle's concern, with his discussion about the intellect in *De an.* 3.4-6, to be with our ordinary notion of thinking, as argued most prominently in contemporary literature by Johansen (2012, Ch. 11). Johansen construes Aristotle's focus in the passage about unlimited intellect, discussed above, differently, because for him the activity of νοεῖν does not mark any exceptional form of cognition but simply Aristotle's notion for ordinary thinking. For Johansen the unlimited nature of the intellect simply means that the capacity for learning about various subjects does not hinder the intellect's capacity for thinking about other things as well (ibid., 231). This is to say that when the intellect learns for example about philosophy, this does not hinder its capacity for taking on information from other discursive fields, such as mathematics or chemistry. In his construal Johansen does not elaborate on the difference between noetic and discursive rationality, and he seems to take the unlimited nature of the intellect to pertain to discursive rationality. So for him Aristotle's focus is not on the unlimited capacity of understanding but about the way that the capacity for thinking remains unaffected in various instances of learning about discursive practices. For this kind of broad reading or Aristotle's intention, in discussion of the intellect, it makes more sense to translate νοεῖν as 'thinking,' because in this reading νοεῖν does not point to any specific cognitive activity, which would be tied to eidetic objects of explanatory sciences, but instead works as a kind of an umbrella term for various related cognitive activities, such as belief and supposition.

There are crucial two pieces of evidence, which Johansen takes to support this reading, which I argue are in fact quite unhappy. The first and the more important one being that νοῦς, the intellect, can be seen as is discussed by Aristotle in connection to a wide

variety of different cognitive activities (ibid., 222-4, cf. Perälä 2015, 357), such as inference (συλλογισμός), ratiocination (λογισμός), reasoning (διάνοια), deliberation (βούλησις), forming of opinion (δοξάζειν), supposition (ὕπόληψις), as well as contemplation of eternal truths (θεωρεῖν), plus a kind of an imagining (φαντασία τις 433a10, b29). It is possible to take *νοῦς*, in a broad sense, to be just a kind of a general term for connecting these various cognitive activities, including belief (δόξα) by referring to *De an.* 3.3, 427b25-6, where Aristotle considers belief and understanding as kinds of supposition (ὕπόληψις), which in turn is included in Aristotle's definitive statement that the intellect (in 3.4 429a23), and perhaps also experience (ἐμπειρία), on the basis of the epistemological account of *APo* 2.19 and *Met.* A.1. If there is a way of making all of these cognitive terms as relating to the intellect on the basis of some criteria, as Johansen aims to argue, then it is possible to take the intellect to stand for just as a common term for various loosely interrelated cognitive activities. But if, as I aim to argue, there are principled reasons for not taking all of these as belonging unilaterally to some common faculty, such as the mind, then there isn't strong support for intellect to be just a general term for all these various cognitive activities. My aim in the discussion that follows is to show that there are reasons for not taking all of these activities as belonging to the intellect on equal footing with the receptive activity that is discussed above.

Another reason for why Johansen argues for the broad reading is that he wants to give uniform treatment for all occurrences of *νοεῖν* in Aristotle's *De an.* In an odd occurrence (*De an.* 3.3, 427b9) Aristotle allows *νοεῖν* to be right or wrong, thus giving reason to think that *νοεῖν* can also comprise falsity. If *νοεῖν* does comprise also falsity, it is implausible to translate it with 'understanding' (Burnyeat's choice), because understanding has the requirement of veridical contact, as Johansen notes (2012, 223). Johansen thinks that 'thinking' fits better to this role. But it is possible to dispute Johansen's argument that the odd occurrence of false *νοεῖν* gives good reason for translating *νοεῖν* with 'thinking.' The context of this unparalleled odd occurrence deals with the phenomenon of error (427a29-b14). Johansen does not seem to take notice of the fact that the overwhelming majority of cases where Aristotle discusses *νοεῖν* and the intellect he states that they cannot allow any falsity or are strictly truth involving (e.g. *De an.* 1.2, 404a31; 3.6, 430a26-7; 430b26-9; 3.10, 433a27; *Met.* Θ.10, 1051b17-2a4). On numerous occasions Aristotle clearly holds that *νοεῖν* cannot allow falsity. Even in the same chapter Aristotle says that the intellect is always true (3.3, 428a17-8), which

gives reason to contrast it with imagination (φαντασία) and belief (3.3, 428a15-20). It is an unfortunate consequence of Johansen's reading, although he does not take explicitly note of this, that it puts Aristotle into a position that is flatly self-contradictory. But it is also possible to resolve this contradiction by reading the odd occurrence of false *voeĩv* as not standing for Aristotle's but in fact for someone else's opinion. It is possible that the text in this context is corrupted. The context speaks in favour of not taking Aristotle (in 3.3, 427b9) as speaking *in propria persona* but as discussing someone else's opinion, since he later in the same context says that it is always true. But, even if we do not accept this proposal, it is also possible to ask, if there was possibility of error for *voeĩv*, how would this give a good reason for translating it with 'thinking'? What ultimately speaks in my view against translating *voeĩv* with 'thinking' is Aristotle's characterization of *voeĩv* as analogous to special senses (3.4, 429a13-8, 3.6, 430b27-9). Even if *voeĩv* were to comprise falsity, it would be odd if production of thoughts could be characterized in terms of reception. This is a fairly simple point that is missed by the readings that treat Aristotle's notion of *voeĩv* as 'thinking'. Be that as it may, it is quite safe to take Aristotle's considered opinion to be that *voeĩv* is a special form of cognition that is always true.

But the more crucial piece of evidence for the broad reading seems to be the former one, namely the way that the intellect seems to be discussed sometimes as a general term for connecting various cognitive states in Aristotle's psychology, seemingly treating *voeĩv* in an unspecialized sense as genus covering such states as understanding (φρόνησις), knowledge (ἐπιστήμη), and true belief (*De an.* 3.3, 427b9). Even in the passage, where Aristotle discusses the limitlessness of the intellect, he states in an offhand way that the intellect is that by which we think (διάνοια) and arrive at an assumption (ὑπόληψις) (3.4, 429a23). Among the various cognitive terms, discussed in connection to the intellect, these two can be most directly associated to it in *De an.* These are cognitive terms that can be read as belonging to the discursive order of rationality, and the generality of these terms is usually taken as clear indication that Aristotle has in mind the general capacity for thinking, and not some kind of special form of cognition that is defined in reference to forms as objects of theoretical science. To take *voeĩv* as the term that connects all the various cognitive states of the mind would be to take *voeĩv* as a kind of an umbrella term without any exceptional role in reception of forms. It would then probably make sense to translate it with 'thinking,' since it does not seem to be the

case that our ordinary, run-of-the-mill concept of thinking can be defined as an exceptional form of cognition either.

For Johansen it is clear that Aristotle's explanatory focus with *νοῦς* in *De an.* 3.4-6 is with a wide variety of rather ordinary rational activities, not just the theoretical ones (ibid., 222-3). As stated above, Johansen's broad reading aims to treat the intellect as Aristotle's general term for bringing various cognitive functions together under one roof term, without an especial focus for cognition of essences or scientific principles. All cognitive activities that are associated more or less loosely to the intellect in Aristotle's psychology can be taken thus as just "activities of one if basic complex capacity" (ibid., 224). In contemporary discourse the term 'thinking' functions similarly as a generic term without discrimination for various cognitive activities of the mind, so, if the broad reading is plausible, then the meaning of *νοεῖν* coincides with that of 'thinking' and makes sense to translate *νοεῖν* with it instead of 'understanding'. The obvious question for the broad reading, as Johansen (ibid., 221) notes, is what, if anything, unifies all of the cognitive activities discussed above and justifies calling them all manifestations of some common faculty that of the intellect. Johansen demonstrates (ibid., 221-2) how the cognitive terms, discussed above, are associated in various works of Aristotle to *logos*. To support his reading Johansen points to an occurrence of *logos* in a passage (429a10-22), which deals with the way that the object of intellectual activity, intelligible form or essence, is discerned (*κρίνειν*). It is relevant to note that the reading that Johansen gives of this passage is quite idiosyncratic, and I do not know if this reading is shared by anyone else in the literature. But the clear upshot of this passage is for Johansen that Aristotle takes the intellect or rational faculty of the soul to be distinct from perceptual capacity in virtue of dealing with *logos* and not with sensible qualities (ibid., 222). This gives a reading of the intellect, in Aristotle's psychology, "in general terms as the capacity by which we are responsive to *logos*, in its various manifestations" (ibid.).

If this reading is successful, this would mean that we should not take Aristotle's concern to be exclusively with theoretical knowledge, with scientific principles and essences, in his considerations of the rational faculty in *De an.* 3.4-6. This presents a challenge for the kind of reading that I aim to construct in this work, namely the reading where the intellect is made responsible for the narrow task of receiving forms and essences as starting points for the kind of theoretical knowledge, as explained in the epistemology of *APo*. Johansen's main claim is that the scope of objects that fall under the rational faculty in *De an.* is broader than those of the intellect in his theoretical science. But, for

Johansen, this does not prevent Aristotle from defining the intellect in its *proper sense* with reference to essence or form as noetic objects (σφόδρα νοητόν, 429b3-4), which he only reads as the highest or the most successful instances of noetic cognition (ibid., 224). In his reading Johansen wants to preserve the relevance of cases where the intellect does not fulfil its proper cause, expressed in belief (δόξα) or persuasion (πίστις), and to think of the intellect only “in terms of its final cause” as concerning essences and scientific principles. In his reading the intellect is a capacity, or group of loosely related cognitive capacities, that discern *logos*, which is most fully but not exclusively expressed in theoretical understanding (ibid.). In my reading, then, which emphasizes receptivity as the paradigm of *νοεῖν*, a consequence is that one might not be able to preserve these various cognitive activities as instances of *νοεῖν*, because *νοεῖν* is exclusively, and not just in its final sense, an activity that consists of the reception of forms. But the crucial argument here relates to the fact that Aristotle’s epistemology clearly shows him reserving certain exceptional role for the intellect in grasping indemonstrable principles of knowledge, which narrows significantly its role. The broad reading would then give reason for detaching the notion of intellect which is treated in *De an.* from his notion of intellect in his epistemology, which is, as already noted, not something that is explicitly recognized by Johansen.

The main piece of evidence for the broad view is constituted by the fact that the intellect is discussed in connection to various different cognitive activities (such as συλλογισμός, λογισμός, βούλησις, δοξάζειν, etc.). But the evidence for taking all of these as instances of *νοεῖν* is actually quite weak. As already noted, the two terms that can be most closely associated to the intellect are *διάνοια* and *ὑπόληψις* (in 429a23), and the challenge for the narrow reading is to somehow show that these do not represent instances of *νοεῖν* but of some other form of cognitive activity. If we can consider these as cognitive activities that belong to the order of discursive rationality, then the task of the narrow reading is to show that Aristotle does not do away but preserves the difference between the receptive activity of *νοεῖν* and the various activities that can be placed into the order of discursive rationality. Another great challenge, which follows from this, is to show that the relation between discursive rationality and noetic rationality can be reconciled with the narrow reading of the role of *νοεῖν*, but that remains a task for another work. In this work my aim is only to emphasize that, in the context that follows from the definitive chapters of *De an.* 3.4-5, Aristotle does in fact elaborate his cognitive theory

with the kind of distinction in mind that I have discussed as the distinction between discursive and noetic rationalities.

To show that the various cognitive activities, which are associated to the intellect, are not on equal footing with the receptive activity of *νοεῖν*, it suffices to show that not all forms of cognition are on any unilateral plane in Aristotle's cognitive theory. What I will argue in the discussion that follows is that Aristotle's cognitive theory does not place all cognitive activities on some single, unilateral plane without discrimination in the way that contemporary philosophy of mind does with the concept of the mind. For philosophy of mind 'the mind' is a term that functions in the similar fashion as the intellect does for Johansen, that is, it allows for gathering and connecting all the various cognitive activities together and putting them under one roof term, allowing to characterize them as 'mental states,' as states of one basic if complex item called the mind or intellect. In contemporary discourse the language of mentality or consciousness serves a purpose that is arguably not available to Aristotle, namely that of considering all the various cognitive activities as belonging to a single item called consciousness or mind. Aristotle does not possess a single term for what today is called the mind or consciousness (Sihvola 2007, 50). This is why I think there should be some reservations about using the language of mentality and 'mental states' in Aristotle.

It is true, as Johansen (*ibid.*, 223) claims, that Aristotle's account of thinking becomes more encompassing after the two chapters that form the core of Aristotle's considerations about the intellect, namely *De an.* 3.4-5 which are clearly focused on the activity of reception of essences or forms. But I do not agree that this gives support to his broad reading of the role of the intellect. The major problem with this reading is that Aristotle elaborates his cognitive theory in later context of *De an.* with a distinction that dovetails with the distinction that in this work is discussed as holding between discursive and noetic rationalities. This distinction can be associated to the distinction between two separate Greek terms that stand for two separate functions, *νοεῖν* and *διανοεῖσθαι/διάνοια*, as Burnyeat (2008, 17-8) argues. These two are clearly separated in the context of *De an.* that precedes the definitive discussion that begins in *De an.* 3.4. A question for the broad reading is, why would Aristotle need to distinguish between these two items in the early part of his treatment of psychology, if we can treat them both as 'thinking'? In what follows I aim to show that Aristotle has in fact this kind of distinction in mind, when he articulates his cognitive theory in the context that follows the definitive chapters (3.4-5). This later context does not give good evidence for the

broad reading of the intellect, contrary to what Johansen assumes, because it does not do away with the distinction that is placed between noetic rationality and various discursive forms of rationality, but in fact makes it more pronounced.

3.5 Further considerations

3.5.1 Combinatory and receptive functions

In *De an.* 3.6 (430a26-b6) Aristotle begins establishing a broader conception of cognition, which encompasses two rudimentary forms of cognition (νόησις), cognition of an indivisible item (τῶν ἀδιαρέτων) and cognition that consists of combining items that are cognized. The notion of indivisible item can be taken as referring to all kinds of items that can act upon the intellect in virtue of being unified by their form. The item which Aristotle calls ‘indivisible’ is something that is taken as either potentially (δυνάμει) or actually (ἐνεργείᾳ) non-divided (430b7-14): the same item can be considered as a unity or divided item, as a compound of subject and attribute, Cleon and whiteness, but that which unites in the each case is the intellect (430b4-6). The basic contrast in Aristotle’s cognitive theory is made between receptive and combinatory forms of cognition, where the former is veridical and the latter non-veridical or veridical. Noetic cognition, which is of an indivisible item (discussed as form or essence, 430b26-7) is always true, whereas combination (σύνθεσις, 430a27, b2) of cognized items into one thought brings with it the possibility of error (430b1-2). The idea, that certain activity of combination also belongs to the intellect, can be taken as Aristotle’s first step towards broadening the scope of his discussion of rationality in *De an.* But it must be highlighted that Aristotle intends to give a separate treatment for the notion of combination of objects thoughts and the simple cognition that consists of reception of form, discussed above as the determination of the cognitive state. Combination can be taken as the primary process for forming of thoughts, in the broad sense of thinking, of thoughts that have propositional content and make either an affirmation or denial, such as the thought that Aristotle gives as an example (430b4-6, transl. Perälä 2015, 364):

There is not only the true or false assertion that Cleon is white but also that he was white or will be white. That which unites in each case is the intellect.

The intellect has a crucial role in both receiving the determinants of thought and in combining them, when forming a thought that has a propositional content. But these are not meant as belonging on an equal plane in Aristotle’s cognitive theory but as two separate items that have a separate treatment, due to their different relation to truth.

Reception of forms and combination in forming thoughts are not both equally forms of noetic cognition, because the simple reception of forms is, as already argued, always true, whereas combination brings with it the possibility of error. It is possible, as Mika Perälä (2015) argues, to take receptive activity as foundational for combinatory cognition. Perälä discusses these in terms of simple and composite thoughts. Simple ‘thoughts’ can be taken as the activity of reception which does not predicate anything of anything. The activity of reception of intelligible objects is, for Aristotle, contrasted to the form of thinking that involves predication, that says something of something, involving affirmation or denial (430b26-30), as in the above example. When we are in the state of receiving determinations of intelligible objects, we are not saying something of something, but only when we combine ‘simple thoughts’ to form a ‘complex thought’ we are predicating something. Combined thoughts, which have propositional content, involve truth and falsity, but it is clear that Aristotle reserves a special role for his notion of noetic cognition, because it is for him always true (e.g. 430b26-9). Noetic cognition in its proper sense is analogous to the special senses, such as touch and sight, and it consists solely of the activity of grasping its object, and the alternative to it is not falsity but ignorance.⁷¹ This is clearly meant as a separate function from the combinatory function of forming a proposition, which can be taken as basic for discursive rationality.

Predicative or propositional thinking involves two activities in this picture, one of which is the reception of items of cognition, and another that consist of combining them and forming a judgement about them. Perälä argues that Aristotle’s notion of noetic cognition (or ‘simple thought’), which is of an indivisible item, serves as foundational, because it can be seen as having the function of singling out the reference for propositional thoughts. Propositional thought, which is of an item such as *a*, involves making an assertion or denial about *a*, which can be represented in its basic form as: “*a* is (not) *F*.” But, as Perälä argues, this form of thinking cannot be taken as basic or foundational in Aristotle’s cognitive theory, because the items that are used in propositional thought must somehow be first and foremost grasped on their own right (ibid., 352). Aristotle does not exactly tell how composite and simple thoughts are related to each other, but, as Perälä argues, composite thought can be taken as dependent upon ‘simple thought,’ because ‘simple thought’, which is non-inferential

⁷¹ Aristotle uses the metaphor of touching in this sense, see *Met.* Θ.10, 1051b24. What makes the metaphor of touching appropriate is the characterization of noetic cognition as simple reception.

form of direct cognition of intelligible content, can be taken as fixing the reference for composite thought (ibid., 362-3). When making an assertion or denial about an intelligible object, the object itself must be grasped on its own right (ibid., 365). The upshot of this is that Aristotle clearly recognizes a form of cognition (or ‘thinking’) which is a non-predicative form of grasping intelligible content, forms or essences, which is contrasted to cognition that is propositional in its form. As noted, the intellect has the role of grasping intelligible content, but it is also accredited in *De an.* 3.6 with the duty of combining the items that are cognized. The reason for including the combinatory function into the purview of the intellect is not to espouse a broad function for *voeĩv*, because this is reserved for the receptive activity discussed in previous context, but only to say that the receptive activity is somehow related or involved also in combinatory cognition, which in turn can be taken as basic for discursive rationality. The notion of combination is a separate function, in which the intellect is involved, which broadens, not the scope of the noetic function of the intellect, which is the reception of forms, but the scope of Aristotle’s focus in discussing the role of the intellect in the context that follows the main theory of *De an.* 3.4-6.

3.5.2 Thought and imagination

In 3.7 Aristotle begins to broaden the scope of his rational theory even more in his discussion of practical agency and the role of discursively reasoning soul (*διανοητική ψυχή*) in determining practical good: “when it asserts or denies good or bad, it avoids or pursues it. That is why the soul never thinks (*voeĩ*) without an image.” (431a14-7, transl. Johansen). The role of imagination is here established as crucial in determining the practical good or bad in thinking. Aristotle quite often in his works discusses practical good and bad as analogous with truth and falsity. In comparing good and bad with truth and falsity the former fall under the scope of practical rationality and the latter to theoretical. Aristotle tells that these two rationalities are the same in genus (431b8-12). For Johansen the fact that both fall within the same genus means that the scope of the intellect in Aristotle’s psychology is wider than those that are contemplated by theoretical intellect (Johansen 2012, 223). The scope of the intellect might be wider in the context of agency, but I don’t agree that this constitutes good evidence for taking noetic function in the broad sense. Even if we take theoretical and practical reason to belong to a single genus, this does not obliterate the difference that Aristotle establishes between combinatory and receptive functions of the intellect, where the former can be taken as basic for discursive rationality and the latter as the noetic rationality.

In several sensitive spots Aristotle (as in 431a14-7, quoted above) claims that the faculty of intellect employs a function of the soul called imagination (3.7 431a14-7; 431b2; 3.8 432a3-14; *De mem.* 1, 449b30-450a9). Imagination is defined as a sort of a motion (3.3, 428b10-429a9) and is taken as the activity of producing appearances (φαντάσματα), which are central notion in Aristotle's theories of memory and dreaming. In order to understand the blanket claim, otherwise quite puzzling, that the activity of 'thinking' (construed broadly as encompassing both receptive and combinatory activities) always involves imagination, it is important to keep in mind the basic distinction that is made in his cognitive theory between simple form of cognition that is the receptive of intelligible content and the form of cognition that consists of combination. It is plausible to take this remark to pertain only to the latter but not to the former. The claims occur in context of agency (as Cohoe 2014, 597 emphasizes), which limits their scope to forms of cognition that are relevant for practical rationality. Practical rationality relies on discursively reasoning soul (διανοητική ψυχή) in determining practical good, and, as claimed above, discursive form of rationality can be taken presupposing combinatory function as primitive or basic. It would make sense to take Aristotle as focusing in this context on the combinatory function, because he has already dealt with the receptive form of cognition, namely noetic cognition, in the chapters that focus on the intellect itself.

To understand Aristotle's emphasis that there is a relation between the perceptual function of producing an appearances (φαντάσματα) and thinking, it is crucial to note that in these contexts Aristotle is not talking about the primary form of cognition, which is the reception of forms, but about the activity of producing thoughts, where appearances have a crucial role of providing perceptual content, which is retained and produced by the capacity. In the context of agency seems to use Aristotle the term 'thinking' (νοῦν) as a general term rather than as the simple form of cognition that consists of reception of forms, meant for covering all kinds of cognition that include imagination into their function, insofar as they are discriminatory (κριτικά) activities of the soul, as for example in *De motu.* (700b17-23) (Calvo Martinez 2019, 37). This can be taken as analogous use of the term which does not reflect the proper meaning given to the term in the definitive context of *De an.* (3.4-6). Thus, when Martha Nussbaum (1978, 266) claims that: "There is no thinking (whether practical or theoretical) that is simply abstract; I cannot think of a pure proposition", she seems to assume that all forms of cognition are propositional for Aristotle. "For every thought", Nussbaum

claims (ibid.), “there is some episode of symbolizing or envisaging that, as it were, provides a concrete vehicle for the thought.” Aristotle’s cognitive theory shows him elaborating on receptive activity as form of cognition that does not predicate anything of anything and distinguishing this function of *νοεῖν* from the combinatory function, which can be taken as basic for discursive rationality. The noetic function is for him reception of essences and gives the core of this cognitive theory. *Prima facie* reason for believing that imagination does not belong to the noetic function of reception is given by the fact that the term for imagination (*φαντασία*) does not show in the context of *De an.* 3.4-6. But a more systematic reason can be given by the fact that imagination is defined as motion, whereas Aristotle clearly detaches the noetic function of the intellect from those forms of rationality, thinking (*διανοεῖσθαι*) included, which for him include motion.

3.5.3 Thinking as motion

Further context in *De an.* also shows Aristotle detaching his notion of theoretical intellect from the discursively reasoning soul. For example, in the context of agency, locomotion, and desire, he says: (3.9 432b26-3a9):

But neither the rational faculty (*λογιστικόν*) or what is called the intellect (*νοῦς*) is what initiates motion, for the faculty of contemplation does not contemplate what is to be done (*θεωρητικὸς οὐθέν θεωρεῖ πρακτόν*), neither does it say anything at all about what is to be pursued or avoided, whereas motion always belongs to the one who is avoiding or pursuing something.

In this passage Aristotle clearly detaches the theoretical function of the intellect from the various rational capacities of the soul which involve motion (*κίνησις*). This is reminiscent of the way that the intellect is detached from the discursive rationality in the early part of the treatise of *De an.* When considering the various phenomena that fall to the purview of psychology, Aristotle gives a haphazard list of life-activities to start with: being “pained, enjoying, feeling confident, feeling afraid, and, further, feeling angry and also perceiving and thinking (*διανοεῖσθαι*)” (*De an.* 1.4, 408b1-3, transl. Reeve).⁷² In this early context Aristotle’s aim is to argue against, what seems to have been the prevalent view, that motion belongs to the soul (1.3, 406a2, see Witt, 1992; Menn 2002, 92). The quote continues as follows: “And all of these seem to be movements (*κινήσεις*)” (408b3-4). What is interesting about this remark is Aristotle’s inclusion of thinking (*διανοεῖσθαι*) into a list of motions. This inclusion speaks loudly

⁷² The list seems, as Menn 2002, 92 n11 notes, to be partly taken from Plato’s the *Laws* 10, 87a1-3, with the inclusion of *διανοεῖσθαι*.

against what I have called the broad reading, the reading according to which Aristotle has a broad notion of thinking in mind with his term *νοεῖν*. *Νοεῖν* is closely associated to theoretical knowledge in *De an.* and Aristotle, like Plato, holds that knowledge is not a movement but rather a terminus of movement. In the *Physics* 7.3 (247b9-248a6) Aristotle argues that knowledge (*ἐπιστήμη*) does not belong to the order of becoming, since, on the pain of infinite regress, there cannot be a coming to be (*γένεσις*) of motion or rest, and knowledge is a kind of being at rest (*ibid.*, 91).⁷³ Likewise in *De an.* Aristotle argues that “*νόησις* more resembles a stopping and *ἐπί-στασις* than motion” (1.3, 407a32-3, transl. Menn 2002, 92). In many instances Aristotle informs that we cannot *νοεῖν* without coming to a halt in some sense.⁷⁴

Now, when Aristotle adds thinking (*διανοεῖσθαι*) to a list of passions and sensations (*De an.* 1.4, 408b1-3), which for him are motions, it would be quite surprising if we took *νοεῖν* or *νόησις* to denote the same as *διανοεῖσθαι*, as Johansen’s reading would have us assume. It would deviate from the *Phys.* 7 doctrine that passions and sensations are motions but *νοεῖν* is not. But, as perceptive readers have noted, half a Bekker-page down (408b24-7) Aristotle distinguishes *νοεῖν καὶ τὸ θεωρεῖν* from *διανοεῖσθαι*, where the former is not motion of any kind, and thus purely acts of soul, not of the soul-body composite (bodily activity is not in any way associated with the intellect’s activity, *GA* 2.3, 736b28-9), and the latter is described as motion: “thinking (*διανοεῖσθαι*) is a motion” (408b6). Menn thinks that the crucial background, for explaining why *διανοεῖσθαι* is a motion *νοεῖν* is not, is not only in the *Republic*, where Plato distinguishes between *διάνοια*, reasoning starting from hypothesis, and *ἐπιστήμη*, direct grasp of truth (*Rep.* VII, 533b4a; Plato uses *νόησις* for both activities), but also and more importantly in the *Theaetetus* (189e4-90a7), where Plato reserves the role of soul’s inner silent dialogue with itself to *διανοεῖσθαι*, which is stopped by making up one’s mind with *δόξα* (*ibid.*, n11). Menn takes *διανοεῖσθαι* in *De an.* to mean something along the lines of ‘puzzling through a problem,’ which is the motion that is put to halt by successful grasp of truth in *νόησις* (*ibid.*). This clearly shows that Aristotle aims to preserve the distinction between the discursively reasoning soul and the noetic part throughout *De an.*

⁷³ The point about stopping turns towards connotations of *ἐπιστήμη* and seems to be taken, as Menn *ibid.* n10 notes, from Plato’s *Crat.* 437a.

⁷⁴ In *Met.* α.2, 994b23 Aristotle claims that we cannot *νοεῖν* without coming to a halt; *νοεῖν* does not move 994b24-5; knowledge is immobile K.11, 1076b, see also *Met.* Λ.9, 1075a7-9.

3.5.4 Theoretical reason and knowledge

In this last section my aim is to show that the treatment of the intellect in the rest of the *De anima* shows similarity with its role of noetic cognition with the role of the intellect in the epistemology of *APo*. In the passage quoted above (3.9, 432b26-3a9) the intellect is separated from the functions of discursively reasoning soul on the basis of having a different domain of truths: it does not contemplate what is to be done. This is also how Aristotle separates theoretical from practical rationality in his ethics. Aristotle famously distinguishes two parts of reason (λόγος) in virtue of their separate domains. In *NE* VI.1 this distinction is made with reference to two categories of objects, things that can be otherwise and things that cannot be otherwise, where the former belong to the purview of practical and latter theoretical reason (1139a3-14). The intellect is in *De an.* further distinguished from cognitive functions that belong to discursive faculty in virtue of always being true (3.10 433a26-30):

The intellect, then, is correct in every instance, whereas desire and imagination are both correct and incorrect. Consequently, the object of desire always initiates motion, but this is either the good or the apparent good – not every good, but the good concerned with what can be done, since what can be done is contingent and can be otherwise.

The intellect is for Aristotle always correct and does not concern what is to be done, whereas the discursively reasoning soul admits of falsity and concerns the practical domain that is contingent and admits of being otherwise. The theoretical role of the intellect is to contemplate necessary truths, which do not belong to the order of becoming, whereas the practical part deals with things that belong to the order of becoming.⁷⁵ This gives an obvious connection of the theoretical intellect, considered in *De an.*, to the role of the intellect in Aristotle's picture of epistemology.

The intellect in *De an.*, rather than being opposed to the intellect in Aristotle's epistemology, has an intimate affinity with it. Aristotle's definition of knowledge (ἐπιστήμη) holds it that true knowledge of an item not only requires knowing the cause, which is known as the cause of the object of knowledge, but also that the object is such as to hold of necessity or that it cannot be otherwise (*APo* 1.2 71b9-12):

We think we know something simpliciter, and not in the sophisticated sense or incidentally, when we think that we possess knowledge about the cause, which works as the cause of the object [of knowledge], and also when this cannot be otherwise.

⁷⁵ For a treatment on the apparent good and the good in Aristotle, see Moss 2012.

Ἐπίστασθαι δὲ οἰόμεθ' ἕκαστον ἀπλῶς, ἀλλὰ μὴ τὸν σοφιστικὸν τρόπον τὸν κατὰ συμβεβηκός, ὅταν τὴν τ' αἰτίαν οἰώμεθα γινώσκειν δι' ἣν τὸ πρᾶγμα ἐστίν, ὅτι ἐκείνου αἰτία ἐστί, καὶ μὴ ἐνδέχεσθαι τοῦτ' ἄλλως ἔχειν.

The knowledge, which for Aristotle is knowledge *simpliciter*, cannot concern just any old object but has necessary truths as its object, which is meant by saying that ‘this cannot be otherwise’; “Hence for that, which is the object of knowledge *simpliciter*, it is impossible to be otherwise (ἀδύνατον ἄλλως ἔχειν)” (71b14-6). Knowledge *simpliciter* is identified with the knowledge that is had by the intellect, which is a form of immediate and simple knowing, posited by necessity in the epistemology of *APo*. It is knowledge that cannot be demonstrated, because it is immediate (1.3, 72b18-22). In the model of knowledge of *APo*, which distinguishes between things that are knowable by means of demonstration and things that are known immediately or indemonstrably, demonstration gives knowledge about conclusions of science. But Aristotle also posits the necessity of another form of knowledge, which is indemonstrable knowledge of the starting points of demonstration. It is necessary that there is another way of knowing the principles (1.3 72b18-25), because knowledge cannot be proven in relation to knowledge, as if in circles, and because proofs cannot go on forever in an infinite regress (72b25ff.). Aristotle argues that (72b23-5):

There is not only scientific knowledge (ἐπιστήμη) but also some principle of scientific knowledge (ἀρχὴν ἐπιστήμης) by which we get to know the definitions (ἢ τοὺς ὅρους γνωρίζομεν).

This principle of knowledge is clearly identified as the intellect: “I speak of the intellect as the principle of knowledge (λέγω γὰρ νοῦν ἀρχὴν ἐπιστήμης)” (1.33, 88b36). The concluding chapter of *APo* discusses the state (ἔξις) that knows the principles (99b17-8). Knowledge of the principles is not something that can be present in us without our own awareness of it, “for then we should possess pieces of knowledge more exact than demonstration without its being noticed,” which for Aristotle clearly impossible (99b26-30). The state of knowing the principles originates in perception (100a11), and it is involved in the movement from perceptions of particular things to memory, and from memory to experience (ἐμπειρία), which culminates in knowledge of the universal that enables scientific knowledge. Theoretical knowledge (ἐπιστήμη) and the intellect are for Aristotle the most precise forms of knowledge, which do not afford the possibility of error, whereas other ways of knowing, such as opinion and ratiocination (δόξα καὶ λογισμός), may involve both truth and error (100b5-7). The intellect is responsible for

knowledge of the principles, “since nothing apart from the intellect can be truer than knowledge, there must be intellection of the principles” (100b11-2).

The intellect in *De an.* can be identified with the theoretical capacity (θεωρητικῆς δυνάμεως) of the soul (2.2, 413b24-7; 3.9 432b26-3a9). The characteristic activity of the intellect is *voeĩn*, which entails the picture of scientific knowledge that is given in *APo*, as Burnyeat (2008, 27) argues. Definition is for Aristotle’s epistemology the principle of everything (*APo* 2.13, 96b22-3), meaning that for Aristotle knowledge is the mastery of definition. Definition always states the essence (ibid., 24). The essence is more than merely a common feature that an item of inquiry shares with other similar items. It is rather the principle of explanatory demonstration: to find an essence is to possess the cause or explanation of the various properties that belongs to an item (ibid.). For Aristotle the essence or form of a thing is that which explains the various features that the thing has. An essence or form, however, is not a solitary item that can be grasped on its own, but something that is grasped “as part and pinnacle of a whole explanatory system” (ibid., 27). As Burnyeat (ibid.) argues, Aristotle reserves the activity of *vođς*, *voeĩn* the role of grasping the starting point of explanatory demonstration, the non-demonstrable starting points or first principles of deductive science (*APo*, 2.19, 100b5-17; *EN* VI.6; cf. *Met.* A.2, 982a19-b10). The activity of *voeĩn* denotes the successful grasp of forms as “starting points of elaborate explanatory deductions” (ibid., 28). As in Alexander’s reading, the theoretically knowing part of the soul, to which *voeĩn* and *θεωρεĩn* belong as its actualities, deals with immutable necessary truths that are known for the sole sake of knowing, whereas the practical part deals with the domain of things that admit of being otherwise (Fotinis 1979, 292). The theoretical part, discussed as the intellect in *De an.* 3.4-6, implies the epistemology of the *Analytics*, because it deals with what is necessarily true and cannot be otherwise. The intellect is what, for Aristotle, enables the highest fulfilment available to man in his life, which is an immeasurable, uninterrupted appreciation and contemplation of all theoretically knowable truths (*NE* VI.3, 1139b18-36).

4. Conclusion

In the preceding discussion I have aimed to show that, although Aristotle seems to elaborate his theory of the intellect as a faculty in *De an.* 3.4 mainly by contrasting it to the faculty of perception, this theory can also be elaborated by contrasting it to what I have called discursive forms of rationality. Further considerations, following the chapters focusing on the intellect, show that Aristotle is systematically employing a

distinction between two different rudimentary forms of cognitive activity, the first of which is the receptive activity of noetic cognition, discussed in the central chapters of *De an.* (3.4-5), and the second which takes combinatory function as basic and allows for forming thoughts that have propositional content. The second of these, as I have argued, can be taken as basic for discursive rationality. For my purposes I have had to simplify this distinction. Further research could be made with more fine-grained distinctions within forms of rationality in Aristotle's philosophy, especially in his theory of agency in the context of his psychology, anthropology, and biology. My aim in the above discussion was to show that Aristotle's discussion in the context of agency in *De an.* permits a distinction between these two forms of rationality. But unfortunately their relation has to be left quite abstract in the boundaries of the current work. Perhaps it suffices to say that Aristotle assumes there to be some way of reconciling the relation between simple form of receptive activity and various forms of discursive rationality, although this relation is left open in current work and has to be sought elsewhere.

In this work I have aimed to show that Aristotle's theory of the intellect is best understood by focusing on the receptive activity of noetic rationality, which is always of the form (εἶδος), the form understood as explanatory principle of theoretical science. I have argued against the approach which aims to construct Aristotle's intention as that of providing a general theory of the intelligible, and which treats Aristotle's notion of noetic cognition simply as ordinary thought, as is implied by the standard translation of νοεῖν as 'thinking'. I have given reasons against broadening the scope of the noetic function of the intellect, the main reason being that this would do away with the distinction, which is made systematically throughout *De an.*, between ordinary forms of rationality and noetic rationality. This much is already argued by Burnyeat (2008, 17-8). The broad reading, as Johansen (2012, Ch. 11) argues, does not take intellect to have such a special role, but it has the downside of not being able to make this distinction and of detaching the notion of the intellect in *De an.* from the role of the intellect in *APo.* It seems that the broad reading necessarily has to downplay the role of receptivity, in the definition of the intellectual power in *De an.*, so that it can construct Aristotle's intention as being with the broad notion of the intelligible. But further considerations of Aristotle's focus in *De an.* shows that he aims to contrast the form of cognition that consists of simple receptivity, analogous to special senses, to forms of cognition that have combinatory function as basic. The definition the intellect by its activity of receptivity gives in fact good reason for taking it as identical with the role that the

intellect has in Aristotle's epistemology. Further research could be made in connecting Aristotle's considerations of the intellect in the psychology of *De an.* to the systematic role that the intellect has in his epistemology.

In this work I have discussed the exceptionality of the intellect in terms of limitlessness or neutrality. The intellect in the ontology of *De an.* marks an exceptional faculty, which has a separate treatment due to its separate nature. Aristotle does not explain in any detail how this limitless or entirely neutral intellect transforms into concrete forms of rationality, but merely seems to assume that there is some way in which the intellect is implied in certain philosophical practices of discursive rationality. Consequently I have left the relation between discursive and noetic rationality quite open in this work. In the section above I have discussed Aristotle's picture of theoretical knowledge, where the role of the intellect is as the indemonstrable foundation of knowledge. The intellect is posited by necessity but not demonstrable in itself. Perhaps insight into Aristotle's reason for positing the intellect as neutral in *De an.* can be gained by reflecting on the necessary role that it has in the picture of epistemology in *APo*, where the intellect is not directly demonstrated but presupposed by necessity. The neutral nature of the intellect is inferred from its limitless range of activity, which allows contrasting it with sense perception in the psychology of *De an.* It seems that in both cases the nature of the intellect is not reified or made into a direct object but is only inferred from its activity or role in gaining knowledge about the nature of reality.

Lastly, one can raise the following worry about the reading of the role of the intellect given in this work. A problem with the narrow reading could be that it seems to make the various forms of discursive rationality in some sense dependent upon some kind of rare, theoretical insight. But it does not seem to be the case that people ordinarily are engaged in the kind of rational activity that Aristotle ascribes to the intellect. Noetic rationality implies a rare achievement, to which most people will not attain in their lifetime in the Aristotelian picture, as Burnyeat (2008, 18) and Vasilidou (2013, 173) both agree. Linguistic competence can be taken as enough for thinking, in the ordinary sense, but Aristotle seems to be making all thought dependent upon a special faculty of the intellect in his psychology of *De an.* If people, in their ordinary activities, are not engaged in theoretical reasoning, are they then thinking according to Aristotle? This is a difficult problem which Aristotle does not address directly and is probably not even worried about. But in fact this could give more reason for Aristotle to keep these two forms of rationality separate. As argued in chapter two, Aristotle recognizes a separate

nature for the intellect from the perishable. The evidence of making all thought depend in Aristotle's psychology on the faculty of intellect is quite weak, as I have argued in chapter three. Perhaps the most one can assert about Aristotle's considered position on this question is that it is rather the *truth*, in one's discursive practices, which depends upon the noetic activity of the intellect. This follows from the general sentiment of defining capacities according to their most successful states, to which noetic cognition belongs alongside contemplation (θεωρία) in Aristotle's philosophy. The most successful form of rationality available to humans implies for Aristotle the picture of theoretical knowledge (ἐπιστήμη). Knowledge, in this picture, is a hard-won accomplishment. Attaining truth in the domain of theoretical sciences requires a lot of cognitive work, whereas the activity of forming propositional thoughts is a matter of seconds, even for ordinary people, and does not guarantee any truth to it. Achieving truth, being able to provide a successful definition, and having secure foundations for knowledge all require a separate, higher form of rationality, which is developed out of a period of the sustained effort and perhaps also the leisure (in the sense of σχολή) that belong to philosophical inquiry.

Abbreviations

<i>Categories</i>	<i>Cat.</i>
<i>De anima</i>	<i>De an.</i>
<i>De generatione et corruptione</i>	<i>GC</i>
<i>De interpretatione</i>	<i>De int.</i>
<i>De memoria</i>	<i>De mem.</i>
<i>Generation of Animals</i>	<i>GA</i>
<i>Magna Moralia*</i>	<i>MM</i>
<i>Metaphysics</i>	<i>Met.</i>
<i>Nicomachean ethics</i>	<i>NE</i>
<i>Parts of Animals</i>	<i>PA</i>
<i>Physics</i>	<i>Phys.</i>
<i>Posterior analytics</i>	<i>APo</i>
<i>Prior analytics</i>	<i>APr</i>
<i>Protrepticus</i>	<i>Protr.</i>
<i>Topics</i>	<i>Top.</i>

*The authenticity of this work is disputed.

References

- Aho, Tuomo 2016, 'Descartes's Intellectual Memory', *Rivista di Storia della Filosofia*, 71/2, 195–219. <https://doi.org/10.3280/SF2016-002002>.
- Broadie, Sarah 1996, 'Noûs and Nature in De Anima III', *Proceedings of the Boston Area Colloquium of Ancient Philosophy* 12/1, 163–176.
- Bronstein, David 2016, *Aristotle on Knowledge and Learning: The Posterior Analytics*, Oxford University Press.
- Burnyeat, Myles 2002, 'De Anima II.5', *Phronesis* 47/1, 28–90.

- Burnyeat, Myles F. 2008, *Aristotle's Divine Intellect*, Marquette, Marquette University Press.
- Calvo Martinez, Tomás 2019, 'Ὀρεξις and Intention', in: Lindén, Jan-Ivar (ed.) 2019, *Aristotle on Logic and Nature*, Leuven, Peeters, 31–43.
- Caston, Victor 1996, 'Aristotle on the Relation of the Intellect to the Body: Commentary on Broadie', *Proceedings of the Boston Area Colloquium of Ancient Philosophy* 12/1, 177–192.
- Caston, Victor 1999, 'Aristotle's Two Intellects: A Modest Proposal', *Phronesis* 44/3, 199–227.
- Charles, David 2000, *Aristotle on Meaning and Essence*, Oxford University Press.
- Charles, David 2009, 'Colloquium 1: Aristotle's Psychological Theory,' *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, 24/1, 1–49.
- Charles, David 2021, *The Undivided Self*, Oxford University Press.
- Cohoe, Caleb Murray 2014, 'Nous in Aristotle's *De Anima*', *Philosophy Compass* 9/9, 594–604.
- Corcilius, Klaus & Gregoric, Pavel 2010, 'Separability vs. Difference: Parts and Capacities of the Soul in Aristotle,' *Oxford Studies in Ancient Philosophy* 39, 81–120.
- De Koninck, T. 1994, 'Aristotle on God as Thought Thinking Itself', *The Review of Metaphysics*, 47/3, 471–515.
- Driscoll, J. 1992, 'The Anaxagorean Assumption in Aristotle's Account of Mind', in: A. Preus & J. Anton (eds.), *Essays in Ancient Greek Philosophy, Vol V: Aristotle's Ontology*, Albany, SUNY Press, 273–292.
- Esfeld, Michael 2000, 'Aristotle's direct realism in *De anima*', *The Review of Metaphysics* 54, 321–336.
- Fotinis, Athanasios P. 1979, *The De Anima of Alexander of Aphrodisias: A Translation and Commentary*, Washington, University Press of America.
- Frede, Michael 1996, 'Aristotle's rationalism', in: Michael Frede & Gisela Striker (eds.), *Rationality in Greek Thought*, Oxford University Press, 157–173.
- Gerson, Lloyd 2004, 'The Unity of Intellect in Aristotle's *De Anima*', *Phronesis* 49/4, 348–373.
- Hicks, R. D. 1907. *Aristotle: De Anima*, Cambridge, Cambridge University Press.
- Irwin, Terence 1990, *Aristotle's First Principles*, Oxford University Press.
- Johansen, Thomas Kjeller 2012, *The Powers of Aristotle's Soul*, Oxford, Oxford University Press.
- Kahn, Charles H. 1992, 'Aristotle on Thinking', in: Nussbaum & Rorty 1992, 359–79.
- Madigan, Arthur 2013, 'Commentary On Vasiliou', *Proceedings of the Boston Area Colloquium of Ancient Philosophy* 28/1, 181–184.

- Menn, Stephen 2020, 'From *De Anima* III,4 to *De Anima* III,5', in: Gweltaz Guyomarc'h & Claire Louguet & Charlotte Murgier, Peeters (eds.) 2020 *Aristote et l'âme humaine. Lectures de De Anima III offertes à Michel Crubellier*, 95–155.
- Modrak, Deborah K. W. 1987, *Aristotle: The Power of Perception*, Chicago, London The University of Chicago Press.
- Modrak, Deborah K. W. 1991, 'The Nous-Body Problem in Aristotle', *The Review of Metaphysics*, 44(4), 755–774. Retrieved March 3, 2020, www.jstor.org/stable/20129098.
- Moss, Jessica 2012, *Aristotle on the Apparent Good: Perception, Phantasia, Thought, and Desire*, Oxford, Oxford University Press.
- Nussbaum, Martha C. 1978, *Aristotle's De Motu Animalium*, text, trans., commentary, and interpretative essays, Princeton, NJ, Princeton University Press.
- Nussbaum, Martha C. & Rorty, Amélie (eds.) 1992, *Essays on Aristotle's De Anima*, Oxford, Clarendon Press.
- Perälä, Mika 2015 'Aristotle on Singular Thought', *Journal of the History of Philosophy* 53/3, 349–375.
- Perälä, Mika 2018, 'Aristotle on Perceptual Discrimination', *Phronesis* 63/3, 257–292.
- Polansky, Ronald 2007, *Aristotle's De Anima*, Cambridge, Cambridge University Press.
- Pritzl, K. 1984, 'The Cognition of Indivisibles and the Argument of *De Anima* 3.4-8', *Proceedings of the American Catholic Philosophical Association*, 58, 140–150.
- Reeve, C. D. C. (ed.) 2014, *Aristotle, Nicomachean Ethics: Translation, Introduction, and Notes*, Indianapolis, Hackett.
- Reeve, C. D. C. (ed.) 2016, *Aristotle, Metaphysics: Translation, Introduction, and Notes*, Indianapolis, Hackett.
- Reeve, C. D. C. (ed.) 2017, *Aristotle, De Anima: Translation, Introduction, and Notes*, Indianapolis, Hackett.
- Ross, W. D. (ed.) 1956, *Aristotelis: De Anima*, Oxford Classical Texts, Oxford, Clarendon Press.
- Ross, W. D. 1961, *Aristotle: De Anima*, Oxford, Oxford University Press.
- Sihvola, Juha 2007, 'The Problem of Consciousness in Aristotle's Psychology', in: S. Heinämaa, V. Lähteenmäki and P. Remes (eds.), *Consciousness: From Perception to Reflection in the History of Philosophy*, Springer, 49–65.
- Sandywell, Barry 1996, *Presocratic Reflexivity: The Construction of Philosophical Discourse c. 600–450 BC*, Logological Investigations Volume 3, London, Routledge.
- Shields, Christopher (ed.) 2016, *Aristotle: De Anima*, Oxford, Oxford University Press.
- Shields, Christopher 2020, 'Aristotle's Psychology', *The Stanford Encyclopedia of Philosophy* (Winter 2020 Edition), Edward N. Zalta (ed.), URL =

<<https://plato.stanford.edu/archives/win2020/entries/aristotle-psychology/>>. Retrieved May 28, 2020.

Wedin, Michael V. 1988, *Mind and Imagination in Aristotle*, New Haven, London, Yale University Press.

Whiting, J. 2002, 'Locomotive soul: the parts of soul in Aristotle's scientific works.' *Oxford Studies in Ancient Philosophy* 22, 141-200.

Witt, Charlotte 1989 *Substance and Essence in Aristotle*, Ithaca, Cornell University Press.

Witt, Charlotte 1992, 'Dialectic, Motion, and Perception: *De Anima*, Book I', in: Nussbaum & Rorty 1992, 169–83.