

Connection and Transition between M and N in Aristotle's *Metaphysics*

Chihiro Nishioka

1. Introduction

Books M and N of Aristotle's *Metaphysics* are often recognized as a set of his critical investigation of Platonic Forms and Numbers. It is reasonable, on the whole, to treat them as a chunk because of their commonality of targets and themes. We also have textual evidence supporting their connection: the grammatical marker at the beginning of Book N and the back and forward references in both books.¹ Nevertheless, how these books are connected as a single work is hard to explain. It is even difficult to tell them apart as two distinct and essential components of the work. Perhaps such a question can be also asked in the case of the so-called "central books," ZHΘ.² For Books M and N, however, the situation seems more complicated due to the disputable transition from M to N.

Until the mid-20th century, it was natural to presume a rupture between M and N. Some scholars considered there to be a chronological gap, even if they did not doubt the authenticity of both books.³ We should note that the deliberate idea of MN as "a single journey"⁴ is something recent. This idea, probably common in the era of ancient commentators,⁵ was revived by J. Annas in the second half of the 20th century. Subsequently, an international interest arose in Aristotle's extensive program and structure for his long inquiry in MN. A revealing sign, it seems to me, is that E. Berti, in his contribution to the collected papers of Symposium Aristotelicum, looked back on when and why Books M and N had begun to be taken

¹ The back references are M 9 1086a29-30 and possibly M 3 1078b5-6 [cf. Ross 1924, II 419, Crubellier 1994, 151], whereas the forward references are N 2 1090a13-15 and N 3 1090a28-29.

² It is well known that only four (i.e., H, Θ, M, N) of the fourteen books have the connecting particles at their beginnings. Among the four books, the position of Book M is exceptionally problematic, which I do not address in this paper. The chunk ZHΘ has been widely accepted in modern scholarship; although, as Burnyeat (2001, 62-77) argues on the complicated transition of Z and H, it is not easy to determine the flow of Aristotle's investigation. For example, while the close connection between Z and H has been generally recognized, Couloubaritsis rather highlights the continuity between H and Θ and Yu has come to explicitly doubt the unity of ZH.

³ Some early scholars cast doubt on the authenticity of Book M or a part of it. See Robin 199 n. 211, I and 441 n. 351 IV.

⁴ Annas 88.

⁵ As I explain later, they regarded that the program in M 1 could apply to Books M and N as a whole.

as separate documents.⁶ In the 1990s, in his voluminous unpublished commentary, M. Crubellier conducted a precise reading through both books, with a critical eye on the tendency of fragmenting and exploiting the text. Consequently, on the one hand, thanks to the turn of interpretative strategy, we have a sound basis for reading both books as a unified work. On the other hand, due to the intricate research history, the details of the text leave room for many fundamental differences of opinion, creating a perplexing division even among those who share the “unified treatise” assumption.

In this paper, I reconsider the connection and transition between Books M and N, paying particular attention to the connecting part (from M 9b⁷ to the beginning passage of N 1) of these books. Regarding this part, the most predominant interpretation until today is that it is a kind of prologue to Book N.⁸ Although it is not a fault in a broad sense, I will show that the minimum range of the connection should be limited to M 6-N 4 because, in the connecting part, Aristotle’s focus moves from the lower to the higher structure in Platonic theory. This limitation is not for scholastic rigor but to capture the dynamic flow of the argument. I argue that the transition is not provided by a static set of concepts or target theories but is an argumentative shift following the aporetic movement in M 10, which is enacted through the strict distinction of universals and individuals. The issues of “connection” are mainly discussed in Section 3, while those of “transition” are in Section 4.

2. Double introduction of Book N: A short interpretative history

Book N has a particle (οὐν) at the beginning, which implies that the upcoming discussion follows the previous book. However, we cannot pinpoint where Aristotle’s new argument starts because of another transitional sign in M 9 (1086a21-26). In this passage, Aristotle has announced a new topic: first principles, first causes, and elements, particularly those insisted on by Platonists. However, he did not undertake them immediately. His apparent concern from here to the end of

⁶ Berti 11. Berti (30-31) finally arrived at “l’indépendance du livre N” under the historical division between “Ur-philosophie” and “Spät-metaphysik.” He noted J. C. Glaser’s attempt in 1841 as the first example to separate Books M and N. Interestingly, he stated that before this separation occurred, there was already an interpretative tendency to cut off MN from the preceding books in *Metaphysics*.

⁷ A critical shift in argument occurs at M 9 1086a21. Although the shift is anticipated at 1086a18 by the particles (as in Ross 1928), it is more common to divide the chapter at 1086a21 (as in Ross 1908). I generally refer the text before 1086a21 as “M 9a” and afterwards as “M 9b.” However, for the sake of broadly confirming the context, I quote the beginning passage of M 9b from line 18 only in the next section.

⁸ For example, Jaeger (1912) 41 and Annas 80.

Book M is describing some aporias concerning universals and individuals. Then, at the beginning of Book N, he announces the subject of principles again and launches his examination of Platonic principles like the One and the Indefinite Dyad.⁹

Those overlapping transitions from M to N have annoyed interpreters since ancient times. Their solutions sometimes differ greatly depending on what problems each interpreter found. Before observing the various interpretations, I will briefly confirm the two related texts,¹⁰ which I will discuss in detail later.

M 9 1086a18-26

But regarding numbers, on the one hand (ἀλλὰ περὶ μὲν τῶν ἀριθμῶν), the questions we have raised and the conclusions we have reached are sufficient (...); on the other hand, regarding the first principles and the first causes and elements (περὶ δὲ τῶν πρώτων ἀρχῶν καὶ τῶν πρώτων αἰτίων καὶ στοιχείων), the views expressed by those who discuss only sensible substance have been partly stated in our works on nature, and partly do not belong to the present inquiry; but the views of those who assert that there are other substances besides the sensible must be considered next after those we have been mentioning.

N 1 1087a29-33

Then, regarding this kind of substance, on the one hand (περὶ μὲν οὖν τῆς οὐσίας* ταύτης), what we have said must be taken as sufficient. On the other hand, all people make the principles contraries (πάντες δὲ ποιοῦσι τὰς ἀρχὰς ἐναντίας): as in natural things, so also in the case of unchangeable things. But since there cannot be anything prior to the principle of all things, the principle cannot be the principle and yet be an attribute of something else. To suggest this is like saying that (...).

* Bonitz (1849, 570) suggests that οὐσίας (1087a29) should have been written as ἀπορίας.

Both texts introduce a new investigation of principles. It looks strange that the version in N 1 does not have the adjective “πρώτας.” However, considering the subject in Book N, it seems natural to suppose that “the principle” is the first principle, as Ross translated. In both texts, Aristotle limits his inquiry within the metaphysical area compared to physics. We can safely say that his new investigation

⁹ Ross (1924, II 470) rightly noted as “we hear a good deal in M of the One and the indefinite dyad.” However, it is also obvious that Aristotle uses them not to focus on themselves but to examine the status of Form-Numbers. This fact rather seems to indicate a theoretically inseparable connection between Form-Numbers and their principles.

¹⁰ My translation in this paper is based on the second version of Ross’ translation in 1928. I partly modify his words to underline the literal meaning of Aristotle’s text. For the Greek text, I mainly use Ross’ edition (1924) with Luna’s informative corrections and additions in 2005. When I do not follow his edition, I indicate it in a footnote.

addresses the Platonic theory of principles, and, in fact, the following discussion in Book N is mainly dedicated to such an investigation. The above texts doubtlessly introduce the same argument, not different ones, and this is what causes interpreters difficulty with a duplicate introduction.

Ancient commentators considered it a problem concerning the boundary between Books M and N. According to Syrianus, some readers in ancient times (ἔντιοι) included the last part of Book M (M 9 1086a21-M 10) into Book N. However, he stated that “the majority of the texts”¹¹ had the current division in accordance with Alexander of Aphrodisias’ version. Accordingly, Michael of Ephesus obeyed the so-called Alexander’s division with no detailed account.¹² Perhaps Michael ignored the complex history for the purpose of supplementing the lost part of Alexander’s commentary. What Syrianus and Michael had in mind for the division was Aristotle’s argument plan proclaimed in M 1. They commonly assumed that Book M covers the First and Second Programs, whereas Book N covers the Third Program. Under this assumption, when an announcement corresponding to the Third Program appears both at M 9 and N 1, the starting point of Book N becomes disputable.

Unlike the ancient commentators, modern scholars tend to limit the Second Program to M 4-5. It is also common, with some exceptions, to assign the sixth and later chapters in Book M to the Third Program. For the German commentators in the 19th century, the break between Books M and N no longer represents a programmatic step. A. Schwegler thought that M 9b-10 was an improper insertion by the editor of *Metaphysics*.¹³ Bonitz agreed with Schwegler that the argumentative transition should occur at 1086a21. However, he considers the description in M 9b-10 to be reasonable as introductory remarks to the new topic.¹⁴ As I show later, Bonitz made a correction to the original text from his position.

In 1912, W. Jaeger largely agreed with Schwegler’s interpretation. He suspected that the connecting part was an insertion irrelevant to the course of argument in MN and was added by Aristotle or an editor of *Metaphysics*. He considered that a space at a roll-end might encourage this addition. In 1923, Jaeger took a more radical

¹¹ Kroll (ed.) 992a16-22. I follow here the translation by Dillon and O’Meara (137). However, the traditional interpretation allows that Syrianus used the word βιβλίον (three times in this passage) for both a book of *Metaphysics* and a manuscript.

¹² Cf. Movia 2221, 2355. Regarding the identification of Ps. Alexander and his acquaintance of with Syrianus’ commentary, I generally follow C. Luna’s observations in 2001, though some people are more cautious in their judgement.

¹³ Schwegler IV 334.

¹⁴ Bonitz (1849) II 565-566.

standpoint. His discovery that M 1 1076a8-28 and M 9 1086a21-32 would be “eine unzweifelhafte Dublette” led him to admit a chronological rupture between M 1-9 and M 9-N.¹⁵ He supposed that, for Aristotle, M 9-N should be replaced with M 1-9, representing the more developed framework of Aristotelian metaphysics. According to Jaeger, M 9-10 and Book N belong to the earlier period (the Assos period). Regarding the double transition, his view does not seem much altered,¹⁶ though the possibility of editorial intervention is underlined more than before. He explained that the ancient editor should notice the commonality of M 9-10 and Book N, as Jaeger himself did, and placed Book N in the current position.¹⁷ Therefore, for Jaeger, our problem implies the three historical facts: the gap in the period of writing, which shows the different stages of Aristotle’s development; Aristotle’s intention to replace the earlier work with a later version; and a partially correct observation of the texts by an editor and his arrangement of Book N.

Jaeger’s interpretation was systematic, reaching at the height of ingenuity as a historical reconstruction. J. Annas (1976), by contrast, saw a kind of systematic contemplation within Aristotle’s text. She analyzed all the details in both books, including Book N, and rediscovered in them a certain continuity of argument under the scheme in M 1. It is interesting that Annas, criticizing Jaeger for several dubious assumptions,¹⁸ revived the ancient reading; that is, the idea that the boundary of the Second and Third Programs is consistent with the division of the books. Like the ancient people, she applied the Third Program to M 9b-10 and Book N.¹⁹ With this outline, she found “a rough unity” of Aristotle’s discussions in Books M and N. We find a striking contrast in using the ancient testimony. Referring to Syrianus’ report, Schwegler and Jaeger exposed the historical gap in the transferred text, whereas Annas reformulated the problem into an application of the general program of inquiry.

Annas’ challenge to Jaeger paved the way for reconsidering a unified argument structure for Books M and N. More recent studies show that if we admit these books as a single treatise, it does not mean, by necessity, that the program in M 1 should explain their connection. In the introduction of his commentary, Crubellier described

¹⁵ Jaeger (1923) 188, n. 1.

¹⁶ Cf. Jaeger (1957) 289 in apparatus for 1086a21.

¹⁷ Jaeger (1923) 195.

¹⁸ Annas (1976, 82-87) raised eight objections against Jaeger’s theory, of which (4), (7), and (8) involve the argumentative structure of MN.

¹⁹ The major difference from the ancient commentators is that she identifies M 6-9 as a digressive section. In this respect, Annas follows the modern assumption that the Second Program is conducted in M 4-5.

a pair of ways, such as Plato's simile of the divided line ("la voie ascendante" and "la voie descendante") in the whole course of Aristotle's argument.²⁰ According to him, the above citation in M 9 introduces the descending way from the highest principles to particular things. His idea offers a powerful alternative to the program in M 1 in grasping the flow in MN. In addition, S. Menn declared in his unpublished draft that the Third Program includes M 6-N as a whole.²¹ His process of elimination shows that neither M 9 (1086a21 ff.) nor the beginning of N represents the introduction of the Third Program. He assigns instead the twofold question corresponding to the aporias in Book B to the second half of Book M and Book N.²² We are now of the perspective that the boundary of books does not necessarily involve the programmatic division, even if we support the "unified treatise" assumption.

Most studies have implicitly equated the sense of two transitional passages, even when they highlight the discrepancy between the argument in M 9b-10 and that in Book N.²³ Indeed, as I confirmed earlier, they probably signify the one and only transition from Book M to N. At face value, however, each text has a different expression. In M 9, the first principles are contrasted with the numbers, whereas the principle is contrasted to the substance in N 1. The view ascribed to Platonists in each text is also different. In M 9, they assert the existence of substances besides the sensible substances, whereas they are advocates of the unmovable substance in N 1. Are these differences in description merely the result of the author's whim or an editor's awkward summarization?

In this regard, Bonitz poses a curious suggestion that Aristotle should have written ἀπορία instead of οὐσία at the beginning of Book N because here, Aristotle moves from one question about the principle to the other, not from the subject of the substance to that of the principle: the latter shift was already completed in M 9.²⁴ In other words, Bonitz admits that the transition described in N 1 substantially occurs

²⁰ Crubellier (1994) 14-17. This sketch appears to me the first attempt in the history of interpretation that allows an explanation of the organic structure of MN without resorting to the program in M 1.

²¹ Menn (forthcoming) Iγ3 3-18. I generally agree with his application of the program in M 1. My interpretation of the program (in Nishioka forthcoming) is based on Patzig's insight that the first two programs enable Aristotle to refute the essences proposed by his rivals: such an attempt has its own difficulties.

²² Menn (forthcoming) Iγ3 55-62. He articulates the two explorations belonging to the third program (M 6-9a and N) as derivatives of the aporia #11 (55-56, 62).

²³ A notable exception is Berti, who regarded οὐσία at the beginning of Book N as the sensible substances. He interpreted εἰρήσθω (1087a29) in an exclusive sense, meaning that this kind of substance is no longer discussed in Book N.

²⁴ Bonitz (1849) II 570.

in M 9; meanwhile, he refuses neither the introductory passage in N 1 nor that in M 9b-10. What Bonitz wanted was to only modify a word to save the argument between M 9b and N 1. This is a significant insight that retains the philosophical vein between the two books and, at the same time, predicts that it originates from Aristotle himself. Despite the apparent inconsistency Jaeger mocked,²⁵ his attempt seems faithful enough to realize the complexity of Aristotle's original text. Although I consider his emendation unnecessary, I would like to adopt Bonitz's rigorous attitude toward the text to precisely locate M 9b-10 in the flow of MN.

3. The connecting part in the context

In the previous section, I confirmed the following three points: 1) the two introductory remarks indicate the same transition; 2) however, they may bear a difference worth deliberation; 3) the transition to Book N is not necessarily identified as the programmatic step described in M 1. In this section, I examine Aristotle's text in detail to clarify the context surrounding the connecting part. First, I investigate the logical relationship between the precedent and coming discussions. Afterward, I pinpoint the precise range of the text, which exactly reflects the logical connection.

(a) Connected subjects in the connecting part

My first question is as follows: What are the two themes that are connected in the connecting part? In the middle of M 9, the new argument is introduced as follows:

On the other hand, regarding the first principles and the first causes and elements, the views expressed by those who discuss only sensible substance have been partly stated in our works on nature, and partly do not belong to the present inquiry; but the views of those who assert that there are other substances besides the sensible must be considered next after those we have been mentioning. Since, then, some say that the Ideas and the numbers are such substances, and that the elements of these are elements and principles of real things, we must inquire regarding these what they say and in what sense they say it. (M 9 1086a21-29)

²⁵ Jaeger (1912) 43.

As we observed before, the first principles here are contrasted to numbers (1086a18). What does the contrast actually mean? Aristotle had determined so far (i.e., up to M 9a) that mathematical things are not separate, even if he accepts some Platonic assumptions. For Platonists, numbers are supposed to have substantive status, whether Form-Numbers or the mathematical numbers of Speusippus. This is the outcome of the long inquiry introduced in M 6 (1080a13: θεωρήσαι τὰ περὶ τοὺς ἀριθμοὺς συμβαίνοντα). By contrast, his new inquiry presupposes general issues concerning the first principles: he takes pains to distinguish the causal theories of Platonists from those of natural philosophers.²⁶ At first glance, the difference appears to occur between the theory of substance and that of principle; however, it is not that simple.

At the beginning of M 6, Aristotle supposed the numbers for his rivals not only as οὐσίαι χωρισταί but also as τῶν ὄντων αἰτίαι πρῶται (1080a14). He did not exclude the causal aspect of numbers in M6-9a, even if he focused on the question of χωριστόν.²⁷ He may have added the latter words merely for the sake of clarification. In any case, numbers can be both substances and principles. In M9b, however, numbers and principles are counterposed and not the same things. This is the point where an exact difference occurs before and after the transition.

In the citation above, he sets the three levels of beings (the real things, Forms and numbers, and their [sc. Forms and numbers] elements) to explain that the last can both be the elements of the second and the first. Forms and numbers are, indeed, the principles of things, but there are yet higher principles for Aristotle's rivals.²⁸ In this sense, the two πρῶται in M 9 are not "absolute superlative(s)," as we can construe in M 6. Aristotle indicates here the lower and the upper entities of the Platonic causal structure, not a couple of abstract concepts (οὐσία and ἀρχή).

Now, I move on to the text at the beginning of Book N.

Then, regarding this kind of substance, on the one hand, what we have said must be taken as sufficient. On the other hand, all people make the principles

²⁶ As I point out later, Aristotle's description for the criterion here (παρὰ τὰς αἰσθητὰς ἐτέρας οὐσίας) is important in understanding M 9b-10 as a whole.

²⁷ M 8 1084a7 ff. is a relatively clear example presupposing the causality of numbers. However, it is at the end of M 3 and (as will be discussed later) in N 5-6 where Aristotle directly addresses the theme.

²⁸ Crubellier (1994, 359) notes the similarity to the formulation of A 6 987b18-20. In fact, this reference is more convincing than the introduction in M 1, which was considered "Dublette" by Jaeger in 1923. As will be discussed later, the theoretical frame of Plato may lie behind the connection in MN.

contraries: as in natural things, so also in the case of unchangeable substances. But since there cannot be anything prior to the principle of all things, the principle cannot be the principle and yet be an attribute of something else. To suggest this is like saying that the white is a first principle, not *qua* anything else but *qua* white, but yet that it is predicable of a subject, i.e., that its being white presupposes its being something else; this is absurd, for then that subject will be prior. (N 1 1087a29-36)

What “this kind of substance” refers to is disputable.²⁹ As long as we assume that Book N follows Book M and is not independent of the latter, we can safely say that this substance belongs to Platonists and particularly indicates Forms and numbers. It is interesting that the principles under consideration are opposite elements from the beginning of Book N, though this characteristic never appears in M 9b-10. Furthermore, the statements about physical things and immovable substances remind us of the passages in *Physics* I 5 and Λ 10 1075a28. These descriptions are reasonable as a starting point for Book N since Aristotle mainly examines the opposite principles for Platonists in N 1-4, such as the One and the Indefinite Dyad or the pairs of the Indefinite Dyad. Of course, they are the principles of immovable things, namely, Forms and numbers. In the last passage in N 3 (1091a18-22), Aristotle emphasizes that he is dealing with the principles of immovable entities, not those of physical objects in general.

²⁹ In modern research, “ἀκίνητος οὐσία” is the most predominant interpretation (Ross 1924, II 470, Tricot II 797, Owens 435, Menn forthcoming, Iγ3 62). It is consistent with the subject matter of Book M, and compelling in this regard. However, it is somewhat awkward that a word indicated in the singular with an indicative pronoun is immediately written again in the plural (1087a31). Furthermore, it does not seem to me that the immobility of the substance was a point of discussion in Book M. Michael of Ephesus paraphrased it as “νοητή οὐσία,” which has some contemporary supporters (Jeager 1953, 292-293, Reale III 675). Since Michael took into account the discussion about νοῦς in Book Λ, he may have thought that εἰρήσθω τσσαῦτα referred to both Λ and M. Regardless, the word νοητόν does not have valid evidence in Book M (cf. M 2 1076a38). Moreover, “χωριστή οὐσία” is also a likely candidate. It is repeatedly mentioned in M 9b-10, and is natural as to what ταύτης refers. As Crubellier noted (1994, 397-398), if we take the term in a general sense, its meaning would be too broad. This is the same with the first two options. Finally, “αἰσθητή οὐσία” is proposed by Rutten (43) from a stylometric point of view and Berti (29) with his developmental hypothesis (cf. Menn forthcoming, Iγ3, 62 n. 142). Both people recognize the strong ties between Λ and N, and especially Berti underlines the discontinuity between M and N. Or could it be interpreted as a reiteration of the division of Aristotle’s inquiry in M 9 1086a21-26? In any case, the relationship between Book N and its preceding exploration would be reconsidered from an entirely different perspective. Thus far, it seems reasonable to choose χωριστή or ἀκίνητος, keeping in mind the specific context of Book M.

Nevertheless, the terse description is notorious. Besides the obscure use of οὐσία and πάντες,³⁰ the sentences connected with μὲν...δέ break a neat construction, unlike in M 9 1086a18-26. One may consider a later addition, but it seems more natural to suppose that Aristotle skips the detailed process of comparison because he has already done it in M 9. On the one hand, Aristotle may have the previous turn of argument in mind and felt the need to write it down again, but on the other hand, he may have wanted to get to the main point of the new argument quickly. Rather than regarding the text as a mixture of different authors, it is more sound to assume that the double constraint imposed by the context caused Aristotle to write in such an ambiguous manner. The apparent differences between the two transitional descriptions seem to stem mainly from this circumstance.

Needless to say, οὐσία and ἀρχαί used here are not a couple of terms with partially overlapping meanings as in M 1 (1076a25-26, 30-31) and in M 6 1080a14. They have a different function in a causal structure that is formed and utilized in M 9b-10. Furthermore, the expression “περὶ τὰς ἀκινήτους οὐσίας” supports that the principles at issue are the principles of substances. Unfortunately, Aristotle omits his explanation of the relationship between οὐσία in line 29 and οὐσίαι in 31, which allows reading the passage as if it were a simple contrast between οὐσία and ἀρχή. Therefore, it would remain questionable whether the strict sense of connection presented in M 9 is remembered until the later chapters of Book N.

From the above observation, I conclude that the two transitional passages commonly presuppose a theoretical structure of Platonists, which consists of the lower substances (principles) and the higher; and that, at the same time, the N 1 version leans toward introducing a general examination of principles. To precisely determine the connected subjects, I underline that they are neither a pair of abstract notions nor a set of methodological viewpoints, because Aristotle often uses the contrast of οὐσία and ἀρχή effectively to promote his metaphysical investigation.³¹ In this case, he analyzes something as a substance, and then, switching his perspective, re-observes the same thing as a cause or principle. In contrast, he assumes here a mutually interlocking theoretical structure, shifting the focus from lower to higher principles. In the corresponding passage in A 9,³² this type of shift is

³⁰ The word “πάντες” literally refers to all philosophers in general, including natural philosophers. As Crubeiller noted (1994, 398), however, we will learn that they are almost limited to Platonists from the following discussion.

³¹ The most typical example is found in Z 17 1041a6-10. Book M also has some examples in M 3 1078a36 ff. and the boundary between M 4 and M 5.

³² Crubellier (2012) 317-318, 334.

depicted in a Platonic motif, “τὰς οὐσίας ἀνάγειν εἰς τὰς ἀρχάς” (A9 992a10-11). This phrase seems to imply the Platonic exploration toward the supreme good, or an attempt to construct a philosophical system in the Academy,³³ even though the numerical principles are not officially registered in Plato’s dialogues. We should certainly be cautious about the absence of this word in Book M and the difference in the connotation of “ἀνάγειν” between Plato and Aristotle.³⁴ However, we should not overlook the systematic aspect of Plato’s philosophy that underlies the connection of Books M and N.

(b) Connected parts in MN

My next question is as follows: What areas of the original text are connected by the connecting part? Hence, the question is the scope of Aristotle’s exploration of the above pair of subjects. I have already noted that the antecedent discussion Aristotle supposes in M 9b can be traced back to M 6, and the examination of the opposite principles for Platonists occupies N 1-4. In section 3 (b), I demonstrate that the lower and the higher principles are targeted in M6-N4 as a whole, in which Aristotle deploys the most intensive argument for MN. I then conclude that M 6-N 4 is the minimum unit that Aristotle has in mind in the connecting part.

Nobody doubts that M 1 is a programmatic introduction to the whole argument, at least to that of Book M.³⁵ For M 2-3 and M 4-5, most modern researchers have agreed that they are the preliminary discussions for the following long argument, namely, the Third Program. These blocks are the First and Second Programs, respectively. I generally accept this assumption, though some complexities remain.³⁶ The crux of the difference between M 2-5 and M 6 ff. lies in whether numbers are treated as substances and principles of things. Such an examination is banished in the First Program (cf. M 1 1076a22-26, M 4 1078b7-9). Besides, Aristotle narrows the scope of his argument in M 4-5 to the theory of Forms, which has nothing to do with the mathematical nature (cf. M 1 1076a26-28, M 4 1078b9-12). Since the transitional part in M 9 presupposes the Platonic principles on numbers — neither a general theory of numbers nor the theory of Forms in its pure form — it is

³³ Theophrastus *Met.* 6b11-15. Plato uses the verb ἀνάγειν for the theory of Forms in his *Republic* (517a, 521c, 533d), though every case takes human beings or a soul as its object. A transition to the upward principle is indicated by ἀναβαίνειν.

³⁴ Aristotle uses similar expressions in his own way (cf. 983a28-29, 1003b36-1004a1).

³⁵ In this regard, however, Annas (79, n. 95) correctly noted that “the last sentence of N sums up the discussion of M-N as a whole, and not just N.”

³⁶ My forthcoming paper examines the argumentative structure in Book M. There, I observed how the two preliminary arguments (M 2-5) merge in the criticism of Form-Numbers in M 6-9a.

reasonable to consider that the boundary between M 5 and M 6 marks the starting point of the argument referred to by the connecting part.

Determining its terminus is more difficult. Aristotle deals with the opposite elements of Platonists in N 1-2 and critically examines their principle of the One related to the principle of the good in N 4. In the middle (N 2-3), he discusses the basis for their views, which recognize the numerical nature, contrasting that of Pythagoreans. Indeed, the One is not mentioned at the beginning of Book N, but it is included in the opposite principles.³⁷ Afterward, Aristotle's concern moves to the general goodness of numbers, at least until the last part of N 5 (1092b8 ff).³⁸ Considering this sequence, it is in N 1-4 that the elements of numbers are directly targeted.

However, in the first passage in N 5, Aristotle seems to continue his examination of the opposite principles of numbers. There, he takes up Speusippus' position mentioned in N 4 1091a33-b1 once again. The doctrine is a solution to compensate for the disadvantage of the Platonists, who took the One itself as the good. Therefore, N 5 is continuous in content with N 4; moreover, it shares the thematic frame of "the generation of numbers" with N 1-4.

Nevertheless, the passages in N 5 seem to deviate from the course prepared in M 9b-10 and lead to a more general discussion following it. The first reason is the direct evidence that Aristotle writes a conclusion at the end of N 4 (1092a5-8), listing the four fundamental difficulties for Platonists. Among these, two difficulties are already mentioned in M 10 1087a4-7. Aristotle accumulates two further points (making opposite things and the One their principles) in his argument in N 1-4, completing this framework. Second, in N 5 and later, Aristotle poses some general questions on the generation and causality of numbers until the concluding remarks of Book N (1093b21 ff.), which do not necessarily refer to the details of Platonic theories. Certainly, as the text shows, the causality of numbers depends on how people explain their generation: in this sense, N 5-6 is a supplement to the antecedent discussion. Thus, it does not belong to the direct task declared in the connecting part. As a result, I limit the range of the connected part within M 6-N 4.

If my limitation is correct, a complex picture will arise for interpreters. On the one hand, Aristotle separates Books M and N at the connecting part, an obvious break in both books. In fact, Book M has a massive structure derived from the threefold program in M 1. Although the scope of the Second and Third Programs is

³⁷ This is especially true for the discussion in N 1 (cf. 1087b5 ff.).

³⁸ We can also find the subject in the last part of M 3.

problematic, other than the connecting part, Aristotle does not attempt such a major shift in Book M. Book N also has a rough unity around the causal explanation of ἡ γένεσις ἀριθμῶν (cf. 1093b26). On the other hand, Aristotle does not connect both books as a whole with the connecting part. In other words, the statement in the connecting part does not encompass the entire issue in MN. Instead, the connecting part shows a shift in focus within the theoretical frame of Platonists, which is, strictly speaking, only targeted from M 6 to N 4. In section 2, I mentioned the complex relationship between the program proclaimed in M 1 and the division of books. This presents another difficulty related to the overall structure of MN, and I believe this complexity is partly resolved by observing Aristotle’s reformation of *aporia* in M 9b-10.

4. Aporetic Turn in M 9b-10

(a) The *Aporia* for Platonists: individuals and universals entangled

As I stated previously, Aristotle does not deploy his new argument immediately after the transition. We would normally expect an overview statement on a new subject; however, he apparently returns to a previous topic instead. In M 9b, having announced the transition, Aristotle begins his observation of the Platonic manner and an *aporia* (τόν τε τρόπον καὶ τὴν ἀπορίαν) for those who say there are Forms, putting off another observation of those who say there are only numbers³⁹ (1086a29-32). The *aporia* for Platonists is that they seek Forms both as universals and as individuals at the same time (1086a32-34), and as a result, the universals and the individuals are almost the same natures (1086b10-11). Aristotle perceives that this contradictory identification is derived from their basic assumption: Forms are not the same as sensible things.⁴⁰ Then, he attempts a historical explanation of why they think so and how their supposition ensnares them in the *aporia*.

³⁹ The doctrines of Speusippus are often mentioned in Book N, especially discussed from the end of N 2 (1090a7 ff.) to N 5. It is unclear whether those texts in N directly respond to this announcement.

⁴⁰ In 1086a32-37, Ross’ and Jaeger’s texts largely deviate from the editorial tradition. The article τὸ in line 35 should be corrected to genitive according to a corrector of Codex E and all the editors. Jaeger proposed further emendations to ὡς οὐσίας in l. 33, ιδέας in l. 36, οὐσίας in l. 37 in the manuscripts (1960, 267-268), which were accepted in the current editions. Annas seems to have followed all his corrections, but Cherniss (188, n. 111) opposed them and defended the traditional readings. The syntax in ἄμα...τε...καί and the Aristotelian usage of οὐσία make Jaeger’s propositions reasonable. However, Cherniss is correct in that Aristotle’s criticism in Z 16 1040b16 ff. is at issue here and it is not that simple. Seeing the obscurity of Cherniss’ reconstruction of argument, Crubellier (1994, 369-370) supports the traditional text. He regards καθόλου in 1086a32 as prolepsis making a contrast with καθ’ ἕκαστον in 34 and paraphrases as “comme des termes universels relevant de la catégorie de l’être.” I largely agree with Crubellier, though these οὐσία(s) do not seem to be necessarily interpreted as a category. I think that the seemingly superfluous οὐσία(s) in this

Oddly enough, we find similar explanations in M 4, which raises a philological question. In M 9, Aristotle repeats a similar explanation without reference to the previous statement in M 4. This awkward duplication suggests that M 4 and M 9b did not originally belong to the same treatise.⁴¹ However, there may be an alternate explanation: Aristotle, probably conscious of repetition,⁴² gives each text a different function in context, though both of them equally show that Plato's separation is the root cause of further difficulties for him. As a starting point of argument in M 4, the doxographical description leads to a series of difficulties in the theory of Forms. Meanwhile, in M 9, Aristotle offers it as a conclusion in order to confirm the crucial deviating point of his rival. The two analogous passages, therefore, form an argumentative frame from M 4 to M 9.

To support my observation, I highlight a difference in the styles of the two doxographies. In both texts, the Heraclitean influence on Plato comes first, similar to A 6, though M 9 lacks the name of Heraclitus. However, in M 9, Aristotle omits the detailed history of the universal definition in M 4, including Democritus and Pythagoreans. This is likely because, in M 9, Aristotle has no need to position Socrates in the doxographical tradition of ὀρισμός when he finally pins down a fundamental problem in Platonism; while it would be natural to adopt such a description when clarifying the origin of Plato's philosophy, as in M 4. In addition, Aristotle admits a kind of historical development during the time after Socrates in M 4 (1078b25-27), whereas in M 9, his concern is limited to Socrates' responsibility for the influence on Plato. The following text at the end of M 9 indicates that Aristotle weaves an elucidation of Plato's difficulty from minimum historical elements: the influence of Heraclitus and Socrates.

They (sc. Socrates' successors), however, treating it as necessary, if there are to be any substances besides the sensible and transient substances, that they must be separable, had no others, but gave separate existence to these universally

passage indicate Plato's authority on οὐσία as a principle (cf. A 7 998a34-b6) and anticipate the difference between Plato's difficulty in M 9b and the general difficulty in M 10. If this is the case, the desirable reference of 1086a34-35 will be Z 16 including its preceding chapters (cf. Lear 168 "Z 13-15") rather than B 6 1003a6 (Jaeger 1923 195, n. 1).

⁴¹ As I mentioned, Schwegler and Jaeger thought in this way.

⁴² Annas (188) explicitly denies the idea of doublet, saying that "the reference to Socrates, for examples, could hardly be understood except as a reference to a previous discussion." Jaeger (1912, 45) suggests that ὡςπερ ἐν τοῖς ἔμπροσθεν ἐλέγομεν (1086b2-3) probably referred to A 6. This reference (A 6 987b1-7) is possible in meaning; however, as Crubellier (1994, 372-373) notes, an emphasis on the doxographical distinction between Socrates and Plato is made in Book M, not in Book A. In Book A, the central distinction lies instead between Pythagoreans and Plato.

predicated substances, so that it followed that universals and individuals were almost the same sort of thing. This in itself, then, would be one difficulty in the view we have mentioned (δυσχέρεια τῶν εἰρημένων).⁴³ (M 9 1086b7-13)

Aristotle reconstructs Plato's position as follows. First of all, Plato sought substances besides sensible substances. As substances, they are necessarily separate. Since Plato, according to the Heraclitean thesis of flux, did not admit the substantiality of sensible things, he had no choice but to make the universal definitions separate, though Socrates did not. Some people translate the passage in 1086b7-10 as if the sentence after ταῦτα δὲ were the main clause.⁴⁴ Although their solution is more natural in meaning, I consider it better to keep the contrast between μέν and δέ as Ross' literal translation. Using the pairing structure, Aristotle juxtaposes the two essences (as he construed) underlying in the Platonic way: exclusion of sensible things and separation of universals. They can trace back to the work of Heraclitus and Socrates, respectively.

To what τῶν εἰρημένων refers is vague. As Crubellier stated,⁴⁵ it is clear that Aristotle thinks of his precedent criticism in Book M. Aristotle has raised a series of problems concerning this aporia from M 4 1078b34. Then, it naturally refers to from there to the end of M 5. What about after that? We often dissociate M 9b-10 from the critique of Form-Numbers in M 6-9 because of the obvious transition in M 9 and the affinity between M 4 and M 9b. Nevertheless, Aristotle re-focuses the issue of χωριστόν throughout the latter part of his examination of Form-Numbers (M 8 1084b2 ff.), and in particular M 9 1085a23-29, where he directly pinpoints the problem in treating universals for his rivals. In my opinion, therefore, the reference seems to cover the fairly broad range of discussion involving Plato's separation of universals in M 4-9.

In this section, I have observed the following points. First, Aristotle sums up the difficulty for his rivals in M 9b, surprisingly at first glance, after proclaiming a fresh start of the new inquiry. The difficulty is the confusion of universals and individuals, which Aristotle attributes to the influence of Heraclitus and Socrates. Second, the first half of the connecting part, namely, M 9b, responds to the argumentative frame

⁴³ Luna reports that manuscripts M and C have the word order τῶν εἰρημένων δυσχέρεια. Whether the common readings of M and C constitute the so-called β-family is open to doubt in light of a recent hypothesis (cf. Golitsis 2016, eps. 469-472).

⁴⁴ Annas 114, Crubellier (1994) 372.

⁴⁵ Crubellier (1994) 374. This phrase possibly involves another difficult reference in 1086a34-35 (cf. Crubellier 1994, 371).

between M 4 to M 9 as a whole. This can be confirmed from both the doxographical account of the theory of Forms and the problem concerning universals and individuals. The frame M 4-9 gives us the impression that there is another thread of argument, other than the “connected parts,” namely, M 6-N 4. How do these two blocks relate to each other? Moreover, it is still unclear why Aristotle returned to the topic he has already argued, even though he heralded a new exploration. In the next section, I will show how the transition from M to N is fulfilled through a comparison of M 10 with M 9b.

(b) The aporia for everyone: individuals and universals disentangled

After the aporia for Platonists, Aristotle introduces another aporia in M 10 that involves not only those who posit Forms but also those who do not. The latter group particularly includes Aristotle himself, partly because he mentions Book B⁴⁶ and partly because he indicates a path to resolve the problem in the last part of M 10. Still, this aporia, which is not irrelevant to Aristotle, has the affinity with the difficulty for the Platonists immediately preceding it, just as the $\mu\epsilon\nu\dots\delta\acute{\epsilon}$ construction in 1086b12-16 suggests. Indeed, Aristotle no longer reiterates doxographical remarks here, but he retains two assumptions in M 9b. The one is (P) that a science pertains to universals (M 9 1086b5-6/ M 10 1086b32-33), and the other is (Q) that the substances under consideration are separate (M 9 1086b7-9/ M 10 1086b16-20). Neither of them goes directly back to Heraclitus or Socrates; rather, each premise characterizes the Platonic attitude in taking over their works. Therefore, albeit in an indirect manner, the universal aporia in M 10 bears some traces of the prehistory of Plato’s way of thought reconstructed by Aristotle.

The aporia shows a strong dilemma⁴⁷ as follows (I insert the symbols X and Y into the translation to indicate two horns in a dilemma).

(X) If we do not suppose substances to be separate, and in the way in which individual things are said to be separate, we shall destroy substances in the sense in which we understand “substances” ; (Y) but if we conceive substances to be separate, how are we to conceive their elements and their principles?

⁴⁶ It is common to refer to the ninth and fifteenth aporias (in Jaeger’s and Madigan’s numbering) in Book B (cf. Jaeger 1923, 195, n. 1, Madigan 96, 145, Menn 2009, 241). However, as Menn (2009, 238-244) observed, the two aporias correspond to the discussion in M 10 in an intricate way, which reflects the original aim in M 10.

⁴⁷ Lear (160) considers this aporia trilemma in the broad outline, including 1086b37-1087a4. His reading is precise in terms of the flow of the discussion, but the part can be reduced to X in the context. Aristotle seems me to adopt a chiasmic structure for his argument at least in 1086b16-1087a4.

The dilemma is described in detail in the following passages (1086b20-1087a4) in the reverse order, in which Aristotle paraphrases the two horns:

(Y) If they are individuals and not universal, real things will be just of the same number as the elements, and the elements will not be knowable. (1086b20-22)

(X) But if the principles are universal, or the substances composed of them are also universal, there will be non-substance prior to substance.⁴⁸

(1086b37-1087a1)

One horn (Y) is that if we think there are separate substances, namely, individuals and not universals, their principles also should be separate and individual. Therefore, the principles exist in the same number as the substances, and they are unknowable since our knowledge is about something universal. This is absurd in the view of the definition of “principle.” The other horn (X) is that if we consider the principles to be universal instead, the substance from them would also be universal. It is absurd as far as that they should be separate and individual. Even if we insist that they are individual in any way, we are forced to say that the universal things are prior to the substances. It is absurd if the priority should have an ontological sense.⁴⁹ This rich aporia and his famous solution of ἐνέργεια have been much read and interpreted in relation to Aristotle’s statements in other books and documents. Nevertheless, I will only focus on its contextual significance in the course of Books M and N.

Above all, he talks about principles or causes for the first time after the introduction of the new argument in M 9 1086a26-29.⁵⁰ It is here that the direct

⁴⁸ In 1086b37-1087a1, I follow the earlier editors’ text and punctuation. Bonitz and Christ adopt αἰ in line b37 (not present in EJ, Bekker’s and Schwegler’s editions), which does not change the meaning. While Jaeger (1960, 268-269, 1957, 291) deletes the seven words from ἢ το καθόλου as a gloss, Ross (1908 *ad loc.*, 1924 II 465) retains them and inserts ἢ after καθόλου in a1 instead. Ross’ proposal is “more economical,” as Annas said (134), but involves a change of punctuation. He considered the latter part of the protasis nonsense in the argument and, referring Syrianus’ interpretation, moved the words in question to the apodosis. I think the difficulty of this sentence was overestimated by Jaeger and is simply resolved by Crubellier’s explanation “comme une indication marginale.” Indeed, this issue is marginal here, but meaningful in the context since it anticipates the first discussion in N 1 1087a31-b4.

⁴⁹ In M 2 1077a36 ff., Aristotle distinguishes πρότερον λόγῳ and πρότερον οὐσίᾳ.

⁵⁰ He mentions αἴτιον twice (1086a35, b6) but to declare the cause of Platonic position. Cf. Menn 2009, 238.

evidence of the transition begins to emerge. The principles at issue are elements inside a substance, as the example of a syllable and characters shows (1086b22-32, 1087a7-10). This seems to be a reminiscence of Plato's argument in *Theaetetus* 201d-206b, in which Socrates refutes the statement that we can understand a syllable whereas its characters are themselves unknowable (ἄλογα). The metaphor represents a dilemma of knowing something using the whole-part relationship, which corresponds, in this Aristotelian context, to the theoretical structure consisting of a substance and its principles. It is the same as the connection I have observed in **3 (a)**, and in this respect, the aporia in M 10 accurately reflects the context in the connecting remarks in M 9. In this light, the argument in M 9b, which I examined in **4 (a)**, appears out of place and interrupting. Actually, this is not the case.

I stated that some assumptions (P and Q) for Platonists in M 9b remain in the argument in the succeeding chapter. In fact, Aristotle does not deny any of these assumptions as such in M 10. I guess that he would eventually recognize both as valid for his own metaphysics as well.⁵¹ More importantly, they seem to be an essential pair of motifs of the aporia. X starts from the assumption Q, which becomes inconsistent with the assumption P. Conversely, Y starts from P and becomes inconsistent with Q. Thus, the two assumptions derived from the description in M 9b, which are perhaps common to both Platonists and Aristotle, create a dilemmatic cycle. In this sense, Aristotle does not make a fresh start for his investigation on the first principles from zero; rather, he is meaningfully dragging out what he has discussed before. It goes back to M 4, as we have confirmed. It is quite natural, then, to find out a continuity with the previous subject: the root cause of the Platonic difficulties. Now, what is the critical difference between this and the previous aporias?

The continuity does not mean that Platonists and Aristotle are thoroughly on the same track. Unlike his rivals, Aristotle distinguishes between individuals and universals and applies the distinction to substances and their principles. If we consider the substances individual, their elements are supposed to be individual; contrastingly, if we consider the elements universal, the substances for which they are elements are supposed to be universal. In both directions, we start from a proper

⁵¹ For the assumption Q, there will be no debate, though an elaborate discussion of the differences between Plato and Aristotle on the concepts of separation and substance is needed. In this regard, we should revisit the dispute between G. Fine and D. Morrison, with reference to the recent results of the Aristotelian study (cf. E. Katz). As for P, there is room to suppose the differences of Aristotle's conception of knowledge in *Metaphysics* and *Posterior Analytics*. However, as Lear attempted, I believe, at least on this point, that it is possible to read the two treatises consistently.

combination and arrive at a fault combination, though Aristotle additionally examines a crossed pattern for the horn X (1087a1-4). Without a sharp distinction between universals and individuals, we cannot fully formulate the problem (διαπορεῖν in Aristotle’s strict sense) of knowledge and its objects as an aporia. In this case, there leaves a loophole through which the universality of knowledge and the individuality of the things in this world can be linked. If it is true, this aporia should be quite different from the previous one since the latter’s problem lies exactly in the confusion of that distinction.⁵² Therefore, Aristotle depicts this aporia in M 10, on the one hand, heavily taking over the previous aporia in M 9b, and on the other hand, in a manner almost opposite to it.

Through this unique aporetic shift, interestingly, Aristotle poses a new perspective to examine his rivals’ theories. He identifies it as a fundamental problem of the dilemma, along with the difficulty that has long been discussed in Book M.

All these difficulties naturally follow when they make Ideas out of elements and at the same time, claim that apart from the substances which have the same form, namely Ideas, something one and separate exists.⁵³ But if, e. g., in the case of the elements of speech, the *a*’s and the *b*’s may quite well be many and there need be no *a*-itself and *b*-itself besides the many, there may be, so far as this goes, an infinite number of similar syllables. (M 10 1087a4-10)

The problem of separation and that of making Forms out of elements probably anticipate the later formulation in N 4 1092a5-8, as we observed in section 3 (b). Here are two of the four problems summarized in N 4. At the same time, Aristotle juxtaposes the problem of separation already discussed until M 9b with the new issue of universal elements. Here, he mentions these two matters according to the context of characters and syllables in M 10, and, in this sense, his way of discussion obviously differs from those in N 1-2. Nevertheless, he certainly presents the subject

⁵² The difference from the preceding aporia, that is, the universality of this aporia, was seen by Lear (169) as its “high level of abstraction.” Given that his expression is appropriate, I think the abstractness relies on the distinction between universals and individuals, and not on an exemption from the historical residue.

⁵³ Bonitz proposed to delete καὶ ἰδέας (1087a6) in his commentary (1849, II 569), and his proposal has been adopted by later editors. If we read according to the manuscripts, as Crubellier noted (1994, 384), καὶ ἰδέας should be either an apposition of οὐσίας or that of ἐν τι, and the former is more natural. Nevertheless, Crubellier finally recommended deleting καὶ ἰδέας. It apparently looks like a gloss, but I suspect that it is not completely meaningless. This addition seems to maintain a parallel with the second protasis in 1086b37-1087a1, making explicit the hierarchy in the Platonic theory of principles.

of the full-fledged examination in Book N as a corollary of the central problem in Book M. Aristotle embeds the shift of the focus between M and N in the transition of the two aporias in M 9b-10, or, more precisely, in the movement of the aporia in M 10. Therefore, we can no longer disconnect M 9-10 from the flow of Book M, nor can we dissociate the investigation in Book N.

It is tricky that the relationship between sensible objects and their principles is at issue for Aristotle, whereas for Platonists, the relationship between the lower and the higher structures is at issue due to their denial of the substantiality of sensible things. Here lies the abyss of the philosophical system in the classical period on the subject of the principles of substances. Nevertheless, all philosophers, including Aristotle, are under the same necessary power of the carefully revised aporia: an up-and-down movement with a turnaround point. The aporia begins with separable substances and, at the turning point, takes the universal elements as a new starting point. The latter becomes another starting point and opens the next exploration. In accordance with that movement, first, the subject of inquiry shifts to the higher principles of Platonists. Second, a substantial transition to Book N takes place, neither independently of Book M nor merely in “a rough unity” of these books but rather in a way that Book N is theoretically and aporetically chained to the previous book. Therefore, I do not think that the transition of Aristotle’s argument in MN just occurred at either of the transitional passages observed in section 2. Bonitz’s modification of οὐσία (1087a29) is also unnecessary. Aristotle shifts his argument throughout the connecting part.⁵⁴ In other words, the connecting part as a whole explains the first transitional passage in M 9, unraveling its philosophical connotations and bridges to a new series of arguments in Book N.

What differentiates Aristotle and his rivals is that he is aware of the aporias.⁵⁵ In **3 (a)**, I made a brief comparison with Book A. There, the motivation of “τὰς οὐσίας ἀνάγειν εἰς τὰς ἀρχάς” in A 9 seems to me relevant to the background of MN in terms of “connection.” However, speaking of “transition,” the ways of thought of Aristotle and Platonists are seriously at odds with each other. It is not simply because the phrase does not appear in Book M but because Aristotle’s consistent distinction between universals and individuals in Book M would radically cast doubt on the naïve motif of ascent to something higher and more universal. In this regard, the objects of ἡ ἐπιστήμη in terms of ἐνέργεια (1087a15 ff.) can be an Aristotelian

⁵⁴ In this sense, I see parallels with what Burnyeat’s (2001, 67) observation that Z 17 serves as a “junction” of ZH, though, as I mentioned in **3 (a)**, M9b-N 1 has not a simple transition from the viewpoint of οὐσία to that of ἀρχή.

⁵⁵ Cf. B 1 995a27-995b1.

alternative to τὰ ἄνω for Platonists. He did not agree to ascend to the highest principles in the same manner. It is a passage that can elude the necessity of the aporetic movement.

5. Conclusion

In this paper, I have questioned how Books M and N in Aristotle's *Metaphysics* relate to each other at their connecting part. I summarize my conclusion in the following two points: connection and transition.

First, the two transitional passages (M 9 1086a21 ff. and the beginning part of Book N) signify a connection between the lower principles and the higher in the theoretical frame for Platonists. This does not mean that Aristotle's target under consideration is exclusively determined before and after the connecting part. Aristotle here concentrates on the problematic junction of these targets. The junction treated in the connecting part does not cover the entire discussion of Books M and N, but rather the discussion in M 6-N 4. Second, reorganizing the relationship between individuals and universals, Aristotle reformulates the aporia for Platonists into the universal aporia about knowledge and its objects. Through this aporia, Aristotle succeeds in introducing "the universal principles" not as a constituent part of Platonic theory but as a general problem to investigate. As I mentioned, a dilemma in the problem consists of two ways of thought with different starting points: separate entities and universal principles. The latter starting point becomes the gateway to a new exploration. Readers will be pushed, by the force of aporia, from the inquiry of the former (M 6-9) to the latter (N 1-4).

Therefore, my interpretation of the "double transition" to Book N is as follows. After Aristotle examined the Form-Numbers, he decided to make their elements a central subject for the next examination. Yet it is not a pure "theory of principles" but a critical study of the higher principles (the first principles) based on the systematic structure of substances. Then, it was desirable to recapitulate the Platonic problems involved in the exploration of the "principles of substances" to suggest general issues for the upcoming investigation, along with his own solution. Hence, the argument transition occurred twice: one to introduce a transitional discussion in M 9-10 and the other to mark the beginning of a new inquiry in N 1.

In this paper, I could not appraise the full distinction between Books M and N, which has a complicated relationship between the programmatic boundaries and the boundary of the books. I suspect this ambiguity may stem from the fact that the

program in M 1 disproportionately inclines to the structure in Book M, especially in chapters 1-9. However, a more detailed investigation is undoubtedly needed.⁵⁶

Bibliography

Annas, J., 1976, *Aristotle's Metaphysics Books M and N*, Oxford.

Bekker, I., 1831, *Aristoteles Graece ex recensione Immanuelis Bekkeri II*, Berlin.

Berti, E., 1987, "Les livres M et N dans la genèse et la transmission de la *Métaphysique*," in A. Graeser (ed.), *Mathematik und Metaphysik bei Aristoteles*, Bern/ Stuttgart, 11-31.

Bonitz, H., 1842, *Observationes Criticae in Aristotelis Libros Metaphysicos*, Berlin.

Bonitz, H., 1848-49, *Aristotelis Metaphysica I-II*, Bonn.

Burnyeat, M., 1987, "Platonism and Mathematics: A Prelude to Discussion," in A. Graeser (ed.), *Mathematik und Metaphysik bei Aristoteles*, Bern/ Stuttgart, 213-240.

Burnyeat, M., 2001, *A Map of Metaphysics Zeta*, Pittsburgh.

Cherniss, H., 1944, *Aristotle's Criticism of Plato and the Academy I*, Baltimore.

von Christ, W., 1886, *Aristotelis Metaphysica*, Leipzig.

Couloubaritsis, L., 1985, "Le statut du devenir dans *Métaphysique Z* et H," in J. Wiesner (ed.), *Aristoteles Werk und Wirkung. Paul Moraux Gewidmet I*, Berlin/ New York, 288- 310.

Crubellier, M., 1994, "Les livres Mu et Nu de la *Métaphysique* d'Aristote: Traduction et commentaire," Diss. Université de Lille III.

Crubeiller, M., 2012, "The Doctrine of Forms under Critique — PART II (*Metaphysics A 9, 991b9-993a10*)," in C. Steel (ed.), *Aristotle's Metaphysics Alpha*, Oxford, 297-334.

Crubellier, M./ Laks, A. (eds.), 2009, *Aristotle's Metaphysics Beta*, Oxford.

Dillon J./ O'Meara, D., 2006, *Syrianus: On Aristotle's Metaphysics 13-14*, London.

Düring, I., 1966, *Aristoteles: Darstellung und Interpretation seines Denkens*, Heidelberg.

Fine, G., 1984, "Separation," *Oxford Studies in Ancient Philosophy*, 2, 31-87.

Golitsis, P., 2016, "Editing Aristotle's *Metaphysics*: A Response to Silvia Fazzo's Critical Appraisal of Oliver Primavesi's Edition of *Metaphysics Alpha*," *Archiv für Geschichte der Philosophie*, 98, 4, 458-473.

⁵⁶ This work was supported by JSPS KAKENHI Grant Number JP21J10526. I deeply appreciate the criticisms and suggestions by two anonymous referees.

- Hayduck, M. (ed.), 1891, *Alexandri Aphrodisiensis in Aristotelis Metaphysica Commentaria (CAG I)*, Berlin.
- Jaeger, W., 1912, *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles*, Berlin.
- Jaeger, W., 1923, *Aristoteles: Grundlegung Einer Geschichte Seiner Entwicklung*, Berlin.
- Jaeger, W., 1957, *Aristotelis Metaphysica*, Oxford.
- Jaeger, W., 1960 [1923], "Emendationen zur Aristotelischen *Metaphysik* (Zweiter Teil)," in W. Jaeger, *Scripta Minora I*, Roma, 257-280.
- Kroll, W. (ed.), 1902, *Syriani in Metaphysica Commentaria (CAG VI, I)*, Berlin.
- Lear, J., 1987, "Active Episteme," in A. Graeser (ed.), *Mathematik und Metaphysik bei Aristoteles*, Bern/ Stuttgart, 149-174.
- Luna, C., 2001, *Trois études sur la tradition des commentaires anciens à la Métaphysique d'Aristote*, Leiden.
- Luna, C., 2005, "Observations sur le texte des livres M-N de la *Métaphysique* d'Aristote," *Documenti et Studi della Tradizione Filosofica Medievale*, 16, 553-593.
- Madigan, A., 1999, *Aristotle Metaphysics Books B and K 1-2*, Oxford.
- Menn, S., 2009, "Aporiai 13-14," in M. Crubellier/ A. Laks (eds.), *Aristotle's Metaphysics Beta*, Oxford, 211-265.
- Menn, S., forthcoming, "The aim and the argument of Aristotle's *Metaphysics*," The draft version is available at the following website: <https://www.philosophie.hu-berlin.de/de/lehrebereiche/antike/mitarbeiter/menn/contents/>.
- Morrison, D., 1985, "Separation in Aristotle's *Metaphysics*," *Oxford Studies in Ancient Philosophy*, 3, 125-157.
- Movia, G. (ed.), 2007, *Alessandro di Aphrodisia Commentatio alla Metafisica di Aristotele*, Milano,
- Nishioka, C., 2020, "Restatement of Platonic Forms in Aristotle's *Metaphysics* M 4-5 (in Japanese)," in *Journal of Classical Studies*, 68, 38-49.
- Nishioka, C., forthcoming, "Aristotle's Criticism of Form-Numbers: The Argumentative Structure of *Metaphysics* Book M (in Japanese)," in *Tetsugaku*, 74.
- Patzig, G., 1987, "Das Programm von M und seine Ausführung," in A. Graeser (ed.), *Mathematik und Metaphysik bei Aristoteles*, Bern/ Stuttgart, 113-130.
- Reale, G., 1993, *Aristotele Metafisica. Saggio introduttivo, testo greco con traduzione a fronte e commentario. Edizione maggiore rinnovata I-III*, Milano.

- Robin, L., 1908, *La théorie platinicienne des idées et des nombres d'après Aristote*, Paris.
- Ross, D., 1924, *Aristotle's Metaphysics I-II*, Oxford.
- Ross, D., 1928 [1908], *The Works of Aristotle. volume VIII Metaphysica* (2nd ed.), Oxford.
- Rutten, C., 1987, "Métaphysique M et N. Essai de chronologie relative," in A. Graeser (ed.), *Mathematik und Metaphysik bei Aristoteles*, Bern/ Stuttgart, 33-44.
- Schwegler, A., 1847-48, *Die Metaphysik des Aristoteles I-IV*, Tübingen.
- Yu, J., 1997, "Two Conceptions of hylemorphism in *Metaphysics ZHΘ*," *Oxford Studies in Ancient Philosophy*, 15, 119-145.

Chihiro Nishioka
The University of Tokyo
chihiro.nis817@gmail.com