

PLATO'S COSMOGONY (*TIMAEUS* 27 D ff.)¹

IN his paper on 'The Disorderly Motion in the *Timaeus*'² published seventeen years ago Professor Gregory Vlastos remarked: 'So much has been written on this vexed issue that one hesitates to reopen it.' Still more must I hesitate today; yet the issue is of such importance and interest to Platonic students that I hope to be forgiven for setting down certain considerations which aim at reinforcing Vlastos's main conclusions, but which have not, so far as I am aware, been given the weight that they seem to deserve.

The issue before us is indeed somewhat wider than the title of Vlastos's paper would suggest: what we have to decide, if we can, is whether or no Plato really means us to believe that this κόσμος, this ordered world that we know, came into being at a certain point of time, both in respect of the body and of the soul whose conjunction make it what he calls a visible living creature (ὁρατὸν ζῶον, 30 d); and if he did mean us to believe that, whether we can reconcile his picture of a pre-cosmic state of things in disorderly motion (κινούμενον πλημμελῶς καὶ ἀτάκτως, 30 a) with other dialogues, namely *Phaedrus* and *Laus*, in which soul in general is asserted to be the cause of all motion, and (in the *Phaedrus* at least) ungenerated.

As is well known, there have been, from the very first age of Platonic study, two directly opposed opinions on the main point. Aristotle³ seems to regard it as plain, incontrovertible fact that Plato described the universe as having come to be; whereas his contemporary Xenocrates, the third Head of the Academy, held⁴ that the account put into the mouth of Timaeus ought to be interpreted as analysis of the world's existing structure in the guise of a story of its construction in the past, Plato's object being to facilitate exposition (διδασκαλίας χάριν).

It is clear that the view of Xenocrates held the field at least down to the time of Plutarch (who is plainly conscious of being in a minority in opposing it in his valuable essay),⁵ and perhaps even down to Proclus, who still supports it after his own fashion; though indeed there were, according to Proclus,⁶ 'many other Platonists' who sided with Plutarch and Atticus (a second-century Platonist); and in modern times the prevailing trend has been the same; there have indeed been distinguished scholars of this and the last century on the side of Aristotle and Plutarch, such as Th. Martin, Th. Gomperz, Brochard, and Rivaud; but it is safe to say that opinion today is mostly behind the two great English Platonists, A. E. Taylor and F. M. Cornford, whose commentaries on the *Timaeus* have superseded earlier editions.

I should first make it clear that I do not propose to support Plutarch in anything beyond his main contention, that the world really had, according to Plato, a temporal beginning; for I think he is demonstrably wrong on

¹ This article was found among the papers of the late Professor Hackforth. The typescript appeared to be ready for printing, but it is not known whether any final alterations were intended.

² C.Q. xxxiii (1939), pp. 71 ff.

³ *De caelo* 280^a28: cf. *Met.* 1072^a2.

⁴ Ibid. 279^b32 ff. That *τινές* here refers to Xenocrates and his followers we are told by Simplicius and the scholiasts quoted by Vlastos, p. 73.

⁵ *De animae procreatione in Timaeo*.

⁶ In *Timaeum* i. 276 (Diehl).

important points, notably in holding that the pre-cosmic chaos was moved by an evil or irrational soul, and that there is a close parallelism between the structure of the world's body and that of its soul, the latter like the former consisting of two extreme factors and two means.¹ Nor again do I believe that the doctrine of the *Timaeus* can be quite so easily reconciled with that of the *Phaedrus*, *Politicus*, and *Laws* as he supposes. Nevertheless his essay is the thoughtful work of a highly intelligent scholar, and no student of our dialogue can afford to ignore it.

I. Aristotle (*de caelo* 279^b12) declares that everybody holds that the universe had a beginning (γενόμενον ἅπαντες εἶναι φασιν (sc. τὸν οὐρανόν)). He should, no doubt, have made an exception of Heraclitus; but with that exception his statement seems true: all the pre-Socratics had in their various ways conceived of the world-order as evolving from or supervening upon a different state of things. That being so, one would have expected Plato to make it abundantly clear that he disagreed, if he did disagree.

But can anyone assert that he has done so? Surely even the stoutest Xenocratean could not claim more than that the language of the crucial passage, 27 d 5–28 c 2, in which Timaeus opens his cosmological account, is ambiguous; and I feel sure that no one coming fresh to the text, and knowing nothing about ancient or modern interpretations, would detect any ambiguity. Even Cornford, after rightly pointing out that γίγνεσθαι has two senses, that of coming into being and that of becoming so-and-so or, in Cornford's words, being in a process of change, admits that 'on the surface, he speaks of becoming in the first sense, as if the ordered world came into existence at some time out of a previous state of disorder'.² He could hardly fail to admit this, in view of such expressions as γένεσιν σχεῖν, γενέσεως ἀρχήν, γιγνόμενα καὶ γεννητά and above all, of course, the downright, uncompromising one-word affirmation of γέγονεν at 28 b 7. If Plato meant what the prevailing interpretation maintains, he surely did his best to mislead his readers. However, Cornford detects another meaning beneath the surface: that is to say, he believes that the actual language of this passage can, and does, bear a sense very different from its apparent sense. In attempting to show this he is, I may remark, deviating from the line taken by Xenocrates himself: he is arguing, not that Plato spoke of the coming into being of the universe διδασκαλίας χάριν, but that he never really spoke of it at all: he only spoke of the universe as always 'being in process of change'.

But on what is this view based? Where is the clue pointing indubitably to the second meaning of γίγνεσθαι? It is in the single word αἰεί at 28 a 1, where Timaeus asks τί τὸ ὄν αἰεί, γένεσιν δὲ οὐκ ἔχον, καὶ τί τὸ γιγνόμενον μὲν αἰεί, ὃν δὲ οὐδέποτε; 'The statement', writes Cornford, 'that the world "has become" in this (sc. the first) sense is formally contradicted by the language of the first premiss, which contrasts with the eternally real "that which is *always* becoming, but never has real being". The phrase can only mean what "becomes" in the second sense, what is everlastingly in process of change. The application of the premiss to the visible world must mean that the world belongs to the lower order of existence so described. This is clear from the reason Plato gives for saying that the world "has become"; "for it is visible and tangible and has a body and all such things are sensible", and what is sensible belongs to the lower order, in contrast with the realm of eternal being.'

¹ 1014 b, 1025 a–b.

² *Plato's Cosmology*, p. 25.

Now what needs pointing out here is that these last words, viz. 'and what is sensible . . . eternal being' are Cornford's, not Timaeus'. I am not of course disputing their truth: my point is that they are Cornford's addition, replacing certain important words of his original. After 'all such things are sensible (*πάντα δὲ τὰ τοιαῦτα αἰσθητά*)' the text continues *τὰ δ' αἰσθητά, δόξη περιληπτά μετ' αἰσθήσεως, γιγνόμενα καὶ γεννητὰ ἐφάνη*. By omitting to translate (in his commentary) these words Cornford has omitted a vital point of Timaeus' argument, viz. that not only does the world belong to the lower order of existence, the sensible order, but that this was shown above (*ἐφάνη*, which must refer to 28 a 2-4) to be the order of things that become and are brought into being.

The upshot is surely inescapable: Timaeus is saying that the universe is both a *γιγνόμενον* (which might perhaps be ambiguous) and a *γεννητόν* (which is certainly not).

Having made, or attempted to make, this vitally important point against Cornford, I hasten to concede, as is only fair, that the words *τὸ γιγνόμενον αἰεί* do mean, must mean, as he says 'what is everlastingly in process of change', provided that by 'everlastingly' he means not 'from all eternity', but 'at every moment of its existence'. It is natural enough to find Timaeus' exposition starting from the familiar Platonic contrast of the changeless and the mutable; but it should not close our eyes to the equally familiar Platonic doctrine which at once emerges, that the mutable is the sensible, and the sensible is that which has come to be. And finally it may be pointed out that it is a little unsafe to build much upon this *αἰεί* of 28 a 1; for though neither Cornford nor Taylor has noticed it, the word is (as Burnet notes) omitted in two manuscripts and in the quotations by Proclus and Simplicius; it was also apparently unknown to Cicero and Chalcidius, though they are such incompetent translators that I would not set much store by this. In any case, with or without *αἰεί*, I find Cornford's argument invalid.

II. At 29 d 2 Timaeus tells us that the cosmology or cosmogony which is to follow must be regarded as an *εἰκὼς μῦθος*. The word *μῦθος* in Plato is not always properly to be rendered 'myth': sometimes, and probably, as Vlastos maintains,¹ here it means *story* or *account*, and is in fact indistinguishable from *λόγος*; nevertheless parts of the story that follows are certainly 'mythical' in the ordinary sense of the word: they are not intended as literal statements of scientific fact. The story can, however, we are told, be no more than probable (*εἰκὼς*), because its subject—the physical universe—is only an *εἰκὼν*, the image of that original which Plato calls the *νοητὸν ζῶον*. It is probable that the caution which Plato thus enjoins on us has reinforced in some people's minds their doubts about a literal acceptance of the previous assertion that the world has come into being. I do not indeed feel sure that either Taylor or Cornford has been consciously influenced in this way; but however that may be, two facts should be remembered in this connexion: first, that the declaration that the world is an *εἰκὼν* and the consequent caution as to the *εἰκὼς μῦθος* come *later* than the declaration that it is a *γεγονός*; and secondly, that there is no element whatever of mythical language, nor yet of doubt or reservation, in the passage we have been considering, viz. 27 d 5-28 c 2. It is all strict unadorned logical argument—what Frutiger somewhere calls 'dialectic without dialogue'.

¹ Op. cit., p. 72.

It might perhaps be argued that the caution enjoined at 29 b–c should be regarded, despite its position, as having retrospective force, i.e. as covering what was said at 28 a–c. To this I would reply as follows: it is no doubt conceivable that there should be an *εἰκών* that is not a *γεγεννημένον*: but the *εἰκών* which is the universe is undoubtedly conceived as a *γεγεννημένον*, and indeed it is because it is a particular sort of *γεγεννημένον*, namely a *δεδημιουργημένον πρὸς τι*, that it is declared to be an *εἰκών*. That being so, the uncertainty which must attach to any account of it, by reason of its mutability, cannot include any doubt as to its being a *γεγεννημένον*.

III. It should not be supposed that acceptance of the unorthodox view (if I may so call it for convenience) entails accepting all the detail of the construction by the Demiurge of the world's body and soul as literal fact. Indeed this would, particularly in the case of the soul, be ridiculous: the mixture of Being, Sameness, and Difference described at 35 a is clearly to be taken as an analysis of the cosmic soul's faculties of cognition and motion. Nevertheless, it is surely plain that Plato conceives this soul as something which comes upon the scene, so to say, only when the *κόσμος* comes into being, and only through the action of the Demiurge, who plays in the *Timaeus* the part of Anaxagoras' *νοῦς*. There is no trace of any irrational or disorderly soul preceding the *διακόσμησις*, nor yet of any irrational element in the cosmic soul.¹ This is, in my submission, one of the main points where Plutarch goes wrong. The neat scheme of parallelism which he draws up between the construction of the world's body and that of its soul involves maintaining something for which there is no warrant in Plato, namely that the cosmic soul is the result of an ordering, a bringing *εἰς τάξιν ἐξ ἀταξίας* of a pre-cosmic soul; and this latter Plutarch claims to find in the soul-element called Divisible Being (*μεριστὴ οὐσία*) at 35 a. In point of fact, the Divisible Being, by virtue of which the cosmic soul (and by inference human souls also) cognizes the divisible objects of sense, is just as rational as the Indivisible Being (*ἀμέριστος οὐσία*) by virtue of which it apprehends indivisible intelligible Forms. (The recognition, or at all events *my* recognition, of this distortion by Plutarch is due to the careful and illuminating examination of the *de animae procreatione* by a Swiss scholar, P. Thévenaz, whose work appeared in 1938, after Taylor's commentary on the *Timaeus*, but before Cornford's.)

Soul, then, makes its appearance in the universe, and of course also in the creatures with which the universe comes to be populated, including the stars and planets and human kind, as a feature of the *διακόσμησις* but not, like body, as the result of an ordering or re-fashioning of a pre-existent material or substrate.

IV. At this point we may recur to the words of 30 a, which announce in general terms the nature of the Demiurge's action: *πᾶν ὅσον ἦν ὁρατὸν παραλαβὼν οὐχ ἡσυχίαν ἄγον ἀλλὰ κινούμενον πλημμελῶς καὶ ἀτάκτως, εἰς τάξιν αὐτὸ ἤγαγεν ἐκ τῆς ἀταξίας*. And we ask, to what, if soul is ruled out, is the motion here spoken of due? There can be only one answer: it is due to those mechanical, blind forces, the *αἰτίαι μονωθεῖσαι φρονήσεως*, which later (46 e) are said to produce their various random unordered effects (*τὸ τυχρὸν ἄτακτον*

¹ Cf. Vlastos, p. 78, who reminds us that the cosmic soul is free from the six 'wandering motions' (34 a).

ἐκάστοτε ἐξεργάζονται). Plato is there speaking of these αἰτίαι as operative not in the pre-cosmic state but in the existing universe, in which they are, he tells us, secondary causes, subordinate to the intelligent, purposive primary causes. Collectively they are entitled (48 a) ἀνάγκη or ἡ πλανωμένη αἰτία, and thus half identified with, or mythically veiled under, the awful figure of that Necessity to which even the gods must bow. In the κόσμος these blind forces are for the most part harnessed in the service of νοῦς, but in part they act independently; and before the Demiurgic νοῦς has begun its work these 'secondary' causes or forces are the only ones that exist.¹

V. Two obvious difficulties in accepting what I have said are (a) that both in the *Phaedrus* (245 c) and in *Laws* 10 (896 b) soul is declared to be the sole ultimate cause of motion (ἀρχὴ κινήσεως), and (b) that in the *Phaedrus* (ibid.) it is ungenerated (ἀγένητον). As to (a), although the *Laws* is a more or less 'popular' dialogue, we should, I think, take its theological doctrine as seriously meant, and not attempt to force it into conformity with the *Timaeus*. At the stage of the *Timaeus* Plato's conception of ψυχή still clings in some degree to its Orphic and Pythagorean associations: it is still divine or semi-divine and wholly rational, as in the *Phaedrus*; it is called at 46 d ἡ ἔμφρων φύσις: and yet it is partly discriminated from Mind or Reason in so far as it is distinct from the Demiurge, who implants it in the κόσμος. In *Laws* 10 it has got fully clear of νοῦς, so much so that two sorts of soul can be discriminated, the νοῦν προσαβούσα and the ἀνοία συγγενομένη, the φρόνιμον καὶ ἀρετῆς πλήρες and the μηδέτερα κεκτημένον (897 b), the εὐέργετις and the τάναντία δυναμένη (896 e). Yet it is still soul, of whichever sort, that is, as in the *Phaedrus*, the originator of every sort of motion; the intermediate position taken in the intermediate *Timaeus* where, save for the semi-mythical expedient of introducing ἀνάγκη, the material substrate πλημμελῶς καὶ ἀτάκτως κινεῖται by itself, is abandoned.

(b) As to the ungenerated soul of the *Phaedrus*, I do not believe that this should be taken as inconsistent with a pre-cosmic absence of soul. 'Chaos' is outside Plato's purview in considering the nature of ψυχή here; and we may fairly take him to mean that soul, being the necessary presupposition of all movements that occur in the universe, is coeval with the universe.

VI. I pass now to Taylor's main argument in favour of the orthodox interpretation of the cosmogony. It is based on the statement at 38 b (summing up the preceding paragraph 37 c 6 ff.) that 'time has come into being together with the universe' (χρόνος μετ' οὐρανοῦ γέγονεν). 'No sane man', we are assured,² 'could be [*sic*: ?have] meant to be understood literally in maintaining at once that time and the world began together, and also that there was a state of things, which he proceeds to describe, *before* there was any world.' I may be brief on this point, since it has already been disposed of by Prof. J. B. Skemp:³

¹ In the interpretation of 46 d-e I must dissent from Prof. J. B. Skemp, *The Theory of Motion in Plato's Later Dialogues* (1942), p. 77, who holds that the second sort of αἰτίαι are 'clearly psychical though irrational'. His opinion is partly based on what I think a wrong understanding of the genitives τῆς ἔμφρων φύσεως (d 8) and κινουμένων and κινούντων (e 1-2). I follow Cornford in taking these as possessive, not

(as Skemp implies) objective, and in understanding τῆς ἔμφρων φύσεως as a periphrasis for ψυχῆς (*P.C.*, p. 157). As I have already said, I can find no mention or implication of irrational cosmic soul in the *Timaeus*. With ἔμφρων here cf. 36 e 4 θείαν ἀρχὴν ἤρξατο (sc. ἡ ψυχή) ἀπαύστου καὶ ἔμφρων βίου πρὸς τὸν σύμπαντα χρόνον.

² *Commentary on Plato's Timaeus*, p. 69.

³ *The Theory of Motion*, etc., p. 111.

'One cannot dismiss the doctrine of a literal creation of the formed universe in time by quoting the saying that time came into being with the universe. This does not imply that there was no duration before the creation of the formed universe. *χρόνος* is the image of eternity moving *according to number*: it is the *πέρας* imposed upon an *ἄπειρον* of duration.' To put this in other words, it is periodic time that is meant by *χρόνος*, the 'days and months and years which were not before the universe came into being' (37 e), not time in the sense of mere prior-posterior succession.

Nevertheless it might be thought that what is said at 37 e 4, to the effect that past and future are *χρόνου εἶδη*, compels us to infer that for Plato there was no past or future apart from periodic time. But this I would deny. What he has in mind from 37 e 4 to 38 b 5—a paragraph which he virtually admits to be a digression (38 b 3–5)—is not a contrast between *χρόνος* with its *εἶδη* and a pre-cosmic state of things from which these *εἶδη* are absent, but a contrast between *χρόνος* which necessarily involves the relation of before and after, of past and future, and the timelessness of the eternal intelligible world. What he wants to emphasize is that the terms expressing the *χρόνου εἶδη* are inapplicable to *αἰδίου οὐσία*: and for that purpose any consideration of conditions before there was an *οὐρανός* with its periodic *χρόνος* is needless and indeed irrelevant. It would therefore be improper to infer from 37 e 4–5 that *ἦν* and *ἔσται* are wrongly used of *τὸ κινούμενον ἀτάκτως*.

VII. Aristotle's words at *de caelo* 279 b 32 ff., especially the word *βοήθειαν*, seem to imply that the reason for Xenocrates putting forward his interpretation was not that he felt any difficulty about the universe having had a beginning in time, or about a pre-cosmic state of things, but that Plato had maintained that a world which had a beginning would not have an end. Presumably Xenocrates, either on his own account, and remembering perhaps the words of the *Republic* (546 a) *γενομένῳ παντὶ φθορά ἐστίν*, or on the persuasion of Aristotle, found this incredible. Now Plato does give a defence of this at 41 a–b, in a passage which has indeed special reference to the imperishability of the created gods, but whose opening sentences are perfectly general, i.e. apply to the whole created universe. The world, like any other *γενόμενον*, is not everlasting in its own right (still less is it eternal *qua* timeless, like its *παράδειγμα*); but it will never in fact perish, since its creator will not suffer his own good handiwork to be undone.¹

This solution, I suggest, would seem to Xenocrates and Aristotle merely mythical; but Xenocrates, rather than give up the imperishability, preferred to explain away the becoming. As Vlastos suggests,² he need not have put forward his view as being Plato's own meaning; indeed it seems to me probable that he did not: for to him, as to any unprejudiced reader, the words of the crucial passage must have borne their 'surface' or plain meaning; rather, his position was that of the allegorist who assumes a licence of reinterpretation which he knows to be other than that of his author. If the *Timaeus* was to be accepted (and to reject any work of the Founder was unthinkable), it needed reinterpretation: it needed in fact a *βοήθεια*.

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¹ Cf. 32 c *τὸ τοῦ κόσμου σῶμα . . . ἄλυντον ὑπὸ τοῦ ἄλλου πλὴν ὑπὸ τοῦ συνδήσαντος*.

² Op. cit., p. 73.