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## THE LIFE FORMS AND THEIR MODEL IN PLATO'S *TIMAEUS*\*

*Karel Thein*

The notion of a world intentionally crafted as a visible and tangible likeness of an intelligible model is almost certainly of Plato's coinage. As far as we can tell, no reasonably similar cosmological scheme seems to have existed either on Greek soil or in the cosmogonies of the Near and the Middle East. Some of its elements we find elsewhere, since the ways to imagine a world are hardly infinite in number; but what we read in the *Timaeus* is due to a peculiar encounter, unique even by Plato's own standards, between a theory of the universe and the so-called theory of Forms.

In this article, I hope to shed some light on this encounter by concentrating (1) on what we learn about the intelligible model of the world as encompassing four intelligible Life Forms, and (2) on the plurality of likenesses of these Life Forms that inhabit the visible and tangible universe. Plato is at his most laconic when speaking about the model and not all created life forms are treated in much detail either. It is perhaps this lack of explanation that has lured many a reader into assuming that the model is itself a world, or at a least a whole which integrates its part in some rather strong sense. I take it that an unbiased analysis casts some doubts on this assumption. I do not wish to imply that this assumption is necessarily false; but I shall argue that it is not explicit in the text and that, moreover, it is unnecessary for the success of *Timaeus*' story.

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\* The following analysis has its origin in the *Timaeus* Reading Seminar, Prague, June 6–9, 2006. I wish to thank all the participants for their questions and remarks. Gábor Betegh, István Bodnár, Pavel Gregorić and Filip Karfík were especially helpful. I also thank David Sedley for his question of whether the intelligible model of the *Timaeus* is truly a world of its own. This article is meant to offer a tentative answer.

This amounts to suggesting that the model is simply the model of the four living species or life forms, not of the visible world as a teleologically arranged whole which is superior to its parts. To construct the rich structure of the world is necessary as far as the Demiurge creates *material* likenesses of the austere immaterial species. These likenesses must be somewhere: they are embedded in the organised elements whose status and relation to the model (or lack thereof) I shall also briefly touch upon.

This last point indicates what I shall try to explain, namely the assumption that if there are Forms of the four elements, or at least of fire, these Forms are not parts of the intelligible model; at any rate, not in the same way as the four intelligible living things, which I also take to be Platonic Forms (this I justify below). I shall label the model 'Intelligible Living Thing' (ILT) and ask whether we receive some specific indications about its internal organisation. This is another way of asking whether there is a correspondence between ILT and its likeness that amounts to the sameness of their composition. If the world constructed out of the elements has a strongly holistic structure, need the same be true of ILT that consists of the Forms?

It goes almost without saying that these mereological considerations, although closely connected with Plato's text, are of a much broader philosophical interest. While contrasting ILT with its composed visible likeness, *Timaeus* describes the former as inherently *better* than the latter. Yet the created likeness is also 'better than' something: it is much superior to what is in disorderly motion. In this way, together with mereology, *Timaeus* tackles the problem of intrinsic value, and if this label is clearly anachronistic, it captures well the nature of the problem. To use G. E. Moore's terms, we can ask whether the world as described in the *Timaeus*, a world that contains the likenesses of all that is contained in ILT, is an organic unity, viz. such a whole that its value or goodness is greater than the sum of the intrinsic values of its parts.<sup>1</sup>

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<sup>1</sup> Moore (1903), 27–36. For a criticism of Moore's position, see for instance Zimmerman (1999). *Pace* Moore, Zimmerman contends that the intrinsic value of a whole can equal the sum of the intrinsic values of its parts. I take it that this is true with respect to ILT, but not with respect to the world. It should be noted that Harte (2002), 9–12, comments well on the unclarity of expressions 'just the sum of its parts' and 'more than the sum of its parts' (Harte deals basically with ontology, not axiology). I shall use these expressions while trying to make my meaning clear. This is to spare the reader of the technical developments that would lead far beyond the *Timaeus*.

In this respect, I shall argue that the *Timaeus* presents us with a surprising solution where the value of the relevant parts of the world is measured according to a double standard of perfection. On the one hand, their individual perfection and intrinsic value is measured by the degree of their likeness to the relevant part of ILT (this or that Form), and in this respect it is not correlative to the perfection and goodness of the created whole. On the other hand, the same parts are also valuable to the whole inasmuch as they individually fail to achieve moral perfection and, in their reincarnated form, they *lose* the likeness to the given Form (this is the 'some must fail' principle that assures the plenitude of the world on the level of life forms that are intellectually lower than man).

To analyse the issue of mereology and value in detail would be to complement Verity Harte's remarkable study of Platonic mereology, whose focus in reading the *Timaeus* is on the composition of the world proper.<sup>2</sup> I shall not deal with the issues that fall within the scope of her interpretation; instead, I wish to offer some glimpses into how the problem of value steps in through the cosmological door.

## 1

The pivotal piece of my reading will be *Timaeus* 39E3–40A2, a brief portion of the text where Plato turns to the creation of the four life forms as likenesses of the parts of ILT. Here Timaeus repeats what the Demiurge's main goal in creating the universe is, but he also details the program of creation in a new way. Only then, at 40A2, he turns his attention to the visible and generated gods or fixed stars as the first of the likenesses of ILT. The sense of creating the exactly four visible life forms is thus packed within some ten lines, which clearly build upon Timaeus' *prooimion* (27C1–29D3) and its subsequent elaboration at 29D7–31B3 (immediately preceding the description of the body of the world).

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<sup>2</sup> Harte (2002), 212–266. I shall leave aside Scaltsas (1990) and his analysis of Plato's views on parts and wholes. His notion of a whole strictly identical to its parts, derived from the reading of Socrates' dream in the *Theaetetus* 204–205, can be applied to ILT of the *Timaeus*. By contrast, it does not apply to the composition of the created cosmos. To confront Scaltsas' conclusions in detail would demand a considerable attention to technical issues, including (in the special case of the *Timaeus*) the necessary distinction between the world's parts (corresponding to the four parts of ILT) and the world's constituents (such as the world soul, the souls of the planets, or the four elements).

To know these portions of the text is a prerequisite, although it is not a sufficient condition for our understanding of what follows in Timaeus' speech.

This is especially true about the Prologue, which is limited to establishing the *general* contrast between 'that which always is' and 'that which becomes but never is'. For this reason it is one of the most widely discussed passages in Plato, quoted as an epitome of Platonism (then the contrast is taken for one between being and becoming), but it also stands at the heart of the controversy concerning the literal or metaphorical sense of Plato's account of creation.<sup>3</sup> The Prologue complements the basic contrast by an epistemic sketch (differentiating between the objects of the intellect *versus* belief and sense perception), and it firmly places the model of this universe among the things that are always changeless. By imitating this model, the Demiurge will produce the 'design and function' (ἰδέα καὶ δύναμις, 28A8), which should guarantee the beauty of the creation. Here design and function are attributed to the imitation of the eternal paradigm, but not necessarily to the paradigm itself.<sup>4</sup> The latter is said to be the most beautiful among intelligible things (30D1-3), but it seems unnecessary to derive its beauty from its structural features. And never is the paradigm described as 'good'; this denomination will apply to the Demiurge and – as a consequence – to his creation. To make this clearer, let me quote an exemplary statement to this fact (28C5–29A6):

And so we must go back and raise the question about the universe: Which of the two models did the maker use when he fashioned it? Was it the one that does not change and stays the same, or the one that has come to be? Well, if this world of ours is beautiful and its craftsman good, then clearly he looked to the eternal model. But if what it's blasphemous to even say is the case, then he looked at one that has come to be. Now surely it's clear to all that it was the eternal model he looked at, for, of all the things that have come to be, our world is the most beautiful, and of causes the craftsman is the most excellent.<sup>5</sup>

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<sup>3</sup> This controversy is not my concern here, although I tend to believe that the literal reading has many virtues and should prevail – *pace* e.g. Dillon (1989) and many others (these reasons I shall state at length elsewhere). For an overview of the Neoplatonic discussions see Phillips (1997). For the textual issues connected to 27D5 ff. see Whittaker (1969) and (1973). Finally, for some modern philosophical analyses of the *prooimion*, see e.g. Hackforth (1959), Robinson (1986) and Zeyl (1986).

<sup>4</sup> I am indebted to István Bodnár for pointing this out to me and for reminding me that, as opposed to Zeyl (2000), Archer-Hind (1888) and Cornford (1937) construed the passage correctly.

<sup>5</sup> If not stated otherwise, I quote Zeyl (2000), to which I occasionally make some small modifications.

This is how Timaeus puts it throughout his speech. The eternal nature of the model is cited as a guarantee of the beauty of the result, and yet neither the goodness nor the beauty of the latter is derived from ILT as a direct likeness of its structural features. They pertain uniquely to the construction of this universe, which *becomes* divine and beautiful in virtue of how its own and unique structure is realised, and then perpetuated in time. Which is again explicit at 92c4–9, where Timaeus' account comes full circle:<sup>6</sup>

And so now we may say that our account of the universe (*περὶ τοῦ παντός*) has reached its end. This world of ours (*ὅδε ὁ κόσμος*) has received and been filled up with living things, mortal and immortal, a visible living thing containing (*περιέχον*) visible ones, a perceptible god, image of the intelligible Living Thing, its grandness, goodness, beauty, and perfection are unexcelled. Our one heaven (*οὐρανός ὅδε*), indeed the only one of its kind, has come to be.

To refer to this passage (and to 28c5–29a6) in support of the contention that only the created world is described as a most complete whole may seem controversial inasmuch as this world's perfect fullness is derived, as we shall see shortly, from the fullness or completeness of its model. But can't we rephrase the point by saying that only the created world is a whole that is more than the sum of its parts? Here we need to avoid the mistake of prejudging the status of the world as image: the defectiveness of an image in relation to its original is not limited to some fundamental 'lessness', whereby the image does not reproduce all the features of the original (e.g. is not ungenerated). An image can *also* differ from its original by having some features or structures that the original does not possess, which does not make the image less derived or – in some ways – defective. For one, the world is visible and tangible, and it is composed of stuff that must be forcefully bounded.<sup>7</sup> And if all four expressions that characterise the world (i.e. not only *ὁ οὐρανός* and *ὁ κόσμος*, but also *τὸ πᾶν* and *τὸ ὅλον*) are consistently applied to the visible material universe (as in the above-quoted text), they are never used to refer to its model or ILT.

Thus neither the common names for a world nor the attributes of beauty and goodness are ever predicated of ILT. By contrast, similarly to the world, ILT (1) is said to be complete (*κατὰ πάντα τέλειον* 30d2, *παντελές ζῶον* 31b1), (2) is described as containing (*περιέχον*.) all the relevant parts or kinds (*μόρια*) and (3) it is posited as unique. At 30c2–31b3, these are the three *specific*

<sup>6</sup> See Johansen (2004), 188–189.

<sup>7</sup> Cf. e.g. 32c–33d, where Timaeus explains the completeness of the body of the universe and also the reasons for its spherical shape.

pieces of information Timaeus imparts us about the eternal entity in question. Finally, there is one last supposition, namely (4) that the model is labelled a ζῶον, which is commonly translated by ‘living thing’ or ‘animal’. What (1)–(4) confirm is that ILT will be treated as a whole of its kind. What they do not say is whether it possesses an intrinsic value *as a whole* or in virtue of its parts, i.e. as their simple sum. It is with respect to (4) and (3), while positing the model as a living thing and while arguing for its uniqueness, that Timaeus seems to come close to defending the former option. Still, I submit that this impression does not stand a closer scrutiny.

## 2

The first and the second of the four features of ILT, its being complete (παντελής as opposed to ἄτελής) and its containing parts or kinds (μόρια), are put forward while Timaeus answers the question: ‘When the maker made our world, what living thing (τίτι τῶν ζῴων) did he make it resemble?’ (30c3). What is noticeable here is that this question simply assumes (4): the model is a living thing, a remarkable statement of which no explanation is offered. Indeed, this is the first time we learn that the model is a living thing, although we know that the same thing is true about our world. However, if the immediately preceding passage described the cosmos as a living thing (30b7–8), this property was *not* deduced from its likeness to the model but, explicitly, from the presence of the world soul. And the world soul itself is probably unrelated to any model whatsoever. Its construction is justified on the grounds of an inherent excellence of those entities in the realm of visible things which are in possession of intellect (30b1–3). Soul with intellect is then described as a necessary means of achieving this excellence, in other words as the most noble instrument used by the Demiurge to make the world as good as possible (30b5–6).<sup>8</sup>

To this we may add that the construction of the world soul, as described step by step at 35a1–37c5, confirms that it was not created as a likeness of an intelligible species. In fact, I agree with e.g. Malcolm Schofield that the whole passage does not refer to the Forms in the sense of paradigms at all.<sup>9</sup> Soul seems

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<sup>8</sup> For an interpretation that proceeds along similar lines, see Burnyeat (2005), 160. We need not assume that the model has a soul that would be somehow similar to the souls created within this universe. In this respect, I would be much more cautious than e.g. Strange (1999), 411 n. 35.

<sup>9</sup> Schofield (1996), 76: although, in the *Timaeus*, ILT is posited as a παράδειγμα, ‘there is nothing for, and much against, the idea that Being, Same and Different,

then to belong among those constituents of the world that are alive but are due solely to divine invention and make the world precisely as a whole more perfect than it would otherwise be, and thus more like its model in respect of perfection. The creation of time, which brings forth the planets as the first visible and ensouled bodies, is explicitly subordinated to the same goal (37C6–D4, 38B6–C3, 39D7–E2). And, from a different perspective, this kind of teleological consideration explains the introduction of the organs of sexual reproductions (ensouled living things, 91A2–3) and of the seed (formless living things too small to be visible, 91D2–5). Without these living things, other mortal species beside men would not come into being.

What these seemingly unconnected issues have in common is the teleological ordering of all natures within the universe, where even an apparent disorder brings more order to the whole whose life unfolds in time. This organised complexity, however, seems entirely absent from the model. Indeed, what helps the created likeness to achieve the highest possible degree of perfection would seriously compromise the model's changeless perfection. While ILT is introduced as a ζῶον, I submit that the specific label of 'living thing' applies to the model uniquely inasmuch as it consists of the four Living Things (paradigms) that come to be as ensouled bodies (sensible particulars) in our world. To put it clearly, while trying to avoid a detailed technical discussion, the parts of ILT and the four created life forms are homonymous in the simple literal sense that seems to characterise Plato's (although not Aristotle's) use of homonymy. Which is also why the homonymy of a paradigm (Form) and its likeness (sensible particular) implies no regress.<sup>10</sup> Moreover, with respect to the distinction between the extreme and the moderate view of homonymy, I believe that the parts of ILT and the four created life forms present us with a case for the extreme view (without prejudging any general answer that would

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although undoubtedly described in terms appropriate only to Forms, similarly function as paradigms conceived in terms of the original-copy model of participation.' For my part, I shall distinguish, in section 5 below, between the original-copy relation and participation, since I take it that they usually pertain to two distinct types of Forms. Being, Same and Different are denied the paradigmatic status by Owen (1953), 88 and n. 10 (against Cornford). D. Frede (1996) and Ostenfeld (1997) take them to be the Forms that are different in kind from other Forms including paradigms.

<sup>10</sup> Fine (2003), 144–145, including the discussion of the extreme and moderate views of homonymy. Regarding this question cf. Irwin (1981). For more on homonymy, ILT's uniqueness and Timaeus' regress argument, see below.

concern other dialogues). They have in common the name of ‘living thing’, but their definitions corresponding to ‘living thing’ do not overlap. Timaeus never indicates that the parts of ILT, or *νοητὰ ζῶα* (30c7, 31a5), would possess thought (they are *objects*, not subjects of the latter). Also, due to their lack of spatial co-ordinates, they do not move. The homonymy in question will be clearer once we establish that the parts of ILT are Platonic Forms of some definite type (see section 5 below).<sup>11</sup>

Now if we turn back to the ILT’s first and second features, namely its being complete (*παντελής*) in the sense of containing all the relevant parts (*μόρια*), the situation is similar as far as the completion predicated of ILT is also predicated about the world. However, if the latter is complete or ‘sufficiently complete’ (41c1–2) as containing all four created life forms, it is also said to be made complete (*παντελῶς*, 37d4) by containing planets that are meant to imitate ILT’s eternity that need not rely on any special part or constituent of ILT. If planets as individual living bodies are parts of the world (where they introduce parts of time as distinct from forms of time)<sup>12</sup>, then the perfection of ILT corresponds to its having a smaller number of parts, and especially to its having parts of only one kind. This, I suggest, implies that we pass to the moderate view of homonymy, since the definitions of completeness that apply to ILT and the world are different yet they partly overlap (in this context, I consider homonymy and synonymy to be exhaustive options). In both cases, being complete is to contain all the parts necessary for achieving the best state of the whole. Nevertheless, in this definition, both ‘part’ and ‘to contain’ are equivocal: their sense differs according to whether we speak about ILT or the world. Perhaps further analysis requires the full quotation of the central passage that starts with the question asked at 30c3 and extends to 31a1:

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<sup>11</sup> In predicating ‘life’, homonymy and synonymy of ILT and created life forms are not exhaustive options (this is constitutive of the extreme view of homonymy). It is useful to note that the *Timaeus* offers two different views of ‘living thing’: (1) a living thing is ‘everything that partakes of life’ (77b1–2), which might but need not refer to Life as a Form; (2) a living thing is the combination of soul and body (throughout Timaeus’ speech; cf. 87e6, and *Sophist* 246e5–7). This latter option probably does not apply to ILT. The former option is never considered in any relevant context; the passage in question concerns plants, a special case of life that lacks both reasoning and (local) self-motion (cf. 77b3–c5).

<sup>12</sup> See 37e: parts of time are days and nights, months and years; forms of time are the past and the future.

When the maker made our world, what living thing did he make it resemble? Let us not stoop to think that it was any of those that have the natural character of a part (*μόριον*), for nothing that is a likeness of anything incomplete could ever turn out beautiful. Rather, let us lay it down that the world resembles more closely than anything else that Living Thing of which all other living things are parts, both individually and by kinds (*καθ' ἑν καὶ κατὰ γένη*). For that Living Thing comprehends within itself (*ἐν ἑαυτῷ περιλαβόν*) all intelligible living things, just as our world is made up of us and all the other visible creatures. Since the god wanted nothing more than to make the world like the best of the intelligible things, complete in every way, he made it a single visible living thing, which contains within itself all the living things whose nature it is to share its kind.

Through the correspondence between completeness and uniqueness, the last sentence of the quoted text starts to turn to the regress argument that will prove the uniqueness of both ILT and our world. I quote it here since making the world 'like the best of the intelligible things, complete in every way' (*τῷ ... τῶν νοουμένων καλλίστῳ καὶ κατὰ πάντα τελέῳ*) is probably the strongest indication of the possibility to take ILT for more than the sum of its parts. Timaeus really seems to suggest that, precisely because of its holistic character, ILT is *better* than other intelligible things. But again, it needs to be stressed that a simpler reading is available: to be an intelligible whole of any kind is sufficient for the triumph in question, and this is because the four intelligible living things are the only case of a restricted list of Forms in Plato's dialogues. There simply is no other intelligible whole to compete with. Of course we have the exactly five great kinds of the *Sophist*, but these are ontological categories whose universal character – they can be predicated of various species of things – makes them unfit for any direct reproduction. There surely is no likeness of Same or Different in the same sense as there are likenesses of Man or Land Animal, and this is true of all the Forms of opposite properties posited in the *Phaedo* or *Republic V*. As for the elements, whose list is also restricted to four, they are never considered as forming a whole, not to mention the fact that Fire seems to be the only Form of an element explicitly mentioned by Timaeus (for more about all these issues, see again section 5 below).

Thus, the value of ILT comes from its being the only intelligible whole, or at least the unique source of value, which enables us to measure the perfection of *both* our world *and* the parts of our world. This ambivalence, more exactly the fact that the perfection of the visible whole (a likeness of ILT) will ultimately rely on the imperfection of some likenesses of Man or Bird, seems to indicate that our world, but not its model, is more than the sum of its parts (Land Animal or Aquatic Animal, I take it, are no less eternal and changeless

than ILT). But it must be stressed that the quoted text, perhaps except its last sentence, is entirely neutral and can be easily read both ways.

Sometimes, the strong holistic implications are read into the important expressions, i.e. the noun *μόριον*, and the verb *περιλαμβάνειν* (replaced by *περιέχειν* at 31A4). Unfortunately, neither of these expressions can support any clear conclusion. In Plato, *μόριον* may refer to ‘species’ in a strictly logical sense, so that the relation between a part and a whole depends on the immediate context. Here we are given the only additional information, viz. that the *μόρια* belong to ILT *καθ’ ἓν καὶ κατὰ γένη*. This might anticipate the division of e.g. Aquatic Living Thing into various species of fish and aquatic life in general, although Timaeus never really bothers to explain this point.<sup>13</sup> Donald Zeyl translates ‘both individually and by kinds.’ Cornford has ‘severally and in their families,’ which is rather hard to grasp without his note: ‘This is the probable meaning of *γένη* in *καθ’ ἓν καὶ κατὰ γένη* (30C6; *καθ’ ἓν* will mean the Forms of indivisible species, a class of Forms explicitly recognised at *Philebus*, 15A.’<sup>14</sup> Thus Cornford’s meaning becomes clear, but difficult to accept. The reference to the *Philebus* is unenlightening (the text is extremely difficult), and I do not think that the mereology of ILT has much or even anything to do with the one-many problem as treated in the *Philebus* or the *Parmenides*. In other words, our text is not about how ‘many men’ relates to ‘man as one’, and it does not puzzle over one man’s having many parts or limbs (cf. *Philebus* 14D8–E4). Cornford’s attempt at explanation is biased by the tendency to construe a Platonic World of Forms that encompasses all intelligible entities and also their relations.<sup>15</sup>

Possibly the safest solution consists then in seeing the sentence ‘both individually and by kinds’ through the lens of the moderate view of homonymy. But then it cannot help us in deciding about the meaning and implication of *περιλαμβάνειν* or *περιέχειν*. A brief overview of other texts where these verbs

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<sup>13</sup> To understand the parts of ILT as general families is possible since this seems to be what happens with their likenesses, but it leads nowhere near this portion of Timaeus’ speech and the composition of the model.

<sup>14</sup> Cornford (1937), 40 n. 2.

<sup>15</sup> See below for Cornford’s comment on 38E–40A. Although this is not the moment to comment upon this general tendency, we can point towards its peak in e.g. Gregory Vlastos, who happens to think that Plato holds a theory describing the logical relations *among the Forms* (their ‘entailments’), which explain all relations imposed on the visible universe. For this version of Platonism, with strong echoes of Bradley, see Vlastos (1969) as reprinted in Vlastos (1973), 106.

are used is equally inconclusive. For instance, in the *Timaeus* itself, both verbs will help to explain why the Demiurge makes the visible universe spherical: the world as a whole will contain all visible living being in the same way as a sphere contains all the regular solids (33B1–7). But of course this is an analogy, which sets up a correspondence between the structure of the world and the properties of a sphere. The same property is relevant in dealing with both geometrical objects and the material world. However, what use could it be in thinking about the four intelligible species? Are we ready to sustain that ILT is a sphere (of a sort), whereas its four parts are not (since one sphere is hardly a perfect container for four smaller spheres except if the latter are concentric)? I don't think so. The career of a sphere as a metaphor for perfection and completeness is a long and distinguished one, but it is not a good *explanans* of ILT.<sup>16</sup>

Turning to other dialogues yields the same result. *Περιλάμβανειν* and *περιέχειν* may (but need not) describe the way a whole encompasses its parts while being more than their sum. Often, however, they describe a situation that implies no such property. In dialogues like the *Sophist* or the *Politicus*, the first verb simply says that several items are included under one name (*Sophist* 226E, and cf. 249D on the definition of being; *Politicus* 288c; cf. *Phaedrus* 273E). And there is a serious possibility that ILT is used as a *name* that encompasses the sense of its four parts as models of the created life forms. Otherwise, employing the labels ILT (the singular form designating a whole) and Intelligible Living Things (the plural form designating its parts), may well be confusing on Plato's own account. In *Laws* VIII, 837A, the Athenian Stranger issues a methodological warning that the utmost confusion is caused by using a single term to embrace two things and also a third thing which is compounded of them both. This warning concerns the need to properly distinguish between friendship, desire and love. In our case, we need to distinguish between the four intelligible species and what encompasses them. To say 'Intelligible Living Things' (plural) is to enumerate the two features common to the four uncreated models. Is the singular form of ILT, used without any further qualification except our two verbs, enough to imply a superior whole that encompasses these four models?

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<sup>16</sup> By contrast, the explanation of the spherical shape of the world explains the shape of our head. The latter does not contain all living species, but its likeness to the perfect shape of the universe helps us to think by imitating the rotation of heavens. Not many readers have been willing to take this rotation seriously. Lee (1976) is a notable exception.

In this respect, *περιέχειν* is hardly more promising. Some translators and interpreters of the *Timaeus* refer to its use in *Sophist* 253D-E. But this text presents us with a dilemma about its meaning, which is roughly the same as in the *Timaeus*. In both cases, an epistemic (or semantic) reading without any strong holistic assumption cannot be excluded. All we can say with certainty is that, of the three capacities that the Eleatic Visitor ascribes to a dialectician, it is the second one that would be relevant here: to recognise ‘many forms different from each other but embraced from without by one single one.’ Even this does not necessitate some real hierarchical arrangement, and the recent interpreters of the *Sophist* rightly stress this point.<sup>17</sup> We may infer what a dialectician would (perhaps) be able to grasp while reading the *Timaeus*, but we are still in the dark about the content of his verdict.

For the same reason, I take it, we can leave aside a detailed analysis of how *περιέχειν* is used in the first and the second deduction of the second part of the *Parmenides*. It is true that this text tackles the problem of whether a whole is identical to its parts (cf. 144E3–145A3, 145B7–145C7).<sup>18</sup> But the whole in question is the One variously discussed throughout this part of the *Parmenides*, and nothing implies a homology between the One and the unique ILT of the *Timaeus*. The very fact that the latter deals with ILT as *exterior* to the world means that ILT is not posited as the all-encompassing One. The possible cosmological implications of the *Parmenides* are intriguing, yet they seem irrelevant for the special case of the *Timaeus*.<sup>19</sup> It is one thing to acquire the expertise in the Parmenidean exercise. It is quite another to decide what could it imply for the concrete structure of ILT; this structure should depend on which Forms (and type of Forms) are contained in ILT.

Before we get to this structure, we must, however, not neglect the fact that, although he refrains from defining ILT as the all-encompassing One, *Timaeus*

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<sup>17</sup> See Gómez-Lobo (1977) and McCabe (2000), 214 n. 63. There is an intriguing remark on the *Sophist* 253D1–E2 in Harte (2002), 157 n. 72, where she explains why this text falls outside the scope of her inquiry (the same is then true about our passage of the *Timaeus*). For an opposite view see Ostenfeld (1997), 168.

<sup>18</sup> On this text see Harte (2002), 90–100.

<sup>19</sup> It is beyond the scope of this paper to decide to what degree this is paradoxical. The cosmological reading of the *Parmenides*, skillfully defended in Brisson (1999), would clearly be more relevant to the *Sophist* which, by contrast to the *Timaeus*, does not rely in its cosmological part on any of the Forms posited in the first part of the *Parmenides*.

defends its uniqueness in purely formal terms. ILT, we learn at 31A2–B3, is one *of its kind*. The same will be true of the world as ILT's likeness. The world and ILT are two, because each of them is one.

### 3

With the text of 31A2–B3, we pass to the last specific bit of information about ILT. We know already that the latter is labelled 'living thing' (a probable case of homonymy on its extreme view characterised above), and that it contains several mutually distinct parts. On the other hand, we have found no indication of the mereological sameness of ILT and our world. Until now, the best support for such a view states that the 'Living Thing comprehends within itself all intelligible living things, just as our world is made up of us and all the other visible creatures' (30C7–D1). Still this was found to be an imperfect analogy that simply supports the preceding statement to the effect that the world resembles ILT 'more closely than anything else' (30C6–7). This considerably weakens any claim to their complete structural sameness, including the presupposition that ILT, just like this universe (its likeness), is a whole which (thanks to its teleological arrangement) is more than the sum of its parts.

In other words, I submit that the regress argument presented at 31A2–B3 can be quite smoothly conciliated with the view that there are no more and no less than four distinct parts constitutive of the model, which is complete and unique, but not superior to any of its parts. Each of the latter is unique as well, and if it is not 'complete' in the sense of containing several items as its parts, it is not 'incomplete' either (there is no missing part). In this (maybe quite special) case, the whole and its parts possess the same degree of perfection. To defend this position, I quote the argument in its entirety; then I shall offer some brief comments on its aim and possible implications:

There is but one [*sc.* heaven], if it is to be crafted after its model. For that which contains all of the intelligible living things couldn't ever be one of a pair, since that would require there to be yet another Living Thing, the one that contained those two, of which they then would be parts, and then it would be more correct to speak of our heaven as made in the likeness, now not of those two, but of that other, the one that contains them. So, in order that this living thing should be like the complete Living Thing in respect of uniqueness, the maker made neither two, nor yet an infinite number of worlds. On the contrary, our heaven came to be as the one and only thing of its kind, is so now, and will continue to be so in the future.

The argument aims at proving that the world is unique since its model is one as well. What else it says about the model is largely counter-factual, since it describes an *impossible* situation where there would be two models. Timaeus' premise is that such a situation cancels itself out by producing a third entity, viz. another whole encompassing 'those two'. What I take for an interesting question is whether this implies that all Intelligible Living Things (plural) considered as relevant in the *Timaeus* are *necessarily* parts of a unique whole labelled ILT (singular). An affirmative answer seems obvious, but still a strong caution is needed: this implication is specifically connected to *this* regress argument, which is different from other regress arguments that we find elsewhere in Plato. What Timaeus speaks about is not only the problem of self-predication (by contrast to the first Third Man Argument), and it is not the resemblance regress either (by contrast to the second Third Man Argument). The Third Bed Argument from *Republic X*, 597c1–d3, is closer to our text: it deals with the impossibility of there being two Forms of the bed because this would also immediately imply a unique (third) Bed containing both Bed-1 and Bed-2. This last argument and our text share the intention of showing, through a reasoning *per impossibile*, that the very idea of two (or more) intelligible items that lack matter and location and differ *only* in number makes simply no sense. These items would be indiscernible and the multiplicity in question would be imaginary at best.<sup>20</sup>

But of course the argument in *Republic X* is not about parts and wholes. So that Timaeus' argument has an irreducible dimension absent from the other regress arguments: can there be some Intelligible Living Things (plural) that are not parts of the ILT (singular) that the Demiurge chooses for the model of our world? Timaeus says no. Strictly speaking, the implication is not that there are no other worlds, but that there are no other beautiful worlds containing other living, tangible and visible things.<sup>21</sup> This is the only unequivocal and new conclusion that the argument yields. It is true that, by the same token, it

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<sup>20</sup> For a concise summary of Plato's four regress arguments, see Nehrllich (1960). Another regress argument from the *Parmenides* 142B–143A is analysed in Schofield (1973).

<sup>21</sup> The simple uniqueness of this world is much better established by Timaeus' affirmation that the body of this universe contains all sensible material available. See 32c5–33b1; and cf. the similar argumentation in Aristotle, *On the Heavens* I.9 277<sup>b</sup>27–279<sup>a</sup>11.

reinforces the completeness of ILT. Yet whether the latter has its own internal structure of any kind is still a mystery.

This, I am well aware, is not how the argument is usually understood. What I wish to stress is that Timaeus reasons in terms of the intelligible parts and wholes, not in terms of the hierarchy of Forms. Which is strikingly different from how *Republic X* proceeds. In the latter, Bed-1 and Bed-2 would not be *parts* of Bed-3. They would simply cease to be Forms and, instead, turn into likenesses of Bed-3 (cf. 597c7–9). In *Republic X*, multiplication entails exclusion from among the Forms; in the *Timaeus*, it would imply inclusion in the intelligible model of which the relevant Forms are parts.<sup>22</sup> Here, many interpreters neglect Timaeus' later restriction of ILT to exactly four parts or Living Things. As a result, they either transform ILT into a broader structure of Forms or take it for a Form of its own, a kind of fifth item tacitly corresponding to the ensouled body of our world.

The literature about the regress argument at 31A2–B3 cannot compete with the industry surrounding both Third Man Arguments in the *Parmenides*. Still there are several attempts at unravelling its meaning and its relation to both Plato's cosmology and his treatment of Forms in other texts. In most cases, the (unwarranted) assumption is that ILT is a generic Form of which its parts are subordinate species in such a way that ILT forms an independent whole with a rich and hierarchical structure.<sup>23</sup>

It is precisely this assumption that results in (or concords with) different versions of the 'intelligible world' or 'the world of the Forms'. In a nutshell, I take it that this misleading term is still in use in modern interpretations since it now represents a mixture of (a) the Aristotelian allegation that the Forms are super-things in disguise and (b) the Neoplatonic subordination of the Forms

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<sup>22</sup> Pace e.g. Cherniss (1944), 296. For a criticism of Cherniss see also Parry (1979), 8–9.

<sup>23</sup> Cf. Ostenfeld (1997), 168: ILT is 'a whole in some organic sense' (arguably, this sense is close to G. E. Moore's concept of 'organic unity'). Mohr (1985), 28, stresses the independent nature of ILT as distinct from its parts. To support their position, both Mohr and Ostenfeld refer to *Sophist* 253D (and other passages of the *Sophist* and the *Politicus*). This is rejected by Parry (1991), 18–19, who promotes his own version of a strongly holistic reading. See Parry (1991), 30–31: containment 'in the intelligible world' implies 'subordination among Forms'; 'there is a Form for the World-Animal, a Form for celestial gods, a Form for birds, a Form for land animals, and a Form for fish.' What I find unnecessary and misleading is clearly the 'Form for the World-Animal' or 'the intelligible world'.

as parts of the noetic cosmos to the One and the Intellect.<sup>24</sup> However, Plato's reasoning with the Forms consistently avoids these perspectives. The Forms do not form a holistic blueprint of the visible whole. Which also implies that their role is not descriptive, but explanatory. And if it seems that their use in ethics and epistemology is more impressive than their use in cosmology, we should recognise that these two distinct contexts call for different types of Forms. It is only in the cosmological context that the Forms become tools of a truly teleological explanation. In our case, the four parts of ILT are introduced with a single aim: not to describe and classify the diversity of animal life,<sup>25</sup> but to explain, granted that life matters, the large pieces of its *visible* organisation. With this precautionary remark in mind, we can finally turn to the text of 39E3–40A2, which ends by enumerating the life forms as correlative to the parts of ILT.

#### 4

Before the coming to be of time, the universe had already been made to resemble in various respects the model of whose likeness the god was making it, but the resemblance still fell short in that it didn't yet contain all the living things that were to have come to be within it. This remaining task he went on to perform, casting the world into the nature of its model. And so he determined that the living thing he was making should possess the same kinds and numbers of living things as those which, according to the discernment of Intellect, are contained within the real Living Thing. Now there are four of these kinds: first, the heavenly race of gods; next, the kind that has wings and travels through the air; third, the kind that lives in water; and fourth, the kind that has feet and lives on land.

With these words, Timaeus completes the program of creation in the narrow sense of establishing the world's likeness to ILT. Previously, we have learned about ILT's general and specific features. Here we finally hear about its concrete content, which consists of four life forms that correspond to the four regions of the world as defined by the pre-eminent presence of this or that

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<sup>24</sup> The expression *νοητὸς κόσμος* comes of course from Philo of Alexandria (*De opificio mundi* 16–20) and it refers to the created blueprint of the visible world. On the intelligible model in Plotinus, see Dillon (1969).

<sup>25</sup> For at least an anticipatory step in *this* direction, see the myth of the *Protagoras*. The similarities between both texts, especially concerning the relation between the human body and other animal bodies, are a matter for another discussion.

element.<sup>26</sup> To give this correspondence its true sense is of crucial importance, but first we should pay some attention to what comes first, namely the aspects of likeness of the *unfinished* world to ILT.

At first sight, it does not seem very clear what this likeness consists in. As it precedes time, thus the creation of the planets (cf. 39E3), what must be like the paradigm is either the body or the soul of the world, or both of them together. Here we stumble again upon the question of whether it is true that the world, even before the life forms come to be, corresponds to its model as one 'organic unity' or 'organic whole' corresponds to another. Again, it need not be so. We know already that the world soul belongs to the natural excellence of the *visible* body of the universe, and is never related to ILT in any way. The spherical shape is also connected to this body. It is the most fitting container of other shapes, which is true on both the geometrical and material level, yet again there is no link to the model as consisting of the four Life Forms. An admittedly indirect confirmation of this comes some ten lines further, at 40A4, where Timaeus explains why the fixed stars as the immortal life forms received *their* spherical shape: the Demiurge made them well rounded, *to resemble the universe*. The same reasoning then guides the lesser gods while they shape the human head: they are 'copying the revolving shape of the universe' (44D3–5). In both cases, the body of the universe is the ultimate reference, which carries no implication of any (intelligible) sphericity of the model.<sup>27</sup>

What then remains as the simplest and most likely answer is that the world, created as one ensouled and rotating body, is much more like ILT than the original disorderly motion of the material the body of the world is made

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<sup>26</sup> This is close to the traditional scheme that assigns various animal species (and fiery stars) to the elements prevailing in their natural habitat. A telling summary of this tradition is Diodorus Siculus I.7.1–6. For the whole issue cf. Campbell (2000), esp. 160. See also Hershbell (1974) on the *Timaeus* and Empedocles. Those interested in this issue will read with much attention the remarkable contemporary analysis of the four elements in Tudge (2005), 251–266 (despite the fact that this text, paradoxically from Timaeus' point of view, deals with plants, not animal species).

<sup>27</sup> This issue is not often discussed. On the other hand, the εὐκυκλον at 40A4 is almost always connected to the well rounded sphere of Parmenides (B 8.43) as quoted in *Sophist* 244E. But even in Parmenides, this sphere is most often interpreted as a comparison, not a description. Besides, in the *Timaeus*, the question is not whether Being or the One is a whole with parts (on any account, ILT is certainly not the One).

of. Here the likeness is predicated of the world on the basis of the general principle of organisation and completeness. In one important sense, the world *is* already complete, namely as a spherical body that contains *all* the stuff. This stuff was previously in the state of disorder, typically described as ‘unlikeness’. Thus, I take it that we can safely assume that Timaeus hints here at this process, which also implies a reference to Forms other than ILT, or at least to Fire. That the creation or ordering of the elements is by now complete is necessary for there being the mutually distinct regions of the world as future habitats of the four life forms. Before we try to understand the latter, and their model, we need to get the order of Timaeus’ story right (independently on how literal or metaphorical our reading may be). Thanks to there being the four distinct regions of the body of the world, the Demiurge can endow the likenesses of the four intelligible life forms with four basic somatic shapes best fitted for their respective habitats.

Now this means that the apparently new information about the four parts of ILT seems to become thinner. Undoubtedly, Timaeus comes forward with four embryonic descriptions of where the created forms live and what (some of them) do, yet the descriptions speak naturally in terms proper to the material universe and local motion. The quoted translation rearranges the syntax of Plato’s text, where the descriptive sequence (‘first, the heavenly race of gods; next, the kind that has wings and travels through the air, etc.’) relates immediately to the planned content of ‘the living thing he [sc. the Demiurge] was making’, not to ILT itself. As a result, the description’s reference is quite indeterminate – except if we decide that there is a noetic bird flying through noetic air in ILT, so that the description fits literally the world *and also* ILT (and the statements about the Forms are redescriptions, but hardly explanations of the world). While Cornford (1937, 117–118) translates in the same way as Zeyl, and so does Bury in his 1929 translation for the Loeb Classical Library,<sup>28</sup> Brisson’s 1994 French version follows the original syntax more closely:

Conformément à la nature et au nombre des espèces dont l’intellect discerne la présence dans ce qui est le Vivant, le dieu considéra que ce monde aussi devait avoir les mêmes en nature et en nombre. Or, il y en a quatre : la première est l’espèce céleste, celle des dieux, la seconde l’espèce ailée, c’est-à-dire celle qui circule dans l’air (etc.).

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<sup>28</sup> ‘According, then, as Reason perceives Forms existing in the Absolute Living Creature, such and so many as exist therein did He deem that this World should also possess. And these Forms are four, – one the heavenly kind of gods (etc.)’

My intention is not to deny that the correspondence is expressed in strong terms, and even this translation seems to refer the description to the Forms that are discerned in ILT. In any case, there is the numerical sameness of four models and four likenesses, and we must not forget that the four life forms are also 'such as' (τοιούτας) the four parts of ILT. So that not only the created life forms differ between themselves (and each is one), but their differences are somehow related to the differences between their models. However, this is strictly all that Timaeus tells us here (even the fact that there are more likenesses of each intelligible Living Thing is only indicated by the plural 'gods'). For this reason, we need to take a more general view of our problem.

## 5

If we try to look at 39E3–40A2 in a broader context of both Timaeus' Prologue and some other of Plato's texts, we should be able to establish (1) that the four parts of ILT are indeed Forms and (2) what type of Forms they are. Then we may perhaps say something on how and to what extent the positing of the Forms, most prominent in the epistemological context, complements Plato's cosmology as well. Of course, the first quarrel will immediately arise as to what the relevant texts are, but the reasonable choice should include the *Phaedo* and the *Republic*, and also the first part of the *Parmenides*. As I take ILT to be the simple sum of its exactly four parts, I submit without further proof that the focus on dialectics and various aspects of the One and the Many (the second part of the *Parmenides*, large parts of the *Sophist* and the *Philebus*) is not pertinent to this specific aspect of the *Timaeus*. This methodological restriction should help us to understand what can be reasonably expected from the positing of the Forms, which serve as models of the four visible life forms.

To start with an obvious fact, we may recall that the passage 39E received two different treatments at two different times. Its interpretation was implied in Aristotle's general criticism of Platonic Forms; centuries later, Plotinus and other Neoplatonists discussed it. This latter case, and thus the discussion of whether the parts of ILT belong to the demiurgical Intellect, I shall leave aside (I have made it abundantly clear that I take those parts for exterior to the divine Intellect, and also to any structure legitimately called 'world' or 'universe'). By contrast, Aristotle's treatment of the Forms must not be forgotten here, especially because it offers such a powerful distortion of what Plato says in several texts including our present passage. It is Aristotle who pretends that Plato has some general theory of Forms *and* that this theory is confused, not in the least because we cannot say whether the Forms (as objects of participation

or imitation) are universal or particular entities. The topic is very much alive to this day: are Platonic Forms universals or abstract particulars?

Now if we put to rest the notion of a unique 'theory of Forms', we can offer a solution that seems to work for several dialogues. Plato does not confuse universals and particulars, but carefully posits two distinct types of Forms which, in fact, correspond to the universals on the one hand and abstract particulars on the other hand. Moreover, if Plato posits, according to the topic under discussion, either the universals or the abstract particulars, this distinction itself is *not* context-dependent. Some Forms are always treated as universals; others are always treated as abstract particulars. Once we try to summarise this difference, it becomes clear that the Forms introduced in the *Timaeus*, including and especially those posited at 39E, should be considered as abstract particulars. In other words, they are the Forms of sortal terms or natural kinds. Such a formulation would certainly need some subtle differentiating and defining, but for the sake of our argument suffice it to say the abstract particulars that are the Forms can be directly albeit imperfectly reproduced or imitated, this imitation yielding a number of sensible particulars as bearers of various opposite properties (the bearers themselves have clearly no opposites).

These properties are dealt with separately since they are shared by sensible particulars of many entirely different kinds: they are derived from the Forms as universals, those well-known Forms that are always posited as opposites. It does not matter here whether these opposite properties are moral or physical ones, i.e. whether we speak of Justice and Unjustice, Beauty and Ugliness, or perhaps of Largeness and Smallness. Plato recognises this difference but does not hesitate to list both moral and physical properties together. It may be of some interest that the distinction between Forms as universal properties in either the physical or the moral sense, and Forms as abstract particulars, is sketched in *Parmenides* 130B-c, where the examples of abstract particulars are Man, Fire and Water, thus the Forms clearly relevant to the *Timaeus*.

In fact, this dialogue mentions no other *type* of Forms. The only possible (although not likely) exception is *Timaeus*' statement that a living thing is 'everything that partakes of life' (77B1-2), where one might discern the reference to Life, posited as an opposite to Death in the *Phaedo* (cf. 105c10-107B9).<sup>29</sup> Still this brief mention is without any further consequence for *Timaeus*' speech

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<sup>29</sup> However, immediately after, plants are said to 'partake in' the third type of soul (77B3-4). Thus plants possess soul and, *by the same token*, they possess life.

as its focus is on matters other than participation of the sensible particulars in the opposite Forms of universal properties. Timaeus is not after the sets of various properties acquired by this or that individual. More exactly, the only individual he is truly interested in is the most special one, viz. the created world as a whole. And even so, his eye is not on its universal properties (with the exception of its goodness and beauty), but on its composition. Which is why he turns to the other type of Forms: to the abstract particulars which enable him to posit a set of standards for various contents (rather than properties) of the parts and constituents of the world. Thus, for instance, there is a part of ILT, a Form of Land Animal of which the visible land animals are likenesses. And it is *as likenesses* that they come to be or are created. Besides, they are necessarily large and small, quick and slow, beautiful and ugly, and so on. But how they acquire these properties is another matter than how they come to be precisely as land animals (water animals are large and small or quick and slow as well).

Roughly speaking, in reasoning with Platonic Forms, there is a difference between the cosmological use of abstract particulars and the epistemological use of universals. The latter enables us to explain why things or particulars *of any kind* are beautiful, large or just, without however explaining where the things as particulars come from.<sup>30</sup> This other explanation is the business of the abstract particulars such as those contained in ILT. Not only do they tell us what kinds of things are there in the world; they help to describe *how and for what reason* these things came to be in the first place, namely as intentionally produced likenesses or artefacts.

Although the *Timaeus* is far from being the only dialogue where things and the world itself appear as artefacts, it has a prominent (and fragile) position, which is due to its neglect of epistemology in the sense of Socratic reasoning with the Forms of universal properties as objects of (human) thought. In fact, even Timaeus' description of human intellection seems to omit this aspect entirely.<sup>31</sup> Perfectly compatible with this omission is the fact that the abstract particulars or parts of ILT are presented as not only separate, but also transcendent entities that can be conceived of as uninstantiated (if

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<sup>30</sup> For the sake of clarity, it is perhaps necessary to stress that Timaeus speaks about some things as good and beautiful, yet these qualities are always related to the *composition* of things, to their inner harmony. Which need not imply any particular's participation in Beauty or in the Good. Cf. 87c4–5: goodness implies the beauty of proportions.

<sup>31</sup> Omission is of course not an exclusion. For more on this issue see Betegh (2003).

we take seriously Timaeus' story and the world for a created structure). There is an important contrast between this type of separation, which is proper to paradigms in the sense of blueprints for creation, and the separation proper to the Forms of universal properties that may be – and often are – posited in a way that does not preclude the immanence (cf. the hypothesis of the Forms in the *Phaedo* or in *Republic V*).<sup>32</sup> However, I take it that this immanence has for an implicit corollary the eternity of the world whose parts are necessary to permanently instantiate the properties in question. Plainly, this is not what Timaeus tells us, at least not literally.

If Timaeus' business is cosmology, and not Socratic epistemology, his recourse to the abstract particulars and their visible likenesses is quite natural. It is one thing to wonder what makes Socrates larger than Simmias or what makes this particular citizen pious; it is another to ask what kinds of living beings are there in the world. This difference is further reinforced by the inescapable implication of this latter question: to ask 'what kinds of living being there are' seems to imply that we can say *how many* there are. It is possible that we do not know since our present experience of the non-infinite and non-evolving universe is not complete enough. Yet, in principle, there should be an answer to such a question. By contrast to universal properties, always posited in the form of some open-ended list, there should be an inventory of kinds of things. Timaeus eschews the task of establishing such an inventory by referring the living beings within this world to the exactly four parts of ILT, whose *description* – as we have seen – evokes the four elements. Timaeus comes closer to a spatial distribution of life than to the Aristotelian classification of immutable species.

Also, this is how Timaeus avoids the allegation of having posited the Forms as super-things or useless duplicates, whose number will be, in the last analysis, equal to the number of sensible things. Which is not to say that the correspondence between the (description of the) parts of ILT and the four elements does not generate some problems of its own. The first and foremost of these problems concerns the relation between (a) the four parts of ILT which are posited clearly as that many Forms, and (b) the unclarity of whether there really are the Forms of all four elements. I take it that Fire is introduced in a rather straightforward way at 51B8, and the following relative clause in

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<sup>32</sup> This is not the place to discuss the details of Gail Fine's important defense of this perspective. See especially her articles on 'Separation' and 'Immanence', now reprinted in Fine (2003), 252–300, 301–325. For separation, the Forms and the *Timaeus*, cf. Fine (1993), 60–6 and 64.

the text (51B8–c1) may indeed refer to Air, Water, and Earth. But I am not sure that we can exclude the possibility that these three elements (ordered stuffs) were constructed by the imposition of geometrical structures upon the *anhomoeomeric* portions of disordered stuff, and not by (simultaneous) imitation of a Form (such as Fire), which is not described in terms of geometry, although its regular instantiation *does* require a geometrical support.

For my purpose, which is to decide what parts does ILT consist of and whether it is, as a whole, equal to a simple sum of its parts, it is not necessary to enter the details. Suffice it to say that my conclusions will be independent of what constructivist interpretation of matter we choose, i.e. whether we think that the receptacle receives two different kinds of Forms, the geometrical forms and the Forms indicated at 51B7–c1 (including Fire),<sup>33</sup> or whether we take the receptacle's configurations to be identical to the instances of fire, earth, water and air.<sup>34</sup> On the other hand, what *is* important for my purpose is to stress that the Forms of elements (or at least Fire) and the parts of ILT fulfil their role of paradigms in two entirely distinct ways. The likenesses of the parts of ILT are recognisable individuals, whereas the likenesses of elements are just stuffs or portions of stuffs. If the fixed stars are not an exception to this rule (they are made *mostly* out of fire), it is their introduction at 40A2 that indicates the descending order of the perceptible elements. As the latter become the element of value (no pun intended), it becomes clear that the description of the parts of ILT in terms of elements should have prepared Timaeus' audience for the teleological reordering of the four life forms that can only happen within the created universe.

This is one of the reasons why I find it difficult to agree with the conclusion of Charles Kahn's summary: 'The four elements appear at both levels [*sc.* of Reason and of Necessity]. And at both levels, I think, whatever structure they possess must be derived from the Forms, that is, from the intelligible Living Thing that serves as the model for creation (30C–D).'<sup>35</sup> The problem, for me, is the presupposition that the label 'ILT' is just a way of renaming, if not all the Forms, then all the Forms evoked by Timaeus. Kahn's suggestion goes then further than e.g. Cornford's commentary. For Cornford, ILT is 'a complex Form, or system of Forms,' which is 'a whole, richer in content than any of the parts it contains and embraces,' but there is no reason to identify it with 'the

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<sup>33</sup> For this position see Silverman (1992).

<sup>34</sup> See Harte (2002), 262 n. 189, where she explains the limits of her agreement with Silverman (1992).

<sup>35</sup> Kahn (2002), 123.

entire system of Forms' or to include therein 'the Forms of the four primary bodies.'<sup>36</sup> Indeed, this inclusion seems unnecessary, and it would only cause further problems by making it more difficult to account for the hierarchy within the universe, a hierarchy that is established as a unique means of making the world more alive (and thus more perfect) than it would have otherwise been. To put it very simply: while the Forms explain why there are birds and air, the connection of birds to air is not prescribed in ILT. And the latter need not be taken for a full-blown intelligible cosmos. The latter's explanatory power may be weaker than one of the austere ITL, posited as a simple sum of its parts. To redescribe the world on a higher plane is not to explain its constitution.<sup>37</sup>

By now it is sufficiently clear why, I take it, there need not be any complex intelligible world that would be somehow more than the four intelligible Living Things, and why the constitution of the visible whole should not be projected back to its model. The parts of ILT are perfect in the highest degree, and to image ILT as containing e.g. the Fiery Life Form as a combination of Fire with Living Thing seems rather confusing. Now what does this austere interpretation of ITL imply for the living contents of this created universe? Its first and most important consequence is the above-mentioned double standard of perfection. What it is and whether it can help us to understand why there are many visible instantiations of each unique part of ILT, and many (and not four) different animal species, is the topic of the following and last section.

## 6

The double standard of perfection (summarised in section 1 above) states simply that, in *Timaeus*' likely account of how the universe came to be, each mortal living thing is defined in terms of its likeness to one of the three relevant parts of ILT, yet it is *also* measured by a standard originally inherent to human beings, one of ordering the intellectual part of the soul. Without entering the discussion of ethical matters in the *Timaeus*, it is certain that this second standard of perfection is decisive for the mutual transformations of life forms. All the mortal life forms are described as originating in human beings, more

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<sup>36</sup> All four phrases in inverted commas come from Cornford (1937), 40–41.

<sup>37</sup> In Plato's case, *a fortiori* so if we accept that various Forms, posited as distinct types, explain various features of the world. That these explanations need not obey a unified conceptualization is rather clear. On whether such a unification presupposes induction (which is absent from Plato), see e.g. Halonen and Hintikka (1999).

exactly men, who are the first of the mortal instantiations of the intelligible Land Animal. All other species that can be distributed among the three habitats in question (land, air, water), are necessary to make the world complete and thus more perfect. Yet this global perfection is impossible without the failure of many an ethical aspiration. This process cannot compromise the relation of likeness that exists between the mortal life forms and the relevant parts of ITL. However, the process of making the world a perfect whole that consists of many imperfect parts, has no counterpart in the world's model.

In this ingenious scheme of things, it is the mutual transformation of life forms (by way of reincarnations) that implies the process of differentiation into *many* visible species. The latter are not – and need not be – just three in number. Timaeus speaks freely about ‘all sorts of shapes’ (91E–92A) or about ‘the origin of fish, of all shellfish, and of every water-inhabiting animal’ (92B). In the end, the full population of the world constitutes a rich network of species whose origin in this context is *not* derived from ILT, but depends upon the intellectual proximity to or distance from the innerworldly celestial order. All embodied life forms refer to one of the three standards of perfection that consist in the likeness (i.e. direct correspondence) to this or that part of ILT. Yet across this difference and thus across all mortal species, the intellectual part of each soul is expected to actively pursue a very different standard proper to the intellect.

This is why, in Timaeus' speech, what a mortal living thing is and what function it performs are two distinct issues. And I take it that this is enough to justify, even require the multiplicity of mortal instantiations. It has been often remarked that the perfection of the whole, realised by means of the imperfection of at least some of its parts, is what makes the *Timaeus* into the first serious theodicy. Still, Timaeus seems to do more than excuse god who couldn't have made an even better world because of the limitations imposed by matter, this dark and not really malleable source of evil and decay. Undoubtedly, matter is the limiting factor but, Timaeus insists, both the Demiurge and the lesser gods make a good use of it. It is certain that this use has a strong ethical dimension as it helps to make the world into ‘that articulate test-ground for the souls that it is now.’<sup>38</sup> Yet it is equally possible that the plurality and complexity of life forms is viewed by Timaeus in a brighter light that we tend to assume, precisely because the world as a whole is irreducible to the sum of its parts and constituents.

In this respect, the world has one intriguing feature. Among its living and immortal entities, only the fixed stars are direct likenesses of one part of ILT.

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<sup>38</sup> I borrow this fitting expression from István Bodnár (in correspondence).

The others, namely the world soul, the souls that supervise the motions of the planets (38E5-6) and the originally human intellects, are introduced as various means of achieving the perfection proper to the world where first possession of intellect, and then, as a consequence, possession of life become in itself the chief value. The story about the origin of lower species through the distortion of human intellect and subsequent expansion of life into the remaining regions of the world points beyond ethics in the usual sense of self-correction. In the regions of mortality, the number of transformed 'lower species' is virtually infinite (remember that Timaeus speaks about 'all sorts of shapes'). And the exception to this rule, namely plants whose third kind of soul undergoes no metempsychosis, are differentiated into further varieties, if not species, by human care (see 77A6-B1 on the 'now cultivated trees, plants, and seeds'). The beauty of Timaeus' story is that it is impossible to decide with some final certainty whether this diversity and complexity is a good thing or a bad thing.

This, I believe, is also the issue behind the discussions of whether Plato originated the tradition of 'the great chain of being' or *scala naturae*. It has been argued that the *Timaeus* 39E3-40A2 presents us with the first version of the Principle of Plenitude (PP): the premise that the Demiurge, in virtue of *his own* perfection (not just because of the model), produces all kinds of beings that can be reasonably conceived of as parts or constituents of the world that he is producing. Roughly speaking, this is the version of PP promoted by Arthur O. Lovejoy in his well-known book. Lovejoy's conclusions have been criticised for their methodological shortcomings,<sup>39</sup> but his reading of the *Timaeus* has one merit: by focusing on the goodness of the Demiurge, he obtains a larger perspective on creation than one following from the narrow correspondence between the parts of ILT and their likenesses. His version of PP combines two sources of perfection, with a higher degree of complexity proper to the resulting structure. Unfortunately, Lovejoy projects on Plato's text the anachronistic scheme of 'self-transcending fecundity' (whereby the complexity emanates from a divine principle).<sup>40</sup> Still, his PP offers a partial insight into why there are

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<sup>39</sup> Lovejoy (1936), 46-51. Lovejoy's general premises are attacked in Hintikka (1975-76), whose focus is mainly on Aristotle and modern authors. For an evaluation of this criticism, see Gram and Martin (1980). For a recent and strong criticism of what Lovejoy says on the *Timaeus*, see Broadie (2001), 10-17.

<sup>40</sup> Cf. Lovejoy (1936), 49-50, with a conclusion on 'a divine completion which was yet *not* complete in itself, since it could not be itself without the existence of beings other than itself and inherently incomplete.'

more parts and constituents of the world than what can be reasonably inferred from ILT alone.

For this reason, while the main premise of Lovejoy's account is plainly false, I am not sure that we should reject without appeal Timaeus' description of mortal life forms and their complexity. Criticising Lovejoy, Sarah Broadie does it in strong terms, stressing that the text spares less than one page on plants and that 'the variety of animal types leaves Plato equally cold.'<sup>41</sup> The appendix on women and lower species (90E1–6) makes this claim quite plausible. At the same time, we should not forget that Timaeus was invited to treat 'the nature of the whole and the nature of man', and that his celebration of the complex starry heaven, but not of the animal and plant kingdom, is also an ethical exhortation. The stars and planets *appear* to us as a disorder, and to discover the perfect order behind their appearance is supremely human. Yet this task and its fulfilment need not coincide with the contemplative joy of the Demiurge. His withdrawal from the business of creation allows for the complexity of mortal life forms as parts of the whole of which even the order of heavens is just another (albeit better) part. There is not a contradiction, but a certain tension between the human attention to a part of the world and the divine attention to its whole.<sup>42</sup>

Be that as it may, the preceding remarks should help us to unravel the puzzle of why, within the created world, there is not just one instantiation of each part of ILT (if it is true, as I suggest, that ILT is not an organic whole but a structure whose value is equal to the intrinsic values of its four parts, then this question makes perfect sense). At first sight, this is the issue addressed in an oft-quoted article by David Keyt on the Demiurge as the Mad Craftsman.<sup>43</sup> Keyt implies that if Timaeus' defence of the uniqueness of the world, based on the uniqueness of its model, presupposes that every Form is equally unique, then the copies of the model's parts should be also unique. Since they are not, Timaeus' reasoning is false.

This charge follows from some general assumptions about 'Plato's system', and it pays almost no attention to the context of Timaeus' speech and to the Demiurge's deliberate choices. If Keyt seems to distort the reasons behind the

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<sup>41</sup> Broadie (2001), 15.

<sup>42</sup> One may wonder whether it is not this *divine* attention that is still echoed in Aristotle's (otherwise fully human) defence of the joys of contemplating the *seemingly* disgusting and worthless little beasts (*Parts of Animals* I.5 645<sup>a</sup>4–23).

<sup>43</sup> Keyt (1971) whose reasoning is followed by e.g. Vlastos (1975), 29 n. 9. Among its critics are Mohr (1985), 17–18, and Burnyeat (2005), 160–161.

making of a unique physical universe,<sup>44</sup> what he says about ILT's parts and their likenesses is quite bewildering. His arguments rest upon the claim that Plato confuses 'the proper and ideal attributes of a Form' and takes the Forms for self-predicational: 'the Form of beauty is itself beautiful; the Form of horse is itself horse', so that 'the Form of living creature is itself a living creature' (Keyt 1971, 235). If so, 'the Form of living creature has only one feature that a sane craftsman would copy, having a soul in a body'; yet the Demiurge does not stop here and 'attempts to copy even the irrelevant features of his model', more exactly its generic character of a container, which implies that the copy is 'filled with all the species of living creature' (Keyt 1971, 232).

Now we understand that, strictly speaking, Keyt's question is not why there are many likenesses of every part of ILT, but why the world contains various distinct life forms at all. Without entering the discussion of the main premises of this reading, I would object to Keyt's analysis that, for the Demiurge, there are no other features to imitate besides, precisely, the four parts of ILT. This objection again assumes that we have no reasons to take ILT for an ensouled organic whole, i.e. for an animal except by homonymy.<sup>45</sup> And if the four parts of ILT are all there is to *directly* imitate and thus instantiate in the matter, then we are entitled to conclude that the soul and the body of the world are not the only thing that the maker should have *copied*. Quite to the contrary, they are to be listed among the great inventions due to the Demiurge, who was inspired by both his own goodness and by what it is to be a living being (in creating the world soul) and in addition to these by the properties of matter and geometrical structures (in creating the body of the world). By contrast to the whole that contains four intelligible Living Things but adds nothing to their perfection and value, the world is framed as a spatial, teleologically organised whole, truly

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<sup>44</sup> This distortion is neatly summarised in Burnyeat (2005), 161.

<sup>45</sup> By contrast, Keyt's argument is construed upon the fatal presumption of self-predication as a feature of *every* Platonic Form. This, Keyt implies, is the consequence of Plato's failure to distinguish between ideal and proper attributes of Forms. Yet to take all Forms for self-predicational is an extremely questionable move. It seems more prudent to take a narrow view on self-predication and to assume (although I cannot enter the details here) that the only serious candidate for self-predication may be Beauty (a Form which, by the way, is the starting point of Keyt's article). For more on self-predication (and also Beauty) see Malcolm (1991).

distinct from the sum of its parts. And it is only as such a strong whole that it can easily contain many instantiations of the four parts of ILT.

So there seems to be no serious contradiction between the maker's creation of a unique world as a likeness of a unique whole of an entirely different kind, and the existence of many likenesses of each of the model's equally unique parts. Granted that the world is constructed out of matter, and that an ensouled visible body is really superior to an inanimate body, what other options could there be? Counterfactually, we can conceive of a world consisting of four simple bodies, i.e. unmixed elements, but we run immediately into some serious difficulties. Not only shall we have some intuitive doubts about, for instance, an ensouled mass of pure water. More importantly, Timaeus insists that there is no visible body without fire and no tangible body without earth (31B4–6). Also, there seems to be no way to join these two elements without air and water (32A7–B8). By consequence, we cannot obtain four visible bodies out of four unmixed elements.

The remaining option, namely to create four corporeal life forms out of four various mixtures of the elements, doesn't fare much better. Individually, these four bodies would be more perfect than any likeness of the three lower and mortal life forms that the world actually contains. But they would still be less perfect than the four parts of ILT, and there would be no way to counter-balance this imperfection by some new quality proper uniquely to the created whole: in no way can the four likenesses be teleologically arranged to form an organic structure. At best, the four bodies can be arranged concentrically, but this would imply a difference between the containing and the contained body. This difference is not enough to constitute a world. It may, however, be enough to confirm the inequality and thus imperfection of the four likenesses (by contrast to their intelligible models).

The Demiurge has then all the reasons to avoid construing an homoeomerous four-part likeness of the model. Throughout Timaeus' speech, he is instead after the quality called life, and it is to make room for this quality that he chooses to create the world (and not its parts) as a singleton or a being absolutely unique of its kind. To be a whole encompassing all matter is then the world's intrinsic property.<sup>46</sup> The true *comparandum* for judging the value

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<sup>46</sup> Cf. Denby (2006), 1: '[A]ny property whose instantiation by some individual is a matter of the nature of that individual alone, regardless of the nature or existence of any distinct individual, is intrinsic; all other properties are extrinsic.'

of this created whole, and the degrees of value of its parts, is the unorganised matter rather than ILT, which may well have no intrinsic value as a whole but be valuable in virtue of its four perfect and eternal parts. If this suggestion deflates the very notion of 'the world of Forms' (as indeed there is no such thing), it promotes both the philosophical interest of Forms and the value of the world as created the way Timaeus' speech specifies.

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