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**Intelligible Matter in Aristotle**  
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Abstract

The oxymoronic phrase ‘intelligible matter’ occurs three times in Aristotle. In two passages it has the same meaning; in the third the meaning seems radically different. This gives the impression that the Aristotelian language of metaphysics is distressingly slack. This paper argues, against the nearly unanimous voice of two millennia of commentaries, that ‘intelligible matter’ has the same meaning in all three loci. In doing so it develops a capital distinction that tightens up the apparatus of Aristotelian metaphysics.

‘Intelligible matter’ – the very phrase is an oxymoron. Surely matter is sensible, not intelligible; intelligible things are, precisely, nonmaterial: forms, ideas, or concepts, or something of that sort. Surely anyone with even the rudiments of philosophy knows that. What arcane back street of metaphysics are we being led into when Aristotle speaks of ‘intelligible matter’?

He mentions it only three times in the whole Corpus. And what is really strange is that its meaning in two of those texts seems to be entirely different from its meaning in the third. That such a bizarre technical term should not have a clear and settled meaning seems irresponsible in the extreme. Something’s fishy here. We had better look into the matter.

*1. The Zeta texts*

In *Zeta* 10 of the *Metaphysics* Aristotle considers *individual* circles, and with respect to these he makes a distinction between sensible and intelligible circles – sensible circles being those of bronze or wood, and intelligible circles being mathematical. This is already striking: there are *individual* intelligible circles.

But when we come to the concrete thing, e.g. *this* circle, i.e. one of the individual circles, whether sensible or intelligible (I mean by intelligible circles the mathematical, and by sensible circles those of bronze and wood.... But matter is unknowable in itself. And some matter is sensible and some intelligible, sensible matter being for instance bronze and wood and all matter that is changeable, and intelligible matter being that which is present in sensible things not *qua* sensible, i.e. in the objects of mathematics.

As this discussion is pursued in *Zeta* 11 Aristotle insists

...that even some things which are not perceptible must have matter; for there is some matter in everything which is not an essence and a bare form but a ‘this’....and while one kind of matter is perceptible, there is another which is intelligible.

What is this about? It appears to be tied up with an interesting problem about mathematical objects that Plato recognized, and addressed in an *ad hoc* fashion; and it appears to exemplify Aristotle’s characteristically parsimonious approach to ontology.

Plato famously observed that mathematical objects – numbers and figures – could not be Forms, because Forms are unitary; and the doing of mathematics may often require the existence of two identical numbers or figures. We may be proving that  $6+8$  and  $5+9$  are equal; both are equal to 14; there will need therefore to be two 14s in our equation. Or, we may be proving that one triangle is congruent to another; that is, that the two triangles in our proof are identical in all respects. Proofs of either sort require the existence of at least two identical objects, and since Forms are unitary, these objects cannot be Forms. Notoriously, Plato addressed this problem by postulating a category of entities – the Intermediates – lying on the ontological scale below Forms and above regular objects; Intermediates share with Forms the property of being intelligible, and they share with regular objects the property of admitting replication. Intermediates are not universals: they are individuals, albeit intelligible ones.

Aristotle inherited this problem, but his solution was very different. It lay in his theory of abstraction, *aphairesis*, a theory whose clearest statement is in *Metaphysics* Kappa 3:

...the mathematician investigates abstractions: before beginning his investigation he strips off all the sensible qualities, e.g. weight and lightness, hardness and its contrary, and also heat and cold and the other sensible contrarieties, and leaves only the quantitative and continuous, sometimes in one, sometimes in two, sometimes in three dimensions, and the attributes of these *qua* quantitative and continuous, and does not consider them in any other respect, and examines the relative positions of some and the attributes of these, and the commensurabilities and incommensurabilities of others, and the ratios of others.... (1061a29ff.)

Taking this text together with the *Zeta* texts we have examined, we see that this operation of abstraction is understood as being performed on *individual* sensible objects: a circular coin, a square frame, a spherical ball, a cubic die. A mathematician gets a circle by taking an individual coin and bracketing or ignoring all its features that do not interest her: colour, weight, metallicity, consistency – in short, all features except those of extension as such: shape and size.<sup>1</sup> Having undergone this process of stripping away, a process that is done by the mind, the circle becomes an *intelligible* object, but it remains an individual. And the matter that individuates it is just its ordinary matter, with all its extraneous features ignored. That is the meaning of the remark in *Zeta* 10 that ‘intelligible matter... is present in sensible things, not *qua* sensible.’<sup>2</sup>

Questions crowd in, of course, for this elegant and frugal theory; but, at any rate, it seems clearly to be what Aristotle has in mind when he introduces the phrase ‘intelligible matter’ in the *Zeta* texts.

## 2. The *Eta* text

The third occurrence of ‘intelligible matter’, the one which seems to assort so ill with the foregoing two, is in *Eta* 6. Aristotle is there working at his besetting problem of what constitutes the unity of a definitory formula, what makes it more than just a heap of words. He offers the answer that the differentia is form and the genus matter. How that would confer unity on the definition is a hard question, but at any rate he says the following in elaboration:

Of matter some is intelligible, some perceptible, and in a formula there is always an element of matter as well as one of actuality; e.g. the circle is ‘a plane figure’. (1045a33-6)<sup>3</sup>

Intelligible matter, according to this text, is a part of a definition, or rather of what a definition stands for, an essence. An essence has a formal and a material part; the differentia is form and the genus is matter. Intelligible matter is, then, the genus part of an essence. In the essence of man, ‘rational’ is the formal part and ‘animal’ is the matter. It is intelligible, presumably, because it is an essence, or part of an essence; and it is matter because the genus plays the role of matter.

Here, then, we certainly seem to have a quite different idea of intelligible matter in play from that which we saw in the *Zeta* texts: intelligible matter is the genus of a definition.

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<sup>1</sup> It is easier to understand this operation in the case of the objects of geometry than in the case of those of arithmetic. Stephen Gaukroger has tackled the latter in his paper ‘Aristotle on Intelligible Matter’, *Phronesis*, Vol. 25, No. 2, Aristotle Number (1980), pp. 187-197.

<sup>2</sup> The theory of abstraction is reconstructed by, among others, A. Mansion, *Introduction à la physique aristotélicienne*, 2 ed., Louvain & Paris, 1946, 155ff., and by S. Mansion *Le jugement d’existence chez Aristote*, 2 ed., Louvain, 1976, and by D.M. Philippe, ‘*Apharesis, Prosthesis, Chorizein* dans la philosophie d’Aristote’, *Revue Thomiste*, xlviii (1948) 461ff. It is striking that, whereas in English we abstract the elements we are interested in and throw the rest away, in Greek it works the opposite way: one strips off (*aphairei*) and discards the elements that are not of interest.

<sup>3</sup> tr. Ross. Barnes’ revision of the Ross translation has ‘of matter, some is the object of reason, some of sense’; by not rendering *noêtê* the same way here as in the *Zeta* texts, Barnes is presumably meaning to side with interpreters who see a serious difference between the meanings of the term in the two places.

This is very disappointing, at least to those of us who like our metaphysics crisp and hard-edged. Aristotle seems here to allowing himself to use his metaphysical language metaphorically – dare one say, mushily?

### 3. Attempts to reconcile the texts

An attempt to reconcile these texts could take a number of forms. (a) The weakest form of reconciliation would be a level-zero reticular theory, a tidy description of the diverse meanings of ‘intelligible matter’, allowing one to see why it is so called in each case – acknowledgement of an irreducible ambiguity in the term ‘matter’. (b) An improvement over this would be a theory showing that there is a single thought behind its two rather different eruptions. This would allow us to connect the notions, if not to fuse them. (c) The strongest and most satisfying form of reconciliation would be fusion, a demonstration that, contrary to first appearances, these two texts contain exactly the same idea of intelligible matter. Reconciliation in each of these ways has been attempted by commentators.

a) The most recent view of this problem is of type (a), a mere acknowledgement of ambiguity. In the *Stanford Encyclopedia of Philosophy* Henry Mendell regards the *Eta* text as representing ‘a separate notion having more to do with the unity of definition’.<sup>4</sup> Many other commentators have also taken this view. It seems, though, that we should try to do better.

b) The second form of reconciliation has been pursued by two 20<sup>th</sup> century commentators, Joseph Owens and Sir David Ross.

(i) Owens accepted these usual readings of the *Zeta* and *Eta* passages, and sought to reconcile them in the following way:

Aristotle just takes the general principles of act and potency already determined in sensible things, and applies them proportionately to both the mathematical and logical orders. The matter in definition (i.e. the genus) and in the Mathematics is unchangeable. It is therefore not sensible but intelligible matter. Otherwise, however, it functions as matter according to the general principles already established.<sup>5</sup>

For Owens, then, the important feature of matter which allows it to be extended out of the sensible order is its *potency*: this fleshy matter is potentially a nose; this tract of intelligible matter is potentially a triangle; the animal genus is potentially the species ‘man’. Owens is impressed, we might say, by the relationship of potentiality and actuality holding between the elements of each of these three pairs; and he finds in that potentiality relation sufficient reason for Aristotle to speak of matter in each case.<sup>6</sup> But if that is right, then Aristotle is being loose with some very striking language.

(ii) Ross regarded the intelligible matter of the *Eta* passage – the generic element in a definition – as simply a *wider* conception than that in *Zeta*:

If we are right in connecting the two uses, *hylê noêtê* in its widest conception is the thinkable generic element which is involved both in species and in individuals, and of which they are specifications and individualizations.<sup>7</sup>

But this, of course, is to sell the doctrine of *Zeta* 10 and 11 short. It is not just that individual triangles are individualizations of the intelligible matter ‘extension’ (say); rather they are *individuated* by that intelligible matter: it is the individuating agent, not that which gets individuated. A parallel thing cannot be said in other cases: it is not by animality that I am numerically individuated from my identical twin, it is by sensible matter.

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<sup>4</sup> Henry Mendell, ‘Aristotle and Mathematics’, *Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/entries/aristotle-mathematics/#7.5>

<sup>5</sup> Joseph Owens, *The Doctrine of Being in the Aristotelian Metaphysics*, 2 ed., Toronto, Pontifical Institute of Mediaeval Studies, 1963, 342

<sup>6</sup> In his 1971 monograph of 900+ pages, *Hyle*, Heinz Happ surveys the whole Aristotelian corpus for occurrences of *hylê*, and concludes that the basic meaning of the term is "reine Möglichkeit".

<sup>7</sup> Sir David Ross, *Aristotle's Metaphysics*, Oxford, 1970, ii, 199

These attempts to reconcile the texts produce only loose and muddy results, which are not very satisfactory. There is, I think, a deep reason for this failure. It is that, ultimately, intelligible matter is so called for two quite different reasons in the two conceptions of it. It is called 'intelligible' in *Zeta* because we are dealing with some peculiar nonsensible individuals; in *Eta* it is called 'intelligible' because we are out of the realm of individuals and into that of essences – and essences are of course intelligible. Moreover, it is called 'matter' for two quite different reasons in the two loci: in *Zeta* it is called 'matter' for its capacity to individuate numerically; in *Eta* it is called 'matter' because of the relation of potentiality that it bears to the species.

c) The third and most ambitious way of reconciling the two conceptions has come in two versions. The first, an idea of Alexander of Aphrodisias, suggests, in essence, that what we have in *Zeta* is really the *Eta* understanding of intelligible matter.

(i) Alexander, in his commentary on *Eta* 6, wrote:

<In the case of 'man'> 'animal' is the intelligible matter, the matter of the species, and flesh and bones are the sensible matter; and <in the case of the circle> 'figure' is intelligible matter and bronze is sensible matter.<sup>8</sup>

According to this view, then, intelligible matter just is the matter of species, of essences; in the case of man it is 'animal'; in the case of a circle it is 'figure'; sensible matter in these two cases is flesh on the one hand and bronze on the other.

But this view misses altogether the elegant role of intelligible matter as the individuator of *individual* mathematical objects. '...intelligible matter just is the matter of species'.

(ii) The second approach, which we find in Aquinas, is the exact obverse of this. It takes it that the conception of intelligible matter at work in *Eta* is, contrary to first appearances, no different from that which we find in *Zeta*.

Aquinas' commentary on our passages betrays no awareness that there is any problem in reconciling them, and indeed it reads the *Eta* 6 text in such a way that there *is* no problem of reconciliation. With all other commentators he reads *Zeta* 10 & 11 as providing a special matter for mathematical objects;<sup>9</sup> but he takes the mention of intelligible matter in *Eta* 6 to refer not to the genus term in just any definition, but to the genus term in the definition of a mathematical object.<sup>10</sup> Clearly, Aquinas is impressed by the fact that Aristotle's example, in *Eta* 6, of intelligible matter is a mathematical one.

I think that Aquinas, alone among the traditional commentators, has managed, perhaps unwittingly, to perform the trick of thought which is necessary in reading the *Eta* 6 text to make it conform to the other.

#### 4. The trick of thought in reading *Eta* 6

Essences are, of course, intelligible objects. And it is an important doctrine of Aristotle that essences have a form-and-matter structure, so it is natural to think that their matter would have to be intelligible matter. If the essence 'elephant' has matter, it does not have sensible matter: an elephant has sensible matter, but the *essence* 'elephant' does not: it is not a sensible but an intelligible object. So the essence 'elephant' has intelligible matter. This, no doubt, is the train of thought behind the usual, the natural, interpretation of *Eta* 6.

Thus far, then, we can say that objects are of two sorts, sensible and intelligible. Sensible ones can be sensed, like this elephant or that donkey; intelligible ones cannot be sensed but only thought, like

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<sup>8</sup> Alexander, *Commentaria in Aristotelis Metaphysicorum Libros*, 562, 1.13ff.

<sup>9</sup> Aquinas, *Commentary on the Metaphysics of Aristotle*, tr. John P. Rowan, Chicago, Henry Regnery Company, 1961, ii, para. 1494

<sup>10</sup> Aquinas, *op. cit.*, para. 1760

the number two or the essence 'elephant' or 'donkey'. Sensible ones have sensible matter and intelligible ones have intelligible matter.

But let us examine more closely these essences of which we speak. On the one hand there would be essences like that of 'threshold' – a stone placed in a certain way; on the other hand there would be essences like 'circle' – a regular one-sided plane figure. Look at the genus term (the matter term) in each of these essences: stone, plane figure. Stone is of course sensible, as compared with plane figure which is not sensible but intelligible. Some essences are essences of sensible things, like thresholds, others are essences of intelligible things, like circles.

So that within the class of essences, all of which are intelligible objects, there is one group that makes reference to sensible things, things with sensible matter, and another that makes reference to intelligible things, things with intelligible matter.

We could display this complexity by saying that the essence 'threshold' has intelligible sensible matter, whereas the essence 'circle' has intelligible intelligible matter. Here the first-place adjective has to do with the intelligible nature of essences considered as objects in their own right; the second-place adjective has to do with what they are essences of. Now the traditional interpretation of *Eta 6* has taken it that when Aristotle speaks of intelligible matter, the 'intelligible' is the first-place adjective, and this gives rise to the problems we have catalogued. The trick of thought is to realize that 'intelligible' is here the second-place adjective, singling out among all essences those which are of intelligible things, of things with intelligible matter. Aristotle in this chapter is making the general claim that in a definition there is a reference to form and to matter. He takes it that no one will object to this for the ordinary cases where the matter is sensible, e.g. 'round bronze'. And he reminds us that this account is true also for the peculiar cases in which the object being defined is an intelligible object. He is not trying to tell us that essences are intelligible, but that among the objects there are essences of, some are intelligible objects.

We can put all this another way. Aquinas at various places in his commentaries on the *Physics* and the *Metaphysics* makes a distinction between individual sensible matter and common sensible matter.<sup>11</sup> Common matter is part of the species, and individual matter is part of the individual. So in the species defined as 'round bronze', bronze is the common sensible matter; in the individual bronze ball, bronze is the individual sensible matter. We can extend this language and make a parallel distinction between individual intelligible matter and common intelligible matter: in the species 'circle', plane figure is the common intelligible matter; in this individual intelligible circle in the proof I am now doing, plane figure is the individual intelligible matter. In the traditional interpretation of *Eta 6* the word 'intelligible' was taken to do the work that is done by 'common' in this Thomistic language; I am suggesting that it must rather be taken to do the work that is done by 'intelligible' in this language.

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<sup>11</sup> Aquinas, *op. cit.*, para. 1494-1500, and also *In Physica* II, lect. 3, n.6; lect. 5, n.4.

We can deploy this in a chart:

**Matter**

	<b>Sensible</b>	<b>Intelligible</b>
<b>Individual</b>	the silver of this coin	the size of this circle (i.e. in the coin)
<b>Common</b>	‘silver’ in the type ‘silver coin’	‘plane figure’ in the type ‘regular one-sided plane figure’

Our easy conflation of the sensible/intelligible distinction with the individual/common distinction stems very largely, I suppose, from the fact that generalization always seems to require abstraction. To get the universal ‘man’ I have to abstract that man’s freckles and this man’s pallor, etc. But of course there *could* be generalization without abstraction – where one generalizes some individuals that are qualitatively indistinguishable. If all paperclips in the world were identically made, then generating the universal ‘paperclip’ would require no abstracting. And, as we have seen, there can be abstraction without generalization.

*5. Conclusion*

‘Intelligible matter’, then, has the same meaning in all three texts. It is the matter of mathematical – i.e., abstracted – objects, whether those objects are individual or general.

The discussion in *Eta* is not making the point that essences are intelligible, but merely reminding us that some essences are of intelligible objects. Getting clear about this shines a strong light on the beautiful parsimony of Aristotle’s theory of abstraction: what for Plato was a ‘noetic place’ is, for Aristotle, right here.