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Alexander of Aphrodisias on the Ancient Debate on Hylomorphism and the Development of Intellect

Frans A.J. de Haas

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Hylomorphism is a balancing act. It is not easy to specify without ambiguity how form and matter are principles of change as well as principles of substances. What is the exact nature of their combination? Is form in matter, or vice versa, and what is the meaning of being 'in' something? In which ways does form have priority over matter, and vice versa? Alexander of Aphrodisias and his school have preserved traces of the debate on these issues that took place in the centuries leading up to 200 CE: especially *Mantissa* 5, and *Quaestiones* I.8, I.17, and I.26 discuss the questions to which Alexander's general account of hylomorphism in *De Anima* 1–26 seems to be his most considered answer. That is the set of texts I shall mostly be concerned with here.[1] We shall see that Alexander discussed various interpretations of Aristotle's hylomorphism of Platonic, Stoic, and Aristotelian origin. His main concern is to provide a comprehensive version of hylomorphism, and to refute the suggestion that Aristotle's texts are in any way incoherent.[2]

A large part of these texts concerns the question of the extent to which the relation between form and matter fits the framework of the *Categories*. This question makes sense against the background of the first books of the *Physics*. In the chapters in which Aristotle introduces form, privation, and matter as principles of change, he makes constant use of the categories and their

[1] The connection between these texts as testimonies to an ongoing debate is clear from the following observations: (a) there are considerable overlaps; (b) in *Quaest.* I.8, 17.12–22 a new objection and reply are inserted into an argument familiar from *Mantissa* 119,32–120,9; (c) *Quaest.* I.26, 42.25–43.17 adds a possible answer which *Mant.* 5 does not yet envisage; (d) *Quaest.* I.8 starts by referring to a familiar argument with 'it has been said that' (17.12) as if picking up on an earlier installment of a (school?) discussion. For more details, see below. Cf. Sharples (1990: 110 with 1992, 43n107).—I do not wish to assume that Alexander of Aphrodisias is the (sole) author of *Mant.* 5 and the *Quaest.*, or that he agreed with every view that remains unrefuted. Nevertheless, for practical reasons, I follow custom in referring to 'Alexander' as their author. It will be seen that there is a strong correspondence between Alexander's *De An.* and the texts in our set.

[2] This is the consensus view of Alexander's overall philosophical project, see e.g. Cerami (2016: 164).

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properties—both in the criticism of his predecessors,[3] and in the development of his own position.[4] If so, proving a mismatch between the *Physics* and the *Categories* can be regarded as a direct attack on the general theory of hylomorphism put forward in the *Physics*.

On the whole Alexander believes Aristotle's analysis to be correct: matter, form, and privation are principles of change; in natural substances both matter and form are parts of those substances, and therefore themselves substances; neither of them can exist on their own.[5] Form is to be regarded as the perfection or culmination (*teleiôsis*) of matter.[6] Their relation can also be described in terms of potentiality and actuality, as Aristotle suggested in *Phys.* I.8, 191b27–9.[7] This connection will prove crucial to Alexander's hylomorphism because it allows him to combine hylomorphism with the refinements of the actuality-potentiality distinction in *De An.* II.5, from which his hylomorphic analysis of intellectual processes is the result.

The aim of this inquiry is to reconstruct rival approaches to hylomorphism which helped shape Alexander's version of it, and to show how Alexander's hylomorphism enabled him to expand the scope of the doctrine to the development of intellect. The reconstruction of rival approaches to hylomorphism offers us a glimpse of the long-standing concern for the general theory of hylomorphism, over and above its important application to the relation between body and soul.[8]

In section 1, I shall discuss interpretations of the relation between form and matter that Alexander considers to be mistaken as a first encounter with the ancient debate on hylomorphism. In section 2, I shall highlight Alexander's

[3] See e.g. *Physics* I.2, 185a20–32 (being is said in many ways, with I.3 186a23–9; 186b1–3, 11–12 etc.); I.5 (first contraries are proper starting points, involving *Categories* 10; cf. I.6, 190b33–191a3); I.6, 189a27–34 (opposites cannot constitute substance but need something underlying); II.1, 193a9–28 (materialists believe that their elements are substance, and everything else affections, states, and dispositions of them). For more detailed discussions of *Phys.* I, see Kelsey (2010); Leunissen (2015a); Quarantotto (2018); Ierodiakonou, Kalligas, and Karasmanis (2019). On the role of the *Cat.*, see Quarantotto (2018: 34–9). For Alexander's take on I.5, see *Quaest.* I.16.

[4] In *Phys.* I.7 *both* opposites (form and privation) *and* something that underlies them (matter) constitute the solution that applies to the generation of accidents as well as substances (190a31–b3, b10–13, 191a3–5). In *Phys.* II.1 Aristotle identifies nature as the internal principle of motion and rest, and claims that everything that has such a principle is a substance (192b32–4 = T3 below). Aristotle recognizes the option that the underlying matter is nature (*phusis*), as the natural philosophers did (193a9–28), but considers form to be more nature than matter (193a28–31, b3–21). Form is more nature than matter, because (among other reasons) each thing is named when it is in actuality rather than in potentiality. Cf. Kelsey (2015); Charles (2018).

[5] The tenet that parts of substances are substances finds support in, e.g., *Cat.* 3a29–32; *Metaphysics* Δ.8, 1017b10–21, and *Meta.* Θ.7, 1049a27–36. For Alexander's use of it, see below pp. 184–185.

[6] For an excellent description of Alexander's final theory of hylomorphism under the label of 'emergentism' see Victor Caston's Chapter 6, in this volume.

[7] This connection will prove crucial to Alexander's hylomorphism. Cf. Alex., *Quaest.* I.24, arguing that there is no tension between Aristotle's claim that he has solved the problems of the ancients, both in terms of accidental and *per se* being (191a33–b27), and in terms of potentiality and actuality (191b27–34). Cf. Witt (1989).

[8] Sharples (2009) speaks of a sharp decline of interest in the general theory of hylomorphism between Aristotle and Alexander. This chapter may serve to provide some evidence to the contrary.

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discussion of more positive suggestions on how to conceive of the relation between form and matter. In section 3, I shall briefly discuss which Aristotelian ingredients Alexander added in order to develop his full account of hylomorphism that we find in *De An.* 1–26. Finally, in section 4, I shall show how Alexander's brand of hylomorphism allowed him to apply it to the development of human intellect.

1. Mistaken Approaches to Hylomorphism

The most prominent conception of hylomorphism that Alexander attacks is the view that form is in matter as in a subject in the sense of *Categories* 2, which would entail that form is an accident of matter. A good point of entry to this discussion is *Quaestio* I.17, which argues that form is not in *any* matter as in a subject (29.31–30.14), and that, if so, soul is not in body as in a subject either (30.14–22). Here, as in *De Anima*, a general theory of hylomorphism precedes its application to the paradigm case of soul and body.

The discussion takes a number of passages from the *Categories* for granted. The *Categories* definition of what is 'in a subject' is at the focus of attention:

T1 We call 'in a subject' [*en hupokeimenôi*] that which, while being present in something not as a part, is unable to be separately from that which it is in.
Arist., *Cat.* 1a24–5

As we shall see, the tradition focuses on two issues of interpretation: [a] what does it mean to be present in something as a part or *not* as a part? [b] what does it mean for something to be unable to exist separately from what it is in?

In *Categories* 5 Aristotle states that it is a characteristic of both primary and secondary substances *not* to be in a subject (2a13, 3a7–8). It is considered obvious that individual substances are neither *said of* nor *in* a subject; secondary substances (genera, species, and differentiae) are said of individuals but are not in them as in a subject. E.g. 'animal', 'human being', or the differentiae 'footed' and 'two-footed' are not in an individual substance: their names and definitions apply to the subject because they constitute it. Parts of substances are not in their wholes as in a subject, or we would be forced to deny them the name of substance (3a7–32).

Aristotle rules that every primary substance denotes a this-something (*tode ti*), which is an indivisible numerical unity (3b10–13).[9] Secondary substances (species and genus) denote a qualification of being (*peri ousian to poion aphorizei*), and are

[9] Cf. *Meta.* Θ.7, 1049a27–36.

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not mere qualities (3b18–21); their subject is a plurality, not a unity (3b16–18, 21–3). This property of substances gave rise to an extensive discussion about the categorial status of the differentia.[10] It may also have inspired, e.g., Boethus of Sidon to claim that form is a quality, not substance, and therefore inheres in matter as in a subject after all.[11] For Aristotle the criterion unique to substance is the ability to receive opposites while remaining one and the same in number (4a10–21). 'Remaining one and the same in number' reinforces the this-something criterion. This implies once more that individual substances have independent existence, and continue to exist regardless of the changes between opposites to which they are subject.

Let us now turn to *Quaestio* I.17. Which kinds of matter are rejected as being the subject form is in as in a subject? We are presented with three options:

(a) prime matter (30.2–9);
(b) the body in which the form resides now (30.9–11);
(c) the body which changed into the current composite (30.11–13).

Alexander claims that form is not in prime matter because prime matter does not underlie in actuality; moreover it needs the assistance of form to be in existence (*pros to einai en huparxei*); conversely, form needs matter to be in existence (*einai en hupostasei*).[12] Prime matter on its own is neither a this-something, nor a substance, and derives whatever actuality it attains from form. It does not qualify as a subject in the required sense.

However, in terms of existence, prime matter and form are here considered to be *interdependent* (even though the argument would succeed if prime matter depends on form but not vice versa). Since the same argument would be true for any matter in relation to its form, why the focus on *prime* matter? Can we identify anyone who proposed a view of hylomorphism in which all forms are in prime matter as in a subject?

The Platonic Receptacle is the first candidate that comes to mind. The definition of being 'in a subject' would be true in a sense of the images of the Forms that enter and leave the Receptacle in Plato's *Timaeus*.[13] The Receptacle is and remains itself uncharacterized by the images it receives, and is as eternal as the Forms. Thus it qualifies as subject that remains the same whatever images it receives, while the

[10] See Ellis (1994); De Haas (1997: 180–250).

[11] See Chiaradonna and Rashed (2020) for a full collection of sources on Boethus. See further below for his view on form and matter.

[12] The definition of being 'in a subject', T1 speaks of 'being present in' (*enhuparchein*) which presupposes the *huparxis* of the subject. In this context, Alexander's *hupostasis* must mean the same as *huparxis*. Cf. *Quaest.* 2.10 claiming that soul is that which is present in (*enhuparchon*) the living being in virtue of which it is a living being. A form *of* something is an enmattered form that cannot exist separately on its own but needs matter in order to exist.

[13] Cf. Plato, *Tim.* 49e7–50a4, 50b7–c6.

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images (but not the Forms) need the Receptacle for their existence.[14] Perhaps, then, Alexander's insistence on the *interdependence* of form and matter in existence is directed against the independent existence of prime matter in the Platonic tradition.

Later Platonists like Alcinous use Aristotle's notion of potentiality to describe the receptacle.[15] In *Quaestio* 2.7, Alexander agrees that being matter as such consists in possessing a suitability (*epitêdeiotês*) and potentiality according to which matter is able to admit qualities. This serves as an answer to the objection that matter is nothing of its own account, if it derives lack of quality and shape from privation, and being qualified and shaped from form. This objection may well testify to another attack on hylomorphism as introduced in the *Physics*: the account of matter, as opposed to form and privation, is considered insufficient.

Contrary to Alcinous, Alexander holds that to be without quality does not complete, i.e. is not part of, the being of matter. Matter as such is as it were in a boundary zone (*methorion*) between these two options, and this potentiality remains, regardless whether any quality happens to qualify matter at a given time or not, and regardless whether it is necessary for it to be somehow qualified or shaped at any given time.[16] The opponent is accused of confusing the negation 'matter is not, in its own nature, qualified' with the statement of the privation 'matter is, in its own nature, not-qualified'.[17] History repeats itself: just like Aristotle's opponents in *Physics* I, this opponent fails to properly distinguish matter from privation.

A further target of Alexander's polemics must have been Boethus of Sidon, who is well-known for his argument that on account of being a subject only the composite and matter qualify as substances. Form is not a subject of something, so it has to fall outside the category of substance. Form may be a quality, quantity or something else.[18] If so, Boethus would have to say that form is an accident—but what is the subject it is in? Boethus is reported to have made the following distinction:

T2 For matter seems to be called matter with respect to what will be, and when it receives a form, it is no longer called matter, but substratum; for it is said to be a substratum for something because the thing is already in it.
Simpl., *In Phys.* 211.16–17 = fr. 19 Rashed

[14] For a concise view of (prime) matter along these lines, see Alcin, *Didask.* ch. 8. It may well be that Plato's Receptacle inspired Aristotle's concept of accidental properties.

[15] Alcin, *Didask.* 8, 163.7–8 (Hermann): 'neither body, nor incorporeal, but potentially body'. On the numerous Middle Platonist parallels of Alcinous' vocabulary, see Whittaker and Louis (1990: 96–8 nn. 139–48).

[16] This statement has bearing on a substance's need for *some* qualitative and quantitative determination to exist. See further below p. 179.

[17] Alexander adds a reference to Arist., *Anal. Pr.* 1.46, 51b5–35.

[18] For the following assessment of Boethus, see Them., *In Phys.* 26.20–4, Simpl., *In Cat.* 78,4–20, Simpl., *In Phys.* 211.15–18 (= frr. 18–20; Chiaradonna and Rashed (2020: with pp. 154–66)). Cf. Chiaradonna (2020).

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Strictly speaking, then, according to Boethus we should be speaking of form-*subject* composites, not form-*matter* composites. Matter on its own is shapeless and formless and is referred to as matter only with respect to what it will become. It is perfectly possible that this stage was identified as prime matter by later commentators, even though this identification is not attested for Boethus. Once matter has received form, Boethus suggests, it has turned into something else: a subject for the form and limit in it. The distinction between matter and subject also seems to surface in our set of texts when Alexander argues emphatically, in *Quaest.* I.8, 17.22–34, that in order to answer the question whether something is in a subject or not, one should investigate cases where an accident or form is already in a *subject*—for form is not yet in *matter* considered as such.

In addition, the distinction has a role to play in rejecting the third option of *Quaest.* I.17: form is in the body which changes into the composite. Alexander replies that change of natural form is a case of generation and corruption: the body that has changed into the new composite has perished. On this view of hylomorphism the form of the composite would have nothing to be in at all. This is clearly absurd: how can forms that are supposed to be enmattered, and to be *of* something, be related to a matter that no longer exists? This argument provides us with further clues about the relation between form and matter. The forms at stake in this discussion are *enmattered* forms, which he claims to be *of* something (*enhulon ti kai tinos on*). We shall see below how matter can also feature as part of the definition of enmattered forms.

Interestingly, prime matter also found its way into Simplicius' commentary on *Cat.* 1a24–b3, as part of a different distinction that is also prominent in our set of texts. Simplicius reports Porphyry's answer to Lucius' problem concerning items that complete something's being (*sumplêrôtika tês ousias*).[19] If, e.g., body depends on the presence of at least *some* qualities and quantities in order to exist, those qualities and quantities should be regarded as parts of body, and cannot be in body as in a subject.

In reply to Lucius, Simplicius reports, Porphyry distinguished between two meanings of the term 'subject':

> [a] *all* qualities inhere in the first subject, which Aristotle called potential body (*GC* 329a34) or prime matter,[20] and the Stoics qualityless matter (*apoios hulê* or *apoion sôma*); the qualities are not parts of the first subject, and incapable of existing apart from it, just as the definition requires.

[19] Simpl., *In Cat.* 48,1–12; cf. Dex., *In Cat.* 23.25–4.18. Cf. Ellis (1994).

[20] The so-called traditional notion of prime matter ascribes it to Aristotle as an ultimate subject that plays a role in the explanation of the change of the four elements into each other, but not in all change of form. Cf. Alex., *De An.* 3.21–4.20.

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[b] the second subject is what Stoics call the commonly or particularly qualified thing (*koinôs* or *idiôs poion*), which Porphyry identifies with the Aristotelian composite substance. In the second subject qualities and quantities inhere as in a subject (e.g. white in wool, heat in iron), but only if they do not complete its essence (as white in snow, heat in fire). In this way, Porphyry can save Aristotle: he is right to classify *all* qualities as being in the first subject, and also right to classify non-essential properties as being in the second subject.[21]

This source is important for two reasons: first, it suggests a further context in which Alexander, whom Porphyry used as a source for his commentaries on the *Categories*, may have come across the claim that all qualities are in prime matter—if so, this would help explain his inclusion of forms being in prime matter as option 1. Second, we find a reference to a Stoic 'prime matter' in the discussion, which may well have motivated Alexander as well. The Stoic *apoion sôma* does not exist without qualifications either, although it is not itself in any way qualified. It is different from the Platonic Receptacle and the Peripatetic prime matter in being itself corporeal (three-dimensional with resistance). It is also different from Peripatetic matter in that the qualities it receives include what the Peripatetics would call natural forms (the determination of species and genus). So the appropriation of this Stoic context would make it even easier to conceive of the idea that Peripatetic natural forms (as opposed to accidents) are in one and the same matter as in a subject.

Lucius' objection that bodies cannot exist without at least *some* qualities is also critically discussed in *Quaest.* I.8, 17.12–22, where it is inserted in an exchange from the hylomorphism debate also rehearsed in *Mant.* 5, 119.32–120.9.[22] If the existence of bodies depends on having some accidents, but accidents are still supposed to be in those bodies as in a subject, their contribution to *existence* is clearly not sufficient to rule out their being in a subject. Hence a further specification must be added: anything that contributes to existence *as a part* is not in a subject—and this applies to form.

At *Quaest.* I.8, 18.4–19.15, the question is considered again, but now a different specification is added: forms such as the soul contribute not only to something's existence (*einai en hypostasei, suntelein pros hyparxin*) but also to its being a *this-something* (*tode ti*) and *in actuality* (*energeiai*). In other words: forms constitute the determinations in respect to which a particular thing cannot change while remaining what it is. This also applies to soul as opposed to shape and colour.

[21] This would result in the *same* properties belonging to different categories depending on their function in composite substances. Alexander has a different solution: white in snow is an inseparable property that is not part of the essence, but a necessary concomitant of the material changes that lead up to the realization of snow. Cf. Ellis (1994: 87–8) quoting Alex., *In Top.* 50.21–51.4.

[22] See Sharples (2004: 65 n. 199).

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Whereas shape and colour do not need a determinate kind of body, soul needs a particular kind of instrumental body. A human being has some shape and colour, but it has soul in a different way, as a part.[23]

From whatever angle the problem is approached, the same argument is repeated: the subject for accidents is an actual this-something that can change in respect of accidental properties while remaining what it is; form contributes actuality and being a this-something to the composite as a part of it; change of form entails that the composite cannot remain what it was. Hence, form is not an accident but a part of the composite, and so is matter that does not exist without it.

The second option of *Quaestio* I.17, viz that form is in the body it resides in as in a subject, can be ruled out by a simple appeal to the definition of being in a subject: form is part of the composite, so not in the body as in a subject.

In the final section of *Quaestio* I.17, Alexander applies the result to the relation between soul and body: soul is not in the living being as in a subject, because it is the most important (*kuriôtaton*) part of it; nor in the body that changes into the animate body, because that no longer exists; nor in prime matter, which has no independent existence. So, if soul cannot be in something that does not possess soul, it cannot be in anything as in a subject.

Mantissa 5 focuses on the special case of the soul being in a subject, but also invokes a general theory of hylomorphism. Alexander starts with the following argument:[24]

A. no substance is in a subject (*Cat.* 3a7–8);
B. the soul is substance;
C. soul is not in a subject in the sense defined in the *Categories* (1a24–5 = T1).

He then formulates an objection to this argument:[25]

O_1 the *Categories* is about composite substance (individual, species, genus), not substance as form

∴ A is irrelevant to soul

O_2 the claim that no substance has an opposite (*Cat.* 3b24–5) is not valid for natural form either, since it has privation as its opposite

[23] One might wonder how far the difference goes: human souls are in human, not equine, bodies, but does my soul need to be in my individual body? On behalf of Alexander one might say that from a biological perspective it does, for my body is the instrumental body that has developed under the causal influence of my individual soul since conception. For Alexander on form and matter, hence soul and body, as parts of the composite, see *In Meta.* Δ.25, 424.25–425.4.

[24] *Mant.* 119,21–2. [25] *Mant.* 119,23–9.

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∴ soul as a natural form is not the topic of the *Categories*, so the claims that a substance is not 'in a subject' (A), and has no opposite (O_2), do not apply to natural form and soul.[26]

If so, Alexander suggests, we should leave the *Categories* behind and start an independent inquiry into whether it is possible for form to be in a subject, as soul is in body.[27] Perhaps form is in matter in some other way—to which we shall turn in the next section.

We might wonder who the authors are of the argument, and the objection. Since the sequel of *Mant.* 5 and the other texts in our set end up supporting both the argument A–C and the claim that the *Categories* is about composite substance (O_1), we might think of A–C as a first argument against the claim that soul is in body as in a subject on the part of Alexander or a like-minded earlier Peripatetic. Then someone like Boethus might object to A–C by pointing out a contradiction: if the characteristics of substance apply to composite substances only, they do not apply to natural forms, including soul. Hence there is still room for natural forms to be in a subject, and be, e.g., a quality. We already saw that Boethus argued that form is not in the category of substance.

This background shows that Alexander does not just need to find some way in which form is in matter, but also to establish at the same time that form is substance.[28] This is a further motive to argue for an independent inquiry. In the sequel of *Mant.* 5,[29] Alexander further explores the definition of 'in a subject' that Aristotle provides in the *Categories*, and shows once more that being 'in a subject' cannot apply to form in matter, hence not to soul. Such a subject should be a this-something in actuality, and matter is not; to be an actual this-something is impossible without form; hence, the matter cannot exist independently of form. If so, matter as such is not a this-something, and even though form is in matter, matter as such does not meet the requirements of being a subject according to the *Categories* definition.

2. Constructive Approaches to Hylomorphism

From the discussions set out above we can already harvest a number of clear characteristics of Alexander's hylomorphism. Natural form and matter are parts of natural substances, and cannot exist without each other. Natural substances are in actuality, and a this-something, in virtue of the form. A proper assessment of the relation between form and matter should focus on actual instances of

[26] This is not to deny B, as long as soul is allowed to be substance in the sense of form.
[27] *Mant.* 119,29–32. [28] Cf. e.g. Alex., *De An.* 5.1–12. [29] *Mant.* 119.32–120.17.

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form-matter composites. Natural forms are by nature enmattered and are somehow *of* matter.

Mantissa 5 offers a discussion of two passages from Aristotle's *Physics* and *De Anima*, which begins to make room for the special way in which form is in matter.

T3 Nature, then, is what has been stated. And things that have this sort of starting point have a nature. And each of them is a substance. For a substance is *a sort of subject, and a nature is always in a subject*.

Arist., *Phys.* II.1 192b32–4; trans. Reeve (2018)

Alexander only quotes the emphasized words,[30] which allow the reading that *nature* is both a subject and in a subject. But the reader will be expected to have Aristotle's text in mind, which yields the reading the sequel of the text requires: nature, which Aristotle goes on to identify with form rather than matter (193b3–21), is in a subject. This also seems to be confirmed by a quote from *De Anima:*

T4 So every natural body that participates in life would be a substance, but a substance as a composite. But since it is both a body and of such-and-such a sort, i.e. having life, the soul would not be a body. *For the body is not among the things that are of a subject* [*kath' hupokeimenou*], but rather a subject and matter. It is necessary, then, for the soul to be substance as form of a natural body that has life potentially. But substance is actuality [*entelecheia*]. Therefore, it is the actuality of such a body.

Arist., *De An.* II.1, 412a15–22; trans. Reeve (2017)

Alexander first glosses 'of a subject' as 'in a subject' and spells out the implication that not body, but soul is in a subject. On the face of it, then, both texts seem straightforward support for the interpretation that form is in matter, and soul in body, as in a subject. This may indeed be a previous interpretation of the texts, which links these passages to the *Categories* so as to make form inhere in matter as in a subject. It is this interpretation we have seen Alexander rejecting all along. Therefore Alexander immediately continues to suggest a different gloss:

T5 Rather, saying that body is not like this, but soul is, is it possible that 'of a subject' does not here mean 'in a subject', but rather what needs some subject for its being?[31] And this also applies to the form in the matter.

Alex., *Mant.* 121.4–7

[30] *Mant.* 121.1–2.

[31] In the light of the discussions on interdependence in terms of existence (*hyparxis, hypostasis*), I take 'being' here to refer to existence rather than essence.

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What if Aristotle's 'of a subject' means that soul needs a certain subject for its being (*pros to einai*)? Note that also the *Physics* passage T3 speaks of *a sort of* subject (*hypokeimenon ti*). So these passages are now made to confirm that for Aristotle, too, there is a special way in which form is 'of' or 'in' some subject which it needs for its being. Hence Alexander triumphantly states: this also applies to the form in the matter.[32] This discussion nicely illustrates that the issue of a contribution to existence does not only rest on problems surrounding the text of the *Categories*, but is at home in the larger issue of the general theory of hylomorphism.

Regrettably, in *Mantissa* 5 Alexander does not continue to explain what this new option consists in.[33] Instead, he sets out to corroborate two claims that surround the quote from *De Anima*:

[1] in the composite living being the soul cannot be body (against materialist views of the soul).[34] Alexander explains that form and matter are not parts of something *qua* body, but *qua* substance. They do not complete the body as parts of its extension, but they complete substance.[35] That is why they share in the nature of substance, not in the nature of body.

Furthermore,

[2] soul is the actuality of the natural body, because the actualities of all natural substances—elements and living beings alike—are substances and this-something (*tode ti*). This is because substances are *from* substances (*ex ousiôn*), since no substance can come to be from non-substances. In so far as soul can be considered capable of receiving contraries (virtue and vice), it may count as substance after all.[36]

[32] Cf. Simpl., *In Phys.* 270.26–34. Simpl., *In Cael.* 279.5–14, adds a report on Alexander discussing *Cael.* 1.9 278 b1–3 in relation to *Cat.* 3a7, with the same conclusion that Alexander reaches here. This defines a new sense of being 'in' something, which commentators on *Cat.* and *Phys.* insert into their adaptations of the list taken from Arist., *Phys.* IV.3, 210a14–24, with *Meta.* Δ.23; cf. Simpl., *In Phys.* 552,18–24 (reporting on Alexander). See Alex., *De An.* 13.9–15.29, with *Mant.* 115.28–116.1; Porph., *In Cat.* 77.13–79.34; Amm., *In Cat.* 26.25–9.23 (with an echo of our discussion at 27.30–28.7); Simpl., *In Cat.* 46.1–15.

[33] Sharples (2004: 68 n. 211) is puzzled by the fact that the text does not proceed to show how form is in matter (as 121,7–8 indeed leads the reader to expect), but that soul is not body. However, the quote that 'body is not itself among the things that are of a subject, but soul is' is itself one of Aristotle's arguments against the identity of soul and body, so it makes sense to provide it with further corroboration by means of the arguments in *Mant.* 121,8–15.

[34] 121.8–15. For such materialist views, see, e.g., Caston (1997); Sharples (2009); Helle (2018). Helle's Chapter 4 in this volume is crucial to understand that Alexander attacked Stoic mixture as also a rival theory of hylomorphism.

[35] Cf. *Mant.* 122.4–15 with Sharples (2004: 71 n. 224) who compares Alex., *De An.* 18,7–27.

[36] *Mant.* 121,4–27. Cf. Arist., *Phys.* I.6, 189a32–4. Alexander also allows application of O_2 at Alex., *De An.* 14.25–15.1.

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Let us now return to the question Alexander left us with before these excursions: in what special way is form 'in', or 'of', matter? In *Quaestio* I.8 this interdependence is framed in terms of form and matter being *relata* in the technical sense of *Categories* 7, which covers various ways of being *of* something. More in particular he regards them as relata in the strict sense, viz relata that have their being in being related to something else:[37]

T6 Matter and form cannot exist in separation from each other because they are spoken of in relation to each other, and the things which are spoken of in relation to each other [go] together by nature,[38] if the things that are relative are those of which the being is the same as being in a certain relation to something. So, in this way too, form will not be in matter as in a substrate.
Alex., *Quaest.* I.8, 18.35–19.3

This passage seems to be just one salvo in the battery of arguments of *Quaest.* I.8: to my knowledge this argument is not referred to anywhere else. It may be true that the necessary interdependence of relata is incompatible with the one-way relation of form being in matter as in a subject. But if form and matter are relata, and belong in the category of relatives, they are not substances, and can still be considered as accidents of the composite. If so, we would end up with the claim that a composite substance consists of accidents, which Alexander denies.[39]

Hence it is no surprise that this solution is rejected in *Quaestio* II.9, which is entitled 'How the soul is not relative to something, if it is the actuality of a body of a certain sort'.[40] Alexander clearly emphasizes that form and actuality are not relative to anything. Not everything that is *of* something is thereby *relative* to something, as the examples of a surface, and the parts of secondary substances show. These are *of* something, but do not qualify as relatives whose being amounts to nothing more than being in a certain relation to something. The same is true of the parts of primary substances: 'soul' and 'head' signify a certain nature and substance that is not exhausted by their being *of* something, which is accidental to such nature.[41] In this sense the parts of primary substances are unlike what is spoken of as 'similar' and 'equal': the being of these entities *qua* similar or equal is indeed exhausted by their relation.[42]

[37] Arist., *Cat.* 7, 6a36–7, with further specification at 8a28–37 (see also below, n. 42).
[38] Arist., *Cat.* 7, 7b15–22. [39] See above p. 184. [40] *Quaest.* II.9, 54.20–31.
[41] The phrase *oikeian tina phusin kai ousian* need not be taken as identifying these parts of substances as substances even though Alexander clearly believes they are; the phrase may just serve to point to a mode of being beyond the relation (*schesis*) these parts have to something else (e.g. the whole they are a part of).
[42] Sharples (2004: 106 and nn. 344–6) suggests this *quaestio* is probably not by Alexander. This seems to be the consequence of his translation of *ousa gar ti* at 54.26–7 in a strong existential sense as 'is [already] something [in itself]'. This would indeed contradict (a) the dependence of soul's existence on

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Quaestio I.26 provides us with a final piece of information from the hylomorphism debate. This *quaestio* asks: 'How form is in matter, whether *per se* (*kath' hauto*) or *per accidens* (*kata sumbebêkos*)'. Alexander lists three options for form to be in matter:

1. form belongs *per se*$_1$ in matter;
2. form is in matter as accidents are;
3. form belongs *per se*$_2$ in matter.

Option 1 and 3 employ the distinction between senses of belonging *per se* that Aristotle discussed in *Posterior Analytics* I.4, 73a34–b3.[43] A belongs *per se*$_1$ to B if A is part of the definition that says what B is, e.g., 'line' belongs *per se*$_1$ to triangle (triangle is$_{\text{def}}$ a two-dimensional extension bounded by three equal *lines*).[44] A belongs *per se*$_2$ to B if B is part of the definition that says what A is, e.g. straight and curved belong to line, and odd and even belong to number (for something odd is$_{\text{def}}$ *a number* divided only into unequal parts).[45]

So if form belongs *per se*$_1$ to matter, it will be part of the *ousia* of matter, and matter will cease to be when the form does. This option is supported by the following considerations: it is true that matter cannot exist without its proper form, but co-exists with it: if the form perishes or is separated from the matter, the matter can no longer exist. In other words: the presence of the form contributes to its being matter. This is in line with Alexander's replies to the *Categories* objections.[46]

the mixture of the elements in Alex., *De An.* 24.21–3, and (b) Arist., *Cat.* 7, 8a13–8b21, on the problem whether no substance is a relative if parts of substances, which are substances, are said to be *of* something (Aristotle argues that 'hand' and 'head', when taken as primary substances, are not relatives because they are substances; taken as secondary substances, they are not relatives in the strict sense); in addition (c) Aristotle denies that soul is an accident of body.

On my reading these problems do not arise: the text focuses on the issue of naming (54.28, 29; *legetai*) and signification (54.30; *sêmainousin*): the *names* 'similar' (*homoion*) and 'equal' (*ison*) indicate relative being only and cannot be understood without reference to something else; the *names* 'soul' (*psuchê*) and 'head' (*kephalos*) indicate modes of being other than the relation these parts also have to their respective wholes. This relation is accidental to these modes of being. In the terms of Arist., *Cat.* 7, 8b13–21: if one can know precisely what something is without knowing precisely what it is related to, it is a relative according to the loose definition; if not, it is a relative according to the strict definition. I conclude that Alexander may well have accepted *Quaest.* II.9, but not the argument of *Quaest.* I.8, 18.35–19.3 (T6).

[43] At 42.28 Alexander mentions Theophrastus along with Aristotle as the source of belonging *per se*$_2$.

[44] See, e.g., Eucl., *Elem.* 1, 20.1.

[45] For this definition, see *Quaest.* I.26, 43.1, with Sharples (2004: 89 n. 286).

[46] Alex., *Quaest.* I.26, 41.27–8. The text that follows is probably corrupt, see Sharples (2004: 87 n. 275) for several proposals to repair it; I follow Sharples in reading <καὶ> καθ'αὑτό in line 42.2. The text provides the awkward example of 'human being' belonging *per se* to 'living being', 'and to everything that is in its [*sc.* the human being's?] being <and> belongs to him *per se*'. This is in fact an example of *per se*$_2$. Perhaps a later reader misunderstood the passage, and inserted the inappropriate example of how the species 'human being' (form) belongs to the genus 'living being' (matter)?

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However, Alexander adds further considerations which seem to go against earlier conclusions.[47] These are best understood as directed against an opponent who has forms contribute to the nature and essence of some kind of prime matter. For Alexander lists as a consequence of this view that matter will receive *the forms themselves* as part of its nature, rather than having *the capacity to receive the forms* as part of its nature.[48] The removal of potentiality from the equation creates new problems: either [a] matter will possess all the forms at the same time or [b] each matter possesses a different form in its own being. Both options are ruled out. This should suffice to destroy option 1, for without further ado Alexander moves to option 2.

Option 2, form is in matter as an accident, meets with the counter-arguments we know from, e.g., *Quaestio* I.17: forms cannot be both substances and accidents, natural substances cannot be composed of matter and accidents. Matter does not have existence (*hypostasis*) and is not already a body, before form enters it. The body that changes into the new composite ceases to be, so cannot serve as matter. Form cannot be an accident of the composite it is itself the form of.[49]

This leaves us with the most interesting option 3: form belongs *per se*$_2$ to matter. In other words: form belongs to matter because matter is part of the definition of form, in the same way as odd and even belong to number because number is part of the definition of both odd and even. In this context it is important that we have been discussing enmattered natural forms. All enmattered beings are necessarily defined by their form and their matter, e.g. flesh, bone, hand, and face. In the case of soul, which is also an enmattered form, we also mention that which it is the form *of*, viz the natural organic body.[50]

There is a further agreement with the case of number:

T7 In the case of numbers, moreover, it is not the case that every number is odd, nor yet that every number is even; but everything that is even is number, and everything odd is similarly also itself number. Just so in the case of form and matter, all matter is not accompanied by this particular form, but every enmattered form is in matter. As in that case *number* is not destroyed in the change to even or odd, but the even and odd in it perish in turn in the change into the forms, just so matter is not destroyed in the change into the forms, but the forms perish in turn in the change of matter into them.

Alex., *Quaest.* I.26, 43.8–17

[47] *Quaest.* I.26, 42.3–9.

[48] Insofar as later Platonists regard potentiality as characteristic of the receptacle they would have to agree with this argument; see above p. 178.

[49] *Quaest.* I.26, 42.9–25.

[50] *Quaest.* I.26, 42.25–43.8. *Quaest.* II.8 considers whether the definition of soul is not circular if it speaks of 'the actuality of a natural organic body potentially possessing life'—given that 'life' presupposes the soul. There the suggested answer is that this is not so much a definition of the soul in itself, but rather an indication of the body the soul is in.

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In other words, the problems of *per se*$_1$ do not attach to *per se*$_2$ which therefore comes out as the better option. Matter retains the potentiality to receive contrary forms, which means that generation and corruption are not abolished. Thus (we might surmise) form and matter co-exist and perish together.

Is this the view that Alexander ascribes to? It is not clear from *Quaestio* I.26, because the options, and the considerations that go with them, are merely listed, without any judgement attached. It does seem clear that option 3 is most acceptable, even though the text quoted above seems to fit accidental enmattered forms better than substantial natural forms. After all, in *Quaestio* I.17 we were told that the underlying body perishes when the form changes, and therefore the form cannot be in the previous body as in a subject.[51] Nor did prime matter fare well in that *Quaestio*. Nevertheless, the notion of *per se*$_2$ belonging is an interesting new attempt to provide better understanding of the necessary connection between a particular enmattered form and its matter, not least in the case of soul and body.

3. Towards the *De Anima* Account of Hylomorphism

So far, the debate has provided us with a considerable number of ingredients that went into Alexander's hylomorphism as described in *De Anima* 1–26. He demonstrates that soul is form, and starts by arguing how the living being is composed of soul and body as matter and form. Neither of these are body, nor can each exist without the other, whereas both are substance (2.25–7.8; 11.14–13.8; 17.9–15; 21.22–4). He provides a list of options of being 'in' something, in order to specify the particular way form is in matter (13.9–15.29). Relying on these arguments he then quickly moves from the soul is form to soul being an enmattered form, which is a completion (*teleiotês*), which is an actuality (*entelecheia*), viz the first actuality of a natural organic body (15.29–16.18, prepared in 6.25–7.8). He argues that form is not a body, against Stoic qualityless matter (17.15–18.10; 19.21–21.21), and dispels confusions about how form and matter are parts (18.10–19.20). All of these issues have been considered in more or less detail in the *Quaestiones* and *Mantissa* 5.

Nevertheless, it is also clear that more is needed to yield the more sophisticated layered ontology of Alexander's *De Anima* 7.9–11.13, and its later applications.[52] Within the confines of this chapter, I can merely draw attention to two Aristotelian texts that most of all seem to have inspired Alexander, *Physics* VII.3 and *De Anima* II.5.[53]

Physics VII.3, esp. 245b9–246a9, provides a more detailed analysis of the kinds of change preceding the generation of substantial form, shape, and bodily and

[51] See above p. 177 and 179. [52] See also Caston, Chapter 6, in this volume.

[53] More research is needed to see how exactly Alexander combined these and other texts into his brand of Aristotelianism, which I hope to publish in a forthcoming book on Alexander.

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psychic states, including virtue and knowledge.[54] Aristotle argues that neither such generations nor the resulting states are themselves alterations, even though alterations of something else are needed to make the underlying matter suitable for reaching a new state.[55] The resulting states are regarded as completion (*teleiôsis*) of a natural state, or the loss (*ekstasis*) of such completion.[56] The resulting composites—for which both artefacts (house) and natural beings (human being) are given as examples—do not exist in actuality until completion. Once the completion is a fact, and the state or form is in place, it constitutes a new determination of its owner, in the sense that it determines, e.g., the ease with which someone is affected or remains unaffected.[57]

This general view of generation and corruption is part and parcel of Alexander's layered ontology. Alexander often expresses the generation of a new form in terms of reaching completion (*teleiôsis*). A new composite may serve as matter for the completion of a higher level. It often needs to go through a variety of changes itself, before it reaches a further stage of completion. Even after the arrival of the new form, shape, or state, the same kind of alterations remains possible, even if to a lesser extent, and may always lead to the loss of the state of completion. In the case of soul and body, this spells corruption for the soul—for which Alexander was to be scolded for centuries by Neoplatonists and Christians alike.[58] Alexander also applies this theory to the emergence of different kinds of soul from different kinds of body, and to the addition of the powers of the soul.[59]

We have seen that at *Phys.* I.8 191b27–9 Aristotle announced that there is a different way to analyse change, viz in terms of potentiality and actuality 'which have been dealt with in more detail elsewhere'. Although *Meta.* Θ is usually taken to be the target of this reference, for our purposes it is important to recall *De Anima* II.5, which provides a further refinement of the distinctions in the *Metaphysics* for the purpose of explaining perception and thought.[60]

[54] For the complex chapter, *Phys.* VII.3, see esp. Wardy (1990); Maso, Natali, and Seel (2007); Chen (2017).

[55] This section explains how the subject that changes into something new is different from the subject the new form is in, as required in option 3 of *Quaest.* I.17, above pp. 177–9.

[56] Arist., *Phys.* VII.3, 246b1–3.

[57] Arist., *Phys.* VII.3, 246b17–20; cf. Leunissen (2015b). This statement implies that the new form has the capacity to take control of the type of changes that led to its arrival, at least to some extent. This, I suppose, is as close as Aristotle comes to downward causation.

[58] See e.g. Alex., *De An.* 21.22–4 (with Caston 2012: 108 n. 200); 90.11–16. On Philoponus' criticism, see e.g. De Haas (2019: 306–11); for the paradigm Christian polemic, see e.g. Thomas Aquinas, *De Unitate Intellectus* against the Averroists, who were inspired by Alexander.

[59] E.g. Alex., *De An.* 80.16–24.

[60] The most considered treatment is still Burnyeat (2002); see also Polansky (2007 *ad loc*). Burnyeat (2002: 63–4) acknowledges the role of *Phys.* VII.3 in the interpretation of *De An.* II.5. However, he denies the role of material processes that Alexander expressly incorporates in his theory on the basis of *Phys.* VII.3. Alexander does so in a different way from Burnyeat's opponents.

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In *De An.* II.5 Aristotle distinguishes the potentiality to gain knowledge from the potentiality to apply knowledge.[61] All human beings have the potentiality to gain knowledge in common (first potentiality); it is actualized each time when a piece of knowledge is acquired (first actuality).[62] This state or disposition that is the possession of knowledge constitutes at the same time a new, second, potentiality to access this knowledge at will,[63] and apply it in new episodes of thought (which will each be instances of second actuality). E.g. knowledge of grammar (first actuality) is applied by the grammarian each time when she is contemplating a particular letter alpha (second actuality).[64]

The difference between the two processes of actualization is that the first is a genuine alteration, that is to say it consists of 'repeated transitions from one state to its opposite under instruction' (417a31–2). Aristotle does not specify how and when the first potentiality is replaced by the corresponding actuality, viz the possession of knowledge as a (more or less) permanent state. This state is unlikely to result with each transition, but rather after the longer process that Aristotle elsewhere describes as 'the first universal coming to rest in the soul'.[65] The second process of actualization is not an ordinary alteration, but rather 'a preservation of what is potentially such by the actuality' (417b3–5), and 'a development towards itself and actuality' (417b6–7). The second potentiality for applying knowledge remains unaffected no matter how often we use the knowledge we possess (as long as we possess it). For our purposes it is crucial to note that in *De An.* II.5 Aristotle speaks of the potentialities and actualities of the knowing person (*epistêmôn*), and mentions matter only once by way of comparison (417a27).

4. The Development of Intellect as a Hylomorphic Process

This framework of *Phys.* VII.3 and *De An.* II.5 found full application in Alexander's discussion of the development of intellect (*nous*) in his *De An.* 80.20–91.6.[66] He distinguishes the following stages (81.13–86.6), which are easily correlated with the distinctions of *De An.* II.5:

[61] On the Platonic background of this distinction and of Aristotle's vocabulary, see e.g. De Haas (2018a). There is no space here to discuss the relevance of *Meta.* Θ 7 for *Phys.* VII.3, *De An.* II.5, and Alexander's hylomorphism.

[62] Arist., *De An.* II.5, 417a21–8.

[63] Arist., *De An.* II.5, 417b23–4; III.4, 429b3–9.

[64] Arist., *De An.* II.5, 417a28–b1.

[65] Arist., *APo.* II.19, 100a6–7; cf. 100a10–b3.

[66] For a paraphrase of the entire passage, see De Haas (2019: 300–6); cf. De Haas (2020) for parallel arguments in *Mant.* 2. For a general discussion of Alex., *De An.* 85.20–86.6 (T9–T10 below), see De Haas (forthcoming). For material intellect, see Tuominen (2010).

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1. natural or material intellect, innate in all human beings, capable of acquiring both practical and theoretical intellect (in that order of perfection)	first potentiality
2. common intellect, which all human beings naturally develop (in different degrees) under the impact of daily sense perception	(not in Aristotle)[67]
3. dispositional intellect, the state of completion (*teleiotês*) of material intellect, which only some people acquire by habituation and instruction	first actuality/second potentiality
4. intellect-in-actuality, which is the application of the knowledge that is dispositional intellect	second actuality

The four stages describe the development of the innate human capacity for thought from first potentiality to second actuality. The common intellect is inserted to do justice to the actual distribution of knowledge among humans, but (remarkably so) it is not considered as a state of completion of the material intellect yet. This makes the completion of material intellect a rarer event, perhaps even the prerogative of professional philosophers (in line with the Platonic dialectician and the Stoic sage). Alexander clearly regards the dispositional intellect as the form (*eidos*) and state of completion (*teleiotês*) of the material intellect (*hulikos nous*), as the following quotes show:

T8 The potential intellect, which we possess when we are born, is itself twofold as well, where one is able to receive the other. The first is called and is the 'material intellect'—since anything that can receive something is that thing's matter—while the other, which arises through instruction and habits, is a form and actuality [*entelecheia*] of the first.

Alex., *De An.* 81.22–6

The intellect that is acquired and arises later, which is a form, disposition (*hexis*), and completion (*teleiotês*) of the natural intellect, is no longer to be found in all [human beings], but rather in those who practise and learn in the manner appropriate to the various branches of knowledge.

Alex., *De An.* 82.1–3

[67] This is Alexander's interpretation of *tou koinou* in Arist., *De An.* 1.4 408b24–9, which found its way into later discussions of intellect; see e.g. De Haas (2018b: 115–16) on Themistius. Modern commentators understand Aristotle as referring to the perishable compound of soul and body (*to koinon*), which is held responsible for emotions, desires, and memory. Alexander takes it as a reference to a common intellect (*koinos* sc. *nous*).

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> . . . the intellect that is said to be a disposition, in contrast, is a form, power,[68] and completion of the material intellect. This disposition arises in it as a result of comprehending the universal and its being able to separate the forms from the matter, which are in a way the same as each other.
>
> Alex., *De An.* 85.11–14

These passages clearly testify to the hylomorphic analysis of the development of intellect.[69] Alexander applies Aristotle's connection between hylomorphism and potentiality/actuality as comparable, and compatible, explanations of change (*Phys.* I.8). He brings the distinctions of *De An.* II.5 to bear on the generation of the material intellect's disposition, in line with *Phys.* VII.3. The notion of completion, viz the process of *teleiôsis*, resulting in the state of *teleiotês*, bridges the two vocabularies.

The third text of T8 shows that the acquisition of universals through the familiar process of sense perception, memory, and experience,[70] plays the role of the preliminary changes that lead up to the new form and disposition of intellect, which *Phys.* VII.3 has led us to expect. In this way Alexander is able to shed some light on Aristotle's rather vague allusions to this process, which we saw earlier. A crucial text, which bristles with echoes from *APo* II.19, gives us the following explanation:

T9 This particular kind of disposition initially comes to be in the [material] intellect in virtue of a transition from the continuous activity involving perceptibles, when it acquires from them a kind of theoretical vision, as it were, of the universal. This [universal] is at first called an object of thought [*noêma*] and a concept [*ennoia*], but as it increases [*pleonasan*] and becomes complex and diversified [*poikilon kai polutropon*),[71] so that it becomes able to produce this apart from its perceptual basis, it is eventually called intellect [*nous*]. [3] For whenever through continuous activities it becomes dispositional in such a way that it is able to engage in the remaining activity on its own, at that stage the intellect comes into being which is described as a disposition.

Alex., *De An.* 85.20–86.1

[68] In the CAG edition, Bruns excises *kai dunamis*, but it can stand as referring to second potentiality. Cf. *De An.* 86.4–5.

[69] Alexander often calls forms powers, because they are (first) actualities that are logically prior to (second) potentialities and their (second) actualities, cf. e.g. *De An.* 9.12–26. This hylomorphic analysis should be clearly distinguished from the notorious reference to hylomorphism at *De An.* III.5, 430a10–14, with its vexed history of ancient and modern interpretations. Perhaps, though, Alexander interpreted the passage as a licence to apply hylomorphism more widely in his discussion of intellect.

[70] Cf. Alex., *De An.* 83.2–13, with Alex., *In Meta.* 2.23–6.12; cf. De Haas (2021: 74–6).

[71] Cf. Alex. *DA* 8.5–13, for similar language concerning the contribution of lower forms to more complex and completed higher forms.

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The tipping point which leads to the emergence of dispositional intellect is the ability to think a fully matured universal concept at will, without having recourse to perception. While trying to reach that state, the material intellect is developing a concept which serves as object of thought, but does not yet qualify as intellect.[72] Once matured, the universal concept *is* the dispositional intellect, because it is the form of a hylomorphic compound together with material intellect. Alexander immediately proceeds to call this process analogous to the distinction of potential and actual knowers in *De An.* II.5 (*De An.* 86.1–4). After noting that the activity of this disposition yields intellect-in-activity, he adds an intriguing sentence on the nature of dispositional intellect:

T10 For the dispositional understanding is in a certain way the concepts [*noêmata*] that have been stored and accumulated and are at rest.
Alex., *De An.* 86.5–6

So far, the development of dispositional intellect has been described as the development of a single concept, which turns intellect. In T10 it becomes clear that a single dispositional intellect is in fact the sum total of stored completed concepts, all of which the individual human being that has reached this degree of *teleiôsis* can think as she wishes. This concept of knowledge as the sum total of concepts known brings to mind Chrysippus' concept of *logos* as the system, or collection of certain concepts and conceptions.[73]

What is Alexander's Aristotelian support for this thesis? Alexander regards Aristotle's remark on the (Platonic) description of the soul as 'place of forms' to be a reference to his material intellect.[74] One would expect him to have identified Aristotle's description of intellect as the 'form of forms' as a reference to his dispositional intellect, but the corresponding passage does not mention the collection of completed universals, but rather their successive reception.[75] Apparently, the identity of dispositional intellect is not limited to a single matured concept, but should be regarded as the accumulation of all stored concepts at rest in the soul. The human being that possesses this soul has the ability to think all and any of them as she wishes. In T10 however, dispositional intellect seems to act

[72] On the use of *ennoia* in Alexander as an unfinished concept, see De Haas (forthcoming).

[73] See, e.g., SVF 2.56; 2.841, 23–4 (= Long & Sedley 54V); cf. SVF 2.847 (= Long & Sedley 39F).

[74] Alex., *De An.* 85.5–10, referring to Arist., *De An.* III.4, 429a27–9: those who used the phrase should rather have spoken of the noetic power of the soul.

[75] Alex., *De An.* 91.7–24, corresponding to Arist., *De An.* III.8, 431b21–432a–3: soul can be regarded as in a way everything because perception is the form of perceptibles, intellect the form of forms. Alexander does not seem to have used the phrase *eidos eidôn* in this sense, only when referring to a higher level form (e.g. the soul) comprising several lower level forms that contribute to it (e.g. the corporeal substrates). Cf. *De An.* 8.5–13, esp. 12–13: 'a kind of form of forms [*eidos pôs eidôn*], and a completion of completions [*teleiotês tis teleiotêtôn*]'.

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as a kind of intellectual memory, whereas ordinary memory only serves sense perception and the preceding stages of concept formation.[76]

5. Conclusion

In this chapter, I have attempted to reconstruct part of the debate on hylomorphism in which Alexander of Aphrodisias participated, insofar as it emerges from Alexander's *Quaestiones* and *Mantissa* 5. The debate addresses *Physics* I–II.1 and the distinctions in the *Categories* that Aristotle used in that context. Alexander takes away from the debate that he needs to situate his discussion of the relation between soul and body into a general theory of hylomorphism in which form and matter need each other, both for their existence and their definition. It also needs argument that soul is the form and actuality of the body so as to apply the general theory to this paradigm case, and to further apply hylomorphism to the levels and powers of soul. The story culminates in the application of hylomorphism to the development of dispositional intellect, in which Alexander combines *Phys.* VII.3, *De An.* II.5, and *APo* II.19 with the view of form as completion (*teleiotês*). The intellect of accomplished knowers comes out as the sum total of knowable things. This is the pinnacle of hylomorphism as a physical, metaphysical, and epistemological theory. As such it is also a perfect example of how Alexander innovatives by connecting Aristotelian dots in unprecedented ways.[77]

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[76] Exploration of possible connections between Alexander and Plotinus' twofold memory, and the medieval issue of the plurality of forms will have to wait for another occasion.

[77] Over the years I have accumulated a great debt to Richard Sorabji, David Charles, and Victor Caston for their willingness to discuss the intricate issues involved in this chapter. I have also profited much from the feedback I received from the participants in the 2019 Yale conference, in a workshop on Alexander's *Quaestiones* organized by Gweltaz Guyomarc'h (Lyon, 2019), and in a Munich-Utrecht workshop on Ancient Greek and Arabic Epistemologies (Utrecht, 2020). Of course only I am to blame for any remaining mistakes.

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