



Universiteit
Leiden
The Netherlands

A pursuit of ontological truth in Aristotle's philosophy

Jin, D.

Citation

Jin, D. (2025, January 15). *A pursuit of ontological truth in Aristotle's philosophy*. Retrieved from <https://hdl.handle.net/1887/4176263>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4176263>

Note: To cite this publication please use the final published version (if applicable).

A Pursuit of Ontological Truth in Aristotle's Philosophy

Proefschrift

ter verkrijging van
de graad van doctor aan de Universiteit Leiden
op gezag van rector magnificus prof.dr.ir. H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op woensdag 15 januari 2025
klokke 10.00 uur

door
Da Jin
geboren te Xi'an (China)
in 1991

Promotor: Prof.dr. F.A.J. de Haas

Co-promotor: Dr. R.M. van den Berg

Promotiecommissie: Prof.dr. J.W. McAllister

Prof.dr.M.S. van der Schaar

Prof.dr.J.M. Szaif (University of California, Davis)

Prof.dr.M. Bonazzi (University of Bologna)

Table of contents

Abbreviations	5
Introduction	6
1. Why seek ontological truth in Aristotle?	7
2. The structure of the investigation	8
Chapter One	11
The Traditional Interpretation of Truth in Aristotle	11
1. Various discussions about truth	11
2. Aristotle and the classical correspondence theory of truth	13
2.1 The account of truth and falsity in <i>Metaphysics</i> Γ.7	13
2.2 The account of truth and falsity in <i>Metaphysics</i> Δ.7	14
2.3 The account of truth and falsity in <i>Metaphysics</i> E.4	15
3. The classical correspondence theory of truth	17
3.1 The account of truth and falsity in <i>Metaphysics</i> Θ.10	18
3.2 How to interpret the term “correspondence”	20
3.3 The correspondence theory- interpretation criticized	21
4. Conclusion: the truth of statements as truth-values	23
Chapter Two	25
Being in the Strictest Sense in <i>Metaphysics</i> Θ.10	25
1. <i>Metaphysics</i> Θ.10 in modern scholarship	26
2. Texts supporting the ontological reading of truth in <i>Metaphysics</i> Θ.10	28
3. Combinations and separations in <i>Metaphysics</i> Θ.10	29
4. Ontological truth in <i>Metaphysics</i> Θ.10	31
4.1 Incomposites are always true in terms of actualization	32
4.2 Ignorance in <i>Metaphysics</i> Θ.10	36
4.3 Composites changing over time	36
4.4 Always divided and never combined	38
5. Conclusion: “being” in the strictest sense as truth is ontological truth	38
Chapter Three	40
Relations Between Words, Thoughts, and Things	40
1. How modes of being are traditionally spoken by language	40
2. Truth in words	43
2.1 The role of words without combinations: names and verbs	43
2.2 Combinations of words in thoughts with truth-values	44
2.3 Signification: the relationship between words and things in virtue of thoughts	46
3. Truth in thoughts: a representational realism or a direct realism?	48
3.1 Representational realism: “affections of the soul” between words and thoughts	48
3.2 Interpreting “likenesses as affections of souls” in Aristotle.	50

4. A direct realism: truth in thoughts as the form of objects in the soul	52
5. Further evidence for direct realism in terms of actuality and potentiality	54
6. ‘Truth in things’ has ontological priority to ‘truth in thoughts’	56
Chapter Four	58
Categories, Potentiality and Actuality	58
1. Being with reference to categories	58
1.1 Categories and the priority of primary substance	59
2. Being with reference to potentiality and actuality	62
2.1 Motion in terms of potentiality and actuality in <i>Physics</i>	62
2.2 The priority of actuality	64
2.3 Eternal beings and perishable things	67
3. The hierarchy of being in terms of truth	69
4. Conclusion	71
Chapter Five	73
Essences in Demonstrations	73
1. The structure of demonstrations	74
2. Immediate definitions as the indemonstrable first principles of demonstrations	75
3. Syllogistic definitions as a conclusion of a demonstration	77
4. Objects of definitions	80
5. Two kinds of knowledge	83
6. Conclusion	85
Chapter Six	87
The Principle of Non-Contradiction	87
1. The formulation of the principle of non-contradiction	87
2. The logical reading of the principle of non-contradiction	89
3. The principle of non-contradiction as an ontological principle	90
3.1 An ontological reading in <i>Categories</i>	90
3.2 An ontological reading in <i>Metaphysics</i>	92
4. The principle of non-contradiction within the hierarchy of truth	94
5. The principle of non-contradiction performing within the hierarchy of being	96
6. Conclusion	98
Chapter Seven	100
Conclusion	100
1. The route of my journey	100
2. The goal of my journey	102
Bibliography	105
Nederlandse samenvatting	118
Acknowledgement	122
Curriculum vitae	123

Abbreviations

The following abbreviations are used in this dissertation:

Aristotle's works:

<i>A.Pr.</i>	<i>Analytica Priora</i>
<i>A.Pst.</i>	<i>Analytica Posteriora</i>
<i>Cat.</i>	<i>Categoriae</i>
<i>De An.</i>	<i>De Anima</i>
<i>Int.</i>	<i>De Interpretatione</i>
<i>Met.</i>	<i>Metaphysica</i>
<i>NE.</i>	<i>Nicomachean Ethics</i>
<i>Phys.</i>	<i>Physica</i>
<i>Rhet.</i>	<i>Rhetorica</i>
<i>Top.</i>	<i>Topica</i>

Reference to Aristotle's works are given in the following form: abbreviated title, followed by book, chapter, page, column, and lines. e.g. *Met.* Δ. 7, 1017a31-1017a35.

Introduction

The relevance of truth as a topic is evident from the huge quantity of discussions and theories of truth. The notion of truth has been widely investigated - along with all varieties of issues pertaining to it.¹ We encounter different discussions on truth, often referencing metaphysics, logic, and numerous other areas of philosophy - some of which are among the most difficult and persistent issues currently discussed. My project falls within these discussions—and more specifically the discussion about how one can understand or define the concept of truth within the framework of Aristotle's philosophy.

Truth is a difficult subject. At the beginning of his *Metaphysics*, Aristotle tries to encourage his students about the task at hand with the following observation:

T1: The investigation of the truth is in one way hard, in another easy. An indication of this is found in the fact that no one is able to attain the truth adequately, while, on the other hand, no one fails entirely, but everyone says something true about the nature of things, and while individually they contribute little or nothing to the truth, by the union of all a considerable amount is amassed. [...] Perhaps, as difficulties are of two kinds, the cause of the present difficulty is not in the facts but in us. For as the eyes of bats are to the blaze of day, so is the reason in our soul to the things which are by nature most evident of all. (*Met. a. 1*, 993a27-993b5; 993b9-993b11)

Here, Aristotle opens with general comments on the study of truth to which every scholar contributes - even though no one can adequately attain the truth. Truth, he argues, is like the proverbial door which no one can miss - and so in a sense, the job at hand should be relatively easy. Aristotle has also commented on the course one should take for such an investigation:

T2: The natural way of doing this is to start from the things which are more knowable and clear to us and proceed towards those which are clearer and more knowable by nature; for the same things are not knowable relatively to us and knowable without qualification. So we must follow this method and advance from what is more obscure by nature, but clearer to us, towards what is more clear and more knowable by nature. (*Phys. I.1*, 184a17-184a21)

Given Aristotle's suggestions, I shall begin the project of seeking ontological truth in Aristotle's work with a theory that is most familiar to me - that is, the correspondence theory of truth.² In order to go about this task, I will begin by stating my theoretical background, and then roughly picture a structure of my arguments.

¹ For instance, Wolenski, 2004. This research investigates the concept of truth in ancient philosophy from the pre-Socratics until Aristotle.

² The opposition here is not between two kinds of being—for example, the eternal and temporal—but between two ways in which beings show themselves. (Brogan, 2005, 71.)

1. Why seek ontological truth in Aristotle?

In various discussions about truth, there is a tendency for scholars to work with a singular question: “what is truth?”. There are certainly numerous ways to answer this question. For example, some might argue that truth is a relation between assertions and reality.³ Or that truth is an immanent property that makes things be true.⁴ Broadly speaking, we may distinguish between two kinds of truth theory, logical ones and metaphysical ones (Lynch 2009).⁵ Logical theories seek to construct formal systems that are consistent, while also containing a predicate which has most of the properties which we ordinarily take the English predicate ‘is true’ to have, such as Tarski’s and Kripke’s theories of truth. By contrast, metaphysical theories seek to give a non-formal account of the nature of truth, that is, what truth consists in and what it means to say that something is true, such as correspondence, coherence, deflationary, and pragmatist theories of truth.

In this project, I would like to explore the possibility of a particular metaphysical theory of truth in Aristotle’s work. Following the implications of metaphysical theories of truth, I would like to view the concept of “truth in things” and “truth as being in the strictest sense” provided by Aristotle as clues to an ontological reading of truth to be found in Aristotle’s works. This ontological reading of truth is about more than just playing the role of truth-maker in the context of a classical correspondence theory of truth.⁶ Nevertheless, Aristotle’s view of truth has been traditionally classified as a correspondence theory of truth.⁷ My ontological reading of truth in Aristotle will reveal what is the concrete content of “truth in things” that has been observed to play the role of truth-maker in the framework of the correspondence theory of truth. In light of this it bears reminding that the scope of the question of the ontological reading of truth is restricted to various modes of being, especially to so-called “being in the strictest sense”, which plays a fundamental role in understanding the real world surrounding us. Ultimately, this ontological interpretation of truth provides the foundation for truth in statements as truth-values which has been widely accepted by scholars holding the correspondence theory of truth.

Therefore, the aim of this project is to deepen our understanding of the concept of truth by extending the scope of truth from truth in statements to the domain of being—all within the light of Aristotle’s work. This means that we need to rethink all relevant topics in terms of ontological truth. And so, based on this interpretation of truth as being in the strictest sense, we shall be able to establish some applications of ontological truth in Aristotle’s works.

3 For instance, the classical correspondence theory of truth.

4 This situation can be proven by *the Oxford Handbook of Truth*. It argues that “Truth is a property, that has been of great interest to philosophy and beyond for about as long as we have a history for philosophy. It is a topic of active research in many branches of philosophy, notably metaphysics and logic. That property is the topic of this Handbook. Essays in this volume will explore the basic nature of the property of truth, i.e. its underlying metaphysical and logical properties. Others explore its role in such areas as ethics and science and mathematics, and so on. They do so from a number of perspectives, both historical and systematic. They use various techniques and approaches, from metaphysics, ethics, philosophy of science, logic, and many others.”

5 Lynch, 2009, 3-5.

6 For instance, David Armstrong’s theory of truth — which will be discussed in chapter One.

7 This view will be discussed in chapter One.

2. The structure of the investigation

I will first begin my investigation from a familiar theory of truth - that is, the classical correspondence theory of truth in which truth has been defined as correspondence relation between truth-bearers and truth-makers. How to specify those basic elements in the formulation of the correspondence theory of truth is open to interpretation. Nevertheless, based on the theoretical fact that the correspondence theory of truth has generally been turned into the traditional account of truth in Aristotle, Aristotle's investigations of truth will be my main research object. Specifically, I will focus on two levels of truth found in Aristotle, which are: 1) truth in assertions reported by *Metaphysics* Γ.7, Δ.7 and *Metaphysics* E.4; and 2) ontological truth stated in *Metaphysics* Θ.10. Most scholars read in Γ.7 a vintage exposition of the correspondence theory of truth, a theory which, they claim, Aristotle normally espouses. While in Θ.10, when Aristotle argues 'being in the strictest sense' to be truth, Aristotle underlines a new way to discuss truth that is related to being, rather than truth as truth-values of assertions. This will make up the primary content for chapter One.

How Aristotle regards 'truth as being in the strictest sense' in relation to the truth-makers in the traditional interpretation of truth in Aristotle will be further explored in chapter Two. There I shall discuss the relation between words, thoughts, and things in terms of combinations and separations in reality, resulting in the conclusion that things are prior to thoughts or words. Based on such a conclusion, I would like to suggest that there is a hierarchy of truth in Aristotle, viz. that truth in things is prior to truth in thoughts, which is prior to truth expressed in statements. In this hierarchy, the ontological reading of truth is prior to the traditional interpretation of truth. This will be the topic of chapter Three.

As we can see, in contrast to the traditional interpretation of the view of truth gleaned from *Metaphysics* Γ.7, Δ.7, and E.4, the ontological reading of the view of truth in *Metaphysics* Θ.10 provides us with a new perspective to interpret the concept of truth in Aristotle's philosophical works. Apparently, this new expression of truth as being in the strictest sense cannot only explain why the traditional view of truth in E.4 is correct, but can also be observed in various indications and applications of "truth as being in the strictest sense" in other domains of Aristotle's work. Except for the concepts of combination and separation, Aristotle does not directly provide us with specifics for the concept of being in the strictest sense as truth. However, we can explore the nature of being in the strictest sense through certain clues and various exemplifications of truth as being in the strictest sense. Following the structure offered by Aristotle in Θ.10, and with the help of the investigation of truth as being in the strictest sense in chapter Two, what is fundamental in being in reference to categories, as well as potentiality and actuality will be considered as clues to understand the nature of ontological truth that is being in the strictest sense.

The purpose of chapter Four is to survey certain clues in the ontological reading of truth that is being in the strictest sense. Some clues can be gleaned from how Aristotle discusses the concept of being in the framework of Θ.10, including being referring to categories and being referring to potentiality and actuality. What is more, a hierarchy of beings can be observed. The simple things in Θ.10 in terms of the categories will be identified as the primary

substance in *Categories*. Typically for categories, which are said without combination, these are prior to and more basic than assertions consisting of combinations of categories. Among the categories that have been divided into ten kinds, substance is the fundamental one. On the one hand, primary substances make definitions and assertions with truth-values possible. On the other hand, primary substances have ontological priority over other single categories. For a primary substance can exist separately in its own right, and the existence of items in other categories is determined by their ontological dependence on the primary substances.

At the same time, a further clue to the ontological reading of truth can be observed in the discussion of what is fundamental in being with reference to potentiality and actuality. In the first place, Aristotle has applied the concepts of potentiality and actuality to the analysis of motions. Moreover, Aristotle argues that the concepts of potentiality and actuality can be further used to describe various modes of being, instead of just being concerned with motions. In the framework of actuality and potentiality as ways of being, eternal beings and perishable things come into our sight in which eternal beings are always in actuality and enjoy ontological priority. Therefore, understanding what is always actuality is fundamental in our investigation of being with reference to potentiality and actuality. This priority of actuality as a mode of being shall be read as a clue to the ontological reading of truth in Aristotle. In this way we have revealed a hierarchy of being in Aristotle.

Chapter Five aims to show how the ontological reading of truth makes statements true by investigating the relation between essences and demonstrations in *Posterior Analytics*. The structure of a demonstration reveals that every part of a demonstration has an internal relation with essences as the necessary starting point of a demonstration. The first premise as the starting point of a demonstration must always be necessarily true at all times. Moreover, the necessity that characterizes the immediate definition promises the necessity of the conclusion of a demonstration. According to Aristotle's view, demonstrations produce knowledge that must be true, and this knowledge has been considered as the highest mode of actuality of human beings. Except for demonstrative knowledge, knowledge of indemonstrables such as axioms should also be investigated. Given the fact that indemonstrable knowledge is also attributed to truth in statements, the principle of non-contradiction shall be taken as an example of axioms to show its role in the work of how ontological truth makes statements true.

In chapter Six, as we look into the theory of affirmation and negation in *On interpretation* and *Topics*, where Aristotle focuses on truth in assertions as truth-bearers. Aristotle introduces the notion of the principle of non-contradiction as an *archê* of all axioms performing in knowledge. In this case, I am going to investigate what we can learn from the way the principle of non-contradiction operates under the hierarchy of truth established in chapter Three and within the hierarchy of being investigated in chapter Four. I aim at explaining the principle of non-contradiction as an ontological principle in terms of categories without contraries and actualization of modes of being that is always true without falsity, rather than merely taking the principle of non-contradiction as a logical principle focusing on assertions. Considering the hierarchy of truth in chapter Three, the ontological reading of the

principle of non-contradiction is prior to and should be responsible for the logical reading of the principle of non-contradiction. From my perspective, it is easier to understand why Aristotle takes the principle of non-contradiction as ‘a principle in things as the truth’⁸ that is prior to and in a sense beyond the scope of human knowledge,

Finally, in my conclusion, I posit that the search for ontological truth is both a valid and valuable pursuit for human beings. By nature, we seek ontological truth. Many of us even find joy in this pursuit. Yet, at the same time, certain limitations of our nature make it so that as humans, we may continually search for ontological truth, but can in all likelihood never completely achieve it nor hold onto it.

⁸ *Met.* K.5, 1062a19-1062b11.

Chapter One

The Traditional Interpretation of Truth in Aristotle

The journey of seeking ontological truth begins with an investigation of the familiar. In this chapter, I investigate the traditional interpretation of Aristotle's view of truth, viz. a correspondence theory of truth. I shall begin by introducing various discussions about the concept of truth, including how Aristotle deals with the topic of truth more generally. Although the correspondence theory of truth is still open to various interpretations, there are common elements that most of the literature agrees on. For instance, in general, the correspondence relation between assertions and realities is the key point of the correspondence theory of truth. However, there is more than one way to interpret the notion of reality – which can be considered as things, facts, or states of affairs.⁹ We shall refer to the terms of truth-bearers and truth-makers to describe the correspondence relationship between assertions and realities. Furthermore, we shall examine the position of the correspondence theory of truth in the account of truth found in Aristotle.

With the support of several important passages from *Metaphysics* Θ.10, we may be able not only to interpret Aristotle's view of truth in term of the correspondence theory of truth, but also to investigate whether there is an additional view of truth in Aristotle that is being in the strictest sense as truth, or truth in the ontological sense. However, that does not mean I deny the correspondence theory of truth. Actually, in my reading, we can still find room for a correspondence theory of truth in Aristotle which has its ultimate base in the ontological reading of truth.

Therefore, following Aristotle's perspective, let us first investigate what we are familiar with, that is the correspondence theory of truth which is the traditional interpretation of truth in Aristotle.

1. Various discussions about truth

Certain philosophers argue that it is a mistake to define the concept of truth.¹⁰ For instance, A. J. Ayer (1968) sets forth the opinion that theories of truth do not focus on the definition of “true” and “false”, but merely explore conditions of truth. The correspondence, coherence, and pragmatic theories of truth would fall in this camp.¹¹ He points out that what these philosophers, who have been puzzled about truth, are seeking is not a definition of truth—nor an explanation of the use of truth—but rather a criterion of validity. The question then asked is not what we mean by truth, but rather, what is it that makes a statement true? It might then

⁹ The question of understanding states of affair will be dealt with in chapter Three. Summarily, there are at least two ways to interpret “states of affairs”: one of them is states of affairs thought or believed; while the other claims they are part of the world. These two interpretations will be later discussed in light of the relation between thoughts and things in the world.

¹⁰ Davidson, 2005, 55; Soames, 1984, 411-429; Ayer, 1963.

¹¹ Ayer, 1963, 167.

be construed as a request for the conditions of truth.¹²

Nevertheless, the concept of truth has been connected with a very wide range of issues. Many of them are related to other areas of inquiry that have been of special concern to philosophy. For instance, ethics, which can be directed towards truth,¹³ or logic, which concerns what kind of statements are logically true or false and makes sciences possible,¹⁴ as well as metaphysics.¹⁵ The different approaches and changes mentioned can all be gleaned from the following passage offered by J. L. Austin (1950):

T3:“What is truth?” said jesting Pilate, and would not stay for an answer. Pilate was in advance of his time. For “truth” itself is an abstract noun, a camel, that is, of a logical construction, which cannot get past the eye even of a grammarian. We approach it cap and categories in hand: we ask ourselves whether Truth is a substance (the Truth, the Body of Knowledge), or a quality (something like the colour red, inhering in truths), or a relation (“correspondence”). But philosophers should take something more nearly their own size to strain at. What needs discussing rather is the use, or certain uses, of the word ‘true’.¹⁶

As we can see from this passage, the notion of truth has been approached in different ways.¹⁷ For now, the truth as truth-values of assertions, tested and approved by a relation with reality, is the object of my investigation.¹⁸ In this regard, this kind of truth is generally restricted to words or sentences, rather than modes of being. Considering the key role played by the concept of truth as truth-values of assertions, the correspondence theory of truth could become a typical example that shows how the concept of truth as truth-values of assertions can logically be explained and specified by most modern scholars. Meanwhile, those modern theories hold the view of truth in the logical sense connected with objectivity,¹⁹ reliability,²⁰ accuracy,²¹ validity,²² right of assertions and statements,²³ or justifiability,²⁴ which are mainly topics about how to use the power of predication to say something correct by words. Therefore, the next topic of my investigation in this chapter is to explore the primary nature of

¹² Ayer, 1963, 167.

¹³ Schroeder, 2018.

¹⁴ Chakravartty, 2018.

¹⁵ Shieh, 2018.

¹⁶ Austin, 1950, 111–28.

¹⁷ For example, the *Oxford Handbook of Truth* offers an interesting map detailing the landscape of the theories of truth, introducing various theories in different times and from different perspectives. Apart from taking truth as a logical truth of assertions, it also discusses various ways of regarding truth as a property. As for truth as a property—excepting theories in different historical periods—it also introduces several classical theories of truth, including the identity, correspondence, coherence, and pragmatist theories. Of course, such classical theories are often modified over time, and they can be formulated in many ways.

¹⁸ I need to clarify the meaning of these terms, such as: statement truth, logical truth, and linguistic truth. Generally, statement truths are regarded as truth-value of statements. And the logical truth has more content, not just as truth-value of assertions, but also certain characters of thoughts or expressions of thoughts, such as the validity of argument and rightness of judgement. (This view can be found in Hanson, 2014, 327-339.) As long as the argument follows the criterion of logic, then this argument could be logical truth.

¹⁹ Lynch, 2009, 8.

²⁰ Williams, 1986.

²¹ Wheeler, 2019a, 12, 249, 281

²² O'Connor, 1975, 18.

²³ Alston, 1996, 241.

²⁴ Künne, 2003, 375-452; Alston, 1996, 242-244; and Williams, 1986.

the classical correspondence theory of truth.

2. Aristotle and the classical correspondence theory of truth

How is Aristotle's definition of truth explained in the light of the correspondence theory of truth? In order to deal with this question fully, we need to take a closer look at some of the fundamental passages concerning Aristotle's view of truth. As we can see, this traditional view on truth as truth-values can be found in *Metaphysics* Γ.7, Δ.7, E.4, and also in large parts of *Metaphysics* Θ.10. Meanwhile, some parts of *Metaphysics* Θ.10 imply an additional interpretation of the concept of truth which can be further clarified in terms of 'being in the strictest sense' – as we shall discuss in the next chapter. Nevertheless, the first step of our exploration begins with an investigation into the traditional interpretation of the concept of truth.

2.1 The account of truth and falsity in *Metaphysics* Γ.7

In *Metaphysics* Γ.7, Aristotle introduces the definitions of truth and falsity as such:

T4: This is clear, in the first place, if we define what the true and the false are. To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true; so that he who says of anything that it is, or that it is not, will say either what is true or what is false; but neither what is nor what is not is said to be or not to be. (*Met.* Γ.7, 1011b24-1011b29)

According to the traditional account of truth in Aristotle, this passage introduces the idea of a true assertion matching the way things are and a false one failing to match, without making clear what feature or aspect of the world it is that an assertion either succeeds in matching or fails to match. As well, we can glean its performance from the context of the principle of non-contradiction where the opponent always asserts one and only one of the simple assertions involved in a contradictory pair of assertions.²⁵

The definition of truth reported by this passage is widely accepted as a standard definition of truth in Aristotle by most scholars. For instance, Michael Devitt (1984)²⁶ proposes that a sentence is true if and only if it corresponds to facts or reality. This is as such a plausible reading of *Metaphysics* Γ.7. Instead of the fact-based correspondence theory of truth mentioned by Michael Devitt, Wolfgang Kühne (2003) proposes that Aristotle paves the way for 'Object-based correspondence theory.' Based on *Metaphysics* Γ.7, Wolfgang Kühne explicitly argues that Aristotle presents an explanation of truth and falsity as a correspondence theory. In this case, it is obvious that on the one side, there is a belief expressed by statements, a thing which has various attributes. On the other side, whether their relations actually correspond or not, the belief is completely determined by those things.²⁷ According to the

²⁵ Wheeler approaches this passage in terms of language perspective and studies all distinguished translations, such as Ross and Owen. Wheeler has argued that these concepts are tightly linked. Some conceptions of truth and falsehood are, thus, presupposed by Aristotle's constructive arguments concerning the attributes possessed by LNC. (Wheeler, 2019a, 111.) The issue of the principle of non-contradiction will be discussed in chapter Six.

²⁶ Devitt, 1984, 27.

²⁷ Cf. Kühne, 2003, 93ff.

traditional interpretation of the view of truth in Aristotle, the correspondence theory of truth requires ‘objective and mind-independent’ facts or objects which are truth-makers that make sentences true or false. They apparently presuppose a relation of some sort between the intentional content of assertions and their real correlates, but the nature of this relation is left unspecified.

2.2 The account of truth and falsity in *Metaphysics* Δ.7

In order to fully explain the view discussed in *Metaphysics* Γ.7, Aristotle further provides some examples in *Metaphysics* Δ.7 to support his definition of truth and falsity as truth-values of statements which in turn have been widely accepted by modern commentators:

T5: ‘Being’ and ‘is’ mean that a statement is true, ‘not being’ that it is not true but false,—and this alike in affirmation and negation; e.g. ‘Socrates is musical’ means that this is true, or ‘Socrates is not-white’ means that this is true; but ‘the diagonal of the square is not commensurate with the side’ means that it is false to say it is. (*Met.* Δ.7, 1017a31-1017a35)

In this passage, we can see that Aristotle applies the notion of “is true” to describe “being”, while he uses “not true” to describe “not being”. This relationship of being and truth²⁸ is clearly presented in several statements about modes of being by means of either affirmations or negations in this passage. Moreover, Aristotle introduces the famous example that “Socrates is musical” to illustrate his view of truth as the truth-value of statements, which is the standard interpretation of the concept of truth offered by modern theorists. Following this view, truth should be seen as truth-value and focuses mainly on terms, sentences, assertions, and statements. Based on this interpretation, the question about truth and falsity in terms of being in T5 would be a logical question²⁹ rather than an ontological question.

Actually, there is more than one way to interpret T5. For instance, Mark Wheeler (2019b) introduces two different readings of this passage. The first one is an “assertion reading” and the second one is an “objectual reading.” He summarizes that the different readings each have their own supporters and supporting reasons separately. According to the assertion reading, the passage is about the use of ‘being’ equivalent to a use of “truth” that denotes an attribute of linguistic and mental affirmation and denial. Proponents of this assertion reading are Alexander of Aphrodisias, Thomas Aquinas, David Ross, Bertus de Rijk, and David Charles and Michael Peramatzis.

This linguistic interpretation has been recently criticized by a number of commentators, such as Edward Halper (2009), C.W.A. Whitaker (2019a), and Paolo Crivelli (2004). These scholars claim that Aristotle posits an objective kind of truth among the four kinds of being in his ontology.³⁰ Specifically, they claim that the whole structure of *Metaphysics* Δ.7 reveals the fundamental formulation of beings, which comprises coincidental being, being in-itself,

²⁸ Questions about the relationship between being and truth will be discussed in the chapter Two.

²⁹ Based on opinions of modern scholars, in a narrow sense, “in the logical sense” means something performed in thoughts or expression of thoughts, such as items, sentences, statements, or arguments.

³⁰ Wheeler, 2019a, 116.

being true, and potential and actual being. According to this objectual reading, the use of “being” found at T5 is equivalent to a use of “truth” that is a kind of being true predicated of mind and language independent objects. Language independent objects are real objects in the world, which have been expressed in terms of attributes by Aristotle in e.g. *Metaphysics* Δ.29 and *Metaphysics* Θ.10.

Based on his analysis of T5, Mark Wheeler has understood the term of truth as a kind of being in *Metaphysics* Δ.7. However, he still holds that Aristotle also identifies the kind of truth that belongs to assertions. Based on this view, Mark Wheeler explains that through the notions of truth or false in *Metaphysics* Δ.7, Aristotle identifies a use of “to be” that is logically equivalent to a predicate “to be true” that takes assertions as subjects. This use of “to be T” denotes an attribute of assertions, namely the one defined by Aristotle in *Metaphysics* Γ.7, the attribute of asserting that which is or of asserting that which is not. Ultimately, at least in *Metaphysics* Δ.7, true and false in terms of being can still be regarded as truth-values of assertions.³¹ Nevertheless, various explanations remain regarding how to explain this view.³²

Regardless of the position we take, it is reasonable to assume that Aristotle is concerned with a use of “being” in *Metaphysics* Δ.7 that signifies that something is true and a use of “not-being” that signifies that something is false. At the very least, it establishes a form of equivalence between “being” and “true” and between “not-being” and “false.” In this sense, Aristotle acknowledges in *Metaphysics* Δ.7 a use of “being true” which is logically equivalent to the nominal definition of truth presented in *Metaphysics* Γ.7 observed earlier.

2.3 The account of truth and falsity in *Metaphysics* E.4

After discussing the standard account of truth in *Metaphysics* Γ.7 and the formulation of truth according to *Metaphysics* Δ.7, Aristotle continues to deepen his investigation by discussing the distinction between “truth in thoughts” and “truth in things” through the use of combinations offered in *Metaphysics* E.4.

T6: But since that which is in the sense of being true, or is not in the sense of being false, depends on combination and separation, and truth and falsehood together are concerned with the apportionment of a contradiction (for truth has the affirmation in the case of what is compounded and the negation in the case of what is divided, while falsity has the contradictory of this apportionment—it is another question, how it happens that we think things together or apart; by ‘together’ and ‘apart’ I mean thinking them so that there is no succession in the thoughts but they become a unity; for falsity and truth are not in things—it is not as if the good were true, and the bad was in itself false—but in thought; while with regard to simple things and essences falsity and truth do not exist even in thought):—we must consider later what has to be discussed with regard to that which is or is not in this sense; but since the combination and the separation are in thought and not in the things, and that which is in this sense is a different sort of being from the things that are in the full sense (for the thought attaches or removes either the ‘what’ or quality or quantity or one of the other categories), that which is accidentally and that which is in the sense of being true must be dismissed.

³¹ Wheeler, 2019a, 117 -118.

³² Wheeler, 2019a, 119-120.

For the cause of the former is indeterminate, and that of the latter is some affection of the thought, and both are related to the remaining genus of being and do not indicate any separate class of being. Therefore let these be dismissed, and let us consider the causes and the principles of being itself, qua being. [It was clear in our discussion of the various meanings of terms, that ‘being’ has several meanings.] (*Met.* E.4, 1027b18-1028a8)

According to this passage, Aristotle makes two related claims: 1) “being” in the sense of being true and “not-being” in the sense of being false are about combination and separation; and 2) taken together, being true and being false are about the apportionment of a contradiction. To decipher this, we can see that, in the first place, Aristotle repeats the corresponding relation of truth with combinations and falsity with separations. Specifically speaking, truth can be reduced to combinations of terms, while falsity can be attributed to a division of terms.³³ He goes on to state that in the case of something combined, the affirmation is true and the negation is false – while in the case of something divided, the negation is true and the affirmation false. It is clear that Aristotle restricts the scope of truth and falsity under contradiction by pointing out that truth in a logical sense is the opposite of false in logical sense.

The most important statement that Aristotle further makes here is a division of truth into “truth in thoughts” and “truth in things”³⁴ by indicating that truth and falsehood are not in *things* as properties, as if e.g. the good as such were true, and the bad false, but in *thought*. We shall see later that in *Metaphysics* Θ.10 Aristotle will *affirm* that truth and falsehood are in things—apparently in a different way which requires further scrutiny. Furthermore, Aristotle postpones discussion of how true and false apply to simple things and essences to a later discussion, which we shall also find in *Metaphysics* Θ.10.. In T6, then, ‘truth in thoughts’ remains, which is logical truth that belongs to thoughts. Because this notion of truth is connected to thoughts, and ultimately depends on substance, as does accidental being, both are dismissed from the ongoing search for *primary* being that Aristotle is conducting here.

According to my interpretation, truth in things can similarly be discussed in terms of combinations. On Aristotle’s view, a true affirmation corresponds to a combination of things in the world, which are things combined in a certain way. In this case, true affirmation asserts truly that they are so combined while a false affirmation asserts a combination of things which are in fact divided. If things are divided, a true statement about them will become a negation, asserting that it is separated, while a false statement which falsely asserts the combination is the affirmation. Therefore, the concept of truth consists in correctly matching combinations and divisions in thought or utterance with combinations and divisions in things.³⁵

Moreover, Aristotle sets forth that the relevant differences among the relations of combinations and divisions introduced by a predicative assertion have to do not only with the assertion’s quantity – rather, the categories used to argue certain predicative assertions are

³³ This topic will be investigated in chapter Two concentrating on the relation of truth with reference to being in terms of combinations or separations.

³⁴ “Truth in things” can also be understood with regard to “false in things” provided by Aristotle in *Met.* Δ.29.

³⁵ Whitaker, 1996, 27.

combinations or divisions corresponding to the categories of substances and other accidents. Due to this reason, “truth in thoughts” are dependent on a thinkers’ ability to combine and divide objects in thought, while truth in things does not.³⁶ On these grounds, Aristotle distinguishes between a mode of being which does not depend on our thoughts and another mode one of being whereby true or false are truth-values of statements. Because of this, Aristotle charts a direction for future investigation that we should go –a direction revealed in the study of causes and principles of being itself, qua being. For this reason, it is said that his optimistic attitudes to modes of being as external objects which does not depend on our thoughts reflects his commitment to realism.

3. The classical correspondence theory of truth³⁷

Generally speaking, the correspondence theory of truth can be expressed by assenting to the slogan “what somebody thought or said is true if and only if it agrees with reality.”³⁸ However, how one should define the notion of “reality” remains questionable. I would like to put this question of definitions aside for now and refer to the term “truth-bearers”³⁹ and “truth-makers”⁴⁰ to describe this relationship of agreement. In this way, the correspondence theory of truth has understood truth as a relational property.⁴¹

It is worthwhile to bear in mind that there is more than one candidate to explain the content of “truth-makers” and “truth-bearers”. truth-bearers have been analyzed as sentences and assertions⁴² both in words and in mental states, while truth-makers have been studied as objects, things, states of affairs, or facts. David Charles and Michail Peramatzis⁴³ (2016) have further suggested various contents of truth-bearers and truth-makers. They argued that the primary truth-bearers are items such as statements, affirmations, denials, and assertions, or mental states such as beliefs, judgments, and thoughts. An item is therefore only characterized by the entire disjunctive phrase ‘true or false’. States of affairs or other similar external, non-mental, or mind-independent items are themselves truth-makers.

The correspondence theory of truth has experienced an internal development in which it has been analyzed and specified in a myriad of ways. Here, I would like to take the classical correspondence theory of truth as an example. Michael Devitt has summarized features of the classical correspondence theory of truth to be: (1) it holds of a sentence or proposition partly in virtue of the structure of the sentence; (2) it holds of a sentence partly in virtue of a relation

³⁶ How to interpret ‘truth in thoughts’ itself is itself a tough question, with multiple explanations. For example, Modrak identifies a propositional structure to explain “truth in thoughts”. (Modrak, 2009, 66.)

³⁷ David, 2005.

³⁸ Künne, 2003, 93.

³⁹ Alston, 1996, 7-8.

⁴⁰ Lowe, 2009.

⁴¹ Lynch, 2009, 21; Blackburn, 1984; Vision 2004.

⁴² I deal with assertions as an identical expression of propositions as statements with truth-values, which is a product of thought and is expressed by language, including written letters. See further chapter Three. There is nevertheless more than one theory about propositions. Those discussions can be found in Jeffrey; Soames, and Jeff, 2004. Nuchelmans also discussed of the theory of propositions as bearers of truth and falsity. In his opinion, understanding propositions is key. He has investigated various scholars with different views on proposition – for example, propositions divided into different levels: vocal proposition, written proposition, mental proposition and proposition in things including things as such and things as being. (Nuchelmans, 1973, 273.)

⁴³ Charles and Peramatzis, 2016.

the sentence has to reality; (3) it holds of a sentence partly in virtue of the objective, mind-independent nature of reality. This last feature is intended to capture the typical view of correspondence theorists, that a sentence is ‘made true by independent reality’.⁴⁴ These features can be used interchangeably with the terms “truth-bearers” and “truth-makers”.

With the help of the term of “truth-bearers” and “truth-makers”, there is a “truth-making” between truth bearers and truth makers.⁴⁵ A theory of truth-making is generally a theory of the relationship where “X makes Y true”.⁴⁶ It is said that traditional realist theories of truth regard truth as grounded in a relation of agreement between truth-bearers and truth-makers. However, there is more than one candidate serving as truth-makers and truth-bearers. For instance, David Armstrong (2004) argues concerning objects or entities as truth-makers by stating that:

T7: Every truth has a truth maker. The truth maker for a particular truth is that object or entity in the world in virtue of which that truth is true. [...] The truth maker is the ‘correspondent’ in the correspondence theory of truth, but with the repudiation of the view that the correspondence involved is always one-one. ⁴⁷

That which renders a truth-candidate true is prone to being called a “truth-maker.” According to this theory, no truth-maker is a fact, and all truth-makers for empirical truths are parts of the natural order.⁴⁸

Apart from the view that truth has been determined by a correspondence relation between “truth-bearers” and “truth-makers”, Trenton Merricks (2007) proposes the term of “being true” to support the correspondence theory of truth.⁴⁹ According to his view, the correspondence theory’s competitors share the same false implication, viz. that each truth is true in virtue of how it is related to some existing entity or entities.⁵⁰ We know this is false because there are some truths which are not true in virtue of being related to some existing thing which that truth is about.⁵¹ In order to resolve this false implication, he proposes the term of “being true” to describe the relation of truth and ontology, which he states is a primitive monadic property which avoids this false implication.

Confronted with this complicated situation that the correspondence theory of truth has been examined and detailed in different ways, the next step of our inquiry is to turn to the original textual foundations where we can find primary sources for the classical correspondence theory of truth that have been used to interpret Aristotle’s view of truth.

3.1 The account of truth and falsity in *Metaphysics* Θ.10

⁴⁴ Devitt, 1984, 27.

⁴⁵ This ontological implication of the “truth-maker” theory also has been observed by Horwich. 2008, 272.

⁴⁶ Horwich, 2008, 259.

⁴⁷ Armstrong, 2004, 15.

⁴⁸ Armstrong, 2004, 16.

⁴⁹ Merricks, 2007, 175.

⁵⁰ Merricks, 2007, 170.

⁵¹ Merricks makes an example that “there is no existing thing that is what that hobbits do not exist is about (in any good sense of ‘about’), and is such that being appropriately related to it is what it is for that hobbits do not exist to be true; and so it goes generally for true negative existentials.” (Merricks, 2007, 174.)

Except for the traditional account of Aristotle's view of truth as truth-value of assertions in *Metaphysics* Γ.7, Δ.7, and E.4 as investigated before, Aristotle also applies another expression in *Metaphysics* Θ.10 to express his view of truth concerning "being and non-being in the strictest sense as truth and falsity":

T8: The terms 'being' and 'non-being' are employed firstly with reference to the categories, and secondly with reference to the potentiality or actuality of these or their opposites, while being and non-being in the strictest sense are truth and falsity. In the objects (*pragmata*) is their being combined or separated, so that he who thinks the separated to be separated and the combined to be combined has the truth (*aletheia*), while he whose thought is in a state contrary to that of the things is in error. This being so, when is what is called truth or falsity present, and when is it not? We must consider what we mean by these terms. It is not because we think that you are white, that you are white, but because you are white we who say this have the truth. (*Met.* Θ.10, 1051a34-1051b10)

It is worthwhile to notice that there is more than one way to interpret the structure of this passage.⁵² Stephen Makin (2006), for instance, firstly translates it as "and third as what is in the most proper way true or false".⁵³ According to this translation, he commented that *Metaphysics* Θ.10 is concerned with a new topic: truth and falsity.⁵⁴ In his discussions, Makin accounts for this passage from the perspective of the Standard Account of truth in Aristotle. Notably, Stephen Makin interprets the concept of "being and non-being in the strictest sense are truth and falsity" as "being right."⁵⁵ According to the Standard Account of truth in Aristotle, it is affirmations and negations which are truth-bearers: the first affirming something of something, the second denying something of something.⁵⁶ Furthermore, he uses the terms "truth makers" and "truth bearers" to describe the relationship of being and truth in Aristotle.⁵⁷

Many scholars who accept the Standard Account of truth in Aristotle which reduces truth to the truth-value of assertions rely on this or a similar translation. As we have seen before, David Ross,⁵⁸ C.D.C. Reeve (2015),⁵⁹ David Charles and Michael Peramatzis (2016),⁶⁰ and Mark Wheeler (2019),⁶¹ should be counted as supporters of this reading. In this case, this priority of truth in the external world as truth-makers reported by modern theories of truth is mirrored in the truth-making role that external things hold and how their modes of being are combined or being divided. In other words, it implies that being true or false as truth-values of assertions requires or depends on modes of being that are combined or divided at the world level. Finding out how Aristotle talks about the external world and its contents will be among

⁵² My reading of this passage will be discussed in chapter Two.

⁵³ Makin, 2006, 14.

⁵⁴ Wheeler, 2019a, 214.

⁵⁵ Makin, 2006, 254.

⁵⁶ Makin, 2006, 254.

⁵⁷ Makin, 2006, 254.

⁵⁸ Ross, 1924.

⁵⁹ Reeve, 2016.

⁶⁰ Charles and Peramatzis, 2016, 101-141.

⁶¹ Wheeler, 2019a.

our following tasks.

3.2 How to interpret the term “correspondence”

Given the complications with the various interpretations of Aristotle’s view of truth as well as the task of our inquiry, let us to begin the challenge by observing how to deal with the different opinions and explanations regarding the relation between the traditional account of truth in Aristotle and the classical correspondence theory of truth.

It is widely accepted that Aristotle’s theory of truth is considered both an origin and an example of a classical correspondence theory of truth. In this regard, the truth as truth-value of assertions ‘follows’ or depends on that of the corresponding things. This kind of traditional interpretation of Aristotle’s view of truth has been applied by more than one scholar to support and specify the correspondence theory of truth. Nevertheless, Aristotle does not use the term “correspondence” in his definition. Wolfgang Künne (2003) seeks to answer this conundrum by asserting a key role played by Thomas Aquinas in this story. Aquinas explained ‘truth’ in terms of his favorite formula: ‘truth is the agreement between intellect and objects.’⁶² Aquinas was surely the most influential propagator of the correspondence formula and, more specifically, took the relation to be to the object that true thought is about. In addition, immediately after having explained truth in terms of an agreement, he goes on to define the correspondence formula with the help of Aristotle’s definitions of ‘true’ in *Metaphysics*, Γ.7 by means of the concept of “the truth of the intellect.” Here, Aquinas states that the truth of the intellect is the agreement between intellect and things⁶³, insofar as the intellect “says of that which is that it is or of that which is not that it is not.”⁶⁴

Meanwhile, that Aristotle does not apply the term of “correspondence” to his view of truth has also been observed by Mark Wheeler (2011). Wheeler implies that it is obvious that Aristotle’s definitions make no explicit mention of a correspondence relation.⁶⁵ This is confirmed not only by in *Metaphysics* Γ.7,⁶⁶ but also by *Metaphysics* E.4⁶⁷ and *Metaphysics* Θ.10.⁶⁸ The Aristotelian explanations of ‘true’ contain no word or phrase which could be translated by ‘corresponds to’, ‘squares with’, ‘agrees with’, or ‘fits.’ In order to settle this question that no proper words or phrases can be translated as ‘correspond to’, Mark Wheeler sets forth that the definition presupposes a relation of some sort between the intentional contents of assertions and their ontological correlates, but the nature of this relation is left unspecified.

“Correspondence theory” is a modern term. The issue is whether Aristotle’s theory of truth can be interpreted in terms of the modern correspondence theory. So, indeed, the fact that Aristotle does not use the actual term correspondence theory need not bother modern scholars.

⁶² Künne, 2003, 102.

⁶³ Aquinas, Truth, q.1a.1; Summa Contra Gentiles I, C.59.

⁶⁴ *Met.* Γ.7, 1011b26-1011b27.

⁶⁵ Wheeler, 2011, 67–90.

⁶⁶ *Met.* Γ.7, 1011b26-1011b27.

⁶⁷ *Met.* E.4, 1027b20-1027b3.

⁶⁸ *Met.* Θ.10, 1051b1-1051b5.

For instance, Richard Kirkham (1992) honestly admits that the correspondence theory of truth has been rooted in Aristotle's theory. Kirkham claims that there are two types of correspondence theory of truth.⁶⁹ The first of them is correspondence as correlation, while the second is correspondence as congruence.⁷⁰ Correspondence as correlation states that every truth-bearer is correlated to a state of affairs while correspondence as congruence claims that there is a structural isomorphism⁷¹ between truth-bearers and the facts to which they correspond when the truth-bearer is true. It is precisely because of this isomorphism, the defenders of correspondence as congruence argue, that the fact and the truth-bearer can be said to correspond with each other. The structure of beliefs—such as propositions, sentences, or whatever is taken to be the truth-bearer,—mirrors or pictures the structure of facts much in the way in which a map mirrors the structure of that portion of the world of which it is a map. Defenders of correspondence as correlation, however, deny that there is anything natural about the correlation between beliefs and facts. The correlation is a result of linguistic conventions, which are themselves the result of the historical development of the language.⁷²

By contrast, Mark Wheeler clearly disagrees with this view by arguing that Aristotle's definitions do not suggest anything like an isomorphism. He further points out that perhaps a more complete account of the relation between Aristotelian truth-bearers and Aristotelian truth-makers would reveal that the intentional contents of assertions and their ontological correlates are related isomorphically – however, this explanation would induce materials extrinsic to the definitions at *Metaphysics* Δ.7 where truth and falsity presuppose that the intentional content of an assertion is correlated either with what exists as an F or what does not exist as an F.⁷³

3.3 The correspondence theory- interpretation criticized

While there are many scholars who support the correspondence interpretation of the view of truth in Aristotle, certain scholars propose opposite opinions. Notably, these scholars are of the opinion that the correspondence theory of truth is not an acceptable interpretation of Aristotle's view of truth. For instance, Donald Davidson (1996) argues Aristotle does not provide entities as truth-makers to truth-bearers as required by the correspondence theory of truth.⁷⁴ Hence, Aristotle ought not to be considered as giving comfort to serious partisans of correspondence theories.⁷⁵ According to his interpretation, it is obvious that states of affairs or facts must be presupposed by a correspondence conception of truth. However, if Aristotle's definitions do not presuppose these nor rule them out, then they are not correspondence conceptions.

Blake Hestir (2013) first summarizes a standard view on Aristotle's theory of truth, which

⁶⁹ Kirkham, 1992, 119-120.

⁷⁰ Kirkham, 1992, 119.

⁷¹ Crivelli, 2004, 23. Pitcher, 1964, 10. In which Pitcher uses an example to clarify the meaning of isomorphism: like the two halves of a torn piece of paper, the parts of the truth bearer fit with the parts of the fact.

⁷² Kirkham, 1992, 119.

⁷³ Wheeler, 2011, 67–90; cf. Crivelli, 2004, 137.

⁷⁴ Davidson, 2005, 38, 47-48.

⁷⁵ Davidson, 1996, 268.

he considers to be world-dependent truth, a completely plausible way to understand truth.⁷⁶ However, the correspondence theory of truth as the standard view of truth in Aristotle, thus Hestir, faces various challenges.⁷⁷ He suggests that truth directly depends on beings by means of a likeness in the soul.⁷⁸ A likeness in the soul suggests a correspondence between external objects and mind-dependent objects. As such, the correspondence relation is not necessary.⁷⁹ Moreover, he claims that Aristotle's conception of truth does not rest upon two conditions. The first one is that there must be some ontological entity in the world like a fact to which true thoughts or statements correspond, and the second one is that there must be a specific universal dependence relation holding between truths and ontological entities.⁸⁰ Hestir argues that there is an alternative case to be made that Aristotle's conception of truth does not depend on correspondence in thoughts, statements, judgments – nor on simple, primary thoughts of in-composites like essences where truth seems to be identity of intelligible form, nor on likenesses if the content of thought is a likeness of the universal.⁸¹ According to this explanation, he concludes that Aristotle is not committed to a correspondence theory in the way some think about correspondence.⁸²

Hestir's discussion is helpful to understanding Aristotle's view of truth, since while adhering to the traditional interpretation of truth in Aristotle, he claims that there is an alternative notion of truth to be found in Aristotle, which will be further discussed in the following chapter Two. However, as I have different view of this alternative notion of truth, I am going to take a different approach from his when examining truth in Aristotle.

In light of the above considerations, it is clear that a number of contemporary philosophers have explained Aristotle from different perspectives; moreover, the correspondence theory of truth has experienced various reforms resulting from different presuppositions.⁸³ For instance, modern terms such as truth-bearers or truth-makers are used to explain Aristotle's view on truth in the light of the classical correspondence theory of truth. Of course, there are still disagreements on this traditional interpretation of the relation between Aristotle's view of truth and the classical correspondence theory of truth. In this sense, if we pick up the traditional interpretation on Aristotle's view of truth in the light of the classical correspondence theory of truth as our standpoint, then we are offered with truth as truth-values of statements, which has been investigated fully by modern theories. However, those modern theories almost never specify the contents of truth-makers that render truth-bearers true. I shall not only investigate the specific content of truth-makers in relation to truth as being in the strictest sense, so as to provide a metaphysical foundation for the correspondence theory of truth, but to also explore whether there is in Aristotle an ontological truth that is 'truth in things' over and above truth as truth-value.⁸⁴

⁷⁶ Hestir, 2013, 193-219.

⁷⁷ Hestir, 2013, 194.

⁷⁸ The relation between truth and soul will be discussed in chapter Three.

⁷⁹ Hestir, 2013, 217.

⁸⁰ Hestir, 2013, 195.

⁸¹ *Int.* 1.

⁸² Hestir's standpoint and argument will be discussed in chapter Two.

⁸³ David, 2005, 42-47.

⁸⁴ This line of argument will be further discussed in chapter Two.

4. Conclusion: the truth of statements as truth-values

Even though some scholars disapprove of this traditional account of Aristotle's view of truth that has been explained as a classical corresponding theory of truth, Aristotle's view of truth could still be in some sense a root of the classical correspondence theory of truth. The connection between the traditional explanation on the truth offered by modern philosophers, and the traditional account of truth in Aristotle, can still be positively ascertained in some sense. As we can see, the correspondence theory of truth is mainly about considering the correspondence relation between truth-makers and truth-bearers, similarly reflecting on the relation of language and things as things are. The theories about truth-makers provided by modern scholars mainly focus on correspondence relations between truth-makers and truth-bearers, instead of on things as things are. By contrast, I want to concentrate on what things are in virtue of themselves, apart from the relations between words and things.

As for why Aristotle's view of truth could be traditionally considered as a classical correspondence theory of truth by many scholars, Wolfgang Künne takes Aquinas as an example to explain why scholars are so fond of the correspondence formula. He argues that Aquinas believes the correspondence formula to be applicable to truth in what is said or thought as well as to what he calls "truth in things." Understanding this "truth in things" is a purpose of this project. To get there, it is necessary to take an alternative interpretation of the view of truth in Aristotle into account, which argues that 'truth in things' is true in an ontological sense, rather than just as truth-makers to make truth-bearers true as truth-value of assertions. After all, the most fundamental thing that Aristotle explicitly states about truth is that it is ultimately a type of being. In this case, this ontological reading of truth in Aristotle would be completely different from those modern theories considering truth as truth-values of statements, since this reading points directly to being in the strictest sense as truth.

Aristotle states in *Metaphysics* E.4 (T6): "while with regard to simple things and essences falsity and truth do not exist even in thought — we must consider later what has to be discussed with regard to that which is or is not in this sense."⁸⁵ So Aristotle himself already suggests that there is a limitation to the truth-in-assertions-and-thought-only approach. If so, there is more to say about truth than the thought-related truth just dismissed from the context of the purpose of the search of primary being. Reeve and Makin explicitly takes this as an announcement of *Metaphysics* Θ.10 and a discussion of a kind of truth not touched upon so far.⁸⁶ So we shall turn to *Metaphysics* Θ.10 in the following chapter.

In conclusion, we can note that Aristotle does not only establish a framework of statement truth in the logical sense, but also paved a way towards ontological truth. What I would like to do, based on other relevant passages considering Aristotle's alternative view of truth as being in the strictest sense, is to seek an alternative way of understanding the concept of truth in an ontological sense and further reveal the novel relation between being in the strictest sense as truth to other topics. Based on this understanding, this ontological reading of truth in some sense cannot only play the role of truth-maker that renders truth-values of assertions true, but

⁸⁵ *Met.* E.4, 1027b25-1027b27= T6 above

⁸⁶ Reeve, 2015, 392-393, Makin, 2006, 247.

also to explore whether there is any “truth in things” that has been stated as ‘being in the strictest sense as truth’.

Chapter Two

Being in the Strictest Sense in *Metaphysics* Θ.10

In addition to his view of truth as the truth-value of assertions in *Metaphysics* Γ.7, *Metaphysics* Δ.7 and *Metaphysics* E.4, Aristotle also provides us with another way to interpret the term ‘truth’: “being or non-being in the strictest sense are truth or falsity.”⁸⁷ (*Met.* Θ.10, 1051b1-2). In order to further explain truth in this ontological sense, it is necessary for us to investigate *Metaphysics* Θ.10 as a whole. This chapter focuses on combinations and separations in things. I shall first analyze the content and the structure of *Metaphysics* Θ.10 line by line.

T9: The terms ‘being’ and ‘non-being’ are employed firstly with reference to the categories, and secondly with reference to the potentiality or actuality of these or their opposites, while being and non-being in the strictest sense⁸⁸ are truth and falsity. In the objects (*pragmata*) this is being combined or separated, so that he who thinks the separated to be separated and the combined to be combined has the truth (*aletheia*), while he whose thought is in a state contrary to that of the things is in error. This being so, when is what is called truth or falsity present, and when is it not? We must consider what we mean by these terms. It is not because we think that you are white, that you are white, but because you are white we who say this have the truth. (*Met.* Θ.10, 1051a34-1051b10)

Here Aristotle discusses how to deal with “being”, whereby he states that the term “being” could be discussed from three different perspectives: in reference to the categories, actualization and potentiality, as well as in the strictest sense as truth or falsity.⁸⁹ While there is more than one way to interpret this passage, it clearly concentrates on the topic of being, not on truth and falsity in assertions. In order to further clarify truth and falsity in this sense, Aristotle states it is in objects being combined or separated. Combinations and separations are in things, and Aristotle considers combinations and separations as a way to explain what is “being or non-being in the strictest sense as truth or falsity”. The next sentences make clear that the truth-values of assertions depend on prior combinations and separations in things. As the last sentence of this text states, “It is not because we think that you are white, that you are white, but because you are white, we who say this have the truth.” The consequence of this sentence is the priority of the things involved in combinations and separations. As we shall see, it follows that this truth in some cases experiences change over time. What is called true

⁸⁷ Stephen Makin 2006, 14-15 has translated “in the strictest sense” as “in the most proper way”, which he considers a strange and awkward way to refer to the Standard Account of *Metaph.* E.4, *ibid.* 247-248 Cf. above p. 22. However, in my dissertation, I have chosen to translate “in the strictest sense”.

⁸⁸ Jaeger suggest either to delete ‘in the strictest sense’ (κυριώτατα ὄν) or transpose it to the start of the sentence where it would underline the categories. Such emendations aim at reducing the mention of truth and falsity to assertions on the basis of E.4. As I will show, there is more evidence that for Aristotle truth and falsity are fundamental ways to refer to a particular mode of being. Reeve, 2016, 476n1032 *ad loc* agrees.

⁸⁹ The relation between ontological truth and actualities and potentialities as ways of being will be further discussed in chapter Four.

at this moment may be considered false at another moment, since the actual state of being combined or separated determines what is called truth or falsity. In *Θ.10* Aristotle continues to discuss three specific modes of being in terms of combinations and separations, in order to further analyse “being or non-being in the strictest sense are truth or falsity.” These include incomposites, composites, and the mode of being that cannot be divided.⁹⁰

In this chapter I shall first discuss a number of modern interpretations to set the stage (section 1). Then I give three parallel texts that prepare the way for an ontological reading of *Θ.10* (section 2). Then I look at the discussions of combination and separation in more detail in section 3, followed by a discussion of truth and falsity in incomposites (section 4). In section 5, I state my conclusions.

1. *Metaphysics Θ.10* in modern scholarship

My interpretation goes against the traditional interpretation of this passage, which uses the reference to the truth of statements to reduce this notion of truth and falsity to truth values of assertions. We have discussed Stephen Makin’s interpretation to this effect in chapter One. It is affirmations and negations which are truth-bearers, the first affirming something of something, the second denying something of something. Furthermore, he uses the terms “truth-makers” and “truth-bearers” to describe the relationship between being and truth in Aristotle.⁹¹ As we saw, Makin is not the only commentator to take this standpoint: we may include David Ross,⁹² C.D.C. Reeve,⁹³ David Charles and Michael Peramatzis,⁹⁴ and Mark Wheeler.⁹⁵

Aristotle’s view on “being or non-being in the strictest sense are truth or falsity” is still open to interpretation and discussion. Ultimately, how to interpret the view of truth in *Θ.10* will be determined by how one understands the phrase that ‘being or non-being in the strictest sense are truth or falsity.’ I shall first introduce three modern interpretations that make room for ontological truth.

For instance, Paolo Crivelli (2004) points out that “being and non-being in the strictest sense are truth and falsity” is problematic. He argues that there Aristotle has expressed his view of truth in more than one way, including “being true”, “truth in thoughts”, “truth in things” and “being and non-being in the strictest sense as truth and falsity.” Even though Aristotle is distinguishing among various senses of “being” in the passage, the adjective “in the strictest sense” may well be taken as modifying “being true or false.”⁹⁶ As far as I am concerned, at least in the literal sense, the phrase, “the sense of being” differs from “the strictest sense of being” at *Metaphysics Θ.10*, and the sense of ‘being true’ differs from “the strict sense of ‘being.’”

⁹⁰ Thorp, 2013. Thorp has discussed this passage to clarify his point that what Aristotle means by the truth of things is what we might call their reality. And his research involves other scholars’ relevant discussions of this cited passage T9, including Brentano’s turning the table, Aquinas’ veritas ontological causalis, and Heidegger’s unconcealedness.

⁹¹ Makin, 2006.

⁹² Ross, 1924.

⁹³ Reeve, 2016.

⁹⁴ Charles and Peramatzis, 2016.

⁹⁵ Wheeler, 2019a, 39.

⁹⁶ Crivelli, 2004, 65-66.

Crivelli also claims that the phrase, “the strictest sense of being true or false” at *Metaphysics* Θ.10, should be interpreted as a more primary expression of “being true”, translating “being true or false in the strictest sense.” “Being true in the strictest sense” is the most fundamental sense of “being true” in Aristotle’s theory of truth. Crivelli thus argues that “being in the strictest sense true or false” at *Metaphysics* Θ.10 is an attribute of objects, whereas the sense of “being true or false” at T6 is an attribute of thoughts. It is obvious that the remarks in *Metaphysics* Θ.10 would appear to commit Aristotle to the truth and falsehood of objects.⁹⁷ Based on this interpretation, Crivelli believes there is a clash between Aristotle’s views of truth in *Metaphysics* E.4 and *Metaphysics* Θ.10.⁹⁸

Crivelli’s reading is very helpful. At the very least, he points out the various readings of the term truth in Aristotle. I agree with his opinion that there is more than one way that Aristotle expresses his view of truth. However, I disagree with his translation of the main phrase in question. His translation of this phrase emphasizes the scope of truth by means of “being true or false”, rather than the scope of being by means of “being in the strictest sense” offered by my reading. From my perspective, “being in the strictest sense as truth” is a certain mode of being, rather than an attribute of objects. What is more, according to different translations and readings of this phrase, interpreters hold different opinions concerning the relationships between the view of truth in *Metaphysics* E.4 and *Metaphysics* Θ.10.

Based on his reading, Crivelli argues that there is a clash between Aristotle’s view of truth in *Metaphysics* E.4 and *Metaphysics* Θ.10. On the contrary, from my point of view, I do not see a clash: the ontological reading of truth in *Metaphysics* Θ.10 is the ontological foundation of the traditional view of truth in *Metaphysics* E.4.

What is more, the way of interpreting the phrase “being or non-being in the strictest sense are truth or falsity” has been discussed within the framework of the division between “truth in thoughts” and “truth in things.” For instance, Kurt Pritzl (1998) clearly states that Aristotle offers two explicit cross-referenced accounts of truth in the *Metaphysics* E.4 and *Metaphysics* Θ.10.⁹⁹ He suggests there are two choices that articulate “being true” with “in the strictest sense”. The first of them is a more primary expression of “being true” for assertions, while the second is that “being in the strictest sense as truth” is a more decisive way of explaining being among these three ways of saying being offered in the beginning of *Metaphysics* Θ.10. Kurt Pritzl has understood the phrase “being or non-being in the strictest sense are truth or falsity” as a more primary expression of “being true” or an expression of a kind of being. However, while Pritzl still takes the traditional interpretation of the view of truth in Aristotle, at least he admits that a possible meaning of “being or non-being in the strictest sense are truth or falsity” could be ontological truth, i.e. truth as a kind of being. However, Pritzl does not say anything more about this kind of being.

Edward Halper (2005) has suggested that the content of this passage should be investigated in terms of “ousia.”¹⁰⁰ Differing from Pritzl’s opinion, Halper states that the opening sentence

⁹⁷ Crivelli, 2004, 72.

⁹⁸ Crivelli, 2004, 72.

⁹⁹ Pritzl, 1998, 177–201.

¹⁰⁰ Halper, 2005, 218.

does not mean that truth is more primary than the other ways of being, categorical being, and actuality, but that the truth under discussion here is more primary than the truth that *Metaphysics* E.4 dismissed, which is “truth in thought.” In the case of *Metaphysics* E.4, truth in terms is seen as a correspondence of unity or separation between belief and thing, but here, in *Metaphysics* Θ.10 Aristotle emphasizes the causal role of the thing. Therefore, there are two sorts of truth. The first one is truth in thought, the other is “truth in things” as the mode of being that should be the object of metaphysics.¹⁰¹ Based on this interpretation, Aristotle would appear to argue that “truth in *Metaphysics* Θ.10” is more primary than “truth in *Metaphysics* E.4.” Thus we can infer that Aristotle reveals a kind of truth in things that is fixed by the phrase that “being or non-being in the strictest sense are truth or falsity” in *Metaphysics* Θ.10.

2. Texts supporting the ontological reading of truth in *Metaphysics* Θ.10

In my opinion this text proposes an ontological reading of the concept of truth. Truth or falsity constitute a further approach to being or non-being. There are several reasons for me to interpret “being or non-being in the strictest sense are truth or falsity” as ontological truth. Firstly, in the literal sense, it is obvious that Aristotle describes beings to be true or false in the strictest sense in *Metaphysics* Θ.10. It is not the first time for Aristotle to develop this line of reasoning to explain being by truth or falsity. In *Metaphysics* Δ.7, at 1017a8-1017b9, Aristotle already resorts to truth or falsity to explain being, together with the other three ways to speak of being, including accidental being, categories, and potentiality and actualization.

T10: Things are said to be (1) in an accidental sense, (2) by their own nature. [...] (3) ‘Being ’ and ‘is’ mean that a statement is true, ‘not being’ that it is not true but false [...] (4) Again, ‘being’ and ‘that which is’, in these cases we have mentioned, sometimes mean being potentially, and sometimes being actually. ¹⁰² (*Met.* Δ.7, 1017a8; 1017a31-1017a32; 1017b1-1017b2)

As we can see in T10, Aristotle states that things can be said to be in three ways, including being said in terms of truth in statements. In each of these three cases, being can be used as potential or actual being. However, only in *Metaphysics* Θ.10, Aristotle specifies how to understand being with reference to truth by means of the phrase “being or non-being in the strictest sense as truth or falsity.”

In addition, Aristotle paves the way to this ontological reading of truth by means of the interpretation of falsity in things discussed in *Metaphysics* Δ.29, based on what Aristotle literally says about falsity in things, falsity in accounts.

T11: We call false (1) that which is false as a thing, and that (a) because it is not put together or cannot be put together, e.g. ‘that the diagonal of a square is commensurate with the side’ or ‘that you are sitting’; for one of these is false always, and the other sometimes; it is in these two senses that they are non-existent. (b) There are things which exist, but whose nature it is to appear either not to be such as

¹⁰¹ Halper, 2005, 218, 220.

¹⁰² This textual passage has been quoted and discussed as T6 in chapter One.

they are or to be things that do not exist, e.g. a sketch or a dream; for these are something, but are not the things the appearance of which they produce in us. We call things false in this way, then,—either because they themselves do not exist, or because the appearance which results from them is that of something that does not exist. (2) A false formula (*logos*) is the formula of non-existent objects, in so far as it is false. Hence every formula is false when applied to something other than that of which it is true, e.g. the formula of a circle is false when applied to a triangle. In a sense there is one formula of each thing, i.e. the formula of its essence, but in a sense there are many, since the thing itself and the thing itself modified in a certain way are somehow the same, e.g. Socrates and musical Socrates. The false formula is not the formula of anything, except in a qualified sense. (*Met.* Δ.29, 1024b18-1025b33)

Here Aristotle distinguishes two kinds of “falsity in things”, including: (1) a use of “false thing” that denotes predicative combinations that do not, in fact, exist; and (2) a use of “false thing” that denotes actual things that are usually taken to be something other than what they are.¹⁰³ For example, that the diagonal of a square is commensurate with the side is always false, and that you are sitting is false at some time. Here, Aristotle stresses the meaning of falsity as a thing in two different ways. As suggested by Mark Wheeler “It is plausible to suppose that for each use, Aristotle acknowledged a correlated use of ‘combination’ that would denote either (1) predicative combinations of real things that, in fact, exist or (2) actual things that are usually taken to be what they are.”¹⁰⁴ It is clear that these combinations in things as truth in things fit the framework of false in things in *Metaphysics* Δ.29.¹⁰⁵

Based on the discussions above, I would like to argue here that Aristotle introduces the phrase “being or non-being in the strictest sense are truth or falsity” to constrain the applied range of truth and falsity in things. Of course, Aristotle still has to define it by means of combinations or separations. It is reasonable to infer then that what Aristotle wishes to discuss is “things as things are,” which are not modes of being that make statements true, but also a kind of “truth in things.”¹⁰⁶ Using Aristotle’s words, these statements about truths as truth-values of assertions are known to us, while “truth in things” is instead known by nature.

As it stands, the expression “being or non-being in the strictest sense are truth or falsity” clearly gives us a limitation to combinations and separations relative to the range of ontological truth. With reference to being and non-being in the strictest sense as truth or falsity, for every statement with truth-value, an affirmative predicative sentence is true or false if and only if the objects it concerns are true or false in the strictest sense, while a negative predicative sentence is true or false if and only if the object it concerns is false or true as non-being or being in the strictest sense.

3. Combinations and separations in *Metaphysics* Θ.10

After introducing three ways to describe being, including categories, actuality or potential, as well as “being” or “non-being” in the strictest sense as truth or falsity, Aristotle discusses how

¹⁰³ The second case can be considered truth in appearance.

¹⁰⁴ Wheeler, 2019a, 128.

¹⁰⁵ Wheeler, 2019a, 206.

¹⁰⁶ Halper, 2005, 218,228.

to explain “being or non-being in the strictest sense as truth or false” by means of combinations and separations.

3.1 Combinations and separations in things

T12: If, then, some things are always combined and cannot be separated, and others are always separated and cannot be combined, while others are capable either of combination or of separation, being is being combined and one, and not being is being not combined but more than one. (*Met.* Θ.10, 1051b10-1051b13)

It is clear that there is an intrinsic relationship between “being or non-being in the strictest sense” and “truth or falsity” by means of combinations or separations in things. Specifically, within the expression of being and non-being in the strictest sense as truth or false, we can glean more than one mode of being in terms of combinations or separations. Hence, we get a list of things. The first is the kind that is always combined and cannot be divided, while the second one can be combined and divided. The third one is that thing which will always be divided and cannot be combined. Moreover, being is being combined and one, while not being more than one. Here, it is apparent that Aristotle uses the term of combinations and separations in the ontological sense or in the world level for being. Because of this, three modes of being with reference to combinations or separations are visible. Just like the example of “you are white” offered by Aristotle before, “being” and “non-being” in the strictest sense as truth and falsity has been further explained as combinations or separations of *pragmata* that are things in certain conditions.¹⁰⁷

If we go with the example of ‘Socrates is or is not musical’ we can see this from two angles. Firstly, we are combining or separating mental things, such as the thoughts of Socrates and musicality. If such combinations in statements and in thoughts are true, then it has to be captured by certain modes of being, such as the individual, for Socrates is ultimately musical in reality. I do not deny from this standpoint that combinations and separations can be explained in terms of both logic and metaphysics. The text informs us of the priority of “being” and “non-being” in the strictest sense over combinations or separations in opinions or statements.

There are three kinds of combinations, which are: combinations captured in assertions, combinations captured in opinions, as well as combinations captured in things. With reference to the definition of truth in terms of combinations, I shall argue that combinations can be of words taken from the categories showing a structure of assertions with truth-values, but also of things showing a relation between substances and other qualities. Within the framework of “truth in thoughts” or “truth in things”, these three kinds of combinations can be divided into two groups of truths. The truth in combinations captured in assertions and opinions is “truth in

¹⁰⁷ The interpretation of combinations and separations at the world level has already been observed by Jan Szaif. Szaif argues that Aristotle very carefully distinguishes between the states of combinations and separations, which belong to the world level, and the linguistic or mental acts of combining and separating. (Szaif, 2018, 9-19.)

thought”,¹⁰⁸ while combinations or separations of objects as things are “truth in things” serve as ontological truth.

Here, we can see that my interpretation reveals a kind of combinations or separations in things in an ontological sense, and this distinction between two groups of combinations and separations can pave the way towards ontological truth, which is ‘being’ or ‘non-being’ in the strictest sense as truth or falsity. On this basic ontological level, ‘being or non-being in the strictest sense as truth or falsity’ could be measured by certain conditions of combinations or separations of things.

In conclusion of this section, if it is reasonable to translate “being or non-being in the strictest sense as truth or falsity” with reference to combinations or separations in things, it is clear that the concept of truth not only applies to assertions. Truth is also found in things. This interpretation of combinations and separations in reality has connected the two seemingly separate routes, the route of investigation of being and the route of inquiring into the traditional view of truth in Aristotle discussed earlier. In this way, I can demonstrate that the traditional view of truth in Aristotle and the ontological reading of truth in *Metaphysics* Θ.10 are not in opposition, but are in fact supporting one another.

4. Ontological truth in *Metaphysics* Θ.10

In virtue of combinations and separations in things and in order to defend the internal relationship of “being or non-being in the strictest sense as truth or false,” certain modes of being with reference to combinations and separations should be further observed. Our next step of the inquiry is therefore to decipher how Aristotle considered the various modes of being with reference to “being or non-being in the strictest sense as truth or falsity.” *Metaphysics* Θ.10 may provide us certain guidelines to answer this question by means of objects as modes of being with reference to combinations or separations, including in-composites and complex things based on the classification of things.

T13: Regarding contingent facts, then, the same opinion or the same statement comes to be false and true, and it is possible at one time to have the truth and at another to be in error; but regarding things that cannot be otherwise opinions are not at one time true and at another false, but the same opinions are always true or always false. (*Met.* Θ.10, 1051b13-1051b17)

Aristotle makes a further distinction between contingent facts and things that cannot be otherwise. Contingent things are changeable over time, corresponding statements about these contingent things are capable of changing their truth-values as changes of contingent things. However, for things that cannot be otherwise, the corresponding statements do not need to change their truth-values; things that cannot be otherwise are always true, which is necessary:

T14: That which cannot be otherwise is said to be necessary. And it is in virtue of this necessity that all the others, too, are somehow said to be necessary; [...] Hence, the necessary in the primary and main

¹⁰⁸ This will be discussed in chapter Three.

sense is the simple, for this cannot be in many ways so as to be now in one way and now in another, but if the latter were the case it would have been in many ways. (*Met.* Δ .5, 1015a32-1015a33; 1015b11-1015b14).

As the passage shows, in the primary and main sense, things that cannot be otherwise are the simple things, or in-composites, to which Aristotle turns next.

4.1 In-composites are always true in terms of actualization

In the following part of *Metaphysics* Θ.10, Aristotle firstly pays attention to truth or falsity in in-composites¹⁰⁹ and then composites.

T15: Then in connection with the in-composites, what is it to be or not to be and what is truth and falsity? For it is not composite in this case, so that they would be when put together and not be when separated, as it is in the case of the wood being white or the diagonal being incommensurable; nor will truth and falsity still obtain in the same way as in those cases. Rather just as truth is not the same as regards these, so too neither is to be [the same as regards in-composites]; for it is not possible to be mistaken in connection with the what-it-is, except accidentally; and similarly too in connection with the substances which are not composite, for it is not possible to be mistaken; and all these substances are actually, not potentially, for if they were potentially they would have come to be and perished, but as it is being-itself neither comes into being nor perishes, for if it did it would come into being from something. So then, for those things which are just what it is to be something and actualities, in connection with these it is not possible to be mistaken but all that is possible is either to think them or not; but the what-it-is is investigated in connection with them, whether they are such like or not.¹¹⁰ (*Met.* Θ.10, 1051b18–1051b33)

There are some points we can take away from the passage. The main topic is the application of ‘true’ to in-composite items. Firstly, Aristotle suggests that truth and falsity as being or non-being in the strictest sense do not apply in the same way to in-composites, because truth in the case of in-composites is contact and assertion, not affirmation or negation that has been explained by the traditional account of truth concerning a relation between linguistic/cognitive items and worldly items. Thus, for in-composites, there is no falsity, only ignorance.

Secondly, at least some substances are conceived to be in-composites, what it is to be something, and actuality. These in-composites cannot change. Then, as we discussed above, the thing that cannot be otherwise is what is necessary, so in-composites are what is necessary.

Referring to T13, T14 and T15, we are gradually getting a list of examples of composites as well as in-composites. We have (a) items that cannot be otherwise and are therefore necessary, i.e. (i) they are always combined and cannot be divided, or (ii) they are always divided and cannot be combined. In addition, we have (b) items that can be sometimes combined, sometimes divided. . Moreover, we have (c) in-composites, which comprise (i) essences, i.e. the what it is, and (ii) substances in actuality, i.e. immaterial forms.

¹⁰⁹ Since there is disagreement about what Aristotle means by in-composites, the precise structure of the argument is extremely unclear. (Makin, 2006, 248.)

¹¹⁰ Makin, 2006, 14-15.

The relation between these two explanations has been discussed by Stephen Makin who suggests that the phrase ‘and similarly too’ at 1051b26 - 1051b27 leaves the relation between (c-i) and (c-ii) open.¹¹¹ In this case, we are faced with two options. The first one is that (c-i) is the wider set of defined essences, including those which involve material elements, for instance human beings defined with reference to flesh and bone; (c-ii) will then focus on a narrower set of purely formal essences which involve no reference to matter, such as circles.

The second option is that (c-i) and (c-ii) coincide. In this case, no definitions would involve reference to matter, and all defined essences would be purely formal; mention of (c-ii) would then make explicit the point that (c-i) essences, which are the worldly correlate to definitions, are purely formal and actual.

Although the first option agrees with Aristotle’s discussion of definition of composite substances in *Metaphysics* Z,¹¹² the discussion of ontological truth will turn out to focus on the point that all essences have priority in virtue of their necessity and actuality. First we need to discuss the specific candidates of incomposites by turning to other relevant passages provided by Aristotle himself. As we investigated above, incomposites have first been explained as things that cannot be divided and are always combined. They cannot be otherwise, so they are necessary. Since incomposites cannot suffer any changes they cannot come into being nor perish.¹¹³ Then, we can get a list of candidates of incomposites in Aristotle.

A) Eternal substances

Eternal incomposites in this sense are discussed by Aristotle in e.g. *Metaphysics* Λ. Substance is the subject of his inquiry, and he is seeking the principles and the causes of substances. Meanwhile, the substances can be divided into three kinds, viz. the sensible eternal things, the sensible perishable things and the eternal immovable things.

T16: There must, then, be such a principle, whose very substance is actuality. Further, then, these substances must be without matter; for they must be eternal, at least if anything else is eternal. Therefore they must be actuality. [...] There is, then, something which is always moved with an unceasing motion, which is motion in a circle; and this is plain not in theory only but in fact. Therefore the first heavens must be eternal. There is therefore also something which moves them. And since that which is moved and moves is intermediate, there is a mover which moves without being moved, being eternal, substance, and actuality. [...] And in this [side of the list of opposites that is the object of thought], substance is first, and in substance, that which is simple and exists actually. (The one and the simple are not the same; for ‘one’ means a measure, but ‘simple’ means that the thing itself has a certain nature.) [...] It is clear then from what has been said that there is a substance which is eternal and unmovable and separate from sensible things. It has been shown also that this substance cannot have any magnitude, but is without parts and indivisible. (*Met.* Λ.6, 1071b19-22; Λ.7, 1072a21-1072a26; 1072a31-34, 1073a3-7)

¹¹¹ See his discussion in Makin, 2006, 260-263.

¹¹² See below p. 42ff.

¹¹³ These may be called substances in ordinary language, but they certainly come to be and perish.

According to the passages collected in T16, there are at least two eternal substances, viz. the first heavens that move in a circle, and the first unmoved mover which is simple and exists in actuality. Aristotle claims that the first mover is the first principle of all things, does not suffer any changes, and is always in actuality.

Here we may begin to suspect that for Aristotle, his unmovable first mover—God—always actualizes truth by virtue of its very nature. Aristotle considers his God to be the most important first principle and substance, and his God is thus the proper object of philosophical wisdom. Since Aristotle argues that the essence of his God is the perfect actuality of thought thinking thought, then, Aristotle's God is the perfect realization of contemplative activity which essentially involves truth. This line of thought will be further developed in chapter Four.

B:) Essences

Besides eternal beings as one of candidates of incomposites, Aristotle further discusses essences in *Met. Z.*

T17: Since at the start we distinguished the various marks by which we determine substance, and one of these was thought to be the essence, we must investigate this. And first let us say something about it in the abstract. The essence of each thing is what it is said to be in virtue of itself. For being you is not being musical; for you are not musical in virtue of yourself. What, then, you are in virtue of yourself is your essence. (*Met. Z.4*, 1029b10-1029b16)

T17 clearly suggests that substances have a certain nature that is in virtue of itself. According to T15, essences can be considered as incomposites. What is more, the formula of the essence is the definition, and essences serve as the primary substance.

T18: Clearly, then, definition is the formula of the essence, and essence must belong to substances either alone or chiefly and primarily and in the unqualified sense. (*Met. Z.4*, 1031a11-1031a14)

Essences belong to substances primarily and most of all. The essence of a substance and its definition, being the account of its essence, shall be one.¹¹⁴

T19: But not only are a thing and its essence one, but the formula of them is also the same, as is clear even from what has been said; [...] Clearly, then, each primary and self-subsistent thing is one and the same as its essence. (*Met. Z.6*, 1031b32-1032a1; 1032a4-1032a6)

C) Forms

Simple things as denoted by the categories are incomposites, which, as we have seen, are objects that exist without falsity and without matter. In *De An.* III.6, Aristotle claims that:

¹¹⁴ Aristotle has distinguished four kinds of unity in *Met. I.1*, 1052a15-1052b1.

T20: The thinking of indivisibles is found in those cases where falsehood is impossible: where the alternative of true or false applies, there we always find a sort of combining of objects of thought in a quasi-unity. [...] That which cognizes must be its objects potentially, and they must be in it.¹¹⁵ But if there is anything that has no contrary, then it knows itself and is actually and possesses independent existence. Assertion is the saying of something concerning something, as too is denial, and is in every case either true or false: this is not always the case with thought: the thinking of the definition in the sense of what it is for something to be is never in error nor is it the assertion of something concerning something; but, just as while the seeing of the special object of sight can never be in error, seeing whether the white object is a man or not may be mistaken, so too in the case of objects which are without matter. (*De An.* III.6, 430a26-430a28; 430b23-430b30)

In T20 Aristotle explains how our ability to know relates to the object of knowledge, whether incomposite or composite: our mind (*nous*) is its objects potentially. Composites have contraries, and assertions and denials concerning them are therefore always ‘something of something’, and may be sometimes true, sometimes not. In the case of incomposites which have no contraries, such as the definition, there is no potentiality for being otherwise. Thought of them is always true, and cannot be in error—just like seeing the special object of sight is (in principle) reliable and true. If a mind knows an object that has no contrary, i.e. no matter or potentiality, it identifies with it and knows itself and is actually and possesses independent existence: a reference to the thinking of thinking of the unmoved mover of *Metaphysics* Λ.7, 1072b18-24 and Λ.9, 1074b33-35.¹¹⁶

The character of incomposites is that they are always what they are, which excludes coming to be and perishing. This character clearly applies to forms:

T21: For if we make the form, we must make it out of something else; for this was assumed. E.g. we make a bronze sphere; and that in the sense that out of this, which is bronze, we make this other, which is a sphere. If, then, we make the sphere itself, clearly we must make it in the same way, and the processes of making will regress to infinity. Obviously then the form also, or whatever we ought to call the shape of the sensible thing, is not produced, nor does production relate to it,—i.e. the essence is not produced; for this is that which is made to be in something else by art or by nature or by some capacity. (*Met.* Z.8, 1033a33–1033b7)

Thus, forms are neither made nor produced. That means either that forms are eternal, or at least that they do not undergo any process of coming into being.

Summarily, based on these textual evidence, incomposites, such as A) eternal substances, B) essences as well as C) forms without matter, are always what-it is. Essences are an important kind of incomposites, and function as a fundamental unit in Aristotle’s philosophy. Thinking of such incomposites is always true. We have seen that primary substances are identical to their essences or forms. Essences without matter are always in actualization; they do not have

¹¹⁵ For different readings of the corrupted Greek text see Reeve, 2017, 168.

¹¹⁶ Reeve, 2017, 168-169.

potentiality. In this way, the essence is both form and actuality. In further chapters we shall return to the role of essences in Aristotle's philosophy.

4.2 Ignorance in *Metaphysics* Θ.10

In *Metaphysics* Θ.10 Aristotle introduces a new aspect to his view of falsity in relation to incomposites. He argues:

T22: As regards being in the sense of truth and not being in the sense of falsity, in one case there is truth if [the subject and the attribute] are really combined, and falsity if [they] are not combined; in the other case, if the object is existent it exists in a particular way, and if it does not exist in this way it does not exist at all; and truth means thinking these objects, and falsity does not exist, nor error, but only ignorance,—and not an ignorance which is like blindness; for blindness is akin to a total absence of the faculty of thinking.¹¹⁷ (*Met.* Θ.10, 1051b34–1052a3)

In line with earlier texts, Aristotle affirms once again that knowledge of composites involves both truth and falsity. Knowledge of incomposites as beings of such and such kind is always true, never false. In this case the opposite of truth is ignorance, lack of contact (*Met.* Θ.10, 1051b24–25 in T15). Hence the difference in being between composites and incomposites is reflected in the modes of our thinking them in terms of truth and falsity, or truth and ignorance respectively.¹¹⁸

For example, when we make contact with or correctly pick out the essence of “man”, we are getting the definition of man that is being-a-two-footed land-animal, which is always true and in actuality. That is the truth in incomposites. If we do not correctly pick out the essence of “man”, we simply grasp nothing about “man”, so our mode of thought would be complete ignorance, rather than falsity concerning incomposites.

4.3 Composites changing over time

Apart from the investigation concerning incomposites, there are still other modes of being constituting ontological truth that needs to be explored—that is truth in composites. If the subject and the attribute are combined and divided over time, how can truth in composites be forthcoming? Before answering this question, we need to discuss what composites are.

In *Metaphysics* Θ.10, some composites have been clarified as things that can be sometimes combined and sometimes divided. For these composites that change over time, Aristotle clearly argues:

T23: For it is not because they themselves receive anything that statements and beliefs are said to be able to receive contraries, but because of what has happened to something else. For it is because the actual thing exists or does not exist that the statement is said to be true or false, not because it is able itself to receive contraries. No statement, in fact, or belief is changed at all by anything. So, since nothing happens in them,

¹¹⁷ I here prefer the clarity of the translation by W.D. Ross in Barnes (1984) over that of Makin.

¹¹⁸ Cf. Hestir, 2013.

they are not able to receive contraries. (*Cat. 5*, 4b8-4b14)

It would appear that it is things rather than statements which receive contraries, since statements cannot change over time, while various modes of being do change over time. In terms of changes, the contradiction in statements is determined by the contradiction in modes of being. Therefore, the content of statements does not change but the modes of being change over time.

Considering the fact that statements with truth-values are not capable of capturing composites with changes, the people who make judgements with truth-values have to change their statements in order to capture the reality fixed by modes of being – while these modes of being are able to receive contraries over time in their own right. The question would be what is the standard or measure with which to change our statements so as to guarantee the truth of composites that change over time. Aristotle suggests:

T24: But since there are compounds of substance with the other categories (for there is a substrate for each category, e.g. for quality, quantity, time, place, and motion), we must inquire whether there is a formula of the essence of each of them, i.e. whether to these compounds also there belongs an essence, e.g. to white man. (*Met. Z.4*, 1029b23-1029b26)

Similar to the investigation on truth in incomposites, we need to explore what is the primary substance that makes composites what they are? Aristotle points out that the inquiry into the essence of composites could be the answer to this question. For composites, the first substances play the role of essences in composites, and thus contribute to truth in composites.

T25: All things that come to be either by nature or by art have matter; for each of them is capable both of being and of not being, and this capacity is the matter in each. And, in general, both that from which they are produced is nature, and the type according to which they are produced is nature (for that which is produced, e.g. a plant or an animal, has a nature), and so is that by which they are produced—the so-called ‘formal’ nature, which is specifically the same as the nature of the thing produced (though it is in another individual); for man begets man. (*Met. Z.7*, 1032a20-1032a26)

Here, it is clear that composites that come to be are constituted by matter and form. And the capacity of matter is both of being and of not being, which means that matter of composites suffers changes. While the form is neither produced nor perishes.

T26: But not only regarding substance does our argument prove that its form does not come to be, but the argument applies to all the primary classes alike, i.e. quantity, quality, and the other categories. For as the bronze sphere comes to be, but not the sphere nor the bronze, and so too in the case of bronze itself, if it comes to be, (for the matter and the form must always exist before), so is it as regards both ‘what’ and quality and quantity and the other categories likewise; for the quality does not come to be, but the wood of that quality, and the quantity does not come to be, but the wood or the animal of that size. But we may

learn from these instances a peculiarity of substance, that there must exist beforehand another actual substance which produces it, e.g. an animal if an animal is produced; but it is not necessary that a quality or quantity should pre-exist otherwise than potentially. (*Met. Z.9*, 1034b8-1034b19)

As we can see, in order to deal with changeable modes of being, Aristotle introduces other terms, such as “matter” and “form”, as well as “actualization” and “potency” to measure various changes of composites. For all coming to be is ‘from’ something, i.e. from matter, and matter persists through the process of coming to be i.e. remains present in what has come to be. Thus, only material entities can be the result of coming to be. It is true for forms in all categories that they do not themselves come to be and perish. Only in the case of substances the form needs to exist in actuality in another substances (human begets human). Based on the form of composites that is always in actuality, the matter of the composites is capable of being or non-being constitutes the ontological ground to suffer changes and to be whatever it is over time. In this sense, the form of composite things in actuality is responsible for the truth of statements about composites. For as we have seen, a statement about composites is true if and only if the combination or division of composites in fact obtains.

4.4 Always divided and never combined

The third and final point offered by *Metaphysics* Θ.10, that some things are always divided, and cannot be combined, is related to falsity in things. This has already been discussed by Aristotle in *Metaphysics* Δ.29, 1024b17–21 (= T11). The examples ‘the diagonal of a square is commensurable with the side’ is always false, because being a diagonal and being commensurable are never combined.

There Aristotle introduced the notion of ‘falsity in things.’ The phrase “false in things” includes either: (1) a combination of real things that, in fact, do not exist; or, (2) an actual thing that is taken to be something other than what it is. The latter point could be considered as “falsity in appearances of things.” And so, there is at least falsity in things, in that they are not as they appear, or else, they do not exist.

5. Conclusion: “being” in the strictest sense as truth is ontological truth

I have interpreted the phrase of “being and non-being in the strictest sense are truth and falsity” as an expression of ontological truth in virtue of combinations or separations in things. Our reading of *Metaphysics* Θ.10 has shown that various modes of being in terms of combinations and separations in reality can be considered being in the sense of truth and falsity. This ontological reading can provide the ontological foundation for the traditional account of truth in Aristotle. In *Metaphysics* Θ.10, we can recognize truth-bearers and truth-makers, and more importantly, we can specify what truth-makers are.

Within the framework of being in the strictest sense as truth, three types of being have come up for discussion: eternal substances, essences and forms. Eternality, actuality, and necessity are the key characteristics of these items in Aristotle’s ontology.

Ontological truth is truth or falsity as being or non-being in the strictest sense in

Metaphysics Θ.10. This notion has been used to explain being, just as the categories and potentiality or actualization do. Incomposites do not experience any changes, so the truth in incomposites identifies with essences and forms that are always in actuality. Composites that suffer change, and it is the forms of composites which are responsible for what composites are. What is more, we touch different types of things by our abilities for knowing them, although our abilities have limitations. Thus, the notion of ontological truth can be applied to explain why there are no errors but only ignorance regarding incomposites.

Lastly, returning to our starting-point, we are beginning to see how this ontological reading of truth can actually provide an ontological foundation for the traditional view of truth in Aristotle. With the understanding of the basic framework of *Metaphysics* Θ.10, these three different ways of speaking of being, and these three types of being in the strictest sense will be further discussed separately in the following chapters.

Chapter Three

Relations Between Words, Thoughts, and Things

After our detailed discussions on the two major interpretations of Aristotle's view on truth, we now move to explore what truth and falsity as being in the strictest sense can contribute to our understanding of the correspondence relation between thoughts, statements and things that played a role in both *Metaphysics* E.4 and *Metaphysics* Θ.10. In this chapter, I will defend the interpretation of ontological truth in terms of the ontological priority of things, as well as demonstrate how 'truth in things' is directly prior to 'truth in thoughts' and indirectly prior to 'truth in assertions.' Consequently, the result of these investigations will be that the truth or falsity of the assertions and the beliefs depend completely on the truth or falsity in things.

I shall first demonstrate that Aristotle points out a direction for our inquiries by underlining the importance of the question about beings in so far as they are spoken of by language, which could in turn reflect his basic attitude to the question about what being is. Next, based on the structure of a predication that is used to investigate the question of what it is, Aristotle further introduces how words are signs which refer to affections of the soul, which are in turn likenesses of actual things in the world. Whatever the scholarly disagreement concerning the interpretation of Aristotle on this score, in this chapter I seek to confirm that Aristotle always insists on the ontological priority of actual things and their causal relation to thoughts and words.

Within the framework of the concept of truth offered by Aristotle, the first of its applications is statement truth, or truth-bearers with the truth-values. For instance, "If we define truth and falsity, it is clear what they are. To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true."¹¹⁹ Next, it is applied to mental items including mental states or acts of believing, knowing, grasping by souls. For example, Aristotle argues that "we must consider later what has to be discussed with regard to that which is or is not in this sense; but since the combination and the separation are in thought and not in the things, and that which is in this sense is a different sort of being from the things that are in the full sense."¹²⁰ Moreover, from Aristotle's point of view, truth in thoughts is a product of functions of the soul, which are intellect, perception, and imagination.¹²¹ Finally, truth has been applied to various modes of being, not least in Θ.10: "The terms 'being' and 'non-being' are employed firstly with reference to the categories, and secondly with reference to the potentiality or actuality of these or their opposites, while being and non-being in the strictest sense are truth and falsity."¹²²

1. How modes of being are traditionally spoken by language

¹¹⁹ *Met.* Γ.7, 1011b25-1012b27 (T4 above).

¹²⁰ *Met.* E.4, 1027b27-1028b31 (T7 above).

¹²¹ *De An.* III.3, 428a5-428b16.

¹²² *Met.* Θ.10, 1051a34-1051b4 (T8 above).

With reference to truth, Aristotle mentions that “Truth is like the proverbial door that no one can miss”¹²³ and “the fact that we can have a whole truth and not the particular part we aim at shows the difficulty of it.”¹²⁴ Aristotle is much more positive about the ability of humans to have some knowledge of truth. Still, it is necessary to keep in mind that nobody can adequately capture truth.¹²⁵

Humanity’s limited ability to capture truth has been further restricted by the limitations of language to talk about things, and specifically using words to show how things are. Aristotle is in fact rather optimistic about the ability of language to capture the truth. The importance of the inquiry into the relationship between language and things as modes of being can be observed by the claim that “the unqualified term ‘being’ has several meanings.”¹²⁶ Following this line of argument in *Metaphysics* E.2, it is reasonable to admit that there is more than one traditional way to say something about being before Aristotle. For example, dialecticians and sophists have their own ways to discuss things.¹²⁷ After criticizing these traditional approaches,¹²⁸ Aristotle introduced a new way of how things are spoken of, so as to demonstrate his views on the relationship between words and things.

Referring to the question of how to say things, Aristotle initially points out the obvious difference between dialecticians and philosophers by mentioning that:

T27: And it is the function of the philosopher to be able to investigate all things. For if it is not the function of the philosopher, who is it who will inquire whether Socrates and Socrates seated are the same thing, or whether one thing has one contrary, or what contrariety is, or how many meanings it has? And similarly with all other such questions. Since, then, these are essential modifications of unity qua unity and of being qua being, not qua numbers or lines or fire, it is clear that it belongs to this science to investigate both the essence of these concepts and their properties. And those who study these properties err not by leaving the sphere of philosophy, but by forgetting that substance, of which they have no correct idea, is prior to these other things. [...] So too certain properties are peculiar to being as such, and it is about these that the philosopher has to investigate the truth.—An indication of this may be mentioned:—dialecticians and sophists assume the same guise as the philosopher, for sophistic is philosophy which exists only in semblance, and dialecticians embrace all things in their dialectic, and being is common to all things; but evidently their dialectic embraces these subjects because these are proper to philosophy.—For sophistic and dialectic turn on the same class of things as philosophy, but this differs from dialectic in the nature of the faculty required and from sophistic in respect of the purpose of the philosophic life. Dialectic is merely critical where philosophy claims to know and sophistic is what appears to be philosophy but is not. (*Met.* Γ.2, 1004a35-1004b12; 1004b16-1004b26)

Here, Aristotle aims to introduce a philosophical way to approach being as such by firstly referring to and criticizing other approaches – including those from dialecticians and sophists.

¹²³ *Met.* α.1, 993b5-993b6.

¹²⁴ *Met.* α.1, 993b7-993b8.

¹²⁵ Lear, 1988, 5.

¹²⁶ *Met.* E.2, 1026a 34.

¹²⁷ Brogan, 2005, 164-165.

¹²⁸ *Met.* Γ. 2, 1004b6-1004b25.

By making a comparison with dialecticians and sophists, Aristotle establishes a relationship between philosophers and truth and he explains an inherent task or function of philosophers. One way of putting it is that the task of philosophy is also the characteristic property that philosophers should have.¹²⁹ The task or the function of philosophers is to investigate all things by studying being qua being, which initially begins with asking how one can be certain that Socrates and Socrates seated are the same thing. In this sense, the philosopher is the one who is able to see what truly reveals itself as itself, and to do so, he or she must separate being from non-being – or from that which only appears to be. Aristotle thus sets up a direction for how to say things in accordance with how things are.

Moreover, the scope of questions available for philosophers to research is essential to the modification of being qua being, which belongs to the science of investigating the essences of concepts and properties in terms of causes or principles.¹³⁰ For Aristotle, the question of being is the question of what makes a particular being the being that it is. “Therefore what we seek is the cause, i.e. the form, by reason of which the matter is some definite thing; and this is the substance of the thing.”¹³¹ The substance, or form (*eidos*), is here said to be responsible for the matter attributed to a particular being in such a way that the being presents itself as the being it is. In this sense, Aristotle suggests that philosophers have to investigate the truth based on what things are.¹³² Given this point, Aristotle sets forth the task of philosophers who should speak about things as things are – an action which Aristotle refers to as truth seeking.

Due to philosophers being tasked to investigate the truth, an internal relation between philosophers and truth has been established by Aristotle. In this sense, sophists and dialecticians appear like philosophers,¹³³ but in reality are *not* philosophers. In contrast to the priority of *words* stressed by dialecticians, philosophers always underline the priority of *things*. Similarly, sophists and dialecticians never study the substance of things as being qua being. And so, by contrast, while dialecticians only pay their attention to words, philosophers are always caring for things by emphasizing the priority of things in the ontological sense. Therefore, Aristotle understands that the task of the philosopher is ultimately about truth, while dialecticians and sophists only say something in terms of their relation to truth, rather than truth itself.

The internal relationship between truth and philosophy provided by Aristotle invites further questions to be investigated. For instance, why does Aristotle hold that philosophers have to investigate truth in the first place? Does it mean that only philosophers are capable of saying things in accordance with how things are? What does it mean to say ‘on the basis of what it actually holds’? With the development of investigations into the role of words, thoughts and things, these questions could each be answered separately. Therefore we shall examine the relationship between words, thoughts, and things as such in Aristotle’s works.

¹²⁹ This situation of philosophers can also be described in terms of wonder. (Lear, 1988, 6.)

¹³⁰ *Met.* α.1, 993b20-993b30.

¹³¹ *Met.* Z.17, 1041 b7–1041b9.

¹³² *Met.* E.2, 1004b16-1005a1.

¹³³ *Met.* E.2, 1004b1-1004b26, 1061b7-1061b10.

2. Truth in words

Aristotle argues that words must be intelligible and signify things in the world. The following passage explains why words are necessary to execute the task of philosophers.

T28: Those, then, who are to join in argument with one another must to some extent understand one another; for if this does not happen how can they join in argument with one another? Therefore every word must be intelligible and signify something, and not many things but only one; and if it signifies more than one thing, it must be made plain to which of these the word is being applied. (*Met.* K.5, 1062b3-1062b8)

Here, some necessary characteristics of words are provided. Based on the possibility of communication and the necessity of understanding, Aristotle suggests that the role of words is to signify one thing. In this way, words will be intelligible and signify something in the world. Due to these reasons, the relationship between words and the reality that words hold demonstrates that words are capable of capturing the nature of things in reality.

2.1 The role of words without combinations: names and verbs

2.1.1 Names

With reference to words, Aristotle begins his investigation with “simple” words as basic elements of predication.¹³⁴ Simple words are categories without combinations, and include names and verbs separately.¹³⁵

T29: A name is a spoken sound significant by convention, without time, none of whose parts is significant in separation. (*Int.* 2, 16a19-16a20)

T30: Of things said without combination, each signifies either substance or quality or quantification or a relative or where or when or being-in-a-position or having or doing or being-affected. (*Cat.* 4, 1b25-1b27)

These two passages inform us how Aristotle argues that words can refer directly to the world by means of sounds. The exact ways in which one can understand the relationship of sounds with significations has been vigorously debated. Despite the lack of consensus on the topic, one point has been fixed in that different sounds imply different significations. In this case, words with sounds signify various modes of being, including substance, quality or quantity, and so on. So the things said without combination signify some subject or property falling within one of the real world predications. In addition, Aristotle further argues that the definition of the name contains four points: First, it is defined as being a significant sound; secondly, the name is conventional; third, names are without time; and finally, a name is a whole, since no part of the name signifies separately.

¹³⁴ Ackrill, 1965, 115. Ackrill puts forward that 'name' (*onoma*) gives the original and central meaning to a thing, and has been used everywhere in the present translation. In certain contexts, it is tempting to write 'word' or 'noun', but only 'name' can do duty in all contexts. Moreover, the use of 'name' in the translation will serve to remind the reader of the rather primitive nature of Aristotle's view of meaning, namely that 'Philo' and 'man' are names of different sorts of thing but are both just names.

¹³⁵ Bäck, 2000, 137.

2.1.2 Verbs

For the categories without combinations, besides names, verbs also play the role of significations. In the *De Interpretatione*, Aristotle claims that a verb is “always a sign of what holds, that is, holds of a subject.”¹³⁶

T31: A verb is what additionally signifies time, no part of it being significant separately; and it is a sign of things said of something else. It additionally signifies time: ‘recovery’ is a name, but ‘recovers’ is a verb, because it additionally signifies something’s holding now. And it is always a sign of what holds, that is, holds of a subject. When uttered just by itself a verb is a name and signifies something—the speaker arrests his thought and the hearer pauses—but it does not yet signify whether it is or not. For not even ‘to be’ or ‘not to be’ is a sign of the actual thing (nor if you say simply ‘that which is’); for by itself it is nothing, but it additionally signifies some combination, which cannot be thought of without the components. (*Int.* 3,16b6-16b25)

Here, some functions of verb are introduced. Notably, verbs can signify time and no part of it signifies separately. In other words, the verb can carry an additional signification of time. Moreover, a functional role of verbs is a sign of things said of something else for without verbs, it is impossible to signify that something it is or not. Therefore, verbs are directly signifying something about which holds of real-world subjects.¹³⁷ In addition, names or nouns and verbs are both acts of naming.¹³⁸ This behaviour of naming ultimately signifies specified modes of being. As we can see, although names and verbs are both signs of something, they are still different from each other in certain aspects. The definition names and verbs have in common is that they are conventional significant utterances, which cannot be divided into smaller significant parts. However, the verb is distinguished by having an additional signification of time, and by signifying something which holds of something else. If words are capable of signifying things, then the relationship between words and things should be spoken by words as clearly much as possible.

Nevertheless, there is another common characteristic shared by names and verbs that both of them are fundamental elements of truth-bearers with truth-values. Aristotle argues that for those categories without combinations, there is no truth or falsity as truth-value of them for true or false as truth-values have to do with combinations and separations. Considering the situation that there are no truth-values without combinations of names and verbs, then, truth or falsity are related to words in combinations forming statements with truth-values.

2.2 Combinations of words in thoughts with truth-values

When Aristotle argues for truth in assertions serving as truth-bearers, what exactly he wants to argue for is that the truth as truth-values of assertions is in the combinations of names or verbs. Given the situation that assertions are divided into affirmations and negations, it is important for us to clarify how Aristotle uses the concept of combinations to describe the formulation of

¹³⁶ *Int.* 3, 16b9-16b10.

¹³⁷ *Int.* 5, 17a17-17a24.

¹³⁸ Brogan, 2005, 185.

assertions with truth-values as truth-bearers.

T32: Every sentence is significant (not as a tool but, as we said, by convention), but not every sentence is an assertion, but only those in which there is truth or falsity. There is not truth or falsity in all sentences: a prayer is a sentence but is neither true nor false. The present investigation deals with assertion; the others we can dismiss, since consideration of them belongs rather to the study of rhetoric or poetry. The first single statement-making sentence is the affirmation, next is the negation. The others are single in virtue of a connective. Every statement-making sentence must contain a verb or an inflexion of a verb. (*Int.* 4, 17a1-17a11)

T33: An affirmation is a statement affirming something of something, negation is a statement denying something of something. Now it is possible to state of what does hold that it does not hold, of what does not hold that it does hold, of what does hold that it does hold, and of what does not hold that it does not hold. (*Int.* 6, 17a25-17a29)

From those two passages, at least, some points about assertions with truth and falsity as truth-values can be deduced. Firstly, affirmations and denials are given here as different versions of the single assertive sentence. It is obvious that for statements with truth, combinations are necessary structures, in the form of stating that something holds of something. In this case, the structure of “something of something” is the internal structure of statement truth. Corresponding to the definition of truth in combinations, the definition of falsity can also be seen in the structure of the denial of “something of something”. A further point is that the existence of objects predicated by categories also affects truth-values of truth-bearers. Due to this, Aristotle repeats the corresponding relationship between truth with combinations and falsity with separations.

Here Aristotle obviously regards true and false as truth-values of statements. So far, according to this view on truth as the truth-values of statements, Aristotle holds that the similarities in structure between combinations of assertions with truth-values can be observed in thoughts.

T34: Just as some thoughts in the soul are neither true nor false while some are necessarily one or the other, so also with spoken sounds. For falsity and truth have to do with combination and separation. Thus names and verbs by themselves—for instance ‘man’ or ‘white’ when nothing further is added—are like the thoughts that are without combination and separation; for so far they are neither true nor false. A sign of this is that even ‘goat-stag’ signifies something but not, as yet, anything true or false—unless ‘is’ or ‘is not’ is added either simply or with reference to time. (*Int.* 1, 16a10-16a18)

Here, similar combinations mentioned previously in assertions can be observed in thoughts. Such thoughts are concepts which correspond to single terms or expressions in a language. In order to have a truth-value, a thought, and an assertion as its linguistic expression, require the addition of ‘is’ or ‘is not’ to be truth-bearers. It is reasonable for us to infer that assertions

are the main tools for conveying our thoughts about things as such. In this case, names and verbs are examples of simple utterances, and resemble “thoughts” without combinations or divisions.¹³⁹ For instance, examples are ‘man’ and ‘white’, which are neither true nor false. ‘If nothing is added’ a further example is given, even ‘goat-stag’ signifies something. But that is neither true nor false unless ‘to be’ or ‘not to be’ is added.¹⁴⁰ In other words, there can be no truth-values of statements without a verb, and the most basic statement consists of a name with ‘is’ or ‘is not’ added.

Aristotle claims that being true or false involves some sort of combinations or separations. He does not specify what he means by ‘combinations’ and ‘separations’ here, but, in the case of speech, what we combine and separate are typically names and verbs. In this case, the aim of this part, as Terence Irwin (1982) mentioned, is to discover various modes of being in reality by revealing the real relationships between things and properties expressed by assertions as truth-bearers. That is the reason why he multiplies assertions to demonstrate the relationship between the subject and the properties being talked about. In Terence Irwin’s words, “His ontology determines his account of the structure and nature of assertions. This does not mean he has a strange view of the structure and meaning of sentences. His criteria for counting assertions are guided by the real natures that are signified.”¹⁴¹

2.3 Signification:¹⁴² the relationship between words and things in virtue of thoughts

After discussing the roles of names and verbs as categories, as well as their combinations with truth-values in assertions or thoughts as truth-bearers, we need to further clarify the content of significations expressed by words. If we want to know what Aristotle means when he says that the categories signify things, or what the meaning is of combinations having a truth-value in thoughts, then, we need to consider what Aristotle means by saying that words are signs. In the *Analytica Priora* Aristotle himself gives an answer to this question.

T35: A sign is meant to be a demonstrative proposition either necessary or reputable; for anything such that when it is another thing is, or when it has come into being the other has come into being before or after, is a sign of the other’s being or having come into being. (*A. Pr.* II.27, 70a6-70a9)

It is obvious that, for Aristotle, a sign is defined as something from which the existence of something else may be inferred, which serves as the role of truth-makers in the traditional interpretation of truth in Aristotle. Terence Irwin (1982) has analyzed the conception of signification by noting that there are two requirements for significations. The first requirement is the presence of objects of conversation exerted by speaking and thinking of something,¹⁴³ since speaking and thinking of something is necessary for having any discourse with oneself

¹³⁹ *Int.* 1, 16a12-16a14.

¹⁴⁰ *Int.* 3, 16b16-16b18.

¹⁴¹ Irwin, 1982, 253.

¹⁴² Aristotle’s account of signification has been understood by some to constitute a theory of meaning. For instance, this opinion is supported by Charles, 2002 and Dancy, 1975, 83.

¹⁴³ *Met.* E.4, 1006a21-1006a22, 1006b10-1006b11.

or with another.¹⁴⁴ It follows therefore that signifying something is taken to be necessary for all thought and discourse. The second requirement is that signifying something requires the existence of essences.¹⁴⁵ For instance, signifying something by ‘F’ is signifying one thing,¹⁴⁶ whereby signifying something by ‘man’ is signifying what it is to be man¹⁴⁷ – and so, because what it is to be man is the essence of man,¹⁴⁸ signifying requires the signifying of essences.¹⁴⁹

In addition, Terence Irwin has distinguished between two kinds of significations based on different stages of inquiry by contrasting what is ‘known to us’ with what is ‘known by nature.’¹⁵⁰ In his case, there are two sorts of definition to reflect different aspects of signification. The first sort of definition, mentioning what is known to us, will tell us what the name signifies to us; the second sort of definition, however, will tell us what the name signifies by nature because it will mention the real essence that is known only by nature. The evidence for these two claims reflecting two aspects of signification can be observed in the passage offered by Aristotle in T36 quoted above.

With reference to signs, C.W.A. Whitaker (1996) suggests that the definition of sign suits Aristotle’s view of words quite well. He argues that, according to *Metaphysics* Θ.10, a thought is a likeness of a thing, and it is the utterance of a word which makes a rational being aware of the thing which the word signifies in his mind.¹⁵¹ As he remarks: “If an utterance is significant then there must be a thought which it arouses, and since that thought must be a thought of something, there must be a thing for which the word stands.”¹⁵² Whitaker thus comments that for a word to be significant it must stand for a thing, or point to the existence of a thing,¹⁵³ and that these things will include items of every sort. Therefore, to say that a word is a sign of a thought and a sign of a thing simply means that there is some thought and something corresponding to the word.¹⁵⁴ Based on this view of signification, he argues that there is a consistency between signs of thoughts and likenesses of things.

Words that signify things always point to a relationship that exists between beings and thoughts. As such, our discussion of significations of words is not only concerned with sense, communication, translation or linguistic competence, but also with the discovery of the real properties beings have, and their relation to words.¹⁵⁵ In this case, the relationship between things and thoughts of human beings are expressed by the utterance of the word.¹⁵⁶

According to Aristotle’s general picture of the relationship between words and things, it is clear that, firstly, names and verbs are examples of intelligible words. In this vein, Aristotle sets forth a structure of predication in which things are expressed by words – including,

¹⁴⁴ *Met.* E.4, 1006a32–1006a34, where he uses the example of being human.

¹⁴⁵ *Met.* E.4, 1006a22–1006a24.

¹⁴⁶ *Met.* E.4, 1006b.

¹⁴⁷ *Met.* E.4, 1006a31–1006a34.

¹⁴⁸ *Met.* E.4, 1007a25–1007a27.

¹⁴⁹ Irwin, 1982, 262.265.

¹⁵⁰ *Cat.* 14a14–19. And Irwin, 1982, 251.

¹⁵¹ Whitaker, 1996, 23.

¹⁵² Whitaker, 1996, 23.

¹⁵³ It will be useful to consider what Aristotle means by ‘thing.’ The scope of the term is clearly very broad and we are told that we use words instead of things, and that there is a boundless number of things, all of which may be signified by words.

¹⁵⁴ Whitaker, 1996, 23.

¹⁵⁵ Irwin, 1982, 265.

¹⁵⁶ Wheeler, 2019, 61.

names and verbs. Second, by understanding the significations of words—including names and verbs—we can understand how assertions actually work. With reference to the fundamental structure of assertions with truth-values, things are regarded as fundamental ingredients in making assertions true. Now, after exploring the significations of words in thoughts, the next step of our inquiry should be to further discuss the content of thoughts especially when Aristotle applies the term of “truth in thoughts” in his investigations.

3. Truth in thoughts: a representational realism or a direct realism?

Having investigated the relationship between words and things in virtue of significations, the following question relates to how words as signs of things are related to thoughts. In order to address this question, Aristotle picks up the concept “affections in the soul” to explain it. In this case, words are signs of affections of the soul that are likenesses of actual things in the world.

Before proceeding further, it is necessary for us to investigate how Aristotle himself deals with the theory of soul. Aristotle explicitly underlines the importance of an inquiry into the soul in light of his pursuit of truth by stating that “The knowledge of the soul admittedly contributes greatly to the advance of truth in general, and, above all, to our understanding of Nature, for the soul is in some sense the principle of animal life.”¹⁵⁷

3.1 Representational realism:¹⁵⁸ “affections of the soul” between words and thoughts

In a general sense, the relationship between words and thoughts can be observed by the very expression that is affection of the soul. Words or letters are symbols of a certain situation of souls that is the likeness of a mode of being:

T36: Now spoken sounds are symbols of affections in the soul, and written marks symbols of spoken sounds. And just as written marks are not the same for all men, neither are spoken sounds. But what these are in the first place signs of—affections of the soul—are the same for all; and what these affections are likenesses of—actual things—are also the same. (*Int.* 1, 16a4–16a8)

There are a few basic premises in this passage. In the first place, there are four basic elements that we need to discuss: significant vocalized sounds, written marks, affections of the soul, and actual things. Second, apart from there being some analogies between speech and thoughts, as well as between writing and speech,¹⁵⁹ another point is that spoken sound is a “symbol” of affections in the soul.¹⁶⁰ Moreover, these affections in the soul are likenesses of actual things. In addition, while written marks and spoken sounds differ among groups of men, the affections and the likenesses of actual things are the same for all.¹⁶¹ Even though words and sounds may be different for different languages, the affections in the soul are the same for

¹⁵⁷ *De An.* I.1, 402a5–402a7.

¹⁵⁸ This view also can be called representational-ism.

¹⁵⁹ Shields, 1999, 86.

¹⁶⁰ Nuchelmans, 1973, 127.

¹⁶¹ Polansky; Kuczewski, 1990, 52.

everyone. It is not the sounds or letters that *affect* us, or the soul, only the things. For instance, the written word ‘dog’ is a symbol of the spoken word ‘dog,’ and this in turn is a symbol of the content of the thought dog, which is the same for anyone who thinks about dogs, because it is an affection of the soul that is a likeness of the form of a dog in reality.¹⁶² Within the framework of the traditional interpretation of truth in Aristotle, the form in representation is the truth-maker that is true, and this same form in the mind shall be expressed by language, which shows the same form in different levels or different modes.

This reading of *De interpretatione* 1 is confirmed by modern scholarship. Based on the same passage, Gabriel Nuchelmans (1973) suggests that Aristotle indicates the three principle dimensions in which acts and attitudes of holding something true should be studied: the affections of the soul or the mental sphere, the sounds and marks of spoken and written language, as well as the world of things of which the affections of the soul are likenesses.¹⁶³ Similarly, that is why Deborah Modrak (2009) explains this context from the perspective of signification, ontology, and psychological processes.¹⁶⁴ However, the matter of interpreting objects of thoughts and “objects of reality as parts of the world” is still in dispute. For instance, Gabriel Nuchelmans (1973) has pointed out there are at least two ways to interpret objects or “states of affairs”. According to his explanation, objects or states of affairs of thoughts do not only stand for that which is believed or asserted to be the case but can also be used to designate that which actually is the case in the world.¹⁶⁵ He has cited more than one example from Aristotle’s works to support his interpretation. For instance, “it is not because we think truly that you are white, that you are white, but because of the fact that you are white, we who say this have the truth.”¹⁶⁶ This might also be expressed by saying that the *logos* is true because the states of affairs *that you are white* is in fact part of the world. In brief, there are two levels to states of affairs: a state of affairs as asserted and a state of affairs as it exists independently of any utterances concerning it.

¹⁶² Modrak explain this kind of “likeness” as the psychological state that is an effect or a *pathema*—a likeness of an external object. (Modrak, 2009, 235, 267.)

¹⁶³ Nuchelmans, 1973, 23.

¹⁶⁴ Modrak, 2009, 266.

¹⁶⁵ Interpreting objects or states of affairs is seemingly the same question. Nuchelmans has discussed these questions and provided us with at least four interpretations. He mentions that:

“A I. If they are taken to designate cases in which one intends to think of something or to refer to something by means of a linguistic expression, there is always at least an internal object: the thought one thinks and the referring expression one uses.

A II. If they are taken to designate cases in which one succeeds in thinking of something or in referring to something by means of a linguistic expression, there will also be an external object, the thing thought of or referred to.

B I. If they are taken to designate cases in which one thinks or says that something is the case, there is always at least an internal object: the thought that something is the case (doxa) or the assertion that something is the case (logos).

B II. While there are, of course, circumstances in which that is held true or claimed to be the case proves to be the case in the objective world of facts, this success has not been built into the meaning of the verb *doxazein* and *legein*. There are, however, verbs of knowing, whose meaning does entail that what is held true is indeed true. Such verbs are, in this respect, comparable to verbs of seeing, hearing, or touching.

Accordingly, at least three fundamental distinctions should be kept in mind. (a) the distinction between A and B: cases in which the acts of *doxazein* and *legein* are directed to things which may be components of states of affairs but are not themselves complete states of affairs, and cases in which it is thought or said that something is the case. (b) the distinction between, on the one hand, intending to think of something or to refer to something and holding something true, and on the other hand, succeeding in these endeavours and being right about the alleged state of affair. (c) The distinction between internal objects and external objects.” (Nuchelmans, 1973, 10.)

¹⁶⁶ *Met.* Θ.10, 1051b6. This passage plays a central role in my argument and that I have discussed both in chapter One and Two.

3.2 Interpreting “likenesses as affections of souls” in Aristotle.

Mark Wheeler (2019) has discussed how likenesses as intentional content are involved in mental assertions and further argues that mental images are the intentional contents of acts of assertions. In this case, mental images are supposed to be like real things because both the images and the things have qualities in common. These qualities are the perceptible and intelligible qualities possessed by real things and represented by mental images, which means that the affections of the psyche are signified by spoken sounds,¹⁶⁷ and these affections are likenesses of real things in virtue of being like real things. These affections of the soul are also likenesses of the real things in the world in virtue of having the same qualities of the real things in the world.

As we can see, here, likenesses as the intentional contents of acts of assertion are likenesses of real correlates. This is in virtue of instantiating a perceptible or intelligible form that is like a perceptible or intelligible form instantiated by the real correlate. In this case, Aristotle embraces a strong representational theory whereby intentional contents have the qualities possessed by the things in the world of which they are likenesses.¹⁶⁸

Moreover, the role of words as a mediator between thoughts and things is supported by Deborah Modrak (2009). She has used this relationship between words, thoughts, and things as a means to discuss questions of meaning in Aristotle.¹⁶⁹ Firstly, she has summarized that there are three levels of words, including words as expressed in written and spoken tokens, mental states, and mind-independent objects. Second, she admits that the interpretation of a word refers to objects in the world, and the mental state as a likeness fixes the reference of the spoken or written tokens of the word. What is more, she further explores the motivation of why Aristotle applies the term of “likeness” to explain the relation between thoughts and things. She argues that the concept of likeness explains how the mental state refers to an extra-mental referent and thus explains how the mental state makes knowing the world possible. For the resemblance between the internal state and the external object fixes the referent of the term or the memory. Thus, the likeness exists between an essence as an object of thought and the same essence as a nature in the world.¹⁷⁰

Meanwhile, language is one step removed from actual things in the world. Consequently, the “affections of the psyche,” are usually accurate apprehensions, yet there is an indirect but reliable connection between what we say about the world and the actual things in the world that affect us. This connection makes it possible for language to articulate the truth about those actual things.¹⁷¹

Whatever the intermediate role performed by words or thoughts, in a direct or indirect way, these kinds of interpretations are usually regarded as a representational realism. A representationalist reading of T36 reveals that things in the world cause mental images that are representations of these things in the soul of the perceiving and thinking person.¹⁷² In this

¹⁶⁷ *De An.* III.8, 431b26–432a6.

¹⁶⁸ Wheeler, 2019a, 178.

¹⁶⁹ Modrak, 2009, 23.

¹⁷⁰ Modrak, 2009, 235, 267. A similar interpretation is also offered by David Roochnik (2012).

¹⁷¹ Roochnik, 2012, 143–144.

¹⁷² Esfeld, 2000, 321.

case, a person has access to the world by means of such representations in perceptions and thoughts.

Matthew Walz (2006) explains the intermediate role of linguistic items, which he brings out by a literal translation of *De interpretatione*.

T37: Ones in vocal-sound, then, are symbols of affectednesses in the soul, and ones written are symbols of ones in vocal-sound. And as letters are not the same for all, neither are vocal-sounds the same. But those firsts of which these are signs {or: those of which these are signs firstly} – the affectednesses of the soul – are the same for all, and those of which these [affectednesses] are likenednesses – the things – are already the same.¹⁷³ (*Int.* 1, 16a4–16a8)

According to his interpretation, he provides us with insight into how Aristotle understands the causality of things on the cognitive soul.¹⁷⁴ Linguistic items in vocal-sound are symbols of ‘affectednesses in the soul.’ And, these affectedness and likenedness are thoughts in intellect. It is the intellect itself that has been acted upon and likened to things. Given that the vocal-sound is a sensible reality, the ‘items in vocal-sound’ suggests the relation between form and material. Moreover, since linguistic entities are not by nature, vocal-sound is comparable not to the material of a natural being, but to that of an artifact.

As for how the fact that a name is a symbol explains the fact that audible speech causes learning in virtue of something, Walz explains that it is because the intellectual content of names—in other words, that in audible speech which “contributes the largest part with respect to intelligence”—is accidental to the audible vocal-sound that serves as its material or medium.¹⁷⁵ And this is what it means to say that the “in” in “ones in vocal-sound” indicates that vocal-sound is the material in which the name, verb, denial, affirmation, declaration, or articulation exists.

In order to clarify the vocal-sound as the material to a speaker, Walz makes an analogy with between marble to a sculptor or color to a painter. For, like a sculptor and a painter, a speaker embodies his ideas in something perceptible that is able to transfer what he understands to someone else.¹⁷⁶ Calling ‘ones in vocal sound’ symbols, Aristotle is arguing that they are accidental, quasi-artificial form/material composites. In this case, the form in the material corresponds to and stands in for “affections in the soul.”¹⁷⁷

As we can see, the notion of likenesses plays a major role in the discussion of relations between words, thoughts, and things in the external world. In this case, those affections in the soul as likenesses between thoughts and things would be an alternative explanation of how souls capture things as things are by means of thoughts expressed by words. If so, the problem is rather, it seems to me, how things manage to affect the soul in such a way that it comes to have likenesses of them. That Aristotle leaves somewhat in the dark, as he argues:

¹⁷³ Walz, 2006, 231-232.

¹⁷⁴ Walz, 2006, 234.

¹⁷⁵ See *Arist. Sens.* 437a11-15.

¹⁷⁶ Walz, 2006, 241.

¹⁷⁷ Walz, 2006, 243-244.

T38: And from experience, or from the whole universal that has come to rest in the soul (the one apart from the many, whatever is one and the same in all those things), there comes a principle of skill and of understanding—of skill if it deals with how things come about, of understanding if it deals with what is the case. Thus the states neither belong in us in a determinate form, nor come about from other states that are more cognitive; but they come about from perception [...] And the soul is such as to be capable of undergoing this. What we have just said but not said clearly, let us say again: when one of the undifferentiated things makes a stand, there is a primitive universal in the mind (for though one perceives the particular, perception is of the universal—e.g. of man but not of Callias the man); again a stand is made in these, until what has no parts and is universal stands—e.g. such and such an animal stands, until animal does, and in this a stand is made in the same way. [...] Since of the intellectual states by which we grasp truth some are always true and some admit falsehood (e.g. opinion and reasoning—whereas understanding and comprehension are always true), [...] so if we have no other true kind apart from understanding, comprehension will be the principle of understanding. (*A. Pst.* II.19, 100a6-100a11; 100a13-100b3; 100b5-100b8; 100b14-100b15)

Although Aristotle argues that perception is the key point to explain how the soul is affected by things, the representationalism still needs to clarify what it is that a likeness actually gives us, and this is the kind of unclarity that attaches to *representationalism*, which might become an explicit reason to reject representationalism in favour of *direct realism*.

4. A direct realism: truth in thoughts as the form of objects in the soul

Aristotle interpreted the capacity of thought in the soul in terms of matter and form, as well as potentiality and actuality. Generally speaking, Aristotle provides an account of the various types of cognitive and perceptual faculties and states as different parts of the soul, including perceptions, thoughts, imaginations, judgments, and beliefs. It is well known that the theory of how thoughts match things is developed in book III of the *De Anima*, along similar lines to the theory of perception. In both cases, Aristotle describes their power in the manner of a “receiving form of the thing without the matter.” Perhaps, then there is room to argue for a direct realism in terms of “receiving form of things without the matter.”

T39: If thinking is like perceiving, it must be either a process in which the soul is acted upon by what is capable of being thought, or a process different from but analogous to that. The thinking part of the soul must therefore be, while impassible, capable of receiving the form of an object; that is, must be potentially identical in character with its object without being the object. Thought must be related to what is thinkable, as sense is to what is sensible. (*De An.* III.4, 429a13-429a17)

According to this passage, Aristotle investigates the role of thoughts by making an analogy with the role of perceptions. Considering the position of perception played in the process of thoughts, we need to ask why Aristotle initially describes how thought works in terms of perceptions.¹⁷⁸ Although there are still differences in this analogy between perceptions and

¹⁷⁸ Modrak, 2009, 250.

thoughts,¹⁷⁹ we can still find some common points. First, both perceptions and thoughts involve a part of the soul being acted upon by their respective objects: the relevant part of the soul receives the form without the matter. Specifically, the mind grasps intelligible objects by receiving forms of intelligible objects, in the way that sensation grasps sensible things in virtue of receiving the forms of sensible objects. Second, sensible things, are sensible prior to being sensed, just as sensation is a potentiality prior to actual sensation. In this case, it is said that thoughts and things must share the same form, which suggests an identity relation between thoughts and things, even if only in a potential way.

In this regard, scholars have widely accepted that objects of thoughts are forms of objects without matter. Michael Esfeld (2000) regards this passage as an evidence for a direct realism interpretation about the relation between thoughts and things in the world.¹⁸⁰ He criticizes representational realism and then implies that in Aristotle's view, there are no epistemic intermediaries between acts or states of perceptions and thoughts and the qualities, things, or events in the world that are intentional objects of these acts or states.¹⁸¹ He also argues that, based on the direct realism interpretation of the relation between words and thoughts, the crucial point of this direct realist reading is that, on Aristotle's view the things in the world are made up of form and matter. He suggests that the forms of the things in the world are qualitatively identical with our perceptions and concepts. The structure of the thinking and perceiving mind is identical with the structure of the world.¹⁸² Therefore, Aristotle's direct realism is grounded in an ontology according to which our perceptions and conceptions are identical with the form of things.

C.W.A. Whitaker (1996) holds that thoughts are identical in form to things, which stands between words and things. He explains it using two different accounts. Firstly, he explains the likeness describing the relationship between words, thoughts, and things in terms of the same form shared by all of them. He is in agreement with Aristotle that if thoughts are a likeness of things, then thoughts are formal copies of things. For example, a thinker takes on the form of the thing, so that the form is present both in the thing and in his mind, just as the same impression might be shared by two wax tables.¹⁸³ Second, the intelligible form of the object of thought is taken on by the thinker, so that this same form is common to both the object and to the thinker. In this way, a likeness of the object of thought is present in the mind.¹⁸⁴ Consequently, a thought is like its object since both share the same form.¹⁸⁵

Even though thoughts and things share the same form, things with form are more fundamental than thoughts with form. This point has been explored by Michael Peramatzis (2011) who admits that there is 'match' between the levels of words and reality in Aristotle's view with reference to definitions. He proposes that Aristotle argues that the ontological order

¹⁷⁹ *De An.* II-III, 418a3-418a6, 427b28-427b29, 432a1-432a6, 431b2-431b3, 432a12-432a13, 449b2-450a15.

¹⁸⁰ Esfeld, 2000, 321.

¹⁸¹ Esfeld, 2000, 321.

¹⁸² Esfeld, 2000, 334.

¹⁸³ Whitaker, 1996, 22.

¹⁸⁴ Whitaker, 1996, 15.

¹⁸⁵ Whitaker, 1996, 15.

is more fundamental than the definitional order,¹⁸⁶ since, “a definition is only an account, a linguistic or conceptual item that gains its importance because of its corresponding or referring to an ontologically primary entity, a form.”¹⁸⁷ Consequently, a form is what makes things what they are and so it determines what the correct account is, the account which specifies what the thing in question is. Moreover, he has introduced the notion of ontological priority to describe basic being rather than the priority of definition. It is clear that the idea underlying the priority in being is that an ontologically basic entity is the fundamental part of the posterior entity because it makes an entity of this type what it is.¹⁸⁸

In this case, Aristotle connects the relationship between words, thoughts, and things with the concept of “affection of souls” and “the likenesses of actual things” in which the relation between thoughts and words is a symbol and a sign about things in the world. However, this representational realism merely emphasizes a representational relation between words, thoughts, and things, without clearly explaining concrete contents and the underlying foundations of a representational relation consisting of these unstated terms. Rather than representational realism, I opt for direct realism, since the likenesses of actual things as affections of souls is better clarified by the form commonly shared by thoughts and things. In this case, things or constituents of things are the ultimate ground of the relation between words, thoughts, and things. Therefore, if truth in thoughts is prior to truth in assertions, then the relevance of the existence of truth-values in assertions is ultimately determined by the priority of things over thoughts as affections in the soul, which share the same form of things with modes of being in the world. In this case, the form with matter in a certain thing is a concrete thing, while the form without matter in thoughts is an object of thought.

5. Further evidence for direct realism in terms of actuality and potentiality

Save for the evidence of direct realism that thoughts and things sharing the same form without matter of objects in the world, Aristotle further turns to actuality and potentiality to express his view on the relationship between what thoughts and objects of thoughts really are.

T40: The problem might be suggested: if thinking is a passive affection, then if thought is simple and impassible and has nothing in common with anything else, as Anaxagoras says, how can it come to think at all? [...] What it thinks must be in it just as characters may be said to be on a writing-table on which as yet nothing actually stands written: this is exactly what happens with thought. Thought is itself thinkable in exactly the same way as its objects are. For in the case of objects which involve no matter, what thinks and what is thought are identical; for speculative knowledge and its object are identical. (Why thought is not always thinking we must consider later.) In the case of those which contain matter each of the objects of thought is only potentially present. It follows that while they will not have thought in them (for thought is a potentiality of them only in so far as they are capable of being disengaged from matter) thought may yet be thinkable. (*De An.* III.4, 429b22-429b24; 429b32-430a9)

¹⁸⁶ Peramatzis, 2011, 301-302.

¹⁸⁷ Peramatzis, 2011, 301-302.

¹⁸⁸ Peramatzis, 2011, 301-302. Cleary, 1988.

Here, the major difference between thinking and passive perception is becoming clearer. Thinking, to fulfill its role, must have the ability to think, and objects of thought the ability to be thought.¹⁸⁹ Aristotle further distinguishes a kind of identity between processes of thinking and objects of thought. Due to the conjunction of two things—including a thinker naturally capable of receiving forms and forms that are by nature intelligible—there emerges an explanation of how thinking is possible. In this case, before conceiving of any objects of thought, the mind is blank. This means that it is not actually anything, until it begins to think.¹⁹⁰ This corresponds to the organ of perception which is potentially what the thing perceived already actually is, and becomes like it when it perceives it.¹⁹¹ The process of thinking thus is an actuality of two potentialities,¹⁹² viz. the potentiality to think, that is the ability of human beings with souls, and the potentiality to be thought, which belongs to everything intelligible.¹⁹³ Mind, must be a potentiality for thinking anything whatsoever.¹⁹⁴ In this sense, mind is a pure potentiality for thinking, an unaffected potentiality for receiving form.¹⁹⁵

According to these multiple levels of actuality and potentiality, Aristotle has made a division of affections between a passive affection and an active intellect.¹⁹⁶ For instance, Aristotle provides the example of a blank writing tablet, whereby the potential intellect has nothing written on the blank writing tablet, and this mode of potentiality before it has learned or discovered anything, is contrasted with the potency of an intellect which has become all things, like someone actually in possession of sciences.¹⁹⁷ It is the transition from the former to the latter stage of potentiality that Aristotle attempts to explain. Furthermore, it is for this explanation that he requires the agent intellect. Moreover, the active intellect is identical with the set of its objects, which is the organized and intelligible world.¹⁹⁸ As Aristotle claims, it is identical with its objects, in that both it and its objects can equally be described as the cause of the passive mind's operation. According to this view, knowledge is the same as the thing known.¹⁹⁹ Aristotle's thesis, that the second actuality of the object perceived or thought is identical with the actuality of the act of perception or thinking of the person, fits into this interpretation in terms of direct realism, because of the identity between what thinks and what

¹⁸⁹ *De An.* III.4, 429a18, 429b25, 430a10-430a20.

¹⁹⁰ *De An.* III.4, 429a23.

¹⁹¹ *De An.* II.6, 418a3, 429b30.

¹⁹² *De An.* II.5, 417a23-417b1, 429b6-429b9.

¹⁹³ Aristotle has already argued that, since mind is able to think about all things, it must be completely pure and without affections. Unlike the sense faculties, mind has no bodily organ, for such a material realization would hinder and distort its ability to think.

¹⁹⁴ *De An.* III.4, 429a28, 430a1-5.

¹⁹⁵ Jiménez, 2017, 25.

¹⁹⁶ Based on Aristotle's view, the passive intellect is not what initiates thought but is the potential to become all things. *De An.* III.5, 430a10-430a25, the actual intellect is just like light because it makes the potential intellect an actual intellect. The potential only has the ability to contain and store the imprints from imagination and perceptions, but with no ability to divide, distinguish, or combine them. It is only when the productive intellect encounters the potential intellect and takes over the matter that the two become one. Moreover, it remains unclear whether the agent intellect is our human intellect in a state of knowledge, or a divine intellect, or the sum total of all intelligible things as forms in the structure of the universe.

¹⁹⁷ *De An.* III. 4-5, 429b5-429b9.

¹⁹⁸ Lear, 1988, 77, 78, 125.

¹⁹⁹ *De An.* III.5, 430a3-430a5, 431a1. For the example of the "knower" see *De An.* II.5, 417a23-417b1, III.4, 429b6-429b9.

is thought in light of Aristotle's view on actuality and potentiality.²⁰⁰

6. 'Truth in things' has ontological priority to 'truth in thoughts'

Over the course of this argument, several key points have come to light. In the beginning of this story, in Aristotle *On interpretation*, the theory of words that is also simple, and taken separately before composition, like the categories, so as to match or explain simple concepts before their possible combinations in thought. Then, Aristotle investigated the relationship between words and thoughts by means of words with significations. In this case, words are signs or symbols of thoughts. With regard to the relationship between words, thoughts, and things, some scholars have established a representational realism by means of words as signs of thoughts. Furthermore, Aristotle has investigated the relationship between thoughts and things in the world in virtue of the same form shared by both of them. In this case, thoughts are more or less exact copies of things as modes of being with whom they share the same form. What is more, according to Aristotle's view on the relation between thoughts and things, thoughts share the same form with things in light of the theory of potentiality and actuality. Hence other scholars have argued for direct realism. According to a direct realist interpretation on the relationship between thoughts and things in the world, it would seem to follow that words would ultimately also be signs of things as modes of being. In this case, the ontological truth is prior to the truth in psychological states,²⁰¹ which in its turn is prior to truth in assertions. Therefore, a hierarchy of truth has been established in which truth in things is prior to and responsible for the truth in thoughts that are expressed by truth in statements.

What is more, referring to the items of truth-bearers and truth-makers belonging to the traditional interpretation of truth in Aristotle, this same form shared by and performed in different levels, including things in the world, thoughts and language, form in things making truth-makers true, so that to perform the functions of truth-makers making truth-bearers to be true in which the same form in minds is expressed in language. Referring to the knowledge mode concerning in-composites in *Metaphysics* Θ.10, as we discussed in chapter Two, knowledge/ignorance concerning in-composites also reflects our cognitive relation to ontological truth, this in fact extends the domain of the so-called correspondence theory of truth. Hence we cannot only accept the traditional view for composites that are statements and thoughts, which is composition and division in things, but we show that there is a similar correspondence for non-composites. So there is a general correspondence from truth in things to whatever kind of cognition.

Given the hierarchy of truth established in this chapter, this correspondence between truth in things and cognition has been guaranteed and determined by the priority of truth in things, the correspondence theory of truth is just a kind of derivative truth, in which things are as causes of affections of the soul, which are thoughts, to which words refer as signs of both the thoughts, and their origin. Here, this reading is in fact applicable to both in-composites and composites. The theory works better if it shows the causal relation from things to thoughts to

²⁰⁰ Lear, 1988, 140.

²⁰¹ Roochnik, 2012, 127.

words regardless of their being composites or not.

This causal relation does not only communicate the form, or content, of the thing to the soul, but also its aspect of truth. Simple thoughts and words, and composites thoughts and words combined in speech, receive their ontological truth from the truth in things by means of the causal process described in *De interpretatione* 1. Moreover, this kind of causal process performing in a hierarchy of truth has also been suggested at the end of *Metaphysics* α.1:

T41: It is right also that philosophy should be called knowledge of the truth. For the end of theoretical knowledge is truth, while that of practical knowledge is action (for even if they consider how things are, practical men do not study what is eternal but what stands in some relation at some time). Now we do not know a truth without its cause; and a thing has a quality in a higher degree than other things if in virtue of it the similar quality belongs to the other things (e.g. fire is the hottest of things; for it is the cause of the heat of all other things); so that that which causes derivative truths to be true is most true. Therefore the principles of eternal things must be always most true; for they are not merely sometimes true, nor is there any cause of their being, but they themselves are the cause of the being of other things, so that as each thing is in respect of being, so is it in respect of truth. (*Met. a.1*, 993b20-993b30)

This passage should be taken seriously. It says that there is a first truth, including truth of eternal beings as Aristotle mentioned in *Metaphysics* Θ.10, which is the cause of later things being true, which points out a hierarchy of truth that should be explored. My ontological truth shows that this intuition was in fact right, even if medieval and later philosophers busied themselves far more with statement truth. This passage ends with the suggestion that as each thing is in respect of being, so it is in respect of truth. Then, after establishing the hierarchy of truth in this chapter, the following task would be to explore causes of truth in various modes of being mentioned in *Metaphysics* Θ.10, so as to reveal the hierarchy of being in Aristotle, which shall be the purpose of the following chapter Four.

Chapter Four

Categories, Potentiality and Actuality

In the light of considerations in chapter Three, it is clear that there is a hierarchy of truth in which there is a causal process between different levels of truth in Aristotle. Specifically speaking, truth in things is the cause and prior to truth in thoughts that are expressed by truth in words. Given the last sentence in *Metaphysics* α.1, each thing is in respect of truth as it is in respect of being,²⁰² the purpose of this chapter is to investigate whether there is a hierarchy of being in the structure of beings reported in *Metaphysics* Θ.10 in which some certain mode of being is prior to or the cause of other modes of being. As we have seen in chapter Two, it is clear that Aristotle provides us with three ways of articulating being or non-being in *Metaphysics* Θ.10, two of which are being in accordance with the categories, and potentiality and actuality. All three of these methods were articulated by Aristotle to refer to being, and if these three methods can be equally applied to refer to being, then the being with reference to categories and the being with reference to potentiality and actuality may indeed tell us something about truth as being in the strictest sense. As is well-known, according to Aristotle, being is a concept which has a single highest point of reference.²⁰³ Thus, the aim of this chapter is to explore how being in the strictest sense as truth and falsity serves as a mode of being prior to being according to the categories, as well as to being in terms of potentiality and actuality, so that to reveal that there is a hierarchy of being established by Aristotle.

In the following section, I would like to turn to related passages in *Categories*, *Physics*, and *Metaphysics* to highlight the relevance between these three ways of articulating being, and further to reveal certain fundamental points underlining the whole structure of these three ways of articulating being.

1. Being with reference to categories

Aristotle frequently discussed the topic “what is being” with regards to his discussions of assertions. In particular, he introduced the structure of assertions by means of combinations. As we studied in chapter Three, names and verbs are singular categories and both signs of something. Combinations of names and verbs consist of the formulation of assertions with truth-values.²⁰⁴ According to the view that names and verbs are categories and indeed composing elements of assertions with truth-values, we need to keep in mind that it is the verb which expresses the combination of a subject and a predicate. In contrast to combinations of categories, categories without combinations should be considered as a more fundamental element and be studied in further detail. After all, categories without combinations are prior to and more basic than assertions consisting of combinations of categories.

²⁰² *Met.* α.1, 993b29-993b30

²⁰³ *Met.* E.1, 1206a30-1026a33.

²⁰⁴ Those topics was discussed in chapters Three.

1.1 Categories and the priority of primary substance

Mohan Matthen (1983) points out that Aristotle posits his theory of categories in several different ways, arguing that ‘is’ is sometimes articulated differently, that sometimes the categories are ‘figures of predication’,²⁰⁵ and in other places that the categories are kinds of the things-that-are.²⁰⁶ These categories without combinations can be considered the latter:

T42: Of things that are said, some involve combination while others are said without combination. Examples of those involving combination are: man runs, man wins; and of those without combination: man, ox, runs, wins. Of things there are: (a) some are said of a subject but are not in any subject. For example, man is said of a subject, the individual man, but is not in any subject. (b) Some are in a subject but are not said of any subject. (By ‘in a subject’ I mean what is in something, not as a part, and cannot exist separately from what it is in.) For example, the individual knowledge-of-grammar is in a subject, the soul, but is not said of any subject; and the individual white is in a subject, the body (for all colour is in a body), but is not said of any subject. (c) Some are both said of a subject and in a subject. For example, knowledge is in a subject, the soul, and is also said of a subject, knowledge-of-grammar. (d) Some are neither in a subject nor said of a subject, for example, the individual man or the individual horse— for nothing of this sort is either in a subject or said of a subject. Things that are individual and numerically one are, without exception, not said of any subject, but there is nothing to prevent some of them from being in a subject—the individual knowledge-of-grammar is one of the things in a subject. (*Cat.* 2, 1a16-1b9)

There are a few insights to take away from this text. Apart from things articulated by means of combinations, these categories without combinations are prior to and more basic than predications, as well as their truth. What is more, these categories without combinations are “said of” or “in” a subject.

Predication cannot exist without singular categories, but singular categories can still exist without predication. Following with this line of reasoning, Aristotle further specifies the familiar list of the categories said without combination.²⁰⁷

T43: Of things said without any combination, each signifies either substance or quantity or qualification or a relative or where or when or being-in-a-position or having or doing or being-affected. To give a rough idea, examples of substance are man, horse; of quantity: four-foot, five-foot; of qualification: white, grammatical; of a relative: double, half, larger; of where: in the Lyceum, in the market-place; of when: yesterday, last-year; of being-in-a-position: is-lying, is-sitting; of having: has-shoes-on, has-armour-on; of doing: cutting, burning; of being-affected: being-cut, being-burned. (*Cat.* 4, 1b25-2a4)

According to T43, it is clear that categories without combinations are divided into ten kinds by Aristotle –substance, quantity, quality, relation, place, time, position, state, activity, passivity. Aristotle further clarifies substance:

²⁰⁵ *Met.* Δ7, 1017a23.

²⁰⁶ *Cat.* 4, 1b25.

²⁰⁷ *Met.* A.1, 981a3-981a7, A.3, 983a27-983a28.

T44: A substance—that which is called a substance most strictly, primarily, and most of all—is that which is neither said of a subject nor in a subject, e.g. the individual man or the individual horse. The species in which the things primarily called substances are, are called secondary substances, as also are the genera of these species. For example, the individual man belongs in a species, man, and animal is a genus of the species; so these—both man and animal—are called secondary substances. [...] All the other things are either said of the primary substances as subjects or in them as subjects. (*Cat.* 5, 2a13-2a18; 2a35-2a36)

T45: Another characteristic of substances is that there is nothing contrary to them. For what would be contrary to a primary substance? For example, there is nothing contrary to an individual man, nor yet is there anything contrary to man or to animal. This, however, is not peculiar to substance but holds of many other things also, for example, of quantity. For there is nothing contrary to four-foot or to ten or to anything of this kind—unless someone were to say that many is contrary to few or large to small; but still there is nothing contrary to any definite quantity. (*Cat.* 5, 3b24-3b31)

Following T44, we can see that primary substances are singled out by terms such as “strictly,” “primarily,” and “most of all.” Aristotle continues to use the division of categories without combinations through “said of” and “in” a subject to specify a primary type of substance. Aristotle refers to some examples to his argument – for instance, the individual man or individual house. Apart from introducing the secondary substances in the following sentence, the last sentence of T45 calls for our attention. By contrast with other categories, the individual substances as primary substances are said to be ‘most strictly,’ because this primary substance does not imply any involvement with a subject; it is itself the subject of which or in which the other categories are said to be. It is clear that the primary substance is “most of all” among all the categories in Aristotle.

From T45 a further characteristic of substance is that neither primary nor secondary substances have a contrary. This characteristic matches the account of essences of substances in *Metaphysics Z*.²⁰⁸

Moreover, due to the fact that Aristotle considers primary substances as the familiar individuals that occupy our world, we can uncover the kind of relationship between primary substances and other. The special character of this primary substance is that it can be separated, and constitutes a this-something (*tode ti*).²⁰⁹ None of the other categories is separable or a this-something. It would be impossible for any of the other things to exist if the primary substance does not exist, but not vice versa. Based on this separability and individuality²¹⁰ of the primary substance, it is obvious that there is an independent structure of being expressed by categories without combinations that underlies the structure of predication by means of categories.

In other words, the function of the categories is to show that other features of the world, and predicates of sentences, must be related to the substances and can be so logically related. But if

²⁰⁸ See above p. 39.

²⁰⁹ Rist, 1989, 96. Aristotle, *Cat.* 5, 2a35-2b7.

²¹⁰ Bolton, 1996.

logically related, then they are also metaphysically related.²¹¹ In this case, it is a mistake to assume that categories are simply about words, or even simply about logic – categories are also concerned with the identification of the contents of the universe as being of different sorts. Since “the *Categories* is a sort of inventory of items of phenomena which can be named; thus it is both logical (in that it distinguishes different ways in which predicates can be said of a subject), and metaphysical in a weak or descriptive sense in that it tells us what is important and what is subordinate in the world itself.”²¹² Besides the characteristics of primary substances offered by Aristotle in *Categories*, it is apparent that Aristotle has introduced several concrete examples to clarify that all other modes of being depend on the existence of primary substances as prior modes of being:

T46: All the other things are either said of the primary substances as subjects or in them as subjects. This is clear from an examination of cases. For example, animal is predicated of man and therefore also of the individual man; for were it predicated of none of the individual men it would not be predicated of man at all. Again, colour is in body and therefore also in an individual body; for were it not in some individual body it would not be in body at all. Thus all the other things are either said of the primary substances as subjects or in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist. (*Cat.* 5, 2a35-2b7)

From T46 we can learn once more, from concrete examples, that the other categories are either said of primary substances as subject or in them as subjects. For instance, the example of animal to man in virtue of being said of individual men, and the example of color in the body by means of being in an individual body. It is clear that we can confirm an ontological primacy of the primary substances prior to other categories without combinations. In this case, the other categories—such as quality, quantity, and relation—are ontologically dependent on that which is primary, i.e. the primary substances. So, the primary substances does not only enjoy the ontological priority that they can exist in their own right—over the other modes of being expressed by other categories—but also enjoy a sort of logical priority over the second substances.

This argument has been supported by more than one scholar. For example Jonathan Lear (1988) has explained this ontological priority in terms of the ontological independence of substances. He argues that for Aristotle, each thing has a nature that is a substance. At the same time, for Aristotle, reality forms a hierarchy of dependencies. For instance, the color white may exist, but it can only exist as the color of something. In this case, substance stands at the base of the hierarchy on which the reality of other things depends, while it is not dependent on anything else. As a result, we may know which substance is ontologically independent yet remain ignorant of what fits this ontological independence²¹³ Moreover, there is more than one degree of ontological independence as Aristotle has distinguished

²¹¹ Rist, 1989, 104.

²¹² Rist, 1989, 94.

²¹³ Lear, 1988, 24-25.

substance in the primary sense from various other things we also call substance because they have some degree of ontological independence. In the end, whatever emerges as a primary substance, we can say that things which have a nature enjoy at least some degree of ontological independence.²¹⁴

Charlotte Witt (1989) explicitly argues for the ontological priority of primary substances by stating that “the being of non-substances intrinsically involves the notion of ontological dependence on a subject, whereas the being of a substance does not involve that notion. So what it is for Socrates as a substance to be is different from what it is for a quality of Socrates to be, because any quality of Socrates is ontological dependent upon him but not vice versa.”²¹⁵ In this case, the primary substance is viewed as the being of substance, which is the primary mode of being. In turn, the other categories—neither primary substance nor secondary substance—are treated as the being of non-substances, which also could be viewed as various modes of being that can change over time.²¹⁶

Moreover, the importance of the position occupied by categories without combinations in Aristotle’s philosophy has been appreciated by Mann (2000) who suggests that Aristotle completed the task of discovering things as things.²¹⁷ Specifically, what Mann is calling Aristotle’s ‘discovery of things’ is the claim that things are particular objects in the sense given by his construction of distinctions of ‘Said Of’ and ‘In’. Among these categories without combinations, particular objects are the only things there are – which means the primary substance is a concrete, individual object with various attributes. In this regard, these particular objects are ontologically fundamental.²¹⁸ In other words, the discovery of things amounts to the answer to the question of what there is by discovering objects with attributes. By stressing the ontological independence of the particular object, the ontological priority of the first primary substances that is a particular thing can be discovered.

2. Being with reference to potentiality and actuality

In *Metaphysics* Θ.10 Aristotle states that being can be articulated with reference to potentiality and actuality, and discussed composites that may change over time. Here it is relevant to note that Aristotle also applies the term of potentiality and actuality to the topic of motion. Apart from the familiar explanations of motion with reference to the four causes—material, formal, efficient and final causes—Aristotle also introduces several new terms—such as potentiality and actuality—to investigate motion in virtue of an analogy between matter and potentiality,²¹⁹ and form and actuality respectively.

2.1 Motion in terms of potentiality and actuality in *Physics*

²¹⁴ Lear, 1988, 24-25.

²¹⁵ Witt, 1989, 43.

²¹⁶ Some scholars hold that the particular object as the primary substantial being highlights how Aristotle is philosophically committed to the idea that the primary being or primary substance or particular objects are most real, as opposed to the other possible candidates that we can think of. See, for example, Boongaling, 2019, 130.

²¹⁷ Mann, 2020.

²¹⁸ Mann, 2020, 4.

²¹⁹ *Met.* H.6, 1045a20-1045a32.

T47: To begin then, as we said, with motion. Some things are in fulfillment only, others in potentiality and in fulfillment— one being a ‘this’, another so much, another such and such, and similarly for the other categories of being. The term ‘relative’ is applied sometimes with reference to excess and defect, sometimes to agent and patient, and generally to what can move and what can be moved. For what can cause movement is relative to what can be moved, and vice versa. (*Phys.* III. 1, 200b25-200b32)

T48: Hence there are as many types of motion or change as there are of being. We have distinguished in respect of each class between what is in fulfillment and what is potentially; thus the fulfillment of what is potentially, as such, is motion. (*Phys.* III.1, 201a8-201a12)

As we can see from these passages, when referring to motions, beings have been divided into two kinds with potentiality and actuality. The first is only in fulfillment, while the second one is in potentiality and in fulfillment in different times. In the case of that which can move and that which can be moved are relatives. Aristotle defines motion as the fulfillment of what is potentially. The relation between mover and moved is defined in terms of potentiality and actuality.²²⁰ Motion is what happens when an object makes the transition from being potentially in a certain state to being actually in that state. Besides, Aristotle further explains his formulation by introducing some characteristics of motion in terms of potentiality and actuality.

T49: Hence motion is the fulfillment (*entelecheia*) of the movable as movable, the cause being in contact with what can move, so that the mover is also acted on. The mover will always transmit a form, either a ‘this’ or such or so much, which, when it moves, will be the principle and cause of the motion, e.g. the actual man begets man from what is potentially man.

The solution of the difficulty is plain: motion is in the movable. It is the fulfillment of this potentiality by the action of that which has the power of causing motion; and the actuality of that which has the power of causing motion is not other than the actuality of the movable; for it must be the fulfillment of both. A thing is capable of causing motion because it can do this, it is a mover because it actually does it. But it is on the movable that it is capable of acting. Hence there is a single actuality of both alike, just as one to two and two to one are the same interval, and the steep ascent and the steep descent are one—for these are one and the same, although their definitions are not one. So it is with the mover and the moved. (*Phys.* III.2-3, 202a7-202a20)

Aristotle describes motion as fulfillment in which the mover and the moved are complementary. The mover is capable of acting on the potentially moved, while the potentially moved is capable of this being acted on. Given the structure of motion, potentiality and actuality have been regarded as agent and patient to analyze motions.²²¹ Moreover, the principle or cause of motion is a form, and the mover is the provider of this form. Aristotle offers the example of the generation of a human being to support this argument.

²²⁰ For more detailed interpretations see, for example, Kosman, 1969, 140-162; Graham, 1988, 209-215.

²²¹ Lear, 1988, 61. For a thorough discussion of this passage see Coope, 2005, 201-21.

Aristotle notices a difficulty of this topic, in that there are different definitions for the same actuality embodied in the same motion from different perspectives. Since both the potentiality of the mover and the potentiality of the moved are actualized by means of a single motion, the motion can be conceived as the fulfillment of each of the two possibilities at the same time. Moreover, if we consider that potentiality and actuality are relative terms, then they affect one another reciprocally. In this regard, the relationship between potentiality and actualization is interdependence. This means that this motion cannot be understood simply in terms of what is potential, since at that point the motion has not yet begun. It also cannot be understood simply in terms of what is actual, for that points either to the mover who is not yet moving, or to the actual motion that is taking place as a result,²²² which always exists in the moved.

Apart from the investigation of potentiality and actuality in the context of motion, we have already met potentiality and actuality with reference to being as a key point for Aristotle. The shift in the investigations in terms of potentiality and actuality that is from ‘motions of beings’ to ‘ways of being’ may give us some clues as to what is fundamental in this investigation of being with reference to potentiality and actuality.

2.2 The priority of actuality

Aristotle has also applied the terms potentiality and actuality to various modes of being in the *Metaphysics* Θ.10. Potentiality and actuality with reference to being can be considered more basic than the potentiality and actuality of motions.

As motion is merely an optional situation of being, this can be distinguished from potentiality and actuality:

T50: We have treated of that which is primarily and to which all the other categories of being are referred—i.e. of substance. For it is in virtue of the formula of substance that the others are said to be quantity and quality and the like; for all will be found to contain the formula of substance, as we said in the first part of our work. And since ‘being’ is in one way divided into ‘what’, quality, and quantity, and is in another way distinguished in respect of potentiality and fulfillment, and of function, let us discuss potentiality and fulfillment. First let us explain potentiality in the strictest sense, which is, however, not the most useful for our present purpose. For potentiality and actuality extend further than the mere sphere of motion. But when we have spoken of this first kind, we shall in our discussions of actuality explain the other kinds of potentiality. (*Met.* Θ.1, 1045b28-1046a4)

Here, it is clear that—apart from the previous analysis of being through substances, quality, and quantity—Aristotle introduces another way to distinguish being in respect to potentiality and actuality. Notably, he underlines that potentiality and actuality are extended further than the scope of motion – and what is more, when we speak of potentiality in the strictest sense, it is in the discussion of actuality. Therefore, we can use this discussion of actuality to explain the other kinds of potentiality. It is also worthwhile to recognize that there is a connection

²²² *Phys.* III.1, 201b5–201b13, 201b18–201b35.

between the investigation of being with reference to categories and the investigation of being with potentiality and actuality.

Aristotle specifies the concrete content of potentiality and actuality as being separately:

T51: We have pointed out elsewhere that ‘potentiality’ and the word ‘can’ have several senses. [...] But all potentialities that conform to the same type are starting points, and are called potentialities in reference to one primary kind, which is a starting-point of change in another thing or in the thing itself qua other. For one kind is a potentiality for being acted on, i.e. the principle in the very thing acted on, which makes it capable of being changed and acted on by another thing or by itself regarded as other; and another kind is a state of insusceptibility to change for the worse and to destruction by another thing or by the thing itself qua other, i.e. by a principle of change. In all these definitions is contained the formula of potentiality in the primary sense.—And again these so-called potentialities are potentialities either of acting merely or of being acted on, or of acting or being acted on well, so that even in the formulae of the latter the formulae of the prior kinds of potentiality are somehow contained. (*Met.* Θ.1, 1046a5-1046a6; 1046a9-1046a18)

T52: Every potentiality is at one and the same time a potentiality for the opposite; for, while that which is not capable of being present in a subject cannot be present, everything that is capable of being may possibly not be actual. That, then, which is capable of being may either be or not be; the same thing, then, is capable both of being and of not being. (*Met.* Θ.8, 1050b9-1050b13)

Here, Aristotle points out that the concept of potentiality can be explained more than one way. However, the common point among these explanations is that it is necessary for potentiality to refer to a primary kind – and this primary kind is understood to be a starting-point of the changes in things. Moreover, Aristotle underlines the basic formula of potentiality in the primary sense in which potentiality is both capable of being and of not being.

Aristotle further argues for what is actuality, when actuality is considered as being:

T53: Actuality means the existence of the thing, not in the way which we express by ‘potentially’; we say that potentially, for instance, a statue of Hermes is in the block of wood and the half-line is in the whole, because it might be separated out, and even the man who is not studying we call a man of science, if he is capable of studying. [...] But all things are not said in the same sense to exist actually, but only by analogy—as A is in B or to B, C is in D or to D; for some are as movement to potentiality, and the others as substance to some sort of matter. (*Met.* Θ.6, 1048a31-1048a35; 1048b6-1048b9)

As for how to define actuality, Aristotle argues that actuality means the existence of a thing. Differing from the potentially existent, actuality means that something must actually exist in relation to some sort of matter.

Except for these specific statements of potentiality and actuality, Aristotle further explores their contents by researching their relationship through investigations on differences in their priority.²²³

²²³ A specific discussion about the priority of actuality over potentiality can be observed in various papers. For instance, in

T54: We have distinguished the various senses of ‘prior’, and it is clear that actuality is prior to potentiality. And I mean by potentiality not only that definite kind which is said to be a principle of change in another thing or in the thing itself regarded as other, but in general every principle of movement or of rest. For nature also is in the same genus as potentiality; for it is a principle of movement— not, however, in something else but in the thing itself qua itself. To all such potentiality, then, actuality is prior both in formula and in substance; and in time it is prior in one sense, and in another not. (*Met.* Θ.8, 1049b4-1049b12)

Here, various kinds of priority have been introduced by Aristotle.²²⁴ Aristotle explicitly argues that actuality is prior to potentiality, and further distinguishes three kinds of priority in the relationship between actuality and potentiality. Specifically, Aristotle argues that actually being X is prior to potentially being X in definition or formula²²⁵, in time²²⁶ and in substance. Aristotle further specifies these priorities separately:

T55: Clearly it is prior in formula; for that which is in the primary sense potential is potential because it is possible for it to become actual, e.g. I mean by ‘capable of building’ that which can build, and by ‘capable of seeing’ that which can see, and by ‘visible’ that which can be seen. (*Met.* Θ.8, 1049b13-1049b15)

T56: In time it is prior in this sense: the actual member of a species is prior to the potential member of the same species, though the individual is potential before it is actual. I mean that the matter and the seed and that which is capable of seeing, which are potentially a man and corn and seeing, but not yet actually so, are prior in time to this particular man who now exists actually, and to the corn and to the seeing subject; but they are posterior in time to other actually existing things, from which they were produced. For from the potential the actual is always produced by an actual thing, e.g. man by man, musician by musician; there is always a first mover, and the mover already exists actually. (*Met.* Θ.8, 1049b17-1049b27)

T57: But it is also prior in substance; firstly, because the things that are posterior in becoming are prior in form and in substance, e.g. man is prior to boy and human being to seed; for the one already has its form, and the other has not. Secondly, because everything that comes to be moves towards a principle, i.e. an end. For that for the sake of which a thing is, is its principle, and the becoming is for the sake of the end; and the actuality is the end, and it is for the sake of this that the potentiality is acquired. [...] Further, matter exists in a potential state, just because it may attain to its form; and when it exists actually, then it is in its form. (*Met.* Θ.8, 1050a4-1050a10; 1050a15-1050a16)

More than one point can be gleaned from these three kinds of priorities. First, actuality is prior in definition or formula to potentiality and determines the definition of potentiality. The definition of potentiality includes mention of its corresponding actuality, not vice versa.

order to defend the priority of actuality over potentiality, Senteny has introduced three kinds of analysis about the priority of actuality, including the Structure argument, the Etymological argument, and the Location argument. (Senteny, 2019, 69-70.)

²²⁴ For this large topic see e.g. Frede, 1994, 173-93; Witt, 2003; Anagnostopoulos, 2011, 388-425.

²²⁵ Peramatzis, 2011.

²²⁶ *Met.* Θ.8, 1049b10-11.

Second, priority in time is fairly straightforward – which is temporal priority. However, this temporal priority of actuality is limited to the species, rather than a concrete individual. For from the potential, the actual is always produced by an actual thing – e.g., man by man, musician by musician. There is always a first mover, and the mover already exists actually.

Finally, priority in substance is explained by means of a form, a principle, or an end. Actuality is the end for the sake of which the potentiality is acquired. For that for the sake of which a thing is, is its principle, and the becoming is for the sake of the end – the actuality is the end, and it is for the sake of this that the potentiality is acquired. Due to this, it can be inferred that potentiality is defined in terms of teleology, by reference to the actualization which is its end. That is a reason why someone may further reduce these ontological dependencies of potentiality on actuality ultimately to the teleological relationship between potentiality and actuality. In this regard, being in motion can be viewed as a transformation from potentiality to actualization by means of the teleological relationship within them.

Among these various priorities of actuality over potentiality, the priority of actuality in substance is the focus point of our project here. In *Metaphysics* Δ.11, 1019a1–1019a4, Aristotle explicates priority in nature or in substance in terms of asymmetric ontological independence.²²⁷ Elsewhere he further provides similar formulations for what he labels ‘priority in being.’²²⁸ This ontological priority of actuality refers to the existential dependence of being potentially on being actually. In this regard, the priority of actuality in substance or being shall be formulated as “A is ontologically prior to B just in case A can be without B but B cannot be without A.”

In what follows, I shall use the term ‘ontological priority’ to characterize this notion of priority in substance or in being.²²⁹ Meanwhile, the notion of ontological priority plays a significant role as a criterion for primary substance-hood in the *Metaphysics*. Importantly, based on the priority of actualization in substance, being in terms of the categories and being in terms of potentiality and actuality have been linked together and intersect at this point in which the fundamentals are identified with the ontological priority. Since the primary substance also has a priority position over other categories, the primary substance enjoys ontological priority. Meanwhile, ways of being have been discussed with reference to the potentiality or actuality primarily in *Metaphysics* in which terms of potentiality and actualization have been further conceived as certain modes of being.

2.3 Eternal beings and perishable things

Based on these three kinds of priority of actuality over potentiality, especially priority in substance or being, Aristotle introduces eternal being and perishable things as related in terms of potentiality and actuality. In this case, actuality and potentiality are both regarded as ways of being:

²²⁷ The symmetrical relationship of ontological dependence has been discussed by Katz, 2017, 34-35, 38.

²²⁸ *Met.* Z.10, 1034b30–1034b32, M.13, 1077b2–1077b3.

²²⁹ Peramatzis, 2011, 205.

T58: Obviously, therefore, the substance or form is actuality. From this argument it is obvious that actuality is prior in substance to potentiality; and as we have said, one actuality always precedes another in time right back to the actuality of the eternal prime mover. But actuality is prior in a higher sense also; for eternal things are prior in substance to perishable things, and no eternal thing exists potentially. (*Met.* Θ.8, 1050b2-1050b8)

According to T58, the interdependence of actuality and potentiality is embodied by the eternal prime mover and perishable things that can be expressed by actualization and potentiality at the same time. It is clear that the argument in Θ.8 is concerned with a chain of causal dependence from the first substance and form, the unmoved mover, through eternal substances which lack potentiality (except for motion in a circle) down to perishable things. Priority in being thus follows from priority in actuality. Moreover, Aristotle continues to study the relationship between these two kinds of being:

T59: The reason is this. Every potentiality is at one and the same time a potentiality for the opposite; for, while that which is not capable of being present in a subject cannot be present, everything that is capable of being may possibly not be actual. That, then, which is capable of being may either be or not be; the same thing, then, is capable both of being and of not being. And that which is capable of not being may possibly not be; and that which may possibly not be is perishable, either without qualification, or in the precise sense in which it is said that it possibly may not be, i.e. either in respect of place or quantity or quality; ‘without qualification’ means ‘in substance’. Nothing, then, which is without qualification imperishable is without qualification potentially (though there is nothing to prevent its being potentially in some respect, e.g. potentially of a certain quality or in a certain place); imperishable things, then, exist actually. Nor can anything which is of necessity be potential; yet these things are primary; for if these did not exist, nothing would exist. (*Met.* Θ.8, 1050b8-1050b20)

From T59 the broad outline of Aristotle’s argument at 1050b8-20, on this reading, is as follows: (1) perishable things have potentiality for opposites, but eternal things have actuality. (2) Eternal, actual, and necessary things are prior to perishable things, because without the former the latter would not be. This is ontological priority. Therefore (3) things whose nature is actuality are prior to things whose nature involves potentiality. So (4) actuality is prior to potentiality.

Thus, we learn that the actualization of perishable modes of being has reference to actualization of eternal modes of being – since Aristotle attributes the ontological priority to eternal beings in relation to the imitation of the eternal beings by perishable moving beings.²³⁰

The ontological priority of eternal beings is able to account for the independent existence of eternal beings without potentiality. Aristotle explains that the existence of an eternal being is independent of the existence of perishable things, by arguing that eternal beings are always in actualization. In this case, his argument identifies eternal beings with actualization of being ultimately to point to a connection between potentiality and accident. As John M. Rist states

²³⁰ *Met.* Θ.8, 1050b6-1050b28.

“[t]he primary and authoritative example of a substance turns out to be the prime mover which is also the only being entirely in act without potentiality.”²³¹ and: “[t]he existence of the prime mover is the necessary conclusion of arguments about the eternity of motion. Although we cannot reach the prime mover by a mental process or processes based on direct sense perception, since it does not offer itself as a sense object, we can affirm its existence as a result of an understanding which is itself based on empirical evidence. There is every sign of its existence and the world is unintelligible without it. Since there is every reason to discover intelligibility in the world, the Prime Mover must be there as a first principle.”²³²

Charlotte Witt draws attention to the fact that actualities as ways of being are the goal of potentialities as ways of being. Since for something to exist potentially, it is also for it to exist for the sake of existing actually or actively. For instance, the ability to see exists for the sake of seeing. In this case, potentiality is a way of being, and not simply a causal power, even though causal powers, when inert, exist potentially in relation to their way of being when active.²³³ Therefore, Aristotle's distinction between being potentially X and being actually X applies to causal powers themselves, which exist potentially when they are inactive, and which exist actually when they are active. What is more, due to the reason that actuality is the end of potentiality, potentiality should be defined by its own actuality.

Going further, Charlotte Witt argues that Aristotle has established his theory of actuality and potentiality as ways of being on the priority of activity or actuality, in relation to potentiality. She states that “The priority of activity or actuality, and the threefold dependency of potentiality on activity or actuality, is the linchpin of Aristotle's hierarchical organization of being, which is crowned by the unmoved mover, a being of pure activity. Aristotle's hierarchy of being in *Metaphysics* IX is not primarily a hierarchy of kinds of beings, it is a hierarchy of ways of being. That is, although Aristotle's claim that actuality is prior to potentiality mentions different kinds of beings (e.g., eternal and perishable substances), his priority argument turns on the way of being that each exemplifies.”²³⁴

In sum, since Aristotle's value hierarchy rests on the hierarchy of ways of being erected upon the priority of actuality, it cannot be properly understood independently of the distinction between potential and actual being.²³⁵ In this case, potentialities and actualization are not only relative terms to describe motions, but are also regarded as certain ways of being. More importantly, the investigation of being with reference to categories and the investigation of being with reference to potentiality and actuality intersects with the primary substances as a particular thing as an actualization of being.

3. The hierarchy of being in terms of truth

We have seen in earlier chapters that truth in being is prior to truth in thought and statements. Truth truth also exhibits the type of 'focal meaning' hierarchy that Aristotle suggests for being

²³¹ Rist, 1989, 104. 279-280.

²³² Rist, 1989, 104. 279-280.

²³³ Witt, 2003, 11.

²³⁴ Witt, 2003, 8.

²³⁵ Witt, 2003, 5.

in general in this chapter.

The top of the hierarchy of truth, according to Aristotle, is the unmoved mover: a God which is the highest substance and independent pure actuality, and serves as the final cause of all other things in this world. Aristotle argues that:

T60: Substance is the subject of our inquiry; for the principles and the causes we are seeking are those of substances. (*Met.* Λ.1, 1069a29-1069a30)

T61: Further, even if it acts, this will not be enough, if its substance is potentiality; for there will not be eternal movement; for that which is potentially may possibly not be. There must, then, be such a principle, whose very substance is actuality. Further, then, these substances must be without matter; for they must be eternal, at least if anything else is eternal. Therefore they must be actuality. (*Met.* Λ.6, 1071b28-1071b30)

The inquiry of first philosophy concerns the principles and causes of substance. Aristotle argues that the eternal movement of the eternal heavenly bodies requires a principle that is always in actuality. God as the eternal being must always be in the same state and without any changes to be the final cause of the other things in the world.

T62: That that for the sake of which is found among the unmovables is shown by making a distinction; for that for the sake of which is both that for which and that towards which, and of these the one is unmovable and the other is not. [...] But since there is something which moves while itself unmoved, existing actually, this can in no way be otherwise than as it is. [...] The first mover, then, of necessity exists; and in so far as it is necessary, it is good, and in this sense a first principle. [...] It is clear then from what has been said that there is a substance which is eternal and unmovable and separate from sensible things. (*Met.* Λ.7, 1072b13-1072b15; 1072b20-1072b21; 1072b23-1072b24; 1073a13-1073a14)

T63: In general, it is absurd to make the fact that the things of this earth are observed to change and never to remain in the same state, the basis of our judgement about the truth. For in pursuing the truth one must start from the things that are always in the same state and suffer no change. (*Met.* K.6, 1063a17-1063a20)

Based on these passages, it is evident that the starting-point of the pursuit of truth must be always true. Then, there is a similar pattern of causation linking all levels of truth, and as one instance of truth in things. Truth in things as what is always in actuality is the cause of truth in other things. Similarly, the unmoved first mover as the eternal being is always in the same state and suffers no changes it exists actually and functions as the final cause of other things in the world. And this eternal being is always what it is, which is an example of truth in things mentioned in chapter Two. Based on this line of causes and the hierarchy of truth investigated in chapter Three, a hierarchy of being has been established in this chapter in which certain modes of being can be instantiated as ontological truth, such as the eternal first mover that is always in actuality.

4. Conclusion

According to *Metaphysics* Θ.10, it is clear that categories, potentiality, and actuality—as well as truth and falsity—are three sets of manners of being. The division itself is reason not to identify being in the strictest sense as truth with any one of the other two sets. If truth and falsity identify a mode of being in the strictest sense, it is likely that the nature of ontological truth somehow underlies these hierarchies within the other modes of being. Since in *Metaphysics* Θ Aristotle does not further clarify ontological truth, we gathered clues of its nature from other applications in the Aristotelian corpus.

In the *Categories*, based on the fundamental position of primary substance, other categories must depend on the primary substance to exist. Thus, the primary substance is ontologically prior to other categories, so as to reveal a hierarchy between the first substances and other categories.

In the domain of being with reference to potentiality and actuality, Aristotle first applies the concepts of potentiality and actuality to the explanation of composites with motions. Also, Aristotle regards potentiality and actuality as ways of being, and uses them to indicate the hierarchy among eternal and perishable beings. Eternal beings are always actual, therefore eternal beings are ontologically prior to perishable things. From the ontological priority of actuality, the ontological priority of beings follows. In this case, a hierarchy of beings has been established by Aristotle, one of which is primary, i.e. an individual substance, form, and actuality.

Correspondingly, we are getting a hierarchy of being in terms of truth, in the structure of *Metaphysics* Θ.10. The primary substance, which has no contrary, and the eternal beings which are always in actuality are concrete examples of being in the strictest sense as truth, which is fundamental to, higher than, and prior to the other categories of being, or actuality and potentiality. Ontological truth, then, is what is found in simple things and the actualization of composites, due to a cause, which is an essence, and an actuality.

Based on our investigations on the hierarchy of truth and the hierarchy of being, we have now arrived at a point where the principle on non-contradiction should be considered more closely. For it seems that this pattern of causation linking all levels of truth, is in some sense generated by the principle of non-contradiction. This will be pursued at two levels, firstly, ontological truth in definitions of essences in *Metaphysics* Θ, which will be the object of immediate premises functioning as the first principle of demonstrations. In this sense the truth of conclusions of demonstrations depends on essences that always are what they are and never undergo any changes. The indemonstrable axioms, in their turn, act as the starting-point of all other principles. Primary among them is the principle of non-contradiction which is capable of ensuring truth of everything worthy of the name. The question that remains is then: is the principle of non-contradiction a being itself, or not—is it rather the most fundamental feature of all being as such and therefore a proper subject of metaphysics as the science of being qua being, as Aristotle has claimed in *Metaphysics* Γ. 3 and K.5. This is why I am going to proceed by investigating demonstrations and the principle of non-contradiction in the following chapters.

Chapter Five

Essences in Demonstrations

The starting point of my argument was to analyse ‘being in the strictest sense as truth’ as truth in incomposites and truth in composites. Given the hierarchy of truth and being observed in chapters Three and Four, the aim of this chapter is to show the connection between demonstrations and essences as truth of incomposites in *Metaphysics* Θ.10, which always remains the same and true. Thus being as truth applies to them in such a way that they are always what they are in actuality (1051b30-31); we can only touch, or express them; there is no falsity in them.

Given the character of essences as truth in incomposites, which are always true and in actuality, the definition as an account of the essence can function as the indemonstrable first principle of demonstrations. The connection between truth of essences and truth of demonstrations will be discussed in chapter Five. This feature of essences being truth make them admirably suitable to function as the first principles in demonstrations, as we shall now proceed to explore. We shall see that essences, or their expression in language, i.e., definitions, serve to ground the truth of the premises, and thereby the truth of the conclusions of demonstrations.

In her study of Aristotelian definitions, Deslaurier has distinguished four kinds of definition.²³⁶ The so-called nominal definition (the statement of what a term means) serves as the primary step towards the identification of two further types of definition that exhibit a cause, and thereby offer an explanation, to wit an immediate definition or a syllogistic definition. The syllogistic definitions provide a cause which is different from, or external to, that of which it is the definition. Immediate definitions provide a cause which is itself part of that of which it is the definition, i.e. part of the unity that is the essence.

As we shall see, Aristotle gives priority to immediate definitions. In the *Metaphysics* Aristotle claims that the immediate definitions are causal definitions for the essences of simple things. Thus, immediate definitions can function as the indemonstrable first principles. Because of this essential link, immediate definitions provide the necessity required from the first principles of demonstrations.

Ultimately, the foundation of truth of a demonstration expressed as a truth of a conclusion is based on the immediate definitions, which is what is always true by revealing essences that are always in actuality. What is more, essences have been identified as an example of truth in simple things introduced in *Metaphysics* Θ.10 (see chapter Two). In order to analyse connections between essences and demonstrations, one has to show how the truth of conclusions of demonstrations shall be ultimately guaranteed by the immediate definitions as the first principles – and the immediate definitions are accounts of essences that are simple

²³⁶ Deslauriers, 2007, 44.

things mentioned in *Metaphysics* Θ.10. In the end, the certainty of demonstrations shall also be considered as the basis for achievements of knowledge as the highest actualization of potentiality of human beings.

1. The structure of demonstrations

For Aristotle, a demonstration is a syllogism in which the premises contain the explanation of the fact stated in the conclusion; every syllogism with this feature is a demonstration. In order to answer the question of what guarantees the truth of demonstrations we need to clarify what a demonstration is according to Aristotle.

T64: By demonstration I mean a scientific deduction; and by scientific I mean one in virtue of which, by having it, we understand something. If, then, understanding is as we posited, it is necessary for demonstrative understanding in particular to depend on things which are true and primitive and immediate and more familiar than and prior to and explanatory of the conclusion (for in this way the principles will also be appropriate to what is being proved). For there will be deduction even without these conditions, but there will not be demonstration; for it will not produce understanding. (*A. Pst.* I.2, 70b18-70b24)

Aristotle introduces demonstrations by means of deductions,²³⁷ which is a main topic in the *Prior* and *Posterior Analytics* and the *Topics*.²³⁸ If demonstrations exist, there are things which are premises of demonstrations that are true, primary, and immediate, and also more intelligible than, prior to, and grounds for the conclusions. Without these demonstrations will not exist.

Here, we are getting a list of characteristics of things that can serve as the starting-point of demonstrations: they are true, primary, immediate, better known than, prior to, and grounds of the conclusion. It is clear why the premises of a demonstration must be true – since they must be known, and it is impossible to know something that is not true.²³⁹ More than that, the premises of a demonstration must be primitive and immediate in the sense of being indemonstrable.²⁴⁰

Aristotle explains that things can be said to be more familiar and prior in two senses: 1) that things are more familiar and prior in relation to us when they are closer to perception; and 2) that they are more familiar and prior absolutely or by nature when they are further from perception. In this regard, the premises of demonstrations must by their nature be more familiar than and prior to the conclusion because of these requirements – for example, that the premises of demonstration must be causes of the conclusion.²⁴¹ To know scientifically is to

²³⁷ *Top.* I.1, 100a25-101a4. *A.pr.* I.4, 25b30. *A.Pst.* I.2, 71b18

²³⁸ In point of fact, that definition is more restrictive than Aristotle intends. He will allow that a deduction is a demonstration even in cases in which its premises are not—or not all—principles. The point is made most clearly in: the *Top.* I.1, 100a27-100a9, 100b18-100b21, 100b26-100b27; *A.Pst.* I.10, 76b10; *Rhet.* I, 1357a7

²³⁹ *A.Pst.* I.2, 71b25-71b26.

²⁴⁰ *A.Pst.* I.2, 71b25-71b29.

²⁴¹ *A.Pst.* I.2, 71b31-71b32

know by means of the cause, and causes are by nature prior to, and more familiar than their effects.²⁴²

The premises and the conclusion of a demonstration must be necessary. With reference to affirmations or negations, this structure can be further expressed as “A belongs (not) to C because of B.” Similarly, a structure of demonstration could be expressed as “A belongs to B, B belongs to C, and therefore, A belongs to C.” After introducing the basic structure of demonstrations in a general sense, the next topic should be to discuss in detail the corresponding parts of the whole structure of demonstrations so that to know their implications on the connection between essences and demonstrations.

2. Immediate definitions as the indemonstrable first principles of demonstrations

Since we learnt from T66 that our demonstrative understanding should depend on things that are true and primitive and immediate and more familiar than and prior to and explanatory of the conclusion, what we need to do is identify these things. Aristotle introduces definitions to account for what a thing is by means of setting up a list of types of definition in the *Posterior Analytics* II 10 so as to pick up one kind of definition that is always true, primitive and immediate to function as the indemonstrable first principles of demonstrations.

T65: Since a definition is said to be an account of what a thing is, it is evident that one type will be an account of what the name, or a different name-like account, signifies—e.g. what triangle signifies. And when we grasp that this is, we seek why it is; but it is difficult to grasp in this way why a thing is if we do not know that it is. The explanation of the difficulty has been stated already—that we do not even know whether it is or not, except accidentally. (An account is a unity in two ways—either by connection, like the *Iliad*, or by making one thing clear of one thing non-accidentally.) Thus one definition of definition is the one stated. (*A. Pst.* II.10, 93b29-93b38)

T66: Another definition is an account which makes clear why a thing is. Hence the former type of definition signifies but does not prove, whereas the latter evidently will be a sort of demonstration of what a thing is, differing in position from the demonstration. For there is a difference between saying why it thunders and what thunder is; for in the one case you will say: Because the fire is extinguished in the clouds. What is thunder?—A noise of fire being extinguished in the clouds. Hence the same account is put in a different way, and in this way it is a continuous demonstration, in this way a definition. Again, a definition of thunder is noise in the clouds; and this is a conclusion of the demonstration of what it is. The definition of immediates is an indemonstrable positing of what they are. One definition, therefore, is an indemonstrable account of what a thing is; one is a deduction of what it is, differing in aspect from the demonstration. (*A. Pst.* II.10, 93b38-94a12)

T67: A third is a conclusion of the demonstration of what it is. So it is evident from what has been said, both in what way there is a demonstration of what a thing is, and in what way there is not; and in what cases there is and in what cases there is not; and again in how many ways something is called a definition,

²⁴² Bellucci, 2018, 410-428.

and in what way it proves what a thing is and in what way it does not, and in what cases it does and in what cases it does not; and again how it is related to demonstration and in what way it is possible for them to be of the same thing and in what way it is not possible. (*A. Pst.* II.10, 94a12-94a19)

These passages show that the list of types of definition includes 1) an account of what a word or some other account in words signifies (nominal definition), 2) an account in the form of a demonstration, which differs from definition only in “aspect”, i.e. in the arrangement of its parts, and which makes clear why a thing is; Deslauriers calls this ‘syllogistic definition’, 3) the conclusion of such a demonstration, and 4) an indemonstrable account of what a thing is, which has been coined ‘immediate definition’ by Deslauriers.²⁴³ As we can see from this list, only certain items will have definitions that can be displayed in demonstrations, while others will be strictly indemonstrable, and hence suitable for the role of the first premises of demonstrations.

The first sentence of T65 implies that a nominal definition, simply in virtue of being a kind of definition, will be some account of what a thing is. T65 indicates that the nominal definitions do not assume or state that the object of definition exists, but that nominal definitions do nonetheless give us some knowledge of the existence of that object. As Deslauriers remarks that this view is important because it explains the purpose of nominal definitions relative to the syllogistic definition and immediate definitions. Both syllogistic definition and immediate definition are capable of providing knowledge adequate for identifying instances of the object of definition.²⁴⁴

In a word, we can use a nominal definition to say something of what a thing is, and a nominal definition is somehow involved in establishing that the object of definition exists. Although the nominal definition is not a complete definition, the nominal definitions may mention something of what the thing is, and this will be a non-accidental feature of that thing.

Then, Aristotle goes on to say that once we grasp that, for example, there are triangles, we go on to ask why. One can know what “triangle” means without knowing that it exists, and in using “triangle” as the example of an object of nominal definition in T65, Aristotle suggests precisely that knowing that something exists is not a requirement for having a nominal definition. This shows that having a nominal definition and grasping that the item it defines exists, are somehow connected.²⁴⁵

Considering the basic ability of nominal definitions, that is the first step we have when we begin to know, it is obvious that the nominal definitions is preliminary not only to the syllogistic definitions, but also to the immediate definitions. Since, to grasp that the object of definition exists and to pick out instances of that object is the first step to knowing the reason or cause of what it is. Then, once we can pick out instances of the object in question, we can determine the complete definition of that object, whether syllogistic or immediate.²⁴⁶

²⁴³ Deslauriers, 2007, 44.

²⁴⁴ Deslauriers, 2007, 70.

²⁴⁵ Demoss and Devereux, 1988, 134.

²⁴⁶ Deslauriers, 2007, 75.

T66 shows that the immediate definition is an indemonstrable account of what a thing is. Thus, the immediate definitions constitute the type of definition that we are seeking as the first principles of demonstrations, since there is no middle term that can demonstrate the connection between subject and predicate or substance and attribute.

3. Syllogistic definitions as a conclusion of a demonstration

Besides the nominal definitions and the immediate definitions, T67 introduces the third kind of definition which Deslauriers has coined the syllogistic definition, which serves as a conclusion of a demonstration. The syllogistic definitions are able to account for an item that involves a connection between two things, rather than for simple items, and they include a cause that is distinct in a special sense from that what is defined, as well as they are displayed in demonstrations rather than in propositions or phrases. By contrast, the immediate definitions account for simple items in that they do not have something else as their causes, but causes which are not distinct from themselves. That is the reason why the syllogistic definition as a conclusion of demonstration needs the help of the middle terms.

T68: Since, as we said, to know what something is and to know the explanation of the fact that it is are the same—the argument for this is that there is some explanation, and this is either the same thing or something else, and if it is something else it is either demonstrable or non-demonstrable—if, then, it is something else and it is possible to demonstrate it, it is necessary for the explanation to be a middle term and to be proved in the first figure; for what is being proved is both universal and affirmative. (*A. Pst.* II.8, 93a3-93a9)

In this passage, Aristotle offers an argument for his claim in the first part of the sentence that it is the same to know what something is and to know the explanation or cause of that it is. This argument is that there is some explanation or cause for both, and that it is either the same or other. If it is other, it is either demonstrable or indemonstrable. In some cases the explanation or cause is something other than what the thing itself is, and in other cases it is the same as what the thing itself is.

The distinction of the immediate definitions and the syllogistic definitions has been observed by Harari (2004) who suggests that this cognitive distinction derives from the distinction of ontological modes of being, which is the distinction between subjects and attributes. She concludes that the distinction between the modes of cognition appropriate for the attainment of the first principles and demonstrative knowledge are explained by means of the ontological distinction between entities whose cause is external and entities that include their cause within themselves.²⁴⁷

So, for the syllogistic definition as a conclusion of demonstration, we have to be concerned with the middle terms as the explanation or cause that is something other. Aristotle gives us several examples, including the examples of what is thunder and what is an eclipse, to show

²⁴⁷ Harari, 2004.

his view on the syllogistic definitions that has to be captured with the help of the middle terms in demonstrations.

T69: What is thunder? Extinction of fire in cloud. Why does it thunder? Because the fire in the cloud is extinguished. Cloud C, thunder A, extinction of fire B. Thus B belongs to C, the cloud (for the fire is extinguished in it); and A, noise, to this; and B is indeed an account of A, the first extreme. And if again there is another middle term for this, it will be from among the remaining accounts. (*A. Pst.* II.8, 93b8-93b14)

The example in this passage can be reconstructed as follows: a): A cloud has extinction of fire. b): Extinction of fire is thunder/noise in clouds. c): A cloud has thunder/noise in clouds.

Based on the T69, we can be able to read a syllogistic definition off the demonstration as a whole: thunder is a noise in the clouds caused by quenching of fire. This is the example of a syllogistic definition offered by Aristotle in T69. As we can see, the middle term is what brings about the conjunction expressed in the conclusion. The noise in the clouds is thunder only if it is brought about by the extinction of fire in clouds. Then, the middle term as the efficient cause is thus required as a part of the essence. This line of argument is very significant. It is precisely because in some cases we cannot say what the object of definition is without saying how it came to be that Aristotle thinks in some cases, we must state the efficient cause as well as the formal cause.²⁴⁸

Furthermore, a second example of syllogistic definition can be further observed in the following passage:

T70: So in cases in which we grasp something of what the thing is, let it be first like this:—eclipse A, moon C, screening by the earth B. So [to ask] whether it is eclipsed or not is to seek whether B is or not. And this is no different from seeking whether there is an account of it; and if this is, we say that that is too. (*A. Pst.* II.8, 93a29-93a32)

As Aristotle presents it, the demonstration that will display a definition of eclipse would look like this: a): All screening by the earth is eclipse. b): The moon is screened by the earth. c): The moon is eclipsed.

But this does not seem to be a demonstration that displays a definition of eclipse, nor does its conclusion seem to say something of what eclipse is. If, however, we replace “eclipse” with “privation of light”, which we seem to be entitled to do given the example at 93a23, then, we have the following demonstration: a): All that is screened by the earth is deprived of light. b): The moon is screened by the earth. c): The moon is deprived of light.²⁴⁹

The conclusion mentions something of what eclipse is, namely that is a certain deprivation of light, so it is a syllogistic definition. From the conclusion and the middle term we can

²⁴⁸ Deslauriers, 2007, 89-90.

²⁴⁹ *A.Pst.* II.8, 93a22-a24.

construct the syllogistic definition of eclipse, “a deprivation of light caused by screening by the earth.”

We now have sufficient evidence to conclude that the efficient cause acts as middle term in syllogistic definitions. Just as the examples that we have observed in T69 and T70, the examples of syllogistic definition in T70 involve the middle term that is the extinction of fire as the efficient cause. As Max Hocutt (1974) has remarked: “In the *Analytica Posteriora* Aristotle not only says everything he says in the *Physics*, and in greater detail, but he adds further important points. The most important new point in the *Analytica Posteriora* is a new definition of ‘cause’: a cause is the middle term of a syllogism.”²⁵⁰

When searching for a causal explanation in demonstrations, Aryeh Kosman (2014) implies that we also look for a description appropriate to a subject such that the subject under that description is *per se* the predicate in question. Aristotle terms such a description as the middle, which means that it is a description that links subject and predicate, providing the intelligible source of explanation and the real ground of the subject exhibiting the predicate.²⁵¹ In this case, what is revealed in a demonstration in Aristotle’s understanding is this very middle, the cause and nature of the phenomenon in question.

More precisely, Aristotle asserts that the middle term is the cause that relates the major to the minor term in the premises and thereby causally explains the truth of the syllogistic definition that is a conclusion of the syllogism. Aristotle discusses at length how the middle term in a syllogism is the cause of the truth of the conclusion. In order to promise the truth of conclusions, the middle terms serve in this mediating role to state why a conclusion holds from the first principles. The middle terms as causes of conclusions in demonstrations are necessarily true since the middle terms are efficient causes of conclusions. We can conclude that, for syllogistic definitions, the middle term is a necessary intermediate step for a demonstration from an indemonstrable principle to a conclusion. In this case, the process of searching for essences as causes of a certain phenomenon is a process of demonstration in virtue of the first principles, the middle terms, and the conclusions. We can learn that a conclusion is a result of the whole operation of demonstrations through the non-demonstrable principles and the middle terms as efficient causes.

Based on the indications above, it is clear that all four types of definition have some role to play in demonstrations: as premises (type [4] and some of type [1]), as a kind of demonstration (type [2]), and syllogistic definitions as conclusions of that kind of demonstration (type [3], which is identical with some of type [1]). So although no definition, strictly speaking, is demonstration, all the types of definition that Aristotle recognizes as legitimate are connected with demonstration.²⁵²

As the line of argument shows, the discussion of definitions starts with the nominal definitions that are closer to us. With the help of the nominal definitions, we can grasp the immediate definitions and the syllogistic definitions. Aristotle uses the thunder example to get to the real definition that is primary by nature and knowledge. In this process, the thunder

²⁵⁰ Hocutt, 1974, 388, 8.

²⁵¹ Kosman, 2014.

²⁵² Deslauriers, 2007, 80.

example also shows how a definition is used in the premises in which it is not simply a premise itself, but parts are used as terms in the syllogisms so that the premises become immediate, i.e. without need of a further middle to explain them. To grasp true definitions is the kind of contact mentioned in $\Theta.10$. Here we can see how the truth of a demonstration depends on the ontological truth of essences, thus confirming the hierarchy of being true on which chapter Four ended.

4. Objects of definitions

We now need to ask why these different definitions can perform their roles, and what is the ground of these various definitions. For Aristotle claims that the distinctions among definitions rest on his conviction that there are different kinds of causes or principles.

Reflecting on these four types of definition, the objects of definition can be divided into two types in term of explanations or causes that can be seen in T69 and T72.

T71: Of some things there is something else that is their explanation, of others there is not. Hence it is clear that in some cases what a thing is is immediate and a principle; and here one must suppose, or make apparent in some other way, both that they are and what they are (which the arithmetician does; for he supposes both what the unit is and that it is); but in those cases which have a middle term and for which something else is explanatory of their substance, one can, as we said, make them clear through a demonstration, but not by demonstrating what they are. (*A. Pst.* II.9, 93b22-93b28)

There are some points that we can learn from these passages. Firstly, as we said before, there is more than one kind of principle or cause, including a principle or cause which is something other than what the thing itself is, and in other cases a principle or cause which is the same as what the thing itself is. Secondly, in line with his view that the structure of a definition reflect the structure of the objects of the definition, Aristotle identifies the object of the immediate definitions as something simple that does not have an explanation or cause other than itself, and identifies the object of the syllogistic definitions as something complex which does have an explanation or cause other than itself. The object of the syllogistic definitions is something complex that has principles or causes in other things than itself; examples of this have been observed in T70 as what is thunder and what is eclipse in T71.

By contrast with the object of the syllogistic definitions, the object of the immediate definitions are simple things that are immediate, indemonstrable and always true. Since the immediate definitions account for simple things, they have causes not distinct from themselves, so they cannot be displayed in demonstrations.

In this sense, the distinction between the immediate definitions and the syllogistic definitions is a distinction between demonstrable and non-demonstrable terms.²⁵³ In order to make clear the particular function of the immediate definitions as the first principles that are indemonstrable, the term necessity has been introduced to specify the immediate definitions

²⁵³ Deslauriers, 2007, 64.

as the indemonstrable first principles of demonstrations. Firstly, what Aristotle means by “necessary” is to be found in the *Metaphysics*:

T72: That which cannot be otherwise is said to be necessary [...] Again, a demonstration is necessary in view of the fact that, if something has been demonstrated without qualification, it cannot be otherwise; and the causes of this are the first premises, if these, from which a syllogism proceeds, cannot be otherwise. Accordingly, of some things which are necessary, the cause is something distinct from them, but of other things there is no cause distinct from them, but because of them other things are necessary. Hence, the necessary in the primary and main sense is the simple, for this cannot be in many ways so as to be now in one way and now in another, but if the latter were the case it would have been in many ways. (*Met.* Δ.5, 1015a32; 1015b6-1015b14)

T73: Since it is impossible for that of which there is understanding simpliciter to be otherwise, what is understandable in virtue of demonstrative understanding will be necessary (it is demonstrative if we have it by having a demonstration). Demonstration, therefore, is deduction from what is necessary. We must therefore grasp on what things and what sort of things demonstrations depend. And first let us define what we mean ‘by holding of every case’ and what by ‘in itself’ and what by ‘universally’. (*A. Pst.* I.4, 73a21-73a27)

According to these passages, we can see that there is a question as to what demonstrations depend on, and the answer would be what is necessary that which cannot be otherwise. So, it is clear that something that cannot be otherwise should be necessary. And then Aristotle here explicitly connects the two senses of the necessary with two kinds of items: those that have a cause not distinct from themselves, and those that do. The first kind of necessary is the necessity of the first principles that have causes identified with themselves, for what belong to objects in themselves is necessary, while the second necessity is the necessary conclusion of a demonstration with causes distinct from itself. More importantly, as T73 shows, Aristotle’s claim is that the premises and the conclusion of demonstration are necessary, and the necessity of the conclusion is established by the necessity of the premises. In a word, the necessity of the first principles of demonstrations is the ultimate ground of the necessity of the conclusion of demonstrations. In this case, the necessity of the immediate definitions that are first principles is non-derived, while the necessity of conclusions is derived from the necessity of the first principles.

Moreover, both of these passages clearly specify that the necessary is the simple in the primary and main sense, and it is impossible to understand the simple things to be otherwise. As we discussed above in chapters Two and Four, the simple things are the object of the immediate definitions which are true, immediate, primitive and indemonstrable, so the simple things should be true, immediate, primitive and indemonstrable too.

Since simple things as the object of the immediate definitions are responsible for being indemonstrable, and being indemonstrable is part of the internal structure of immediate definitions, they are capable of serving as the first principles of demonstrations. Thus, the

necessity of the first principles should be identified with the necessity of the immediate definitions, and the necessity of the immediate definitions should be ultimately attributed to the necessity of simple things.

Given that immediate definitions are of what is simple, and are not concerned with a cause other than themselves,²⁵⁴ the object of the immediate definitions are the objects that do not have a cause other than themselves, which could be serve as evidence for the immediate definitions' being necessary in the primary sense, as simple. The immediate definitions as causal definitions for simple things in *Metaphysics* are the accounts of essences. So this necessity too is a function of causality, in that such definitions, for example, the first principles, are necessary because of the necessary relation between the attributes that is the cause of its object. What is more, the necessity in the primary sense as the simple corresponds to the simple things that Aristotle has classified and clarified as essences in *Metaphysics* Θ.10.

The necessity of the immediate definitions as first principle can only be the necessity that makes something what it is, since one cannot demonstrate what something is. In this case, this necessity is indemonstrable and non-derived. But, the absolute necessity of immediate definitions in one feature that allows such definitions to have the certainty required by the first principles, and the certainty that they are indemonstrable. Therefore, the necessity of the first principle is the necessity of the immediate definition, and the necessity of the object of immediate definition is the necessity of the simple things, which is essences of simple things. Our next task is to explain this necessity.

T74: Whatever, therefore, in the case of what is understandable simpliciter, is said to belong to things in themselves in the sense of inhering in the predicates or of being inhered in, holds both because of themselves and from necessity. (*A.Pst* .I.4, 73b16-73b18)

T75: Now if demonstrative understanding depends on necessary principles (for what one understands cannot be otherwise), and what belongs to the objects in themselves is necessary (for in the one case it belongs in what they are; and in the other they belong in what they are to what is predicated of them, one of which opposites necessarily belongs), it is evident that demonstrative deduction will depend on things of this sort; for everything belongs either in this way or accidentally, and what is accidental is not necessary. (*A. Pst*. I.6, 74b5-74b12)

The necessity of both immediate and syllogistic definitions is a function of essential predication. Whatever belongs to things in themselves is necessary as mentioned in T75. Aristotle argues that necessary first principle will be predications of essential attributes to some objects, and the syllogistic definitions will also be predications of essential attributes of their subjects.

Based on T74, Aristotle distinguishes two kinds of essential attributes, the predication of which of some subject constitutes necessary propositions, in the former case, this amounts to saying that these attributes are or are parts of the essence; in the latter, that that to which they

²⁵⁴ Deslauriers, 2007, 104.

belong is or is part of the essence of the attribute. In either case, the necessary predication is necessary because it is a predication of an essential attribute, and such an attribute stands in a particular causal relation to that of which it is predicated. Therefore, the particular causal relation will be either (i) the attribute is or is some part of the essence of the subject or (ii) the subject is or is some part of the essence of the attribute.²⁵⁵

Both sorts of attribute can be attributed to all members of the species to which they belong as such, and both sorts belong to their subjects “because of themselves”, because they follow immediately on the nature of the thing in question. As Deslauriers remarks that: “because these attributes belong ‘because of themselves’ to their subjects they are also necessary, since either a) they must belong to their subjects or their subjects would not be what they are (in the case of parts of the essence) or b) they occur whenever the essence occurs, and as a consequence of the essence.”²⁵⁶

In conclusion, causality and necessity in demonstrations are thus internally connected. There are reasons for this argument. Firstly, the first principles are necessary propositions because they predicate the essence of the subject. And secondly, the conclusions of demonstrations are necessary propositions because their predicates express an essential attribute of the subject that is not part of the essence of the subject but follows from that essence, and the subject, because it belongs to the definition of the predicate, is the cause or part of the cause of the predicate.²⁵⁷

5. Two kinds of knowledge²⁵⁸

Based on what we have acquired from the research above, the knowledge can be divided into the demonstrative knowledge based on demonstrations as well as the indemonstrable knowledge. Demonstrative knowledge is possible with regard to attributes since their dependent mode of existence entails their dependence on middle terms. Similarly, non-demonstrative knowledge is applicable to substances due to their ontological primacy, which manifests itself in the absence of external causes and hence of middle terms.

Orna Harari (2004) sets forth her own understanding of the relationship between knowledge and demonstrations. According to her interpretation, knowledge of the fact is attained by a verbal account that defines an attribute according to its perceptual characteristics, whereas knowledge of the reason why is attained by a definition that specifies conceptual characteristics. This latter type of definition is revealed indirectly through demonstrations: in demonstrations the attribute of the conclusion is subsumed under the middle term, which specifies its essence. Hence demonstrations are processes that mediate between two types of understanding, the perceptual and conceptual. In her view, a demonstration, like induction, involves a modification of content which results in a conceptualization. This is because an

²⁵⁵ Deslauriers, 2007, 105.

²⁵⁶ Deslauriers, 2007, 105.

²⁵⁷ Deslauriers, 2007, 108-109.

²⁵⁸ In *NE*. VI.3, 1139b15–1139b17, Aristotle lists philosophical wisdom among the five ways the psyche possesses truth by means of affirmation and denial: technical knowledge, demonstrative knowledge, practical wisdom, philosophical wisdom, and noetic comprehension. Each of these modes of cognition, according to Aristotle, essentially involves the psyche possessing truth by means of acts of assertion.

induction leads from sensation to an apprehension of the essence, while a demonstration leads from perceptual understanding to conceptual understanding.²⁵⁹

In this case, Aristotle's general attitude to knowledge is determined by his attempt to apply the same notion of knowledge to both substances and attributes. As he considers the knowledge of substances as an acquaintance with these essences that is attained by means of definitions, he conceives of demonstrative knowledge as an inquiry into the essence of a certain attribute. Such an inquiry is made through syllogistic inferences that explicate the content of attributes.²⁶⁰ Consequently, the theoretical foundation that links the various facets of Aristotle's theory of demonstrations is to be found in this notion of substances where he characterizes substance as an essence that can be defined.²⁶¹ This ontological theory implies a notion of knowledge that identifies it with a definition that specifies an essence. Aristotle's theory of demonstrations is thus motivated by the attempt to apply this notion of knowledge, which is appropriate to substances, to the objects of demonstrations, which are attributes.²⁶²

Besides demonstrable knowledge, the indemonstrable knowledge of immediate truth has been discussed by Breno Zuppolin (2020), who claims that a demonstration is an inference that allows us to determine the truth-value of problematic propositions from premises previously known to be truths. Ultimately, demonstrable propositions are deductively derived from immediate truths that have been grasped in advance and in some independent way.²⁶³ These demonstrable knowledge is an inference-based knowledge of evident truths.²⁶⁴ In other words, knowledge of the first principles of demonstrations is intuitive and non-inferential recognition of self-evident propositions, which is obtained independently of their explanatory connection to other propositions in the domain. In this case, it is clear that what determines the role of a given truth in a demonstrative science is not how accessible the evidence for it is to us, but how fundamental it is in the causal order of reality.²⁶⁵

Except for the first principles of demonstrations that are indemonstrable, axioms are indemonstrable too, such as the principle of non-contradiction. Referring to what Aristotle has claimed about the role of principles, demonstrations and axioms in *Metaphysics* Γ.3, we can learn some points about the role of them in the process of performing the task of philosophers, and the relations between principles, demonstrations and axioms.

T76: We must state whether it belongs to one or to different sciences to inquire into the truths which are in mathematics called axioms, and into substance. Evidently the inquiry into these also belongs to one science, and that the science of the philosopher; for these truths hold good for everything that is, and not for some special genus apart from others. And all men use them, for they are true of being qua being, and each genus has being. [...] —Evidently then the philosopher, who is studying the nature of all substance, must inquire also into the principles of deduction. But he who knows best about each genus must be able to state the

²⁵⁹ Harari, 2004, 120,145.

²⁶⁰ Harari, 2004, 145.

²⁶¹ Wheeler, 2019a, 21-22.

²⁶² Harari, 2004, 147.

²⁶³ Zuppolin, 2020, 30

²⁶⁴ Zuppolin, 2020, 31.

²⁶⁵ Zuppolin, 2020, 35.

most certain principles of his subject, so that he whose subject is being qua being must be able to state the most certain principles of all things. This is the philosopher, and the most certain principle of all is that regarding which it is impossible to be mistaken; for such a principle must be both the best known (for all men may be mistaken about things which they do not know), and non-hypothetical. For a principle which everyone must have who knows anything about being, is not a hypothesis; and that which everyone must know who knows anything, he must already have when he comes to a special study. Evidently then such a principle is the most certain of all; which principle this is, we proceed to say. It is, that the same attribute cannot at the same time belong and not belong to the same subject in the same respect; we must presuppose, in face of dialectical objections, any other qualifications which might be added. This, then, is the most certain of all principles, since it answers to the definition given above. (*Met.* Γ.3, 1005a19-1005a24; 1005b6-1005b22)

In order to finish the task of philosophers, which is to pursue truth, philosophers should be educated by sciences. The science of the philosophers includes the inquiry into the truths that are called axioms, principles and demonstrations. Specifically speaking, axioms are self-evident and non-hypothetical, and serve as the starting point of all principles. While, principles, including the principles of deduction, are defined as things that are primary, so a principle is a principle of something. In a demonstrative science, the first indemonstrable principles are the principles on which the demonstrations and demonstrated conclusions depend. What is more, philosophers should be able to state the most certain principle of all things that also must be indemonstrable. Aristotle suggests that what is most certain of all, best known and non-hypothetical is the principle of non-contradiction, which is the starting point of other axioms.

Scientific knowledge is the product of scientific demonstrations that start with the indemonstrable first principles. It is clear that, except for the demonstrative knowledge examined in this chapter, there is some other indemonstrable knowledge, including indemonstrable principles that we need to explore. More importantly, Aristotle clearly points out that there is an axiom that is indemonstrable and that is the most certain and absolute starting-point of other axioms. This indemonstrable axiom, i.e. the principle of non-contradiction, will be further investigated in the following chapter so as to show how these inquiries help philosophers to perform their task of the pursuit of truth.

6. Conclusion

As we can observe from the investigation above, the fundamental structure of demonstrations is able to contribute to the truth of demonstrations. In the first place, the structure of demonstrations entails the indemonstrable first principles that should be always true, intermediate middle terms, and necessary conclusions. And the indemonstrable first principles are fundamental starting-points for the process of demonstrations. Secondly, there are various kinds of definition related to demonstrations among which the immediate definitions are as the account of essences. Thus, immediate definitions are immediate, true and primitive, so they function as the indemonstrable first principles, which guarantee the necessity and the

certainty of demonstrations. What is more, the necessity of the conclusion of demonstration as the syllogistic definitions has been grounded on the necessity of the first principles.

Nevertheless, there are some differences between definitions and demonstrations. Aristotle introduces an important similarity that both of them have to include causes. The requirement that a definition should state the cause of the objects of definitions, is best fulfilled by immediate definitions. They can play a role as the first principles of demonstrations. A demonstration, then, is a deduction that entails the necessary truth of its conclusion and that makes known the grounds for its conclusion. In sum, the truth of demonstrations is completely grounded in essences.

Immediate definitions as accounts of essences function as the first indemonstrable principles of demonstrations. Moreover, the object of immediate definitions are the simple things that have causes in themselves, and have ontological priority over other sorts of objects. The absolute necessity of the first principles is accounted for by the fact that they cannot be otherwise. Thus, the essences that constituted truth in simple things come to be the ultimate ground of the necessity and the certainty of demonstrations. This reveals the connection between essences as an example of the truth in the incomposites mentioned in *Metaphysics* Θ.10 and demonstrations regarding essences that serve as the indemonstrable first principles of demonstrations.

The distinction between first principles that are indemonstrable and demonstrable reveals that there are two kinds of knowledge, called indemonstrable knowledge and demonstrable knowledge. How demonstrations produce the demonstrable knowledge has been examined in this chapter, so, the aim of the next chapter will focus on indemonstrable knowledge, especially on the knowledge of the principle of non-contradiction as the axiom that is the starting-point of all other principles.

Chapter Six

The Principle of Non-Contradiction

Philosophers need to inquire into principles, demonstrations starting with the first principles, and axioms as the starting-point of all other principles mentioned in *Metaphysics* Γ. 3. As we have found in the previous chapters, the structure of demonstrations with the first principles and the definitions in demonstrations, as well as the truth and certainty of demonstrations are established on the necessity of the first principles that are primitive, immediate and always true. Apart from the demonstrable knowledge, indemonstrable knowledge still can be touched by human beings. So, the aim of this chapter is to explore what is left in the role of axioms that are indemonstrable and self-evident, and in particular the axiom of the principle of non-contradiction. How is the principle of non-contradiction as indemonstrable principle capable of serving as the starting-point of all other principles?.

Firstly, we need to discuss the basic content and different interpretations of the principle of non-contradiction, including the logical reading of the principle of non-contradiction and the ontological reading of the principle of non-contradiction.

In view of the hierarchy of truth described in chapter Three, the ontological reading of the principle of non-contradiction can stand for truth in things which is ontologically prior to the logical reading of the principle of non-contradiction as an example of truth in thoughts that have been expressed as truth in words. In this case, the principle of non-contradiction as truth in things is the cause of, and then should be responsible for truth in thoughts and truth in statements. No statement or thought is even possible without the principle of non-contradiction. If so, the ontological reading of the principle of non-contradiction shall be prior to and responsible for the logical reading of the principle of non-contradiction.

The discussion of the hierarchy of being in chapter Four has shown that among categories the primary substances are first, and in being in terms of potentiality and actuality, what is always actuality and does not undergo any changes in itself is first. The truth in composites can be specified by the terms of actuality and potentiality since composites may change over time and changes are the actuality of what is potentially such.²⁶⁶ Then, within the hierarchy of being, the first substances are always in actuality, in particular the highest substance and the highest cause of the world, which is the primary being. Similarly, the truth of composites in terms of actuality and potentiality can be specified and supported by the ontological reading of the principle of non-contradiction that stands for as ontological truth.

1. The formulation of the principle of non-contradiction

Aristotle first introduces the notion of a contradictory pair of assertions in *De Interpretatione*, at 17a31–17a36:

²⁶⁶ *Phys.* III.1, 201a10–201a11.

T77: Thus it is clear that for every affirmation there is an opposite denial, and for every denial an opposite affirmation. Let us call an affirmation and a denial which are opposite a contradiction. I speak of assertions as opposite when they affirm and deny the same thing of the same thing—not homonymously, together with all other such conditions that we add to counter the troublesome objections of sophists. (*Int.* 6, 17a31–17a36)

As we can see from this passage, a contradictory pair of assertions is constituted by two assertions that are opposite from one another. The first of these is an affirmation that one thing Y belongs to another thing X. The second is a denial in which the very same thing Y does not belong to the very same thing X.²⁶⁷ Naturally, we can consider an affirmation and a denial which are in opposition to one another to be a contradiction. And so, based on the formulation of contradiction, Aristotle continues to explain the principle of non-contradiction as the most indisputable principle:

T78: Let this, then, suffice to show that the most indisputable of all beliefs is that contradictory statements are not at the same time true, and what consequences follow from the denial of this belief, and why people deny it. Now since it is impossible that contradictories should be at the same time true of the same thing, obviously contraries also cannot belong at the same time to the same thing. (*Met.* Γ.6, 1011b13-1011b17)

The formulation of this principle of non-contradiction has been widely acknowledged as an important principle, since Aristotle calls the law of non-contradiction the “arche of all understanding.”²⁶⁸ There is less than universal agreement on exactly what the law amounts to, and the principle of non-contradiction has been discussed from different angles. For instance, Jan Łukasiewicz (1971) famously distinguishes no less than three different formulations of the principle of non-contradiction in Aristotle: : ontological, logical, and psychological.²⁶⁹ For example:

Ontological formulation: *Met.* Γ.3, 1005b19-1005b20: “It is impossible that the same thing belongs or does not belong to the same thing at the same time and in the same respect.”

Logical formulation: *Met.* Γ.6, 1011b13-1011b14: “The most certain of all basic principles is that contradictory propositions are not simultaneously true.”

Psychological formulation: *Met.* Γ.3, 1005b23-1005b24: “No one can believe that the same thing can at the same time be and not be.”

Based on these original texts from Aristotle, it is clear that Aristotle himself already suggests that the formulation of the principle of non-contradiction can be interpreted on different levels. Summarily, the principle of non-contradiction may be interpreted as narrowly as the assertion that one and the same subject cannot both be and not be – where being is treated as an attribute and, as the principle of non-contradiction specifies, cannot both belong and not belong to the same subject at the same time.

²⁶⁷ Wheeler, 2019a, 92.

²⁶⁸ *Met.* Γ.3, 1005b9

²⁶⁹ Łukasiewicz suggests that Aristotle formulates the principle of contradiction in a three-fold manner—as an ontological, logical, and psychological law—without being explicit about any one of them in particular. (Łukasiewicz, 1971.)

Among these various readings, the logical reading of the principle of non-contradiction shall be the starting point of the project of this chapter.

2. The logical reading of the principle of non-contradiction

When the principle of non-contradiction is taken as a logical principle, it is argued by more than one commentator that the principle of non-contradiction can perform at least two roles:²⁷⁰ the first, to guarantee the possibility of communication between human beings;²⁷¹ and the second, to pick out and concretely define certain things so as to achieve the goal of talking about two things as they are.²⁷² It is easier and accessible for us to fully appreciate the principle of non-contradiction with these two functions, if we first investigate the principle of non-contradiction as a logical principle.

Numerous scholars (Alan Code²⁷³, Jan Łukasiewicz²⁷⁴, Paula Gottlieb²⁷⁵, Christopher Kirwan²⁷⁶, Vasilis Politis²⁷⁷, Graham Priest²⁷⁸, and Michael Wedin²⁷⁹) have taken this logical interpretation for granted. Based on this reading, the principle of non-contradiction is applied to contradictory statements. Considering the range of objects to which the principle of non-contradiction applies, with reference to the formulation of the principle of non-contradiction consisting of statements, when we speak of the principle of non-contradiction as a logical principle, we usually describe it under the guise of truth as truth-values of statements. In the case of describing truth as truth-values, the formulation of the principle of non-contradiction could be translated into: it is not possible for a proposition to be true and not true at the same time and in the same aspect.

Frank Salter (1995) advocates that the formulation of the principle of non-contradiction comes out as a logical principle – by arguing that it relies on negations.²⁸⁰ However, Aristotelian contradictions always consist of an affirmation and a denial – these principles govern the distribution of truth-values among pairs of contradictory statements. Zygmunt Ziemiński (1976) holds this logical reading by arguing that “the principle of non-contradiction says that two propositions, mutually contradictory, cannot both be true.”²⁸¹ What is more, Jan Łukasiewicz (1971) concludes this argument by suggesting that truth and falsity contain one another and cannot both be characteristic of the same object.²⁸² This traditionally logical explanation is normally viewed as the standard view about the principle of the non-contradiction.²⁸³ In any event, as we can see, the key point for considering the

²⁷⁰ Dancy, 1975. and Coren, 2018.

²⁷¹ Dancy, 1975, 35, 39.

²⁷² Dancy, 1975, 87.

²⁷³ Code, 1986.

²⁷⁴ Łukasiewicz, 1910 (in Polish).

²⁷⁵ Gottlieb, 1994, 2015.

²⁷⁶ Kirwan, 1993.

²⁷⁷ Politis, 2004.

²⁷⁸ Priest, 2006, 1998.

²⁷⁹ Wedin, 2003, 1982.

²⁸⁰ Salter, 1995.

²⁸¹ Ziemiński, 1976, 95.

²⁸² Łukasiewicz, 1971.

²⁸³ Dancy, 1975, 92-93.

principle of non-contradiction as a logical principle is that it is usually expressed along the lines of truth as truth-values of statements.²⁸⁴

Nevertheless, this logical reading of the principle of non-contradiction has been questioned. For instance, Tuomas Tahko (2009) disagrees with the logical reading of the principle of contradiction by explaining that the logical explanation is a principle that governs our thoughts and perhaps our language, or even simply a principle which is true in certain models—for instance, the logical system—and has no bearing on mind-independent reality.²⁸⁵ However, what T78 underlines is the mutual exclusiveness of having a certain attribute and lacking that attribute at the same time.²⁸⁶ Thus, this passage should be restricted to modes of being rather than negative statements or propositions.

Moreover, Thomas Upton (2002) admits the connection of the law of non-contradiction with the syllogism in that the syllogism must meet the requirement of the principle of non-contradiction, and that it is tempting to take the law as solely a law of logic or of correct speaking. However, Upton argues that Aristotle's various formulations of the law and his presentation of its explanation or defense appear inconsistent with such a limited interpretation. Two major issues must be addressed in making this claim about the larger scope of the law. First, the law of non-contradiction can govern the form of the premises of a demonstration – a predicate cannot be affirmed and denied for a subject in a properly formulated premise. Second, the law can also govern our investigation of scientific premises. In this case, no scientific object initially encountered by sense perception can both be what it is and not be what it is at the same time and in the same respect. In other words, in Aristotle's world, substances, which have non-contradictory essences, are the primary referents.²⁸⁷

3. The principle of non-contradiction as an ontological principle

There are several reasons why I believe that this fundamental principle should be regarded as an application of the ontological reading of truth that is being in the strictest sense: first, because Aristotle has investigated the relationship of truth and falsity in terms of the principle of non-contradiction; and second, because Aristotle himself already suggests that the formulation of the principle of non-contradiction can be interpreted in ontological level, logical level and psychological level mentioned before. These transitions between different levels can be exemplified by the transition from truth as truth-values of assertions that serve as truth-bearers in chapter One—that is in a logical sense—to the truth as being in the strictest sense investigated in chapter Two.

This metaphysical reading of the principle of non-contradiction can be found in Aristotle's observations in *Categories* and *Metaphysics*.

3.1 An ontological reading in *Categories*

In *Categories*, Aristotle investigates the primary substances in order to discuss contraries,

²⁸⁴ Boongaling, 2019.

²⁸⁵ Tahko, 2009, 33.

²⁸⁶ Tahko, 2009, 33.

²⁸⁷ *Met.* Γ.4, 1007a20-21. Upton, 2002, 469.

which are basic elements of the formulation of the principle of non-contradiction. Aristotle uses the term “contraries” here to describe the character and nature of substances and qualities, especially for the primary substance:

T79: Another characteristic of substances is that there is nothing contrary to them. For what would be contrary to a primary substance? For example, there is nothing contrary to an individual man, nor yet is there anything contrary to man or to animal. This, however, is not peculiar to substance but holds of many other things also, for example, of quantity. For there is nothing contrary to four-foot or to ten or to anything of this kind—unless someone were to say that many is contrary to few or large to small; but still there is nothing contrary to any definite quantity. (*Cat.* 5, 3b24-3b31)

T80: But nothing seems to admit contraries at the same time. In the case of a substance, for example, while it seems to be able to receive contraries, yet it is certainly not at the same time ill and well nor is it at the same time pale and dark; nor does anything else admit contraries at the same time. It turns out also that things are their own contraries. For if large is contrary to small, and the same thing is at the same time large and small, a thing would be its own contrary. But it is impossible for a thing to be its own contrary. Large, therefore, is not contrary to small, nor many to few. So that even if someone says that these belong not to relatives but to quantity, it will still have no contrary. (*Cat.* 6, 6a3-6a12)

Based on these passages, Aristotle uses the contraries to describe single categories – such as substances, qualities, or quantities. Given the aim of this chapter, there are at least two points that we need to bear in mind: first, for substances, nothing admits contraries at the same time, in this sense, substances are always what it is and in actuality; and second, although, substances are without contraries, they are able to receive contraries. Contraries expressed by categories are not only immediate constituent elements of the principle of non-contradiction, but also exemplify the ontological foundation of the principle of non-contradiction – since single categories, similar to the principle of non-contradiction, cannot admit contraries at the same time. In this case, contraries to qualities can become evidence to support the ontological reading of the principle of non-contradiction, because the principle of non-contradiction could be reduced to and analyzed into contraries that concentrate on single categories.

Additionally, the principle of non-contradiction is explained in a range of contraries to various modes of being, such as substances without contraries as what is the simple things or qualities of substances. As Thomas Upton remarks: “the real question is not whether or not we can put contradictions into words, but whether or not in actual fact contradictions can exist together in the same thing. E.g., the same thing be, at the same time, both “man” and “not man” essentially. Aristotle himself maintains that in fact some substance, e.g., an individual man or some kind of substance, e.g., the species “man” or the genus “animal”, cannot both be and not be (what it is) at the same time and in the same respect.”²⁸⁸

By contrast with being with reference to categories, including categories without contraries or categories with contraries, Aristotle further makes a distinction between contraries in

²⁸⁸ Upton, 2002, 462.

modes of being and contraries in statements. Aristotle claims that:

T81: Similarly with beliefs. Hence at least the way in which it is able to receive contraries—through a change in itself—would be distinctive of substance, even if we were to grant that beliefs and statements are able to receive contraries. However, this is not true. For it is not because they themselves receive anything that statements and beliefs are said to be able to receive contraries, but because of what has happened to something else. For it is because the actual thing exists or does not exist that the statement is said to be true or false, not because it is able itself to receive contraries. No statement, in fact, or belief is changed at all by anything. So, since nothing happens in them, they are not able to receive contraries. A substance, on the other hand, is said to be able to receive contraries because it itself receives contraries. For it receives sickness and health, and paleness and darkness; and because it itself receives the various things of this kind it is said to be able to receive contraries. It is, therefore, distinctive of substance that what is numerically one and the same is able to receive contraries. This brings to an end our discussion of substance.” (*Cat.* 5, 4b5-4b19; cf T23)

It would appear that it is things rather than statements which receive contraries, since statements cannot change over time, while various modes of being could change over time, e.g. substances though without contraries can receive contraries. How could statements that cannot receive contraries describe things which change their contraries over time? If not, it seems impossible that statement truth serves as the fundamental account of truth in Aristotle. As long as it is the primary substances that receives contraries over time, the discussion of truth and falsity should be located in being in the strictest sense.

If so, the ontological reading of the principle of non-contradiction will be founded on being, instead of statement truth. The character of being with reference to categories, including substances without contraries or qualities with contraries is the ontologically basic element of the ontological reading of the principle of non-contradiction in Aristotle.

3. 2 An ontological reading in *Metaphysics*

With the expectation of contraries in *Categories* used to support the ontological reading of the principle of non-contradiction, the ontological reading has been further supported in *Metaphysics* by underlining the important position of this principle in his all of Aristotle’s works and explaining the formulation of the principle of non-contradiction as the starting-point for all the other axioms.

T82: But he who knows best about each genus must be able to state the most certain principles of his subject, so that he whose subject is being qua being must be able to state the most certain principles of all things [...] and the most certain principle of all is that regarding which it is impossible to be mistaken; for such a principle must be both the best known and non-hypothetical. [...] Evidently then such a principle is the most certain of all. [...] It is, that the same attribute cannot at the same time belong and not belong to the same subject in the same respect. [...] This, then, is the most certain of all principles [...] for this is naturally the starting-point even for all the other axioms.” (*Met.* Γ.3, 1005b9-1005b11; 1005b13-1005b14;

A few points can be learned from this passage. Firstly, Aristotle suggests the position of the principle of non-contradiction among all principles. The principle of non-contradiction is the most certain and the best known of all principles, so that that is the starting-point of all the other axioms. Referring to the list of characters of the first principles of demonstrations in chapter Five, we can infer that the principle of non-contradiction also has these characters, since it is the starting point of all other principles, including the principles of demonstration. In this sense, the principle of non-contradiction is of course, immediate, indemonstrable, true, primitive, the best known and prior to all other principles. The principle of non-contradiction is already there before our knowledge.

Secondly, Aristotle explains the principle of non-contradiction in terms of attributes and a subject that is a kind of mode of being. Here, Aristotle opens up within this law a new dimension in which nature dwells and could be seen.²⁸⁹ In addition, with reference to the ultimate task of *Metaphysics* providing theoretical knowledge about being qua being, the principle of non-contradiction as the first principle of the science of being qua being must apply to all modes of being. Therefore, if there should be one principle for the science of being qua being, then the principle of non-contradiction must be the starting point of the science of being qua being.²⁹⁰ In this case, the principle of non-contradiction definitely plays the role of a metaphysical principle that has been considered the metaphysical formulation of the principle of non-contradiction by Łukasiewicz. Up to now, it is clear why, among the three levels of interpretation of the principle of non-contradiction, the ontological formulation is the basic one of these interpretations.

Moreover, Aristotle claims that the principle of non-contradiction must be considered as “a principle in things:”

T83: There is a principle in things, about which we cannot be deceived, but must always, on the contrary, recognize the truth,—viz. that the same thing cannot at one and the same time be and not be, or admit any other similar pair of opposites [...] for thus alone can he demonstrate his thesis to the man who says that opposite statements can be truly made about the same subject.[...] Therefore every word must be intelligible and signify something, and not many things but only one; and if it signifies more than one thing, it must be made plain to which of these the word is being applied. He, then, who says this is and is not denies what he affirms, so that what the word signifies, he says it does not signify; and this is impossible. Therefore if ‘this is’ signifies something, one cannot truly assert the contradictory. (*Met.* K.5, 1062a19-1062a21; 1062b2-1062b3; 1062b6-1062b11)

According to T83²⁹¹, the principle of non-contradiction is a principle in things. Based on this principle in things, we must always recognize the truth that the same thing cannot both be and

²⁸⁹ Brogan, 2005,74.

²⁹⁰ Halper, 2006.

²⁹¹ There are doubts about the authenticity of book K, which do not affect my argument. For exhaustive discussions see e.g. Vianney (1983), Aubenque (1983), and for a brief assessment see Madigan (1999) xxxviii-xxxix.

not be at the same time, since every word must be intelligible and signify something – which has been examined in chapter Three. As Aristotle underlines, without signifying something, the principle of non-contradiction would be impossible, and the contradictory cannot be asserted. The necessary involvement of things in this principle *in things* should be a clue for the ontological reading of the principle of non-contradiction. After all, if we compare it with the principle of non-contradiction as a logical principle, the ontological reading ultimately turns to things, rather than applying to statements.

Given that this ontological explanation for the principle of non-contradiction is restricted to things as a reality in our world, then, the principle of non-contradiction when applied to various modes of being could be the starting-point of all investigations about reality.

4. The principle of non-contradiction within the hierarchy of truth

We have seen that for Aristotle the principle of non-contradiction is more than a logical principle concentrating on statements, because the principle of non-contradiction derives from the scope of being. Moreover, the ontological reading of the principle of non-contradiction is a fundamental base for the logical reading of the principle of non-contradiction. This line of argument suggests how the ontological reading of the principle on non-contradiction as the highest truth makes statements true.

Based on the discussion above, it is clear that the logical reading of the principle of non-contradiction applies to statements, which underlines how contradictory statements cannot be true of the same thing at the same time. In turn, the ontological reading of the principle of non-contradiction applies to things with properties, which claims that something cannot simultaneously be and not be in the same respect at the same time.²⁹²

I agree with the logical reading of the principle of non-contradiction, just as I agree with the traditional interpretation of truth in Aristotle. In addition, I argue for the priority of the ontological reading of the principle of non-contradiction, just as I am supporting the priority of the ontological reading of truth in Aristotle. Given the hierarchy of truth in chapter Three, truth in things is prior to truth in thoughts, which in its turn is mirrored in words, which is truth in statements. This ontological priority of truth in things is responsible for truth in thoughts and truth in statements. Similarly, it is clear that the ontological reading of the principle of non-contradiction is a fundamental basis of, and also shall be responsible for the logical reading of the principle of non-contradiction.

This correspondence between the two kinds of interpretation about the principle of non-contradiction has been observed by John Boongaling (2018). In his view, the principle of non-contradiction involving subjects and attributes is central to Aristotle's theory of predication. It is important to note that subject and attributes are similar to what Aristotle earlier referred to as entities and properties.²⁹³ Therefore, the problem is not about whether the same thing at the same time can both “be” and “not be” a man in name, but whether this is possible in fact.

²⁹² Boyd, 2017, 54.

²⁹³ Boongaling, 2018.

In addition, there is some shared ground among these interpretations. The relationship between the logical reading of the principle of non-contradiction and the ontological reading of the principle of non-contradiction has been clarified by Jonathan Lear (1988). He argues that the goal of Aristotle is neither to prove the principle of non-contradiction nor to convince an opponent of the principle to change his mind, but rather trying to show how the structure of reality constrains the structure of our thoughts – in essence, the starting point of all investigations into Aristotle is our daily life surrounding us. The very fact that the world is constituted of substances and properties forces us to think, speak, and act in certain ways. In a world made up of substances, any thinker must be someone who believes the principle of non-contradiction.²⁹⁴ As Lear argues, “It is because the structure of our thought is responsive to or expressive of the structure of reality that we thinkers are capable of conducting a very general inquiry into reality. Since substance is the basis of reality, we thinkers are capable of conducting a general inquiry into substance. That is, we are capable of being philosophers engaged in metaphysical inquiry.”²⁹⁵ Therefore the relation between these two readings of the principle of non-contradiction is based on how human beings communicate, and interact with the world.

What is more, Aristotle further points out the differences in their relationship with time. Aristotle believes the contraries in statements cannot be changed through the passing of time, while the contraries in modes of being can change over time. Notably, the primary substance can receive contraries at different times, which has been discussed early in T81 above.

According to T81, in terms of changes, the contradiction in statements is determined by the contradiction in modes of being. Therefore, the content of statements does not change but the content of modes of being could change over time. The change occurs in the substances in the world, and not in the statements about the world. There is a significant difference in the way in which substances and truth-bearers have contrary properties at different times. Considering the fact that statements cannot capture modes of being which could change sufficiently, the people who make judgement by means of truth-bearers with truth-values have to change their statements in order to capture the reality fixed by modes of being as truth-makers – while these modes of being are able to receive contraries over time in their own right. In this case, the primary modes of being can receive contraries at different times, while nothing could be contraries at the same time.

From the differences between the principle of non-contradiction in things and in statements or beliefs, we can conclude that changes are in things that can accept contraries, but statements or beliefs do not undergo any changes. That could be a reason to take the ontological reading of the principle of non-contradiction as having priority over the logical reading, since this principle in things is a necessary condition for the possibility of thought and language about things that are reflected by the principle of non-contradiction as a logical principle expressed in statements. This conclusion of the line of argument is a concrete example of the hierarchy of truth that has been established in chapter Three in which truth in

²⁹⁴ Lear, 1988, 265.

²⁹⁵ Lear, 1988, 265.

things is prior to, and responsible for the truth in statements.

Therefore, the relationship between the two explanations for the principle of non-contradiction reflects the relation between the truth in thoughts and truth in things. By analogy, the truth of the principle of non-contradiction at the ontological level is prior to truth at the statement level. Last but not least, this ontological priority promises not only the truth of statements but also the truth of the logical reading of the principle of non-contradiction.

5. The principle of non-contradiction performing within the hierarchy of being

After revealing the relation between these two kinds of reading of the principle of non-contradiction reflecting on the hierarchy of truth described in chapter Three, in this part, I would like to show how the principle of non-contradiction as an ontological principle performs within the hierarchy of being described in chapter Four. Taking the principle of non-contradiction as an ontological principle, its formulation would be that any one character of the modes of being must follow the principle that the same thing cannot “be” and “not be” at the same time in the same aspect.

As we can see above, in T79, substances are have no contraries, but substances can receive contraries over time. Referring to what we have investigated regarding the hierarchy of beings in chapter Four, the primary substances have ontological priority over other categories . The other categories depend on the primary substances to exist. Because there is no change in the primary substances, the primary substances are always what they are, and always in actuality, which amounts to being always true in the sense of being in the strictest sense as investigated in chapters Two and Four.

In the *Categories*, the principle of non-contradiction could be reduced to single categories that cannot admit two contraries at the same time – and meanwhile, the primary modes of being can receive contraries at different times. In this case, it is obvious that the primary substances as essences that is always what it is, and cannot experience any changes. What is more, the primary substances could also be the receivers of contraries, which is the basic element of the formulation of the principle of non-contradiction, since, the object of the principle of non-contradiction is the subject that can change over time, and changes include changes from contraries.

Except for the primary substances without contraries, when the primary substances receive contraries in other categories, the object of the principle of non-contradiction turns to composites. So the next question would be that, if Aristotle explains the principle of non-contradiction as an ontological principle, connecting it with first substances, then how could the ontological principle of non-contradiction apply to accidental beings which are not the primary substances or essences in the *Metaphysics*? How to explain truth in composites that change over time? In order to resolve the problem, I would like to introduce once again Aristotle’s concepts of actuality and potentiality to resolve questions of the truth as the principle of non-contradiction in composites.

T84: Perhaps, indeed, the necessary and not necessary are first principles of everything’s either being or

not being, and one should look at the others as following from these. It is evident from what has been said that what is of necessity is in actuality; so that, if the things which are eternal are prior, then also actuality is prior to capability. Some things are actualities without capability (like the primary substances), others with capability (and these are prior by nature but posterior in time to the capability); and others are never actualities but only capabilities. (*Int.* 13, 23a19-23a27)

Apart from this understanding about actuality as a way of being in chapter Four —especially the actuality of eternal beings and perishable beings, as well as the ontological priority of actuality—Aristotle also introduces what is necessary in terms of actuality in such situations. Therefore, we can connect these seemingly separate aspects together as being in the strictest sense as truth in Aristotle. Based on T86, Aristotle discussed the first principle in terms of being or not being in terms of necessary and not necessary, which is a concrete example of the principle of non-contradiction. Furthermore, based on this opinion that what is necessary is in actuality, Aristotle establishes the relationship between necessity and actuality. In this case, there are three kinds of things, including what is actuality without potentiality, what is actuality with potentiality, as well as things that are never actuality, but only potentiality. Then, for composites with changes over time, that can be identified with things are actuality with potentiality, the principle of non-contradiction should be understood as having only one side of a contradiction actualized at any given time.

Thus, it is clear that there is connection between the principle of non-contradiction in statements concerning beings in *Categories* and in reference to potentiality/actuality in *Metaphysics*. I would like to interpret the principle of non-contradiction in terms of categories with or without contraries and the actualization of various modes of being. For the primary substances which never undergo any changes as such, are capable of serving as the receiver of contraries. While, for composites, the other categories have to be connected with these primary substances for them to exist. In this situation, the principle of non-contradiction as truth in composites should be understood in term of actuality and potentiality. Changes are the actuality of what is potentially qua such.²⁹⁶ Then, this ontological reading of the principle of non-contradiction can be translated as the actualization of only one side of a contradiction in the modes of being as reality.

I would like to claim that, firstly, as we discussed early, the logical interpretation of the principle of non-contradiction is grounded in being, both in terms of the categories, and in terms of actuality and potentiality. Based on our studies in previous chapters referring to the list of modes of being in *Metaphysics* Θ.10, being in the strictest sense as truth shall be considered as truth in in-composites as in essences and actualities that are always true, and truth in composites which reflect categories with contraries that experience changes over time.

So far, it is clear that the principle of non-contradiction has been operating not only on the structure of being mentioned in *Metaphysics* Θ.10, but also the hierarchy of being investigated in chapter Four. This line of argument involves being in terms of the categories, being in terms of actuality and potentiality, as well as being in the strictest sense as truth, in which

²⁹⁶ *Phys.* III.1, 201a10-201a11.

what is always in actuality is the highest substance that is the first cause of other things in the world.

What is more, the principle of non-contradiction as “a truth in things” is what is necessary in its own right, or what cannot be otherwise, serving as the *arche* of all other axioms in the knowledge of human beings that need always be true. It assumes the principle of non-contradiction is already here before our knowledge. Based on the limitation of knowledge, being in the strictest sense as truth in the context of principle of non-contradiction is a very special case of truth in being, which is the foundation to everything we do.

6. Conclusion

After I first introduced the basic formulation of the principle of non-contradiction and two different kinds of reading of this principle, including the logical reading, as well as the ontological reading, I have established the connections between the principle of non-contradiction with categories, actuality, and being in the strictest sense as truth.

From the logical reading of the principle of non-contradiction to the research on its ontological formulation, my journey is to explain why the logical reading of truth is right or exists, which is an instance of truth in thoughts. The ontological reading suggests that the principle of non-contradiction should apply to all modes of being, which has been supported both in *Categories* and in *Metaphysics*. In order to resolve the question of how can we explain the difference between being with contraries and being in terms of essences which have no contraries, the ontological reading of the principle of non-contradiction has been introduced, by means of Aristotle’s theory of what is necessary in terms of actuality and potentiality. In the end, we can conclude that the principle of non-contradiction is not only restricted to propositions, but also applies to various modes of being as things signified by propositions – especially primary substances and actuality.

Among the various of modes of being, the actualization of modes of being is my preferred option to fill in the specific content of the ontological reading of the principle of non-contradiction, not just the primary substances as essence in *Metaphysics*. For truth in composites, in term of the actualization of modes of being, this line of reasoning would be that if only one side of a contradictory mode of being can be asserted to be true—and if the principle of non-contradiction is true—then only one actualization of things that is to be or not to be could be real.

Considering the relationship between these different readings of the principle of non-contradiction, the fact that something contradictory cannot exist at the same way is the ultimate reason for the logical reading of this principle of non-contradiction, and the logical reading of the principle of non-contradiction is the result of the performance of the principle of non-contradiction operating on all modes of being. Therefore, the ontological reading is more fundamental than the logical reading since the logical reading is depending on the ontological reading that serves as the ground and makes the logical reading true, which mirrors the hierarchy of truth in chapter Three in which the truth in things is prior and is responsible for truth in thoughts and truth in statements. In this manner, the principle of

non-contradiction as a logical principle rests on the ontological reading of the principle of non-contradiction, and it is this ontological reading makes the logical reading true. Ultimately, the truth in thing makes the statement true.

Chapter Seven

Conclusion

1. The route of my journey

The conception of truth is an important topic in the history of philosophy. The issues concerning truth involve language, thought, and ontology, as well as the correspondence relations between them. Among various interpretations of truth, the correspondence theory of truth is supported by many scholars, such as David Armstrong, Michael Devitt, and many others. Michael Devitt and Wolfgang Künne attribute the correspondence theory of truth to Aristotle's philosophy, citing in particular *Metaphysics* Γ.7, Δ.7, E.4, and Θ.10. Accordingly, they accept the correspondence relation between statements and things. This correspondence interpretation of truth is usually regarded as the Standard Account of truth in Aristotle. However, based on Aristotle's work, how to interpret the concept of truth is still open to interpretation.

My journey into the concept of truth started from the contemporary discussion of the classic correspondence theory of truth, but I have been directly inspired by Aristotle, who spent all his life exploring the truth as the task of philosophers by means of revealing the inherent connection between truth and being. From Aristotle's works the project of seeking an ontological reading of truth has emerged.

In chapter Two, I introduced the notion of truth as being on the basis of an analysis of *Metaphysics* Θ.10 where Aristotle himself sets forth truth as being in the strictest sense. Similarly, just as what has been concluded in the end of *Metaphysics* α.1:

T85: It is right also that philosophy should be called knowledge of the truth. For the end of theoretical knowledge is truth, while that of practical knowledge is action (for even if they consider how things are, practical men do not study what is eternal but what stands in some relation at some time). Now we do not know a truth without its cause; and a thing has a quality in a higher degree than other things if in virtue of it the similar quality belongs to the other things (e.g. fire is the hottest of things; for it is the cause of the heat of all other things); so that that which causes derivative truths to be true is most true. Therefore the principles of eternal things must be always most true; for they are not merely sometimes true, nor is there any cause of their being, but they themselves are the cause of the being of other things, so that as each thing is in respect of being, so is it in respect of truth. (*Met.* α.1, 993b20-993b30 = T41)

If each thing is in respect of being, as it is in respect of truth, then my ontological reading of truth as being in the strictest sense in *Metaphysics* Θ.10 will be on point. According to *Metaphysics* Θ.10, in the first place, Aristotle accepts the fact that being can be said in

several ways. Aristotle has listed these ways by describing being in terms of the categories, of actualization & potentiality, as well as being in the strictest sense as truth. Importantly, it is noticeable that Aristotle has applied the term of truth and false to describe being and non-being in the strictest sense. Here, truth takes the shape of being that is being in the strictest sense. In order to make the inherent relation between truth and being clearer, Aristotle underlines the concept of combinations and separations of being constituting the fundamental elements of truth and falsity by means of introducing incomposites, composites, and things that cannot be separated. Among these modes of being, truth in incomposites has been clarified by scrutinizing incomposites as simple bodies, eternal beings, essences and forms without matter. Truth in composites, on the other hand, has been found in essences of composites specified in terms of matter and form, or potentiality and actuality.

Within the hierarchy of truth established in chapter Three, the ontological independence and the ontological priority of substances have been established by comparing them with statements with truth-values at the language level, and thoughts with truth-values at the psychological level. If we succeed in understanding the ontological truth—that is truth as being in the strictest sense—it will not merely be in its pure form, but also by looking for the ontological truth at the intersection of various dimensions of being. The nature of ontological truth, that is truth as being in the strictest sense, in Aristotle can be clarified by the exploration of what is fundamental among the categories, viz. the simple things expressed by categories without contraries as essences, as well as actuality and potentiality. From this we arrive at a hierarchy of beings.

In the *Categories*, we found what is fundamental in being in reference to categories . Aristotle claims that categories without contraries are more fundamental than assertions consisting of combinations of categories. Among various single categories that have been divided into ten kinds, substance is the fundamental one. Therefore, these simple categories without combinations can be divided into main two groups in which the fundamental one consists of the primary substances, while the other group contains the remaining categories that could be indicated by being “Said of” or “Said in” primary substances on which they depend.

Next, within the framework of being in terms of actuality and potentiality, what is fundamental in actuality and potentiality has been manifested by the distinction between first eternal being and perishable beings. The first eternal being is always in actuality without potentiality, thus the first eternal being is always ontologically prior; it functions as the final cause for both eternal and perishable beings.

Within the understanding of the hierarchy of beings, Aristotle has suggested the essences as the object of immediate definitions that function as the first principles of demonstrations because they guarantee the truth and certainty of demonstrations. Based on the relation between essences and demonstrations, demonstrative knowledge as products of demonstrations must be true all the time. At the same time, the indemonstrable knowledge has to be true forever, since axioms serve as the starting-point of all other principles. The principle of non-contradiction would be taken as one example of these axioms. The principle

of non-contradiction as truth in things must always be true so as to make statements true. In this regard, the principle of non-contradiction could be treated as ‘a principle in things as the truth’ that is prior to and beyond the scope of human knowledge.

I fully appreciate what the correspondence theory of truth normally aims to express in terms of truth-bearers and truth-makers. My criticism concerns the suggestion that things are merely truth-makers that make statements true. In my view, Aristotle holds that things themselves are true. I have called this ontological truth. Moreover, the ontological reading of truth as being in the strictest sense has revealed concrete beings, instead of merely expressing the truth-value of statements.

In this dissertation, I deliberately took a generic approach to a large number of fundamental texts from Aristotle's oeuvre. My goal was to create a new framework in which the coherence of Aristotle's texts on being and truth can be seen more clearly than in the received interpretations. Of course, all these fundamental texts have been commented on extensively, from antiquity to the present. Although I have tried to do some justice to the most important modern literature, I have not been able to address the myriad issues of detail discussed in the literature. Further substantiation of my new framework by means of a more detailed defense against modern alternatives will be a task for future research.

2. The goal of my journey

At the beginning of *Metaphysics*, Aristotle explicitly states that all human beings by nature desire to know. And in the opening chapter of *Physics*,²⁹⁷ for instance, it is said that scientific inquiry starts from what is most familiar or best known to us about some subject and proceeds to find what is best known absolutely or by nature in the form of principles and causes which explain what was previously best known to us.²⁹⁸ Then, the route of inquiry is revealed from what is familiar to us to what is known by nature. If we take truth as truth-values as what is most familiar to us, then the ontological truth that we are looking for comes out as the best known absolutely or by nature.

According to the route of knowing for human beings, and appealing to the statement mentioned before that what is known by nature is being itself, then, I am going to argue that the end of human beings is seeking ontological truth. What is more, the direction and end of the behavior of knowing have been determined by the ability and the limitation of the ability of human beings.

T86: On such a principle, then, depend the heavens and the world of nature. And its life is such as the best which we enjoy, and enjoy for but a short time. For it is ever in this state (which we cannot be), since its actuality is also pleasure. (And therefore waking, perception, and thinking are most pleasant, and hopes and memories are so because of their reference to these.) And thought in itself deals with that which is best in itself, and that which is thought in the fullest sense with that which is best in the fullest sense. And thought thinks itself because it shares the nature of the object of thought; for it

²⁹⁷ *Phys.* I.1, 184a16.

²⁹⁸ Bolton, 1996, 231-280.

becomes an object of thought in coming into contact with and thinking its objects, so that thought and object of thought are the same. For that which is capable of receiving the object of thought, i.e. the substance, is thought. And it is active when it possesses this object. Therefore the latter rather than the former is the divine element which thought seems to contain, and the act of contemplation is what is most pleasant and best. If, then, God is always in that good state in which we sometimes are, this compels our wonder; and if in a better this compels it yet more. And God is in a better state. And life also belongs to God; for the actuality of thought is life, and God is that actuality; and God's essential actuality is life most good and eternal. We say therefore that God is a living being, eternal, most good, so that life and duration continuous and eternal belong to God; for this is God. (*Met.* Λ.7, 1072b31-1073a2; cf T62)

In the first place, considering specific limitations of human beings that are perishable ultimately,²⁹⁹ as human beings, the act of contemplation is what is most pleasant and best, and the best life we can enjoy is just a short time. Similarly, we only can seek ontological truth, rather than achieving it and keeping it. In this case, as human beings, we only keep the activity of seeking ontological truth instead of achieving this pursuit, since we cannot be in the state of activity forever as God can do. That is the direct reason why I am arguing now that seeking ontological truth is the aim for human beings, rather than possessing it or keeping it.

Secondly, if Aristotle proposes that we as human beings are trying to capture truth in nature by acquiring knowledge, and if philosophy for Aristotle is the scientific knowledge of the truth, then the end of the theoretical science is truth. In this case, I am proposing that seeking ontological truth is the end for human beings, which also could be viewed as an excellence of the performance of the function of human beings. From the fundamental role of contemplation among the functions of human beings,³⁰⁰ Aristotle believes we can know that those ends are ultimately ordered by the final end of contemplation. Since contemplation has the whole of nature as its object, so his recognition of the ultimate subordination of practical to theoretical knowledge and contemplation is the correct basis for appreciating how our fulfillment as human beings involves contemplation of the world around us.³⁰¹ At the same time this position respects the priority of the actuality of various modes of being as ontological truth by the way of desiring and seeking. It is worth recognizing that the pursuit of ontological truth by us is not the actuality of truth by nature. The content of ontological truth is being in the strictest sense, which has been indicated by the ontological priority of actuality of various modes of being.

Furthermore, the relation between ontological truth and human beings is based on the inherent relation between excellence and happiness: the happiest activity for human beings is contemplation.³⁰² The pursuit of ontological truth, or as Aristotle says, contemplating truth is

²⁹⁹ Except that, limitations of human beings are observed in *NE.* X.8, 1179a33-1863, 1175a10-1857, 1179a33-1863.

³⁰⁰ *NE.* X.8, 1179a1-1179a9.

³⁰¹ Johnson, 2005, 360.

³⁰² *NE.* X.7, 1177a18-1177a20.

viewed as an activity of pleasure for human beings.³⁰³ However, based on the limitations of mortals, our happiness in contemplation is discontinuous and not self-sufficient.³⁰⁴ In this sense mortals are only seeking ontological truth in various modes of being, rather than completely achieving it and keeping it. But this limitation on the pursuit of ontological truth still provides a space for pleasure and excellence of human beings. Thus, to complete ourselves to the best of our ability as human beings, I would like to take the activity of seeking ontological truth as a possible way to understand Aristotle's philosophical work as a pleasure.

In this way, I am trying to let Aristotle himself speak clearly in light of seeking ontological truth, just as Aristotle is trying to let things say the things themselves. Therefore, seeking ontological truth is not only an actualization of the excellence of human beings but also a full performance of excellence of being itself. In this sense, the endless pursuit of truth is the highest mode of actuality of being for human beings. The conclusion of my whole project would be that Aristotle's work constitutes the activity of a pursuit of ontological truth in nature, which is also a performance of human beings' excellence specifically carried out by Aristotle himself in his own personal way. In this case, Aristotle's personal search for truth and approach to being is placed in a fruitful interaction with his account of impersonal, transcendental activity of philosophical contemplation.

³⁰³ *NE*. X.7, 1177a18-1177a20. If happiness is activity in accordance with excellence, it is reasonable that it should be in accordance with the highest excellence; and this will be that of the best thing in us.

³⁰⁴ The self-sufficient we now define as that which when isolated makes life desirable and lacking in nothing; and such we think happiness to be; and further we think it most desirable of all things, without being counted as one good thing among others. For instance, *NE*. I.7, 1097b7-1097b22.

Bibliography

Aristotle's works

- Aristotle: *Aristotle's Categories and De Interpretatione*. J. L. Ackrill, tr. and comm. (1963) Oxford: Clarendon.
- Aristotle. *Aristotle's Categories and Propositions*. H. G. Apostle, tr. and notes. (1980) Iowa: Peripatetic.
- Aristotle: *Aristotle's Categories and De Interpretatione*. Translated by J. L. Ackrill, in Barnes, Jonathan (ed.) (1984) *The Complete Works of Aristotle*, Princeton: Princeton University Press.
- Aristotle. *Prior Analytics*. Translated by A. J. Jenkinson, in: Barnes, Jonathan (ed.) (1984) *The Complete Works of Aristotle*, Princeton: Princeton University Press.
- Aristotle. *Aristotle's Posterior Analytics*. Translated by Jonathan Barnes, in: Barnes, Jonathan (ed.) (1984) *The Complete Works of Aristotle*, Princeton: Princeton University Press.
- Aristotle. *De Anima*. Translated by J. A. Smith, in: Barnes, Jonathan (ed.) (1984) *The Complete Works of Aristotle*, Princeton: Princeton University Press.
- Aristotle. *Metaphysics*. Translated by W. D. Ross, in: Barnes, Jonathan (ed.) (1984) *The Complete Works of Aristotle*, Princeton: Princeton University Press.
- Aristotle. *Aristotle's Metaphysics*. W. D. Ross, ed. and notes. (1924) 2 vols. Oxford: Clarendon.
- Aristotle. *Physics*. Translated by R. P. Hardie and R. K. Gaye, in: Barnes, Jonathan (ed.) (1984) *The Complete Works of Aristotle*, Princeton: Princeton University Press.
- Ammonius. (1996). *On Aristotle's On Interpretation 1–8*. Translated by David Blank. Ithaca, NY: Cornell University Press.
- Ross, W. D. (1949). *Aristotle's Prior and Posterior Analytics*. Oxford: Oxford University Press.

Other works:

- Alexander of Aphrodisias. (2014). *On Aristotle Metaphysics 4*, translated by A. Madigan, London: Bloomsbury.
- . (1891). "In Aristotelis Metaphysica Commentaria." in M. Hayduck, *Commentaria in Aristotelem Graeca Volumen 1*, Berlin: Reimer.
- Alston, W. P. (1996). *A Realist Conception of Truth*. Ithaca, NY: Cornell University Press.
- Anagnostopoulos, A. (2011). "Senses of *Dunamis* and the Structure of Aristotle's *Metaphysics Theta*." *Phronesis* 56 (2011): 388–425.
- . (ed.), (2009). *A Companion to Aristotle*. West Sussex: Wiley-Blackwell.
- Andrews, F. E. (1996). "The principle of excluded middle then and now: Aristotle and *Principia Mathematica*." *Animus*, 1, 53–66.
- Angioni L. (2016). "Aristotle's definition of scientific knowledge (APo 71b9–12)." *Logical Analysis and History of Philosophy* 19: 79–105.

- . (2014). “Aristotle on Necessary Principles and on Explaining X Through X’s essence.” *Studia Philosophica Estonica* 7: 88–112.
- Anscombe, G. E. M. (1956). “Aristotle and the sea battle.” *Mind*, 65, 1–15.
- Anton, J. P. (1957). *Aristotle's Theory of Contrareity*. New York: Humanities Press.
- Aquinas, Thomas. *Saint Thomas Aquinas: Summa Contra Gentiles: Book One: God*. Translated by Anton C. Pegis. Notre Dame, (1975). University of Notre Dame Press.
- . *Truth. Vol. I: Questions I-IX*. Translated by Robert W. Mulligan, (1994). Indianapolis.
- Austin, J. L. (1950). “Truth.” *Aristotelian Society Supplementary Volume*, Vol.24 (1), 111-172.
- Armstrong, D. M. (2004). *Truth and Truth-makers*. Cambridge: Cambridge University Press.
- Armstrong, D. M. (1997). *A world of states of affairs*. Cambridge, UK: Cambridge University Press.
- Ayer, A.J. 1963. *The Concept of a Person and other essays*. London: Macmillan & Co Ltd.
- Bäck, Allan. T. (2000). *Aristotle's theory of Predication*. Leiden/Boston/Cologne: Brill.
- Barnes, Jonathan. (2007). *Truth, etc.* Oxford: Oxford University Press.
- . (1981). “Proof and the syllogism”. *Aristotle on science : the "posterior analytics"* : Proceedings of the eighth Symposium Aristotelicum held in Padua from September 7 to 15, 1978. Edited by Enrico Berti. Padova: Editrice Antenore:17-59.
- . (1975). *Aristotle's Posterior Analytics*. Oxford: Oxford University Press.
- . (1969). “The Aristotle’s Theory of demonstration”. *Phronesis* 14 (2): 123-152.
- Barrington Jones. (1974). “Aristotle's Introduction of Matter.” *The Philosophical Review*, Oct, Vol. 83, No. 4, 474-500.
- Beere, Jonathan (2009). *Doing and Being: An Interpretation of Aristotle's Metaphysics Theta*. Oxford: Clarendon Press.
- . (2006). *Potentiality and the Matter of Composite Substance*. Koninklijke Brill NV, Leiden, 2006.
- Beistegui, Miguel de. (2004) *Truth and Genesis: Philosophy as Differential Ontology*. Indiana University Press.
- Bellucci, Francesco. (2018). “Signs and demonstration in Aristotle.” *British journal for the History of Philosophy*, Vol. 26 (3):410-428.
- Ben-Zeev, Aaron. (1984). “Aristotle on Perceptual Truth and Falsity.” *Apeiron*, Jul 1, Vol.18(2), 118.
- Berti, Enrico, (eds)., (1981). “Aristotle on Science: The *Posterior Analytics*.” *Proceedings of the Eighth Symposium Aristotelicum*. Padova: Editrice Antenore.
- Bilgrami, Akeel. (2001). “Is Truth a Goal of Inquiry? Rorty and Davidson on Truth.” In *Rorty and his Critics*, edited by Robert B. Brandom, 242-262. Malden-Oxford: Blackwell Publishers.
- Blackburn, S. (1984). *Spreading the Word: Groundings in the Philosophy of Language*, Oxford: Clarendon Press; New York: Oxford University Press.
- Block, Irving. (1961). “Truth and Error in Aristotle’s Theory of Sense Perception.” *Philosophical Quarterly* 42, 142-162.
- Bolton, Robert. (1996). “Science and the science of substance in Aristotle’s Metaphysics Z.”

- Form, Matter and Mixture in Aristotle*. Lewis, Frank A.; Bolton, Robert; Annual USC/Rutgers conference in Aristotle (4 : 1992). Oxford [etc.]: Blackwell.
- . (1985). “Aristotle on the Signification of Names.” In *Language and Reality in Greek Philosophy: Proceedings of the Greek Philosophical Society 1984/5*, 153–62. Athens: Greek Philosophical Society.
- . (1976). “Essentialism and Semantic Theory in Aristotle: Posterior Analytics II 7–10.” *Philosophical Review* 85: 514–44.
- Boongaling, John Ian K. (2019). *On the Supposed Connection Between Aristotle’s Metaphysics and Logic*. <https://doi.org/10.15388/Problemos.117-148>.
- Brogan, Walter A. (2005). *Heidegger and Aristotle. The Twofoldness of Being*, Albany : State University of New York Press.
- Bronstein, David. (2016). *Aristotle on Knowledge and Learning: The Posterior Analytics*. Oxford University Press.
- . (2012). “The Origin and Aim of Posterior Analytics II.19.” *Phronesis* 57: 29–62.
- Burt C. Hopkins.(2010). *The philosophy of Husserl*, Montreal; Kingston; Ithaca: McGill-Queen's University Press,
- Burnyeat, M.F (1981). “Aristotle on Understanding Knowledge.” In: Berti, E. *Aristotle on Science: The Posterior Analytics, Proceedings of the Eighth Symposium Aristotelicum*. 97-139. Padova: Editrice Antenore.
- Cavini, W. (1998). “Arguing from a definition: Aristotle on truth and the excluded middle.” In N. Avgelis and F. Peonidis, *Aristotle on Logic, Language and Science*, Thessaloniki: Sakkoulas Publications, 4–15.
- Chakravartty, Anjan (2018). “Truth and the Sciences”, in: Glanzberg, M. (ed.). *The Oxford Handbook of Truth*. Oxford: Oxford University Press, 602—624.
- Charles, David (2010a). “ Metaphysics H. 7 and 8: some issues concerning actuality and potentiality.” In: Bolton R, Lennox J(eds) *Being, nature, and life in Aristotle*. CUP, Cambridge.
- . (2010b). “Definition and Explanation in the Posterior Analytics and Metaphysics.” In *Definition in Greek Philosophy*, edited by David Charles, 286–328. Oxford: Oxford University Press.
- . (ed.), (2010c). *Definition in Greek Philosophy*. Oxford: Oxford University Press.
- . (2000). *Aristotle on Meaning and Essence*. Oxford: Clarendon Press.
- . (1994). “Aristotle on Names and Their Signification.” In Stephen Everson (ed.), *Language*. Cambridge University Press. 3-37.
- Charles, David and Michael Peramatzis. (2016). “Aristotle on Truth-Bearers.” *Oxford Studies in Ancient Philosophy* 50, 101-141.
- Charlton, William. (2006). *Aristotle Physics. Books I and II*. Oxford : Clarendon Press; Toronto: Oxford University Press.
- Clay, Graham. (2004). “Aristotle’s argument from truth in Metaphysics Γ 4.” *Analysis*, June, Vol.57 (4):741-753.
- Code, Alan, (1986). “Aristotle's Investigation of a Basic Logical Principle: Which Science

- Investigates The Principle of Non-Contradiction?" *Canadian journal of philosophy*, Vol.16 (3), 341-357..
- . (1985). "On the Origins of Some Aristotelian Theses about Predication." In Bogen and McGuire, eds., *How Things Are*, 101-131.
- Coope, Ursula. (2005). "Aristotle's Account of Agency in Physics III.3." *Boston Area Colloquium in Ancient Philosophy* 21: 201-221.
- Corkum, Phil. (2018). "Empty Negations and Existential Import in Aristotle", *Apeiron*, Vol.51 (2), 201-219.
- Coren, Daniel. (2018). "Why does Aristotle defend the principle of non-contradiction against its contrary?" *The Philosophical Forum*, Vol. 49 (1):39-59.
- . (2003). "Non-Contradiction and Substantial Predication." *Theoria* Vol.69 (3):166-183.
- Corcoran, John. (2009). "Aristotle's Demonstrative Logic." *History and Philosophy of Logic* 30: 1–20.
- Crivelli, Paolo. (2015). "Truth in Metaphysics E.4" *Oxford Studies in Ancient Philosophy*, 48, 167-225.
- . (2009). "Aristotle on Signification and Truth." In Anagnostopoulou, *Companion to Aristotle*, 81–100.
- . (2004). *Aristotle on Truth*, Cambridge; New York : Cambridge University Press.
- Dancy, R. M. (1975). *Sense and Contradiction: A Study in Aristotle*, Dordrecht: D. Reidel Publishing Company.
- David, Marian. (2005). *The Correspondence Theory of Truth*, Stanford Encyclopedia of Philosophy. <http://plato.stanford.edu/entries/truth-correspondence/>.
- . (1994). *Correspondence and Disquotation*. New York: Oxford University Press.
- Davidson, Donald. (2005). *Truth and Predication*. Cambridge, Massachusetts and London: The Belknap Press of Harvard University Press.
- . (1996). "The folly of trying to define truth." *Journal of Philosophy* 93:263-78.
- . (1969). "True to the Facts." *Journal of Philosophy* 66: 748–64.
- De Rijk, Lambertus Marie. (2002). *Aristotle: Semantics and Ontology*. Vol.1, Leiden: Brill.
- Demoss, David; Devereux, Daniel. (1988). "Essence, Existence, and Nominal Definition in Aristotle's *Posterior Analytics* II 8-10." *Phronesis* Vol.33 (1-3): 133-15.
- Denyer, N. (1991). *Language, Thought and Falsehood in Ancient Greek Philosophy*. London and New York: Routledge.
- Deslauriers, Marguerite. (2007). *Aristotle on Definition*. Leiden-Boston: Brill.
- Devitt, M. (1984), *Realism and truth*, Oxford: Blackwell.
- Di Mattei, Steven. (2006). "Rereading Aristotle's *De interpretatione* 16a3–8: Verbal Propositions as Symbols of the Process of Reasoning." *Ancient Philosophy* 26: 1–21.
- Dodd, J. (2000). *An Identity Theory of Truth*. New York: St. Martin's Press.
- Dummett, Michael. (1978). "Truth." in *Truth and Other Enigmas* (London: Duckworth) 1–24.
- Dyke, C.V (2010). "The Truth, the Whole Truth, and Nothing but the Truth: Robert Grosseteste on Universals (and the *Posterior Analytics*)." *Journal of the History of Philosophy*, Apr, Vol.48 (2), 153-170.

- Engmann, Joyce. (1976). "Imagination and Truth in Aristotle." *Journal of the History of Philosophy*, Jul 1, Vol.14 (3): 259.
- Esfeld, Michael. (2000). "Aristotle's direct realism in 'De Anima'." *Review of Metaphysics* Vol. 54, Iss. 2,: 321.
- Evans, J.D.G. (1977). *Aristotle's Concept of Dialectic*. Cambridge: Cambridge University Press.
- Everson, Stephen. (1997). *Aristotle on Perception*. Oxford: Clarendon Press.
- . (ed.), (1994). *Companions to Ancient Thought 3: Language*. Cambridge: Cambridge University Press.
- Ferejohn, Michael. (2013). *Formal Causes: Definition, Explanation, and Primacy in Socratic and Aristotelian Thought*. Oxford: Oxford University Press.
- . (2009). "Empiricism and the First Principles of Aristotelian Science." In *A Companion to Aristotle*, edited by Georgios Anagnostopoulos, 66–80. Chichester: Wiley-Blackwell.
- . (1991). *The Origins of Aristotelian Science*. New Haven: Yale University Press.
- Field, H. (1972). "Tarski's Theory of Truth." *Journal of Philosophy* 69: 347–75.
- Fine, Gail. (1984). "Separation." *Oxford Studies in Ancient Philosophy* 2. 31-87.
- Frede, Michael. (1987). "The Unity of General and Special Metaphysics: Aristotle's Conception of Metaphysics." In Michael Frede, *Essays in Ancient Philosophy*, 81–95. Minneapolis: University of Minnesota Press.
- . (1994). "Aristotle's Notion of Potentiality in Metaphysics Θ ." In *Unity, Identity, and Explanation in Aristotle's Metaphysics*, edited by Th. Scaltsas, D. Charles and M.L. Gill, 173-93. Oxford: Clarendon Press.
- Furth, Montgomery. (1988). *Substance, Form, and Psyche: An Aristotelean Metaphysics*, Cambridge University Press.
- . (1978). "Transcendental Stability in Aristotelian Substances." *The Journal of philosophy*, Vol. 75 (11): 624-646.
- Garcia-Carpintero, M. (2007). "Bivalence and what is said." *Dialectica*, 61 (1), 167–190.
- Gillespie, G.M. (1979). "The Aristotelian Categories." *Articles on Aristotle. 3: Metaphysics*. Barnes, Jonathan; Schofield, Malcolm.; Sorabji, Richard. London: Duckworth.
- Glanzberg, M. (ed.), (2018). *The Oxford Handbook of Truth*. Oxford: Oxford University Press.
- Goldin, Owen. (2010). "Two traditions in the ancient *Posterior Analytics* commentaries." *Interpreting Aristotle's Posterior Analytics in Late Antiquity and Beyond*. Edited by Frans A.J. de Haas, Mariska Leunissen and Marije Martijn, 155-182. Brill NV, Leiden.
- . (1996). *Explaining an Eclipse: Aristotle's Posterior Analytics 2.1-10*. Ann Arbor: University of Michigan Press.
- Gottlieb, Paula. (2015). "Aristotle on non-contradiction." *The Stanford Encyclopedia of Philosophy*. <http://plato.stanford.edu/entries/aristotle-noncontradiction/>.
- . (1994). "The Principle of Non-Contradiction and Protagoras: The Strategy of Aristotle's Metaphysics IV 4." *Proceedings of the Boston Area Colloquium in Ancient*

Philosophy VIII: 183–209.

- Graeser, A.(1978). “On Aristotle’s Framework of Sensibilia.” In *Aristotle on Mind and the Senses. Proceedings of the Seventh Symposium Aristotelicum*, ed. G.R. Lloyd and G. E. L. Owen, Cambridge: Cambridge University Press, 69-97.
- Graham, Daniel W. (1988). “Aristotle’s Definition of Motion.” *Ancient philosophy* Vol.8 (2): 209 -215.
- Greg Restall. (1996). “Truthmakers, Entailment and Necessity.” *Australasian Journal of Philosophy* 74(2),331-340.
- Grim, Patrick. (2004). “What is a Contradiction?” In Graham Priest, J.C. Beall & Bradley Armour-Garb (eds.), *The Law of Non-Contradiction*. Clarendon Press.
- Halper, Edward. (2009). *One and Many in Aristotle’s Metaphysics: Books Alpha–Delta*. Las Vegas: Parmenides Publishing.
- . (2005). *One and Many in Aristotle’s Metaphysics: the central books*. Parmenides Publishing.
- Hamlyn, D. W. (1968). *Aristotle’s De Anima II and III*. Oxford: Oxford University Press.
- . (1961). “Aristotle on Predication.” *Phronesis* 6: 110–26.
- Hankinson, R. J. (1998). *Cause and Explanation in Ancient Greek Thought*. Oxford: Clarendon Press.
- Hanson, William H.(2014). “ Logical truth in modal languages: reply to Nelson and Zalta.” *Philosophical studies*,167: 327-339.
- Harari, Orna. (2004). *Knowledge and Demonstration: Aristotle’s Posterior Analytics*. Kluwer Academic Publishers, Dordrecht/Boston/London.
- Harvey, Peter. (1978). “Aristotle on Truth and Falsity in "De Anima" 3. 6.” *Journal of the History of Philosophy*, Apr 1, Vol.16 (2), 219.
- Heinaman, Robert. (2007). “Actuality, Potentiality and *De Anima* II.5.” *Phronesis* 52, 139-187.
- . (1981). “Non-substantial individuals in the Categories.” *Phronesis* 26: 295-307.
- Hestir, Blake. (2013). “Aristotle’s Conception of Truth: An Alternative View”. *Journal Of The History Of Philosophy*, Apr, Vol. 51(2), 193-222.
- Hintikka, Jaakko. (1986). “The Varieties of Being in Aristotle.” In *The Logic of Being: Historical Studies*, edited by Simo Knuuttila and Jaakko Hintikka, 81–114. Dordrecht: Reidel.
- Hocutt, Max. (1974). “Aristotle’s Four Beauses.” *Philosophy*, Vol.49 (190): 385-399.
- Hofweber, T (2005). “Conceptions of Truth by Wolfgang Künne.” *The Philosophical Review*, Vol. 114, No. 1, Jan. 136-139.
- Horn, L. R. (2018). “Contradiction.” *The Stanford Encyclopedia of Philosophy* (Winter 2018 Edition), Edward N. Zalta (ed.),
URL = < <https://plato.stanford.edu/archives/win2018/entries/contradiction/> > .
- . and Wansing, H. (2017). “Negation.” *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition), Edward N. Zalta (ed.),
URL = < <https://plato.stanford.edu/archives/spr2017/entries/negation/> > (accessed:

- 10-20-2019).
- . (2001). *A Natural History of Negation*, Stanford: CSLI.
- Horwich, P. (2008), "Being and Truth." *Midwest Studies in Philosophy*, Vol.32 (1): 258-273.
- . (1998). *Truth* (second edition). Oxford: Oxford University Press.
- . (1982). "Three Forms of Realism," *Synthese* 51: 181–201.
- Inciarte, F. (1999). "Aristotle and Aquinas: The principle of excluded middle." *Philosophiegeschichte und logische Analyse*, 2, 139–48.
- Irwin, Terence H. (1988). *Aristotle's First Principles*. Oxford: Oxford University Press.
- . (1982). "Aristotle's Conception of Signification." In: *Language and Logos*, 241–266.
- Izgin, Christopher. (2020). "Internal Negation and the Principles of Non-Contradiction and of Excluded Middle in Aristotle." *History and Philosophy of Logic*, 41:1, 1-15.
- Jimenez, E. (2017). *Aristotle's concept of mind*. Cambridge: Cambridge University Press.
- Johansson, Ingvar. *Ontological Investigations: An Inquiry into the Categories of Nature, Man and Society*. Berlin/Boston: De Gruyter, Inc. 2012.
- John J. (1988). *Aristotle On the Many Senses of Priority*. Southern Illinois University Press.
- Johnson, Monte Ransome. (2005). *Aristotle on Teleology*. Oxford UK: Clarendon Press.
- Jones, Russell Edward. (2010). "Truth and Contradiction in Aristotle's De Interpretatione 6-9." *Phronesis* 55(1): 26-67.
- Judson, Lindsay. (2016). "Aristotle, *Metaphysics* Θ.8, 1050b6-28," *Phronesis*, Vol.61 (2), 142-159.
- Kahn, Charles (2004). "A Return to the Theory of the Verb Be, and the Concept of Being." *Ancient Philosophy* 24 : 381–405.
- . (1981a). "Some Philosophical Uses of 'to be' in Plato." *Phronesis* 26: 105–34.
- . (1981b). "The Role of Nous in the Cognition of First Principles in *Posterior Analytics* II 19." In: *Aristotle on Science : the Posterior Analytics : Proceedings of the eighth Symposium Aristotelicum held in Padua from September 7 to 15, 1978*. Edited by Enrico Berti. Padova: Editrice Antenore, 385-414.
- . (1976). "Why Existence Does Not Emerge as a Distinct Concept in Greek Philosophy." *Archiv für Geschichte der Philosophie* 58: 323-34.
- . (1973). *The Verb 'Be' in Ancient Greek*. Dordrecht/Boston: D. Reidel.: 1973.
- . (1966). "The Greek Verb 'To Be' and the Concept of Being." *Foundations of Language* 2 : 245–65.
- Katz, Emily. (2017). "Ontological Separation in Aristotle's *Metaphysics*." *Phronesis* 62, 26-68.
- Ketchum, Richard. J. (1998). "Being and Existence in Greek Ontology." *Archiv für Geschichte der Philosophie*, 80, 321–32.
- King, Jeffrey C; Soames, Scott and Speaks, Jeff. (2004). *New Thinking About Propositions*. Oxford: Oxford University Press.
- Kirkham, Richard L. (1992). *Theories of truth: a critical introduction*. Cambridge: The MIT Press.
- Kirkland, Sean D. (2014). "Dialectic and Proto-Phenomenology in Aristotle's *Topics* and *Physics*." *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, Vol.29 (1):

185-213.

- Kirwan, C. (1993). *Aristotle's Metaphysics Books Γ, Δ, and E*. Oxford: Clarendon Press.
- Koslicki, Kathrin. (2014). "The Causal Priority of Form in Aristotle." *Studia Philosophica Estonica* 7 (2): 113-141.
- Kosman, Aryeh. (2014). "Understanding, Explanation, and Insight in the *Posterior Analytics*." *Virtues of Thought*, 7.
- . (1969). "Aristotle's Definition of Motion." *Phronesis* 14: 140-162.
- Kretzmann, Norman. "Aristotle on Spoken Sound Conventional by Nature." In *Ancient Logic and Its Modern Interpretations*, edited by J. Corcoran, 3–21. Dordrecht: Reidel, 1974.
- Kripke, S. (1975). "Outline of a Theory of Truth". *Journal of Philosophy*, 72(19), 690- 716.
- Künne, Wolfgang. (2003). *Conceptions of Truth*. Oxford: Oxford University Press.
- Kung, J. (1986). "Aristotle on 'Being Is Said in Many Ways.'" *History of Philosophy Quarterly* 3:318.
- . (1977). "Aristotle on Essence and Explanation." *Philosophical Studies: An International Journal for Philosophy in the Analytica Tradition* 31: 361–83.
- Lear, Jonathan. (1988). *Aristotle: The Desire to Understand*, New York: Cambridge University Press.
- . (1980). "Proof by refutation." in J. Lear, *Aristotle and Logical Theory*, Cambridge: University Press.
- Leeds, Stephen. (1978). "Theories of reference and truth." *Erkenntnis*, 13: 111-130.
- Leshner, James H. (1973). "The Meaning of in the *Posterior Analytics*." *Phronesis* 18: 44-68.
- Lewis, Frank A. (2013). *How Aristotle gets by in Metaphysics Zeta*. Oxford : Oxford University Press.
- . (2011). "Predication, Things, and Kinds in Aristotle's *Metaphysics*." *Phronesis* 56: 350–87.
- . (1996). "Aristotle on the unity of substance." *Form, Matter and Mixture in Aristotle*. Lewis, Frank A.; Bolton, Robert; Annual USC/Rutgers conference in Aristotle (4 : 1992). Oxford [etc.] : Blackwell.
- . (1995). "Aristotle on the Unity of Substance." *Pacific Philosophical Quarterly* 76: 222-265.
- . (1991). *Substance and Predication in Aristotle*. Cambridge: Cambridge University Press.
- Leunissen, Mariska E.M.P.J. (2010a). "Aristotle and Philoponus on Final Causes in Demonstrations in *Posterior Analytics* II 11." In *Interpreting Aristotle's Posterior Analytics in Late Antiquity and Beyond*, edited by Frans A.J. De Haas, Mariska E.M.P.J. Leunissen and Marije Martijn, 183-202. Leiden-Boston-Köln: Brill.
- . (2010b) "Aristotle's Syllogistic Model of Knowledge and the Biological Sciences: Demonstrating Natural Processes." In *From Inquiry to Demonstrative Knowledge: New Essays on Aristotle's Posterior Analytics* edited by J.H. Leshner, 31-60. *Apeiron* 43.2-3.
- Llano, Alejandro .(2001) "The different meanings of 'being' according to Aristotle and Aquinas". *Acta Philosophica*, vol. 10: 29-44.38.
- Lloyd, A.C. (1981). "Necessity and essence in the *Posterior Analytics*." *Aristotle on Science*:

- the Posterior Analytics: Proceedings of the eighth Symposium Aristotelicum held in Padua from September 7 to 15, 1978.* Edited by Enrico Berti. Padova: Editrice Antenore. 157-171.
- Long, Christopher P. (2011) *Aristotle on the nature of truth*, New York, N.Y., [etc.] : Cambridge University Press .
- Lorenz, H. (2007). "Assimilation of Sense to Sense-object in Aristotle." in *Oxford Studies in Ancient Philosophy* 33: 179-220.
- Loux, Michael J. (2018). *Primary "Ousia": An Essay on Aristotle's Metaphysics Z and H*, Cornell University Press.
- Lowe, E.J. (2009). "Truth-making as essential dependence. And an essential approach to truth-making." In *Truth and truth making*. Edited by A. Rami : Acumen.
- . (2009). *An essentialist approach to truth-making*. Stocksfield [England] : Routledge.
- Łukasiewicz, J. (1979). "Aristotle on the Law of Contradiction," *Articles on Aristotle*, vol. 3, *Metaphysics*, ed. Barnes, Schofield, and Sorabji (London: Duckworth) 50–62.
- . (1973). "Über den Determinismus." *Studia Leibnitiana*, 5 (1), 5–25.
- . J. (1971). "On the principle of contradiction in Aristotle." English translation of 1861 by Vernon Wedin. *The Review of Metaphysics*, 24 (3), 485–509.
- Lynch, Michael. (2009). *Truth as One and Many*. Oxford: Oxford University Press.
- . (2004). *True to Life: Why Truth Matters*. Cambridge, MA: MIT Press.
- Madigan, A. (1999). *Aristotle. Metaphysics Books B and K 1-2*. Oxford: Clarendon Press.
- Makin, Stephen. (2006). *Metaphysics : Book Theta*, Oxford [etc.]: Clarendon Press.
- Malink, Marko. (2013). *Aristotle's Modal Syllogistic*. Cambridge, MA and London: Harvard University Press.
- Malpas, Jeff. (2016). "Why an Aristotelian Account of Truth Is (More or Less) All We Need." *Philosophical Topics*, Vol.44 (1), 27-38.
- Mann, W.R.(2000). *The Discovery of Things: Aristotle's Categories and their Context*. Princeton.
- Marconi, D. (2009). "Being and Being Called: Paradigm Case Arguments and Natural Kind Words." *The Journal of Philosophy*, CVI (3), 113–36.
- Marino, P. (2008). *Toward a Modest Correspondence Theory of Truth: Predicates and Truth*. *Dialogue*, XLVII (1), 81–102.
- Marmodoro, A. (2014). *Aristotle on Perceiving Objects*, Oxford: Oxford University Press.
- Matthen, Mohan. (1984). "Aristotle's Semantics and a Puzzle Concerning Change." (F. J. Pelletier, and J. King-Farlow, eds.) *Canadian Journal of Philosophy, Supplementary Volume X* (Summer), 21–40.
- . (1983). "Greek Ontology and The 'is' of Truth." *Phronesis* 28:113-35.
- Matthew McGrath. (1997). "Weak Deflationism." *Mind* 106: 69-98.
- McKirahan, Richard. (1992). *Principles and Proofs. Aristotle's Theory of Demonstrative Science*. Princeton, NJ: Princeton University Press.
- Merricks, Trenton (2009). "Truth and Freedom." Ithaca: Duke University Press, *The Philosophical review*, Vol.118 (1), p.29-57.
- . (2007). *Truth and Ontology*. Oxford : Clarendon Press.
- Miller, Fred Dycus. (1971). *Aristotle on Being and Truth*, Dissertation, University of

- Washington.
- Modrak, Deborah K. W.(2009). *Aristotle's Theory of Language and Meaning*, Cambridge, GBR: Cambridge University Press.
- . (1987). *Aristotle: the Power of Perception*, Chicago [etc.]: University of Chicago Press.
- Moravcsik, J. M. E.(1991). “What Makes Reality Intelligible? Reflections on Aristotle’s Theory of Aitia.” In Judson, L. ed., *Aristotle’s Physics: A Collection of Essays*. Oxford: Clarendon Press. 31-47.
- . (1967). “Aristotle on Predication.” *Philosophical Review* 76, 80-96.
- Morrison, Donald. (1985a). “Separation: A Reply to Fine.” *Oxford Studies in Ancient Philosophy* 3, 167-173.
- . (1985b). “Separation in Aristotle’s Metaphysics.” *Oxford Studies in Ancient Philosophy* 3, 125-157.
- Moore, G. E. (1901–02). “Truth and Falsity.” In J. Baldwin (ed.), *Dictionary of Philosophy and Psychology*. London: Macmillan, 716–18.
- . (1958). *Some Main Problems of Philosophy*. London: George Allen & Unwin.
- Munitz, Milton Karl.(ed.), (1973). *Logic and Ontology*. New York: New York University Press.
- Newman, A.(1992). *The Physical Basis of Predication*, Cambridge: Cambridge University Press.
- Nightingale, Andrea Wilson. (2009). *Spectacles of Truth in Classical Greek Philosophy: Theoria in its Cultural Context*. Cambridge, UK: Cambridge University Press.
- Noonan, H. W. (1977). “An Argument of Aristotle on Non-Contradiction.” *Analysis* Jun., 1977, Vol. 37, 163-169.
- Noriega-Olmos, S. (2013). *Aristotle’s Psychology of Signification*. De Gruyter.
- Nuchelmans, Gabriël. (1973). *Theories of the proposition: Ancient and medieval conceptions of the bearers of truth and falsity*, Amsterdam; London: North-Holland Publishing Co.
- O'Connor, Daniel John. (1975). *The Correspondence Theory of Truth*, London : Hutchinson.
- Olfert, Christiana Megan Meyvis (2018). “Aristotle on the Truth About Practical Ends.” *Apeiron*, Vol.51 (2): 221-244.
- Owen, G. E. L. (1986). *Logic, Science, and Dialectic*. Edited by Martha Nussbaum. Ithaca, NY: Cornell University Press.
- Owens, J. (1978). *The Doctrine of Being in the Aristotelian Metaphysics: a Study in the Greek Background of Mediaeval Thought* (Third revised ed.). Toronto: Pontifical Institute of Mediaeval Studies.
- Patterson, D. (2010). “Truth as Conceptually Primitive.” In C. Wright and N. Pedersen, *New Waves in Truth*. Dordrecht: Springer. 13-29.
- Patzig, G.(1979). “Theology and Ontology in Aristotle’s Metaphysics.” *Articles on Aristotle. 3: Metaphysics*. Barnes, Jonathan; Schofield, Malcolm.; Sorabji, Richard. London: Duckworth.
- Pearson, G. (2005). “Aristotle on Being-as-Truth.” *Oxford Studies in Ancient Philosophy*, 28,

201-31.

Peramatzis, M. (2011). *Priority in Aristotle's Metaphysics*. Oxford: Oxford University Press.

———. (2013). "Science and Metaphysics in Aristotle's philosophy." *Metascience* 22 (2): 303-315.

Perälä, Mika. (2020). "Affirmation and Denial in Aristotle's *De interpretatione*", *Topoi* 39: 645–656.

Peterson, John. (2000). "Conceptualism and Truth." *Ratio*, September, Vol.13(3), 234-238.

Pitcher, George. (1964). *Truth*. Englewood Cliffs, NJ: Prentice Hall.

Polansky, Ronald. (1999), "Analogy and Disanalogy of the Soul's Faculties in Aristotle's *De Anima*." *Boston Area Colloquium in Ancient Philosophy*, 15, 57-86.

Polansky, Ronald and Kuczewsky, Mark. (1990). "Speech and Thought, Symbol and Likeness: Aristotle's *De Interpretatione* 16a3–9." *Apeiron* 23: 51–63.

Politis, Vasilis. (2005). *Routledge Philosophy Guide Book to Aristotle and the Metaphysics*.

Priest, G. (2006a). *Doubt Truth to Be a Liar*, Oxford: Oxford UP.

———. (2006b). *In Contradiction* (2nd ed.). Oxford and New York: Oxford University Press.

———. (1998). "To Be and Not To Be—That is the Answer. On Aristotle on the Law of Non-Contradiction." *Philosophiegeschichte und logische Analyse*, 1, 91–130.

Priest, G. Beall, J. C ; Armour-Garb, Bradley. (2004). *The Law of Non-Contradiction: New Philosophical Essays*, Oxford: Oxford University Press.

Pritzl, Kurt. (2012). *Truth: Studies of a Robust Presence*. Catholic University of America Press.

———. (1998). "Being True in Aristotle's Thinking." *Proceedings of the Boston Area Colloquium in Ancient Philosophy. XIV*, 177–201.

Rayo, A. (2008). "On Specifying Truth-Conditions." *The Philosophical Review*, 117 (3), 385–443.

Read, S. (2015). "Aristotle and Łukasiewicz on existential import." *Journal of the American Philosophical Association*, 1 (3), 535–44.

Reeve, C.D.C. (2017). *Aristotle De Anima. Translated with introduction and notes*. Hackett Publishing Company, Inc. Indianapolis/Cambridge.

———. (2015). *Aristotle Metaphysics. Translated with introduction and notes*. Hackett Publishing Company, Inc. Indianapolis/Cambridge.

Rist, John M. (1989). *The Mind of Aristotle: A Study in Philosophical Growth*, University of Toronto Press.

Roochnik, David (2012). *Retrieving Aristotle in an Age of Crisis*. Albany: State University of New York Press.

Ross, W.D (1924). *Aristotle's Metaphysics: A Revised Text with Introduction and Commentary*. Oxford University Press.

Russell, Bertrand. (1994). "The Nature of Truth." in *The Collected Works of Bertrand Russell*, vol. 4, ed. A. Urquhart. London: Routledge, 492–506.

———. (1971). *Problems of Philosophy*; reprinted at Oxford: Oxford University Press.

———. (1956). *Logic and Knowledge*. ed. R. C. Marsh. London: George Allen and Unwin.

- Salter, Frank. (1995). *Comments on the Naturalistic Fallacy, Biology and Politics*.
<https://doi.org/10.1177/053901895034002009>.
- Sentesy, Mark. (2019). "Genesis and the Priority of Activity in Aristotle's Metaphysics IX.8." *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, Vol.34 (1), 43-70.
- Shieh, Sanford. (2018) "Truth Objectivity, and Realism." in: Glanzberg, M. (ed.). *The Oxford Handbook of Truth*. Oxford: Oxford University Press. 2018.
- Shields, C. (1999). *Order in Multiplicity: Homonymy in the Philosophy of Aristotle*. Clarendon Press. Oxford.
- Simons, P. (1988). "Aristotle's Concept of States of Affairs." In M. Fischer, and O. Gigon (eds.), *Antike Rechts- und Sozialphilosophie* (97–112). Frankfurt/ M: Lang.
- Sliverman, Allan. (2002). *The Dialectic of Essence*. Princeton: Princeton University Press.
- Smith, R. (2019). "Aristotle's logic." *The Stanford Encyclopedia of Philosophy* (Summer 2019 Edition), Edward N. Zalta (ed.),
 URL = < <https://plato.stanford.edu/archives/sum2019/entries/aristotle-logic/> > .
- Soames, Scott. (1999). *Understanding Truth*. New York: Oxford University Press.
- . (1984). "What Is a Theory of Truth?" *Journal of Philosophy* 81: 411–429.
- Spellman, Lynne. (1995). *Substance and Separation in Aristotle*. Cambridge; New York: Cambridge University Press.
- Strickland, Lloyd. (2013). "Philosophy and the Search for Truth." *Philosophia*, Dec, Vol. 41 (4): 1079-1095.
- Szaif, Jan; Glanzberg, Michael. (2018). "Plato and Aristotle on Truth and Falsehood." *The Oxford Handbook of Truth*. 9-49. Oxford University Press.
- Tahko,T. (2009). "The law of non-contradiction as a Metaphysical Principle." *Australasian Journal of Logic* 7: 32-47.
- Tarski, A. (1944). "The Semantic Conception of Truth." *Philosophy and Phenomenological Research* 4: 341–376.
- . (1983). "The Concept of Truth in Formalized Languages." In A. Tarski, & J. Corcoran (Ed.), *Logic, Semantics, Metamathematics* (J. H. Woodger, Trans., 2nd Edition ed., 152–277). Indianapolis, Indiana, USA: Hackett Publishing Company, Inc.
- Thorp, J. (2013). "Aristotle on the Truth of Things", *Society for Ancient Greek Philosophy Newsletter*, 485.
- Thorp, J. (1982). "Being as Truth." *Philosophia*, 3, 1–9.
- Tuominen, Miira. (2010). "Back to *Posterior Analytics* II 19: Aristotle on the Knowledge of Principles." *Apeiron* 43: 115–44.
- Upton, Thomas V. (2004). "Truth vs. Necessary Truth in Aristotle's Sciences." *The Review of Metaphysics* 57 (4), 741-753.
- . (2002). "The Law of Non-Contradiction and Aristotle's Epistemological Realism." *The Thomist: A Speculative Quarterly Review*, Volume 66, Number 3, July, 457-471.
- Vision, Gerald. (2004). *Veritas: the Correspondence Theory and its Critics*. Cambridge, MA: MIT Press.
- Vuillemin-Diem, Gudrun. (1983). "Anmerkungen zum Pasikles-Bericht und zu

- Echtheitszweifeln am Größeren und Kleineren Alpha in Handschriften und Kommentaren.” In *Zweifelhaftes im Corpus Aristotelicum. Studien zu einigen Dubia*, edited by Paul Moraux and Jürgen Wiesner, 157-92. Berlin-New York: Walter de Gruyter,
- Walz, Matthew. (2006). “The opening of *On Interpretation*: toward a more literal reading.” *Phronesis*, 51(3), 230-251.
- Wedin, M. (2004a). “Aristotle on the Firmness of the Principle of Non-Contradiction.” *Phronesis*, 49(3), 225–265.
- . (2004b). “On the Use and Abuse of Non-Contradiction: Aristotle’s Critique of Protagoras and Heraclitus in *Metaphysics Gamma 5*.” *Oxford Studies in Ancient Philosophy*, XXVI, 213–39.
- . (2003). “A Curious Turn in *Metaphysics Gamma*: Protagoras and Strong Denial of the Principle of Non-Contradiction.” *Archiv für Geschichte der Philosophie* 85: 107–130.
- . (1999). “The Scope of Non-Contradiction: A Note on Aristotle’s ‘Elenctic’ Proof in ‘*Metaphysics*’ Γ 4.” *Apeiron* Vol.32 (3), 231-242.
- . (1997). “The strategy of Aristotle’s *Categories*.” *Archiv für Geschichte der Philosophie*, Vol.79 (1), p.1-26.
- . (1990). “Negation and quantification in Aristotle.” *History and Philosophy of Logic*, 11,131–50.
- Weidemann, Hermann. (2014). *Aristoteles. Hermeneutik. Peri Hermeneias*, Berlin/Bonn: Walter de Gruyter.
- . (1980). “In Defense of Aristotle’s Theory of Predication.” *Phronesis* 25, 76-87.
- . (1984). “Singular Statements and Essentialism in Aristotle.” *Canadian Journal of Philosophy*, Suppl. vol. 10, 67-88.
- Weston, T. (1992). “Approximate Truth and Scientific Realism.” *Philosophy of Science*, 59 (1), 53–74.
- . (1988). “Approximate Truth and Lukasiewicz Logic.” *Notre Dame Journal of Formal Logic*, 29 (2). 229-234.
- Wheeler, Mark Richard. (2019a). *Being Measured: Truth and Falsehood in Aristotle’s Metaphysics*, Albany: University of New York Press.
- . (2019b). “Aristotle on Being True in *Metaphysics v 7*.” *Ancient Philosophy*, vol. 39, Spring, 1–17.
- . (2018). “Aristotle’s Canonical Definition of Truth is not a Real Definition of Truth.” *History of Philosophy Quarterly*, Vol. 35, Issue 1, Spring.
- . (2011). “A Deflationary Reading of Aristotle’s Definitions of Truth and Falsehood at *Metaphysics* 1011b26–7.” *Apeiron* 44: 67–90.
- . (1999). “Semantics in Aristotle’s *Organon*.” *Journal of the History of Philosophy* 37: 191–226.
- Whitaker, C.W.A.(1996). *Aristotle’s De Interpretation: Contradiction and Dialectic*. Oxford: Oxford University Press.
- . (1982). “Aristotle on Being and Truth.” *De Philosophia* 3: 1–9.
- Wieland, Wolfgang. (1975). “Aristotle’s *Physics* and the problem of inquiry into principles.”

- In Jonathan Barnes, Malcolm Schofield & Richard Sorabji (eds.), *Articles on Aristotle*, v. 1: *Science*. London: Duckworth. 127-140.
- Williams, Bernard. (2004). *Truth and Truthfulness*. Princeton: Princeton University Press.
- Williams, C.J.F. (1992). *Being, identity and truth*. Oxford: Clarendon Press.
- Williams, Michael. (1986). "Do We (Epistemologists) Need a Theory of Truth?" *Philosophical Topics* 54: 223–242.
- Witt, Charlotte (2003). *Ways of Being: Potentiality and Actuality in Aristotle's Metaphysics*, Cornell University Press.
- . (1989). *Substance and Essence in Aristotle: An Interpretation of Metaphysics VII-IX*. Ithaca, Cornell University Press. NY
- Wolenski, J. (2004). "Aletheia in Greek Thought until Aristotle." *Annals of Pure and Applied Logic*, 127, 339–60.
- Wright, C. (1992). *Truth and Objectivity*. Cambridge, Massachusetts: Harvard University Press.
- Ziemiński, Zygmunt. (1976). "Some Remarks on the Consequence Relation between Legal Norms." *Studia Filozoficzne*, Numer obcojęzyczny 3.
- Zuppolin, Breno. (2020). "Comprehension, Demonstration, and Accuracy in Aristotle." *Journal of the History of Philosophy*. 29-48.
- . (2018). "Aristotle on Per se Accidents." *Ancient Philosophy* 38: 113–35.
- . (2017). "Book review: David Bronstein, Aristotle on Knowledge and Learning: The Posterior Analytics." *Manuscripta* 40: 179–86.
- . (2016). "Aristotle's Foundationalism." *Dissertatio* 44: 187–211.

Nederlandse samenvatting

Hoe het begrip waarheid te interpreteren is een veelbesproken onderwerp in de geschiedenis van de filosofie. De kwesties met betrekking tot waarheid betreffen de taal, de werkelijkheid en hun correspondentie-relaties. Van de verschillende interpretaties van waarheid wordt de correspondentie-theorie van waarheid door veel geleerden ondersteund. Onder meer Michael Devitt en Wolfgang Künne schrijven de correspondentie-theorie van waarheid toe aan Aristoteles, en vinden die vooral in *Metaphysica* Γ.7, Δ.7, E.4, en Θ.10. Deze correspondentie-interpretatie van waarheid wordt beschouwd als de standaard interpretatie van waarheid in Aristoteles. Echter, op basis van het werk van Aristoteles is het begrip waarheid nog steeds voor verschillende interpretaties vatbaar.

Mijn reis naar het begrip waarheid begint bij de hedendaagse discussie over de klassieke correspondentie-theorie van waarheid, maar ik ben direct geïnspireerd door Aristoteles. Hij besteedde zijn hele leven aan het onderzoeken van de waarheid: het is de taak van filosofen de inherente verbinding tussen waarheid en zijn te onthullen. In de werken van Aristoteles vinden we naast de klassieke correspondentie-theorie een meer fundamentele lezing van het concept waarheid, die ik hier ontologische waarheid heb genoemd. In *Metaphysica* Θ.10 benoemt Aristoteles waarheid en onwaarheid als zijnde in de meest strikte zin van het woord. Ik ben geïntrigeerd door deze uitspraak en vraag ik me af of we een alternatieve manier kunnen vinden om Aristoteles' filosofische werken te interpreteren als een menselijk streven naar ontologische waarheid.

Volgens *Metaphysica* Θ.10 aanvaardt Aristoteles in de eerste plaats het feit dat het zijn op meer dan één manier gezegd kan worden. Aristoteles hanteert meer dan één manier om het zijn te beschrijven, namelijk de categorieën, actualiteit en potentialiteit, en, in de meest strikte zin, waar en onwaar. Belangrijk is dat Aristoteles de term waarheid en onwaarheid heeft gebruikt om het zijn en niet-zijn in strikte zin te beschrijven. Hier neemt waarheid de vorm aan van het zijn dat het zijn in strikte zin is. Om de inherente relatie tussen waarheid en zijn duidelijker te maken, benadrukt Aristoteles het concept van combinaties en disjuncties van zijnden die de fundamentele elementen zijn van waarheid en onwaarheid. Hij maakt een verdeling tussen scheidbare samenstellingen, onscheidbare samenstellingen en niet-samengestelde zijnden. De ontologische onafhankelijkheid en de ontologische prioriteit van de dingen bepalen de waarheidswaarde van uitspraken op het niveau van de taal, alsook de waarheidswaarde van gedachten op psychologisch niveau.

Om de ontologische waarheid—dat is waarheid als zijnde in de meest strikte zin—te begrijpen, moeten wij zoeken naar de ontologische waarheid op het kruispunt van genoemde dimensies van het zijn. De aard van ontologische waarheid bij Aristoteles kan worden verduidelijkt door een verkenning van wat het meest fundamentele is in termen van de categorieën, en in termen van actualiteit en potentialiteit. In de *Categorieën* stelt Aristoteles dat benamingen zonder combinaties fundamenteeler zijn dan beweringen die bestaan uit combinaties van benamingen. Onder de verschillende enkelvoudige categorieën die zijn

onderverdeeld in tien soorten, is de substantie de fundamentele. Daarom kunnen deze enkelvoudige categorieën verdeeld worden in enerzijds de substantie, en anderzijds de andere categorieën die afhankelijk zijn van de substantie omdat ze ‘gezegd worden van’, of ‘in’ substantie zijn ‘als in een subject’. Daarnaast wordt in *Metaphysica* Θ duidelijk wat fundamenteel is in termen van actualiteit en potentialiteit: eeuwige zijnden die niet aan verandering onderhevig zijn. Eeuwige zijnden hebben actualiteit en geen of zo min mogelijk potentialiteit, en om die reden gaan eeuwige zijnden altijd ontologisch vooraf aan veranderlijke en vergankelijke zijnden.

Verder laat Aristoteles ons ook specifieke toepassingen van ontologische waarheid zien door het belang en de noodzaak te benadrukken van de rol van de ontologische waarheid in het garanderen van de waarheid van bewijzen en de aard van het principe van non-contradictie. De premissen van een bewijs moeten altijd noodzakelijk waar zijn. Elk deel van een bewijs is gerelateerd aan een ondeelbare en onvergankelijke essentie als het principe van bewijs. Zo wordt de waarheid van demonstraties gegarandeerd.

De ontologische waarheid is ook de fundering van het principe van non-contradictie. Ik laat zien dat het principe van non-contradictie is geworteld in de ontologische waarheid door het belang van een ontologische lezing van het principe van non-contradictie aan te tonen. Bovendien probeer ik het principe van non-contradictie uit te leggen als een metafysisch principe in termen van de actualiteit van zijnswijzen, in plaats van het principe van non-contradictie louter op te vatten als een logisch principe dat zich richt op beweringen. In dit opzicht zou, vanuit mijn perspectief, het principe van non-contradictie behandeld kunnen worden als de actualisatie van slechts één kant van een oppositie van zijnswijzen op ieder moment in de tijd.

Zonder af te willen doen aan de betekenis van de correspondentie-theorie van waarheid, bekritiseer ik deze opvatting door te beargumenteren dat het zijn in de meest strikte zin als waarheid een meer fundamentele en rijkere rol speelt in Aristoteles, die verder gaat dan de rol van ‘truth maker’ die uitspraken waar maakt. Bovendien kan de ontologische lezing van waarheid als zijnde in de meest strikte zin verdere concrete manieren van zijn onthullen, in plaats van alleen maar de waarheidswaarde van uitspraken uit te drukken.

Kortom, op basis van deze alternatieve, ontologische interpretatie van waarheid, is het mogelijk gebleken om de aard van ontologische waarheid in Aristoteles te verduidelijken en een aantal toepassingen van ontologische waarheid in Aristoteles aan het licht te brengen.

Aan het begin van de *Metaphysica* stelt Aristoteles expliciet dat alle mensen van nature willen weten. De zoektocht naar waarheid als zijnde in strikte zin, is een zoektocht van wat ons vertrouwd is (de waarheid van uitspraken) naar wat van nature het meest vertrouwd is (ontologische waarheid), zoals Aristoteles die in *Physica* I.1 beschrijft.

Als Aristoteles voorstelt dat wij als mensen waarheid in de natuur proberen te vangen door kennis te verwerven, en als filosofie voor Aristoteles de wetenschappelijke kennis van de waarheid is, dan is het doel van de theoretische wetenschap waarheid. Verder is het zoeken naar ontologische waarheid een doel van de mens, als de uitmuntendheid van het uitvoeren van de functies van de mens, allemaal gericht op het uiteindelijke doel van contemplatie en

geluk. Aangezien contemplatie de hele natuur als object heeft, volgt daaruit de uiteindelijke ondergeschiktheid van praktische aan theoretische kennis en het respecteren van de prioriteit van de actualiteit van verschillende zijnswijzen als ontologische waarheid. Het is de moeite waard om te erkennen dat het nastreven van ontologische waarheid door ons niet de actualisatie van waarheid van nature is.

Tegelijkertijd bepalen de vermogens van de vergankelijke mensen en hun beperkingen de mate waarin dat doel bereikt wordt. We blijven zoeken, omdat we niet als een god voor altijd in een toestand van actualiteit kunnen verkeren. Daarom stel ik hier dat het *zoeken* naar ontologische waarheid het doel van menselijke wezens is, in plaats van het te bezitten of te behouden. Maar deze beperking op het nastreven van ontologische waarheid laat nog steeds de ruimte voor plezier en uitmuntendheid van de mens. Omdat het het beste van onze menselijke vermogens realiseert, zou ik de activiteit van het zoeken naar ontologische waarheid willen beschouwen als een mogelijke manier om Aristoteles' filosofische werk als plezier te begrijpen. Mijn conclusie van het hele project zou zijn dat het werk van Aristoteles de activiteit is van een streven naar ontologische waarheid in de natuur, die ook een prestatie is van de uitmuntendheid van de mens, zoals uitgevoerd door Aristoteles op zijn eigen persoonlijke manier.

Acknowledgements

At the end of this thesis, I would like to thank all who provided support and help during my academic and daily life in Leiden. Without your help and companionship, I cannot imagine what my life would have been during my PhD journey.

Firstly, my sincere gratitude goes to the China Scholarship Council for financially supporting me to write my dissertation in Leiden.

Then, I would like to thank my supervisor Prof. Frans de Haas, who has not only lead me to appreciate various wonderful spectacles in the history of philosophy, but also show us how to perform a perfect combination of realism and idealism. Thanks also goes to my second supervisor Dr. Van den Berg, who is so kind and considerate, and gave me many valuable suggestions. I also wish to express my appreciation for the Leiden Institute for Philosophy as a big team, especially Douglas Berger, who helped me with my English and shared some essential keys for a successful dissertation with me, and Karineke Sombroek for her efficient administrative work.

Many seminars I attended have been extremely valuable. I learned a lot from my colleagues in Leiden. ShengHao Yue, Maria Zisimopoulou, Hao Liu: the days we took part in the Kepos meetings are an absolutely wonderful and warm memory in my life. Thanks to my friend Carlos, who invited me to experience several new places with impressive shows, and shared wonderful music and artistic works with me. These new experiences have enriched my academic life and daily life in Leiden.

I would like to express my gratitude to all my friends who have helped me and spent their time with me. I will never forget those sweet and precious days we spent together. Thanks to my best friend Jing Yu, who wrote a song for me to express her strong emotion for me. I am so lucky to meet a lot of nice and good people in Leiden, Wei Wang, Di Wang and Xiaoyue Song. We spent pleasureable days together, thanks for your company and care.

In closing, although a ‘thank you’ is far from enough, I wish to express my gratitude to Yinping Jin and Suzhen Li, my parents, also my best friends in my whole life, who always respect my choices and positively encourage me to do whatever I like as well as show me how to appreciate and cherish all pleasures and pains of life itself. The most important thing is that you love me unconditionally and absolutely, and this love will last forever.

Curriculum vitae

Da Jin was born in Xi'an, China, on August 5th 1991. She finished her secondary education at Xi'an 89th high school in 2010. After completing her bachelor studies at Inner Mongolia University from 2010 to 2014, she continued her study in Beijing Normal University as a master student, majoring in Philosophy of Science and Technology. During her master study, she was supervised by Prof. Liu Xiaoting for the topic of her thesis "An investigation of the view of Science and Religion in Holmes Rolston II". She obtained her MA degree in 2017. In the same year, she started her PhD study at Leiden University, supervised by Prof. Frans de Haas. And in 2018, she received a scholarship from the China Scholarship Council which enabled her to continue her PhD studies at Leiden University.