

## Grasping Aristotle's Intellect

In *De Anima*, III, 4 Aristotle proposes to discuss the part of the soul with which it thinks, that is the intellect<sup>1</sup>. Two questions announce the chapter's agenda, (i) 'what distinctive feature it has' and (ii) 'how thinking comes about' (429a12-13). Aristotle approaches question (i) by comparing thinking with perceiving and by showing how they differ. Just as perception consists in the sense's being affected by objects of perception, so thinking consists in the intellect's being affected by objects of thought. To be affected in the relevant way, the sense must be able to take on a sensible form and thus become like the object of perception; likewise, the intellect must be able to take on an intelligible form and thus become like the object of thought. A thing's ability to take on a form requires that it is not such as to be already in possession of or affected by that form — it must be 'unaffected' (*ἀπαθές*). However, the way in which the intellect is 'unaffected' is different from the way the sense is 'unaffected'. The intellect should be able to know *all* things, and in order to do so, it must be *completely* unaffected. This is the feature that Anaxagoras had in mind, Aristotle maintains, when he said that the intellect has to be 'unmixed' (*ἀμιγές*) in order to 'rule all things', that is, according to Aristotle, in order to know them all (429a18-21). This feature implies that the intellect must have absolutely no character on its own: it 'has no nature other than this, that it is capable' (429a21-22). So the intellect is 'in actuality none of the beings before it thinks' (429a24). That is why the intellect, unlike the senses, has no bodily organ, and why intensely thinkable things, far from impeding the intellect's ability to think less thinkable things, actually improve it<sup>2</sup>.

<sup>1</sup> With this formulation Aristotle indicates that he will be talking of human intellect; so M. BURNYEAT, *Aristotle's Divine Intellect*, Marquette University Press, Milwaukee 2008, p. 35. In this paper we shall use the terms 'thinking' for *voεiv* and 'object of thought' for *τὸ νοητόν*, asking the reader to keep in mind that Aristotle refers to a special sort of thinking and a specific class of objects at which this sort of thinking is directed. For a longer explanation, see the first two sections of BURNYEAT, *Aristotle's Divine Intellect*.

<sup>2</sup> For a detailed analysis of Aristotle's argument at the beginning of *DA*, III, 4, see V. CASTON, *Aristotle's Two Intellects: A Modest Proposal*, « *Phronesis* », 44, 1999, pp. 199-227; V. POLITIS, *Aristotle's Account of the Intellect as Pure Capacity*, « *Ancient Philosophy* », 21, 2001, pp. 375-402; J. SSKO, *On Separating the Intellect from the Body: Aristotle's De Anima III.4, 429a10-b5*, « *Archiv für Geschichte der Philosophie* », 81, 1999, pp. 249-267. M. LOWE, *Aristotle on Kinds of Thinking*, « *Phronesis* », 28,

Aristotle's answer to the question concerning the distinctive feature of the intellect is this feature of being completely unaffected. That is what marks off the intellect from the senses and what determines its other properties and its activity. However, it is precisely this feature of the intellect that makes question (ii) — how thinking comes about — difficult to answer. Aristotle supposes, again in analogy with the senses, that thinking must come about by way of the intellect's being affected by the objects of thought in some way or another. But how can it be affected by the objects of thought — if it is completely unaffected?

In fact, this is not the only puzzle generated by the distinctive feature of the intellect. There is another one, namely whether the intellect is itself thinkable. Here is our translation of the relevant passage :

« One might be puzzled : if (DF) the intellect is simple and unaffected and has nothing in common with anything, as Anaxagoras says, (P1) how can it come to think, if thinking is being acted upon ? For it is insofar as two things have something in common that one acts and the other is acted upon. (P2) And moreover, is the intellect also itself thinkable ? For either the intellect will belong to everything, if it is thinkable not in virtue of something else, and what is thinkable is one in kind, or the intellect will have something mixed, which makes it thinkable just as other things » (*DA*, III, 4, 429b22-29).

There are many difficulties with this whole passage, especially with the last sentence. There is no agreement among commentators how this passage is to be interpreted or even which problem it addresses. We will argue that the passage concerns knowledge of the intellect in a specific sense. We will argue that the key question of the passage is how one can come to know what the intellect is. The question does not concern second-order awareness of one's own intellect engaged in thinking, but it concerns the problem of grasping or understanding what the intellect is, which can only be achieved by means of — the intellect.

This is, one may say, a scientific question. The intellect is a real thing, it is part of the world. The puzzle Aristotle raises is how the intellect can be an object of knowledge, if it has no recognizable nature or essence of its own. For Aristotle, to know what a thing is is to grasp the essence of that thing, but apparently the intellect has none. Observe that this puzzle does not depend on the perspective of the first or third person. The puzzle Aristotle addresses is not merely how I

1983, pp. 17-30 argues that the point of the comparison with perception is to distinguish thinking and perceiving. Though this is up to a certain point certainly correct, Aristotle clearly wants to preserve the overall analogy of thinking and perceiving. He does not reject it *tout court*, but rather modifies at important points, e.g. intellect does not require any organ, whereas perception does. We believe it is precisely these modifications of the analogy that give rise to the two puzzles central to our paper.

can come to grasp another person's intellect, tentatively assuming that I myself have an intellect. Nor, as we will argue, can the puzzle be answered by pointing to the fact that we are aware of our mental operations. For mere awareness of mental operations is not sufficient to establish that they are operations specifically of the intellect. We will come back to this point after we have stated our main interpretative assumptions.

First, we assume that the three descriptions stated in the sentence marked by 'DF' — 'simple' (ἀπλοῦς), 'unaffected' (ἀπαθές), 'having nothing in common with anything' (μηθενὶ μηθὲν ἔχει κοινόν) — all boil down to the same distinctive feature of the intellect we explained above. We get more than one description presumably in order to introduce the problems more forcefully, but also for dialectical reasons, in order to evoke Anaxagoras, who has already been quoted in Book I of *De Anima* as saying that the intellect is the only thing that is 'simple, unmixed, and pure' (405a16-17), and 'unaffected and having nothing in common with any other thing' (405b20-21).

Second, we take it that this distinctive feature generates both puzzles, P1 and P2. Our interest is, as we said above, in P2<sup>3</sup>.

Third, it is obvious that the last sentence is meant to explain or elaborate on P2 ('whether the intellect is also itself thinkable'), as indicated grammatically by the explanatory particle γάρ in line 27 and substantively by explicitly speaking of the intellect's being thinkable (νοητός) in lines 28 and 29.

Fourth, the last sentence elaborates on the second puzzle (P2) by posing a dilemma both horns of which are supposed to have intuitively unpalatable consequences: *either* the intellect will turn out to belong to everything — in which case rocks, rugs and turnips will have an intellect; *or* the intellect will have something mixed to it — in which case it will not be unmixed and completely unaffected, as established earlier. What is far from obvious is how Aristotle derives these two unpalatable consequences. We will return to this point later, but before we do, one more general remark concerning our interpretative strategy is in place.

Fifth, we proceed on the assumption that Aristotle offers a solution to the problem of the intellect's thinkability in this very chapter, in the passage which starts at 430a2 with the claim that the intellect 'is thinkable just like the objects

<sup>3</sup> We will explain in a moment how the distinctive feature of the intellect generates puzzle P2. Here we differ from F. A. LEWIS, *Is There Room for Anaxagoras in an Aristotelian Theory of Mind?*, « Oxford Studies in Ancient Philosophy », 25, 2003, pp. 89-129 : p. 90 and R. D. HICKS, *Aristotle : De Anima*, Cambridge University Press, Cambridge 1907, p. 493, who assume that DF is restricted to the first problem only. W. D. ROSS, *Aristotle : De Anima*, Clarendon Press, Oxford 1961, p. 294 and J. A. DRISCOLL, *The Anaxagorean Assumption in Aristotle's Account of Mind*, in A. PREUS, J. P. ANTON eds., *Aristotle's Ontology*, State University of New York Press, Albany, N. Y. 1992, pp. 273-293 : p. 274 seem to have a similar understanding of the passage.

of thought' and ends with the last sentence of the chapter, at 430a9. In other words, we do not think that the notoriously difficult Chapter 5 of Book III of *De Anima* contains the material which is *necessary* to provide a satisfactory answer to our problem, as some interpreters have argued<sup>4</sup>. This does not mean that Chapter 5 cannot be interpreted in such a way as to support Aristotle's claims in Chapter 4, or that some claims in Chapter 4 are not further elaborated on in Chapter 5. However, we believe that the problem addressed in the second puzzle is the intellect's thinkability and that Aristotle's solution of this puzzle can be reconstructed without recourse to Chapter 5.

With these preliminaries out of the way, let us take a fresh look at our passage. Given the distinctive feature of the intellect (DF) — its complete unaffectedness — we face two problems: (P1) how the intellect comes to think other things, and (P2) how it comes to think itself. Both problems are usually reformulated in terms of the intellect's awareness<sup>5</sup>. If the intellect is completely unaffected, it is difficult to see how it can ever become aware of other things, but also how it can ever become aware of itself. Of course, the interpreters assume that it is clear that the intellect is aware of other things when it thinks, and even *more* clear that it is aware of itself when it thinks. That the intellect is aware of itself when it thinks is clear to the interpreters, we take it, on two grounds. One ground are passages in the Aristotelian *corpus*, such as *Metaphysics*, XII, 9, 1074b35-36 and *Nicomachean Ethics*, IX, 9, 1170a25-b1, in which Aristotle seems to be talking about the intellect's reflexive awareness of its operations. The other ground is introspective. It is part of our Cartesian heritage that we find it inconceivable that the intellect is not reflexively aware of itself and its operations. So, the interpreters

<sup>4</sup>E.g. L. P. GERSON, *The Unity of Intellect in Aristotle's De Anima*, « Phronesis », 49, 2004, pp. 348-373 : p. 360. Following J. Sisko, *Aristotle's NOUS and the Modern Mind*, « Proceedings of the Boston Area Colloquium in Ancient Philosophy », 16, 2000, pp. 177-198 : p. 188, we think that it is plausible to assume that in III, 5 Aristotle addresses a worry stated parenthetically towards the end of III, 4 (430a5-6) : given the unqualified identity of the intellect and the objects of thought without matter, asserted at 430a3-4, how come that we do not always think ? If this is right, then part of what is discussed in the two *aporiai* is taken up in III, 5. Nevertheless, the main argument can be understood without recourse to chapter III, 5.

<sup>5</sup>This holds of nearly all commentators that are discussing this passage. For ancient commentators, see J. OWENS, *A Note on Aristotle, De Anima 3.4, 429b9*, « Phoenix », 30, 1976, pp. 107-118. Modern commentators include V. CASTON, *Aristotle on Consciousness*, « Mind », 111, 2002, pp. 751-815 ; F. A. LEWIS, *Self-Knowledge in Aristotle*, « Topoi », 15, 1996, pp. 39-58 and Id., *Is There Room for Anaxagoras ?* ; M. WEDIN, *Aristotle on the Mind's Self-Motion*, in M. L. GILL, J. G. LENNOX eds., *Self-Motion from Aristotle to Newton*, Princeton University Press, Princeton 1994, pp. 81-116 ; DRISCOLL, *The Anaxagorean Assumption* ; GERSON, *The Unity of Intellect* ; R. POLANSKY, *Aristotle's De anima. A Critical Commentary*, Cambridge University Press, Cambridge 2007. Possible exceptions are ROSS, *Aristotle : De Anima* and HICKS, *Aristotle : De Anima*, who do not explicitly refer to any form of self-awareness or reflexivity.

tend to assume, Aristotle had better dealt with any assumption that might call the intellect's reflexive awareness of itself into question.

As we said above, we think that, contrary to this approach, the passage must be understood in terms of grasping or knowing the intellect. Aristotle is not concerned, we believe, with the first-person perspective and one's reflexive awareness of one's own thoughts. Rather the problem is quite generally how knowledge of the intellect can be obtained. It cannot, we take it, be obtained other than by means of the intellect. That is to say, the question is how the intellect can be thought and known by the intellect, which is neutral with regard to the first- or third-person perspective. Or, generally, how can one come to know what the intellect is? And since this knowledge, however we come to obtain it, is no doubt obtained by means of the intellect, the question is how the intellect can be grasped by the intellect. This is, we believe, the gist of the question Aristotle asks in P2. How plausible is this approach to P2?

Let us begin by observing that, in Aristotle's view, although the earlier thinkers used the noun νοῦς and the verb νοεῖν, they didn't really know what they were talking about. They assimilated thinking to being intelligent (φρονεῖν) and reduced both to some form of perception (αἴσθησις), as we learn from *De Anima*, III, 3, 427a19 ff. It seems it was Plato who first fully understood what νοῦς and νοεῖν were, namely the capacity and the respective activity of grasping forms — the invisible and immutable explanatory features of the world.

Now given that earlier philosophers had failed to recognize the intellect for what it was, and given that on Plato's and Aristotle's conception a fully developed intellect is a fairly rare achievement among human beings, one would expect him to be concerned with the question how one can understand what the intellect is, or what its distinctive feature is. This, incidentally, also explains why mere awareness of mental operations is not sufficient to establish what the intellect is. If the intellect is indeed the ability to grasp the basic explanatory features of the world, whether a particular mental operation is a thought strictly speaking, i.e. an act of grasping a basic explanatory feature of the world, is not a matter that can be decided introspectively, by reflexive awareness of one's own mental operations.

Moreover, as we learn from *De Anima*, III, 8, 431b21-23, all beings are either objects of perception or objects of thought. Well, what about the intellect? Whether in potentiality or in actuality, the intellect is not an object of perception (except perhaps accidentally, e.g. when we see an action performed with foresight or the purposefulness characteristic of the practical intellect). So the intellect must be an object of thought. But how can the intellect be an object of thought, if to think is to grasp the essence of something, and the intellect seems to have no essence, no distinct nature of its own, since 'in actuality it is none of the beings before it thinks' (429b29)? Only things that exist in actuality have essences that can be

objects of thought, which suggests that the intellect cannot itself be an object of thought. Obviously, if the intellect is neither an object of perception nor an object of thought, Aristotle has a big problem. This is essentially the problem, we claim, that motivates the second puzzle in *De Anima*, III, 4.

One might be tempted to respond to this problem along the following lines. At 429b10-22, in the passage immediately preceding the quoted one in which the two problems are formulated, Aristotle distinguishes between material things and their immaterial essences or forms. From this we can conclude that objects of thought are essences of things or forms (εἶδη). And given the earlier comparison of the intellect and the sense, we can say that the intellect is the capacity to take on essences or forms of things. Once we understand what the essences or forms of things are, we understand what the intellect essentially is, namely that it is the capacity to take on essences or forms of things. So why cannot this be the sought essential feature of the intellect which makes the intellect a legitimate object of thought?

This is all good and well, but saying that the intellect is essentially the capacity to take on essences or forms begs the question in view of the established distinctive feature of the intellect: given that the intellect is completely unaffected, 'having nothing in common with anything', it is difficult to see how it could 'take on' anything; and until that is adequately explained, the idea that the intellect is the capacity to take on essences or forms is unsupported. The puzzle is not simply to *state* adequately what the intellect is. Rather the challenge for Aristotle is how we can *come to know* or *grasp* what the intellect is. According to Aristotle, knowledge comes about by one's intellect being causally affected by an object of thought. The puzzle is how the intellect can play the causal role of an object, given its distinctive feature. As long as Aristotle has not explained this, it remains mysterious how we can come to know what the intellect is.

So we are still stuck with the problem. The established distinctive feature of the intellect — its being completely unaffected and totally unmixed — seems to rule out both, that it can be affected by objects of thought (P1) as well as that it can itself affect an intellect so as to become an object of thought (P2). Indeed, if to think is to be affected by an object of thought, and the intellect is completely unaffected, then neither can the intellect be *affected* by anything (i.e. it cannot think any object of thought), nor can it on its part *affect* anything, notably it cannot affect the intellect. Given its distinctive feature, then, it seems that the intellect cannot become an object of thought *at all* — it cannot become *any* intellect's object of thought — be it my own intellect, yours, or someone else's.

If we have correctly identified Aristotle's second puzzle (P2), it follows that there is nothing more urgent or special about the first-person grasp of the intellect, my thinking of my own intellect, than the third-person grasp, my thinking of Mary's

intellect. For the puzzle *generally* calls into doubt the possibility of knowing the intellect. That is to say, Aristotle's primary objective is to explain how it is possible to know what the intellect is and, in fact, that there is one.

It is reasonable to suppose, then, at least as a working hypothesis, that the solution Aristotle offers to the second puzzle does not rely on the distinction between the first-person and third-person perspective. That is to say, Aristotle does not maintain that the intellect can only be grasped from the first-person perspective and, consequently, that understanding the intellect depends on the first-person access. Similarly, it is not the case that there is something specific to the third-person access. Rather, Aristotle will explain how the intellect can be intellectually grasped. This will put us in a position to see how the intellect can be grasped equally from the first- or third-person perspective.

Let us now take a closer look at Aristotle's formulation of the second puzzle. The train of thought seems to be the following. Suppose that the intellect is indeed thinkable, as one would expect it to be. Now this may be true either because the intellect is thinkable in virtue of itself (*καθ' αὐτό*), or because it is thinkable in virtue of something else (*κατ' ἄλλο*, 429b27).

To take the second horn of the dilemma first: if the intellect is thinkable in virtue of something else, it will have something mixed to it that makes it thinkable, which straightforwardly conflicts with the idea that the intellect is unmixed. Moreover, if the intellect is thinkable in virtue of some ingredient admixed to it, the intellect's thinkability would depend upon that ingredient. In other words, if it is this ingredient which is thinkable in its own right, knowing the intellect would be 'indirect'. The proper object of thought, when the intellect is being thought of, would then be the admixed ingredient, not the intellect; the intellect itself would be only accidentally thinkable, namely insofar as it has the ingredient which is thinkable in its own right.

On the other hand — and that is the first horn of the dilemma — if the intellect is thinkable in virtue of itself, then the intellect will belong to anything that can be an object of thought. The consequence is meant to strike us as absurd, because it seems that a brick can very well be an object of thought — insofar as it has a certain form or essence that can be grasped — and yet it is preposterous to say that the intellect belongs to the brick, for bricks obviously do not think. However, it is not entirely clear how Aristotle derives this absurd consequent from the antecedent. He adds the condition that there is only one kind of being an 'object of thought', or one sense of being 'thinkable', but that does not make things much clearer<sup>6</sup>. Perhaps he has the following idea in mind: if the intellect is thinkable in

<sup>6</sup> The point of this addition, we think, is to exclude the possibility that the intellect is a *sui generis* object of thought.

virtue of itself, without there being something extraneous that makes it thinkable, then, since the intellect is simple and does not have any distinct nature of its own, its being the intellect and its being thinkable are equivalent by definition. Moreover, the reduction of the intellect's thinkability to the thinkability of other things implies that the intellect can only ever be thought by way of thinking other things. This in turn suggests that the intellect is in other things, for that is where we find it when we want to think it — we find it in things it happens to think. And if being thinkable and being the intellect are indeed equivalent, one could suggest that, since the intellect's thinkability resides in other things, the intellect itself resides in other things. Of course, this is not the only way to make sense of Aristotle's derivation of absurdity in the first horn of the dilemma, but it is the one we find most plausible<sup>7</sup>.

Whatever the details of the first horn of the dilemma may be, the problem Aristotle raises is clear. Assuming that the intellect is itself thinkable, it is thinkable either in virtue of itself, or in virtue of something else; and whether it is thinkable in virtue of itself or in virtue of something else, we end up with some unacceptable consequences. So it would seem that the intellect is not itself thinkable after all, and that of course is a problem. Note again that the problem does not hinge on a distinction between the first- or third-person perspective, nor does it rest on some notion of 'awareness' or 'consciousness'. Rather, the problem simply is how the intellect, given its distinctive feature, can be grasped by thought.

Aristotle solves the puzzle in 430a2-9. Here is the whole passage:

«The intellect is itself thinkable in the same way as objects of thought are. For (i) in the case of things without matter, what thinks and what is thought are identical; for theoretical knowledge and its object are identical. (Why the intellect is not always thinking, then, we must consider later). And (ii) in the case of those things which have matter, each of the objects of thought is only potentially present. It follows that, while the intellect will not belong to them (for the intellect is a potentiality of them without matter), object of thought will belong to it » (*DA*, III, 4, 430a2-9).

Although this passage is controversial in almost every detail, we take it that Aristotle's strategy is to reject the second horn of the dilemma and to show why the first horn of the dilemma does not have unpalatable consequences. And he shows this in two moves. First (i), he claims that the objects of theoretical thought are identical with the intellect. This essentially means, by transitivity of the identity relation, that the intellect does in fact belong to the objects of theoretical thought.

<sup>7</sup> Certainly we find it more plausible than any explanation appealing to the identity of the intellect with its object in order to explain the first horn of the dilemma, since the identity thesis is spelled out only a few lines down as a part of the solution to the problem; see below pp. 22-23.

However, that is innocuous, given that the objects of theoretical thought have no matter<sup>8</sup>. If the objects of theoretical thought are immaterial substances such as the movers of celestial spheres, it is unproblematic to say that the intellect belongs to them because they are supposed to *be* intellects<sup>9</sup>. If, on the other hand, the objects of theoretical thought are principles of individual sciences, then there is no problem either. Namely, there is nothing further to being such an object of theoretical thought than to be a part of a system of terms and propositions organized hierarchically by their explanatory relationships, and the theoretical intellect just is this system. To put it differently, there is nothing further to having a theoretical intellect than having a system of terms and propositions by which you can explain any given thing by adducing terms and propositions of increasing explanatory power until you arrive at the terms and propositions which are not explained by anything else but which are self-evident (the first principles). So, there is nothing unpalatable about saying that the intellect belongs to other things — if these other things are immaterial objects of theoretical thought.

The second move (ii) is the claim that the objects of thought are only potentially present in material things, and hence it is not the case that the intellect belongs to them. The objects of thought potentially present in material things are their forms, the principles that organize the matter of physical things and govern their behaviour. The form of a thing can be grasped by the intellect and this grasp is articulated in an adequate definition. So the objects of thought are potentially present in material things in the sense that their forms are susceptible to being grasped by the intellect. However, there is much more to the forms of material things than their susceptibility to being grasped by the intellect, and hence there is no relation of identity between such forms and the intellect, and consequently no worry that the intellect belongs to material things<sup>10</sup>.

<sup>8</sup> It is controversial what exactly the immaterial objects of theoretical thought are ; cf. HICKS, *Aristotle: De Anima*, ad 430a3 ; E. BERTI, *The Intellection of Indivisibles According to Aristotle*, *De Anima III.6*, in G. E. R. LLOYD, G. E. L. OWEN eds., *Aristotle on Mind and the Senses*, Cambridge University Press, Cambridge 1978, pp. 141-164 : pp. 147 and 161, n. 32 ; LOWE, *Aristotle on Kinds of Thinking*, p. 24 ; F. M. SCHROEDER, R. B. TODD, *Two Greek Aristotelian Commentators on the Intellect*, Pontifical Institute of Mediaeval Studies, Toronto 1990, p. 86, n. 37 ; BURNYEAT, *Aristotle's Divine Intellect*, pp. 24-28. We take the view that the class of objects of theoretical thought includes the class of objects of thought without matter. Moreover, we take the view that forms of material things can and often are objects of theoretical thought, although they are not objects without matter.

<sup>9</sup> Cf. ARISTOTLE, *Metaphysics*, XII, 7-9, esp. 1072b14-30.

<sup>10</sup> This is what we take, in a nutshell, to be the point of lines 430a7-9. The tacit assumption is that objects of thought with matter are forms of material objects, that is the principles of organization of their matter. The intellect, by contrast, even when it thinks forms of material objects, is without matter (*ἀνευ γὰρ ἄλλης δυνάμεις ὁ νοῦς τῶν τοιούτων*, a7-8). Hence, it is not possible to identify the form of a material thing with the intellect, and consequently there is no fear that the intellect belongs to material things (*ἐκεῖνοίς μὲν οὐχ ὑπάρξει νοῦς*, a7). On the other hand, insofar as the form of a material thing is an object of thought, it does belong to the intellect (*ἐκεῖνῳ δὲ τὸ νοητὸν ὑπάρξει*, a8-9).

Of course, in an act of thinking the intellect and the object of thought are one, according to Aristotle, much like the sense and its special object, and this is a sort of identity relation. However, this is an innocuous sort of identity, for two reasons: because it holds between the intellect and its object only as long as the object is actually being thought, and because the object of thought cannot be identified with the corresponding material thing<sup>11</sup>. The material thing is a composite of form and matter, and even its form, as we have seen, is more than a potential object of thought or essence; for one, it is also the actual structuring principle of the matter of that thing. Such a qualified identity relation does not warrant the inference that the intellect is in a material thing — even while one thinks its essence.

Having rejected the second horn of the dilemma, and having shown that there are no unpalatable consequences following from the first horn, Aristotle has saved the option that the intellect is itself thinkable, and indeed thinkable in virtue of itself. We would argue that this is spelled out in the sentence that introduces Aristotle's solution to the second puzzle: 'The intellect is itself thinkable *just as the objects of thought*' (αὐτὸς δὲ νοητὸς ἐστὶν ὡςπερ τὰ νοητά, 430a2-3). Surely this should not be taken in the sense that the intellect is just another object of thought, since we have seen that it has no nature of its own, no form or essence of its own. Rather, we believe that the idea must be that the intellect comes to be thought in virtue of the objects that it thinks. In other words, the intellect is itself thinkable by way of the objects of thought — when and while the objects are being thought.

One might protest that this militates against the established fact that the intellect is *not* thinkable in virtue of something else, but in virtue of itself. Indeed, the phrase 'just as the objects of thought' closely mirrors 'just as the others' (ὡςπερ τὰλλα, 429b29) in the rejected second horn of the dilemma. However, in thinking the objects of thought without matter, the intellect is not *mixed* with these objects, i.e. they are not something extraneous implanted into the intellect, but rather, as we have remarked above, they are identical with the intellect. In thinking such objects, the intellect just *is* these objects. So the intellect is thinkable in virtue of itself, after all. That is to say, what makes the intellect thinkable is not that it is itself one among the many objects of thought, but that it becomes identical with some object of thought or another in an act of thinking. And we have argued that this identity is unqualified in the case of objects of thought without matter. This is, we suggest, why Aristotle emphasises that 'in the case of objects without matter what thinks and what is thought are identical' (430a3-4).

According to our interpretation, there is an important bifurcation of objects of thought. Only a qualified identity relation holds between the forms of material

<sup>11</sup> What is in the intellect are forms of things, not things themselves; cf. *DA*, III, 8, 431b28-432a1.

objects and the intellect when it thinks such forms. There is more to a form of a material object than being an object of thought. A form is, to repeat, first and foremost the structuring principle of some matter. The intellect can, no doubt, grasp this form, but even while it is grasped by the intellect, this form remains what it is, namely the principle which organizes a chunk of matter. That is, we have argued, why the intellect does not belong to things with matter. However, this is not the case with objects of thought without matter. Objects of thought without matter have no nature or function in addition to what they are as objects of thought. There is nothing more to their being than being grasped by the intellect. That is why the intellect, in acts of grasping such objects, is identical to them. It further explains why, in thinking these objects, intellect itself is known. These objects, we hasten to add, are part of the architecture of the world, or rather the very fundamentals of this architecture. They are not Kantian parts of the architecture of our minds.

Our point, then, is that the intellect can be identical to the architecture of the world. In any given act of thinking, the intellect just is the thinking of these objects and these objects just are the objects being thought. That is why one understands what the intellect is most fully when one thinks these objects of thought without matter. This is the way Aristotle cashes out the Anaxagorean idea of purity of the intellect: when the intellect grasps an object of thought without matter, this grasp is complete and exhaustive, it leaves nothing out, for there is no further feature of the object, nothing that falls outside of the scope of the intellectual activity, as in the case of objects with matter where what is grasped is also the structuring principle of a chunk of matter. And in grasping such objects of thought without matter, as we have argued, the intellect is fully identical with its object.

If we are right about this, Aristotle is committed to the view that the intellect can itself be thought only when it actually thinks something; indeed, the intellect can itself be thought most fully only when it actually thinks objects of thought without matter. Note, however, that Aristotle is not committed to this view because the intellect can be reflexively aware of its own operations. Let us consider an example from the third-person perspective. We meet someone and we want to find out if this person has an intellect. How do we do that? Since we cannot grasp her intellect by perception, we must do it by our intellect. How then does our intellect grasp hers? By following her thoughts, that is by thinking the same objects that she is thinking. We listen to her speech and, if her speech is intelligible, our intellect is actualized by the very same objects of thought that actualize her intellect, and it is actualized in the same order as hers, making the same connections among them. If these are the right objects of thought, stated in the right order and making the right connections, we can conclude that she does have an intellect, and indeed a very fine one. By contrast, if her speech evokes few

objects of thought, if they are irrelevant for the subject-matter at hand, or if she draws only accidental connections among them, we shall conclude that she has no intellect, or perhaps a poorly developed one. Of course, this would not make her an imbecile without any concepts or words to express them, but an ordinary human being without much interest in science, a person who has not made an effort to learn or discover the *right* terms and propositions and to make the *right* connections among them.

This example illustrates another important point, one that we have not emphasised so far, namely that having an intellect does not amount to being actualized by a *single* object of thought. We cannot conclude that our friend has an intellect by witnessing an isolated thought of hers. Even if she presents us with the most intense object of thought, say the first unmoved mover or the principle of non-contradiction, but keeps repeating herself over and over again, we would suspect that she is not in possession of an intellect, but merely parroting. Similarly, if she presents us with the most intense object of thought but fails to connect it with any other object of thought, or keeps connecting it with wrong objects of thought, or connects it with the otherwise right objects but in accidental or contingent ways, we are again going to conclude that she lacks an intellect.

Although a single object of thought is not sufficient to determine the presence of an intellect, it remains true to say, however, that the intellect is thinkable 'just as the objects of thought', i.e. insofar as objects of thought actualize the intellect. We understand what the intellect is, not by reflecting on a mysterious quiddity the intellect might have, but by thinking objects of thought. To be sure, in *De Anima*, III, 4 Aristotle does not provide an account of the development of the intellect or of the conditions for its identification and assessment. However, Aristotle's basic ideas seem to be the following: (i) the intellect *can* be grasped or understood, (ii) it is grasped by an intellect *insofar as the intellect is engaged in thinking objects of thought*, and (iii) it is grasped by an intellect most fully when the intellect is engaged in thinking of *objects of thought without matter*. By taking note of the objects of thought with which an intellect is engaged, then, we take note of the intellect itself, and we take note most completely when the intellect is engaged with objects of thought without matter. The example above was framed in the third-person perspective. But this is really only due to the example. The primary question is, as we have said above, how the intellect can be known at all. This is a scientific question which depends neither on the third- nor the first-person perspective. In other words, the answer to the question how one grasps one's own intellect is very much the same as in the case of grasping the intellect of any other person.

One knows that one has an intellect when one's intellect is actualized by the right objects of thought in the right sequence, making the right connections, so

that one object of thought successfully explains others or directly contributes to a successful explanation of the others. This answer may go against our deep philosophical intuitions. For it may seem obvious, or even command Moorean certainty to some, that there is a radical difference in the way one accesses one's own mind and the minds of other people. After all, every undergraduate is familiar with the so-called 'problem of other minds'. But we must be very careful here in order not to conflate two very different questions. I may be familiar with, or certain of, the fact that I am thinking, if thinking is construed along Cartesian lines. That is, if thinking is being aware of my mental episodes, there may be this difference in grasping the intellect from the first- and the third-person perspective. However, that is precisely *not* Aristotle's question, we argue, when he asks whether the intellect is itself thinkable. For, as we have explained above, the question is how one can grasp what the intellect essentially is. And here, we submit, there is no difference between the first- and the third-person perspective. For in order to establish what the intellect is, or whether I myself have or someone else has an intellect, it is necessary to think and apprehend objects of thought, and to do so in the right order, making the right connections. Whether one succeeds in doing this is objectively determined. One has to understand objects of thought, e.g. one has to carry out a mathematical proof and make the right connections between the terms of the proof. Thinking is more than a subjective awareness of certain things passing in one's mind. It is determined by standards which are independent of any thinker and anchored in the structure of reality.

One could object that there is a fundamental difference between establishing whether I have an intellect or whether Mary has an intellect, because in the latter case the knowledge is inferential, whereas in the first case it is not. To our mind, if we understand Aristotle correctly, this is not the case. For what should the inference consist in? Suppose we meet Mary and talk to her about proving that the sum of internal angles of every triangle is equal to two right angles. She sets out the proof; she guides us through the steps of the proof and demonstrates the conclusion. This is how we establish that she has an intellect. Knowing her intellect comes about by knowing the objects of thought with which her intellect is engaged. There is no further inference needed. We do not say: 'Now that Mary has guided us through the proof, we can draw the conclusion that she has an intellect'. Rather, carrying out the proof is the same as having an intellect, it *is* the intellect at work. And when the intellect is engaged with the highest theoretical principles, that is with objects of thought without matter, the intellect is at its best and purest.

Exactly the same scenario obtains with respect to the first-person grasp. Suppose one asks oneself: 'Do I have an intellect?' Where should one's knowledge come from, if not from thinking? For Aristotle, however, this does not amount to an awareness of what pops up in one's mind, but of grasping an essential feature of

reality and connecting it with other related essential features. Now whether one grasps an essential feature and connects it with other related essential features, i.e. whether one actually thinks, this is something objectively determined. Just as in our example of Mary, to ascertain whether one has an intellect, one has to put it at work, e. g. to carry out a mathematical proof.

This point is also borne out by what Aristotle says earlier in *De Anima*, III, 4, at 429a5-9:

« When the intellect has become each thing in the way that one who actually knows is said to do so (and this happens when he can exercise his capacity by himself), it exists potentially even then in a way, although not in the same way as before it learned or discovered ; and then it can also think itself ».

In this passage Aristotle distinguishes three stages. First, there is the process of acquiring the relevant objects and, presumably, connecting them in the right way. This process is called learning (μαθεῖν), if the relevant objects are acquired with the help of another person, or discovery (εὕρεῖν), if the relevant objects are acquired by relying on one's own resources, i.e. on the objects and connections already internalized. Second, there is the stage of the intellect when all the right objects and connections have been grasped and internalized. At this stage one is said to be an actual scientist or knower (ὁ ἐπιστήμων κατ' ἐνέργειαν). However, at this stage one's intellect is still in some sense potential (δυνάμει πῶς), although in a less robust sense than prior to the acquisition of the relevant objects. The intellect ceases to be potential only once it is exercised by the relevant objects, which is the third stage. 'And then', Aristotle writes in the final sentence of the passage, 'it can think itself'<sup>12</sup>.

It is only when the intellect is exercised by the relevant objects, in the process of learning or in the activity of contemplation, that it can grasp itself. Before I engage in the process of learning or discovering the right objects of thought and their connections, or before I engage in contemplation and have my intellect actualized by the right objects in the right order, neither I nor anyone else can be sure that I have developed an intellect. Likewise, I cannot be sure that anybody else has developed an intellect before he or she engages in learning, teaching or contemplation, followed by articulation of the objects of thought as they actualize her intellect.

<sup>12</sup> καὶ αὐτὸς δὲ αὐτὸν τότε δύναται νοεῖν, 429b9. Here we follow the manuscript reading, preserved by Hicks, in contrast with Ross, who accepts Bywater's conjecture δι' αὐτοῦ instead of δὲ αὐτὸν. OWENS, *A Note on Aristotle, De Anima*, and GERSON, *Unity of Intellect*, p. 357, n. 36 argue for the preservation of the manuscript reading, but only to interpret it in terms of self-awareness.

The passage brings out another point, too, one that we have not yet discussed, but which is worth mentioning. The intellect is a capacity that has to be developed. Humans are not born with the intellect, but with the ability to develop it at some stage in life, after certain conditions are satisfied. If this is so, we have yet another perspective from which it becomes clear why grasping what the intellect is must be objectively determined. The intellect is an achievement; whether and to what extent one has succeeded in achieving the intellect is something objectively determined.

The fact that we do not find a distinction between the first-person perspective and the third-person perspective points to a deep difference between the way Aristotle and modern-day philosophers conceive of the intellect. For Aristotle, if and while Mary and John think the same objects of thought, they have the same intellect. A comment by Themistius is illuminating here :

« The teacher thinks the same things as the learner ; teaching and learning, that is, would not even exist unless teacher and learner had the same thought. And if, as is necessary, it is the same, then clearly the teacher also has the same intellect as that of the learner, given that in the case of the intellect its essence is identical with its activity » (*In Aristotelis De Anima Paraphrasis*, 104.7-11, transl. Schroeder and Todd).

Teaching and learning presuppose that the intellect of the teacher and the intellect of the learner are in some sense identical. Their intellects are the same in the sense that, while they think the same thoughts, their intellects are actualized by the same objects of thought. Of course, their intellects differ in that the teacher and the student are differently disposed to connect these objects of thought with other objects of thought, but it remains true that while they think the same objects, especially if they think the same objects of thought without matter, their intellects are fully identical with the objects and hence with one another.

Some modern scholars, such as Lewis or Shields<sup>13</sup>, have found it scandalous to suggest that when two people think the same objects of thought their intellects are the same. Far from being scandalous, we find it consistent with Aristotle's objectivist programme and philosophically quite appealing. The intellect ceases to be something private, accessible through self-awareness which accompanies each particular act of one's own thinking, and it becomes something public, something objectively accessible through the objects of thought that actualize it. If and only if my intellect is actualized by the right objects of thought in the right sequence, drawing the right connections among them, the existence of my intellect becomes discernible to myself and to others, provided I articulate my

<sup>13</sup> LEWIS, *Self-Knowledge*, p. 41 and C. SHIELDS, *Intentionality and Isomorphism in Aristotle*, « Proceedings of the Boston Area Colloquium in Ancient Philosophy », 11, 1995, pp. 307-330.

thoughts and the others take trouble to follow my thoughts and thus have their intellects actualized by the same objects in the same sequence. Otherwise, all I have is either a capacity to develop an intellect or else a capacity to actualize an already developed intellect, neither of which is *per se* detectable or, for that matter, distinguishable from one another. Observing two persons shopping for groceries is not going to inform us of the existence of the intellect in them or help us tell an accomplished scientist from a person with no interest in science. On the other hand, if we begin a discussion with them about theoretical matters, we will soon find out who is who, who has and who has not developed an intellect, or how well developed an intellect one has. We discern the scientist's intellect by following the objects of thought that actualize her intellect. Our intellect is actualized by the same objects of thought and so our intellects become the same.

We think that objections like the one by Shields or Lewis are based on a misconception of what it means to have the same intellect in this context. They tend to believe that Aristotle wants to assert the strange thesis that when John thinks something, the thought pops up in Mary's head. But this is, as we have argued, not Aristotle's concern here. Surely, Mary and John have both their own capacity for thinking. To say that Mary and John have the same intellect means only that if and as long as Mary and John think of the same object of thought, or think of the same series of objects of thought and make the same connections among them, there is no difference in their intellects. Of course, we can still refer to Mary's thinking of X and John's thinking of X, given that they may come to think of X through different routes and to connect X with different further objects of thought. That is, after all, why we can speak of Mary's intellect and John's intellect. However, when Mary and John think of X, their intellects are one with X and hence with one another (especially when X is an object of thought without matter).

Note that none of what we have said makes Aristotle a behaviourist. Having an intellect does not amount to displaying a certain sort of behaviour or having a disposition to entertain certain thoughts or make certain utterances. Rather, it amounts to the ability to grasp certain features of the world in certain sequences, making appropriate connections among them. And one comes to witness the intellect in another person not merely by observing her behaviour and following her words, but by having one's own intellect *actualized* by the very same features of the world, and in the same sequence, in which they actualize her intellect, thereby assimilating one's intellect with hers, in learning from her, teaching her or joining in a (verbalized) contemplation with her.

If one finds this view surprising, this is probably for two reasons. We have already mentioned one reason, the strong Cartesian intuition that one cannot fail to grasp one's own mind, and this sort of grasp is very different and more

reliable than one's grasp of other minds and of the external world. The problem which then arises, of course, is whether I can ever be sure that there are other minds. But this is not Aristotle's problem, as scholars have correctly observed<sup>14</sup>. The problem does not arise for Aristotle because he does not start from the assumption that the way one grasps one's own intellect must be different from the way one grasps the intellect of the others. The essences or forms of things are objective features of the world, and that which grasps and connects these features, that is the intellect, is just as objective. With such an objectivist premise, there is no reason why Aristotle should approach the question of whether and how the intellect can be grasped by making a distinction between the immediate sort of grasp that we have of our intellects and a mediated sort of grasp that we have of other people's intellects. Consequently, it is hardly surprising that the answer to his question of whether and how the intellect can be grasped should be the same in both cases.

The second reason for surprise may be the fact that Aristotle apparently does discuss self-awareness in some passages<sup>15</sup>. One passage in which Aristotle is taken to be concerned with self-awareness in connection with thinking is *Metaphysics*, XII, 9, 1074b35-6, where he claims that 'scientific knowledge, perception, opinion and thought are always of something else, and of itself by the way (ἐν παρέργῳ)'. With this remark he formulates a worry for his conclusion that the divine intellect thinks itself, implying that the divine intellect has to think of itself not by the way, merely as a by-product, but of itself as its own proper object.

First, we would like to point out that this is not the only way to interpret Aristotle's claim. For example, Kosman argues that 'this should not be interpreted to refer to an act of *reflexive* self-awareness'<sup>16</sup>. It is true that Kosman still emphasises that 'Aristotle thus means to offer a description of thought as a cognitive reaching out

<sup>14</sup>R. SORABJI, *Body and Soul in Aristotle*, « Philosophy », 49, 1974, pp. 63-89 : p. 88 writes that « it never occurs to Aristotle to raise doubts about other minds ». See also A. AVRAMIDES, *Other Minds*, Routledge, London 2001, pp. 1-44.

<sup>15</sup>It should be noted that it is far from clear whether we find in Aristotle or later Peripatetics anything answering to our Cartesian conception of consciousness or first-person thinking. This is argued, for example, by Emilsson, who maintains that a pre-Cartesian notion of first-person thinking is found in Plotinus, but not in Aristotle (cf. E. K. EMILSSON, *Plotinus on Intellect*, Oxford University Press, Oxford 2007, p. 110). Our and Emilsson's interpretations are close in this respect, since we emphasize the objectivist and non-reflexive nature of Aristotle's self-thinking, although due to brevity of Emilsson's remarks it is hard to determine his view exactly. We would like to thank an anonymous referee for drawing our attention to this book. We cannot go into the issues this raises within the confines of our paper, but it would certainly be an important contribution to scholarship if someone were to investigate the conceptions of self-thinking from Aristotle to Descartes.

<sup>16</sup>A. L. KOSMAN, *Metaphysics A 9: Divine Thought*, in M. FREDE, D. CHARLES eds., *Aristotle's Metaphysics Lambda: Symposium Aristotelicum*, Oxford University Press, Oxford 2000, pp. 307-326 : p. 321.

that grasps the world in active awareness<sup>17</sup>. Kosman, as we understand him, wants to bring across the point that, while thinking an object of thought, we become aware of it. This is something we certainly do not wish to deny. We differ insofar as we want to emphasise that awareness alone — be it first- or second-order awareness — is not sufficient to determine what the intellect is. In contrast to Kosman's interpretation, we believe that it is crucial that some object of thought is actually grasped. We understand the intellect only by way of understanding the objects that it actually thinks<sup>18</sup>.

Be that as it may, we think that a less psychological and more epistemological interpretation of *Metaphysics*, XII, 9 can be proposed, inspired by Plato's discussion of temperance as knowledge of knowledge in the *Charmides* (166e-172a). For a cognitive capacity to be *of* something is for it to be able to make relevant judgements about something. To use Plato's central example, medicine is (primarily) of health and sickness as its proper objects, which means that it enables one to judge whether a person is healthy or ill, but it is also (secondarily) of itself — in the sense that it enables one to judge that oneself has the art of medicine and whether or not someone else has it. Similarly, the intellect is primarily of the objects of thought, in the sense that the intellect enables one to apprehend the objects of thought and make connections among them, and secondarily of itself — in the sense that the intellect enables one to establish that oneself has an intellect and whether or not someone else has it. We do not think that there is anything in the *Metaphysics* passage that rules out such an interpretation.

Second, even if we accept the standard interpretation of Aristotle's general claim and take the view that every time the intellect thinks an object of thought it thinks itself by the way, we are not thereby forced to conclude that this reflexive thinking is either the explanandum or the explanans of our passage in *De Anima*, III, 4. As we have said, our proposed interpretation does not rule out that there is an awareness of oneself thinking or the intuition that there must be something it is like to have one's intellect exercised. Having one's intellect exercised by the right objects in the right order may be accompanied by some sort of reflexive awareness, may have certain phenomenal qualities, may be accompanied by certain emotional states, and there are various ways to accommodate this within Aristotle's framework. However, this is *not* what he has in mind, we have argued, when he asks in *De Anima*, III, 4 whether the intellect is itself thinkable. What he asks rather is, to repeat, whether and how the intellect is thinkable at all, given its distinctive feature. And the way he answers this question is not that

<sup>17</sup> KOSMAN, *Metaphysics A 9*, p. 323.

<sup>18</sup> We would like to thank an anonymous referee for drawing our attention to the fact that Kosman denies *reflexive* awareness.

the intellect is thinkable by some sort of introspective self-awareness, but that it can be grasped — by itself or by other intellects — in exactly the same way, namely through the objects of thought that engage it, most fully by objects of thought without matter. An isolated object of thought producing an isolated act of thinking may well be accompanied by self-awareness, but we have seen that this is not sufficient for the ascription of intellect. To ascribe the intellect — to oneself or to another — the right objects of thought have to give rise to the right sequence of acts of thinking, whether with the help of someone else in the process of learning, or by mustering one's own intellectual resources in the process of discovery, or again in contemplation, after one has already gone through all the right sequences of acts of thinking.

## ABSTRACT

*Grasping Aristotle's Intellect*

In this paper we offer a novel interpretation of the second *aporia* stated in Aristotle's *De Anima*, III, 4, the question whether the intellect can think itself. We propose that the *aporia* does not aim at reflexive awareness of one's own thoughts, as is commonly assumed, but relies on a more objectivist account of the intellect. The question, we claim, is whether the intellect can itself become an object of intellectual grasp. On our interpretation of III, 4, Aristotle argues that the intellect is itself thinkable insofar as it thinks its objects, which means that grasping the intellect is a matter of grasping the objects that it thinks. We show that, on this account, there is no difference in the way one grasps one's own intellect and the way one grasps another person's intellect.

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