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2001

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"Cosmological Ethics in the Timaeus and Early Stocism",

In: 'Fragments and Synthesis in Early Stoicism', Utrecht, 2001

P 273-302

COSMOLOGICAL ETHICS IN THE *TIMAEUS* AND EARLY STOICISM

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I

At the beginning of the concluding part of the *Critique of Practical Reason*, in the well-known and well-worn dictum about the starry sky above us and the moral law within us, Kant places the cosmic and the ethical perspectives next to each other. Yet, the starry sky and the moral law do not figure there as two components of an ethical theory. Quite the opposite, they represent two distinct, autonomous spheres of the world: that of physics and natural law on the one hand, and that of ethics and freedom on the other.¹ Most modern philosophers respect this distinction between the cosmic perspective and the sphere of ethics.²

Whether or not this was already so in antiquity has been the subject of some debate in recent years. On the face of it, it seems that major philosophical schools allotted a crucial place to physics, and to cosmology in particular, in their respective ethical theories. The Stoic theory of the *telos* appears to be a particularly clear instance of

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I wrote this paper at the Center for Hellenic Studies, where we had a truly good life owing to the kindness and help of the staff, librarians, and fellow fellows. I am grateful to Jens Holzhausen, Roberto Polito, and Gretchen Reydam-Schils for helpful discussions, and to Julia Annas, Jacques Brunschwig, Péter Lautner, Jean-François Pradeau, David Sedley, and Gisela Striker for written comments. I had the chance to present the penultimate version of this paper at the University of Utrecht, where I received helpful comments from the audience, and especially from Algra Keimpe, Jaap Mansfeld, David Runia, and Carlos Steel. I am also grateful to the Hungarian OTKA Foundation for financial help (F032471).

¹ Kant, *Kritik der praktischen Vernunft*, Akademie-Ausgabe, vol. v (Göttingen, 1908), 161–2. On Kant's dictum see e.g. G. Patzig, 'Heraklits Fluß und Kants bestirnter Himmel; oder, Über die Nivellierung philosophischer Gedanken', in G. Patzig, *Gesammelte Schriften* vol. iii (Göttingen, 1996), 295–308 at 303 ff.

² A notable but isolated exception is the philosophy of A. N. Whitehead, where cosmology is all-embracing and includes also ethical thought.

such an approach.³ This position has nevertheless been forcefully challenged by scholars in the last decade. Most importantly, Julia Annas's influential book *The Morality of Happiness* presents strong philosophical and historical arguments to the effect that the appeal to cosmic nature was originally not an integral part of the Stoic ethical theory.⁴ Annas maintains that no one, not even the early Stoics, can consistently hold that cosmological knowledge interferes with our ethical behaviour because such an ethical theory would run into the problem of heteronomy as formulated by Kant. Brad Inwood has challenged Annas's position in a long review,⁵ whereas John M. Cooper has offered an elaborate defence of the role of the cosmic perspective in a paper entitled 'Eudaimonism, the Appeal to Nature, and "Moral Duty" in Stoicism'.⁶ Obviously, they do not claim that the Stoic theory involving cosmology is *not* subject to criticism from a Kantian point of view. Yet they show, I think convincingly, that the Stoics, and Chrysippus in particular, had cogent theoretical reasons to integrate cosmic nature within the foundations of their ethical theory. The problem is obviously related to the relationship between and structure of the parts of philosophy. Some of Chrysippus' remarks on the order of philosophical disciplines, relevant to this discussion, have been preserved by Plutarch, in a verbatim quotation from book 4 of Chrysippus' *On Ways of Living*:

³ See the important papers by N. White, 'The Basis of Stoic Ethics' ['Basis'], *Harvard Studies in Classical Philology*, 83 (1979), 143–78, and 'The Role of Physics in Stoic Ethics' ['Role'], *Southern Journal of Philosophy*, 23 (1985), 57–74; A. A. Long, 'Stoic Eudaimonism', *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, 4 (1989), 77–101, repr. in A. A. Long, *Stoic Studies* (Cambridge, 1996), 179–201; and especially G. Striker, 'Following Nature: A Study in Stoic Ethics' ['Following'], *Oxford Studies in Ancient Philosophy*, 9 (1991), 1–73, repr. in G. Striker, *Essays on Hellenistic Epistemology and Ethics* [Essays] (Cambridge, 1996), 221–80. See also M. Forschner, *Die stoische Ethik: Über den Zusammenhang von Natur-, Sprach- und Moralphilosophie im altstoischen System*, 2nd edn. (Darmstadt, 1995).

⁴ J. Annas, *The Morality of Happiness* [Morality] (Oxford, 1993), 159–79; see also T. Engberg-Pedersen, 'Discovering the Good: Oikeiosis and Kathekonta in Stoic Ethics' ['Discovering'], in M. Schofield and G. Striker (eds.), *The Norms of Nature* (Cambridge and Paris, 1986), 145–183.

⁵ B. Inwood, 'Review of J. Annas' *Morality of Happiness*' ['Review of Annas'], *Ancient Philosophy*, 15 (1995), 647–66.

⁶ Cooper, J. M., 'Eudaimonism, the Appeal to Nature and "Moral Duty" in Stoicism' ['Moral Duty'], in S. Engstrom and J. Whiting (eds.), *Aristotle, Kant, and the Stoics: Rethinking Happiness and Duty* (Cambridge, 1996), 261–84. See also J. M. Cooper, 'Eudaimonism and the Appeal to Nature in the Morality of Happiness: Comments on Julia Annas, *The Morality of Happiness*' ['Comments'], *Philosophy and Phenomenological Research*, 55 (1995), 587–98.

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‘Now I believe in the first place, conformably with the correct statement of the ancients, that the philosopher’s speculations are of three kinds, logical, ethical, and physical; then that of these the logical must be first, the ethical second, and the physical third; and that of physical speculations theology must be last, which is why its transmission has also been called “fulfilment” [*teletai*].’ (Plut. *Stoic. repugn.* 1035 A–B, trans. Cherniss)

Plutarch, in his untiring quest for the self-contradictions of the Stoics, contrasts the above claim with a number of passages where Chrysippus appears to reverse the hierarchy of philosophical disciplines set by himself, and treats physics not as following on, but as foundational to, ethics. For example, he quotes from Chrysippus’ *Physical Propositions* the following:

For there is no other or more suitable way of approaching the theory of good and evil or the virtues or happiness than from the universal nature and from the dispensation of the universe. (Plut. *Stoic. repugn.* 1035 C, trans. Cherniss)

Such texts seem to constitute strong evidence for the claim that physics and cosmology were crucial for Chrysippus’ ethics. Annas, however, derives precisely the opposite conclusion from these passages. She draws upon the arguments produced by Jacques Brunschwig according to which all these quotations are from physical and not ethical works of Chrysippus.⁷ And as we have just seen, physics comes later than ethics in the Stoic educational curriculum. Therefore, Annas argues, the ethical theory was built up *prior to* and *independent of* any physical or theological doctrines. Then physics and theology were added at a later stage, and Chrysippus inserted these remarks about the strong connections between ethics and physics only in order to emphasize the Stoic claim about the interconnectedness of the different parts of philosophy. Therefore, physics helps at most to achieve a better understanding of ethics, but it does not add or change or modify anything the ethical treatises have already established at a previous stage.⁸

⁷ J. Brunschwig, ‘On a Book-Title by Chrysippus: “On the Fact that the Ancients Admitted Dialectic along with Demonstrations”’ [‘Book-title’], *Oxford Studies in Ancient Philosophy*, suppl. (1991), 81–95.

⁸ Annas, *Morality*, 163 ff. Brunschwig arrives at a different conclusion from the evidence, and maintains that the difference is primarily methodological. Ethics treats the subject mainly in a dialectical way, through the examination of prenotions and opinions; physics, by contrast, is apodeictic. Inwood, ‘Review of Annas’, 659, shows that Annas misrepresents Brunschwig’s position at a crucial point: Brunschwig does

Brunschwig and Annas, following him, also make use of a remark by Plutarch according to which Chrysippus had the habit of putting some kind of preface to his ethical enquiries honouring 'Zeus, Destiny, Providence, and the statement that the universe, being one and finite, is held together by a single power'.⁹ In other words, Chrysippus paid lip service to his theological principle at the beginning of his ethical works, and that was all.

This is where I would disagree with Annas and Brunschwig, and where I suggest we should not follow Plutarch, whose polemical motivations are transparent at this point. For if we followed him, what could we do with such statements as the ones Diogenes Laertius quotes from Chrysippus' book *On Goals* (*Περὶ τελῶν*), according to which 'living virtuously is equivalent to living in accordance with the experience of what happens by nature'? (D.L. 7. 87). For surely this book is not on physics, but on the central notion of ethics. Moreover, the passage in Diogenes makes it clear, I think, that Chrysippus—here at least—did not invoke cosmic rationality and the divine principle merely in some ritualistic formula, but fully integrated them into his definition of *telos*. Diogenes further explains this connectedness by saying, most probably following Chrysippus, that 'And this is why the end may be defined as life in accordance with nature, or, in other words, in accordance with our own human nature as well as that of the universe' (ibid.). As a matter of fact, Chrysippus' conception of the *telos* would not make any sense had he not given at least a preliminary account of cosmic nature, and its relation to human nature, and what he means by 'what happens by nature' (*τὰ φύσει συμβαίνοντα*).

But anyone entirely opposed to the cosmic or theological perspective in ethics ought to make a similar but even more obvious point about psychology. For on this line of interpretation a Stoic would not be entitled to make use of issues pertaining to physics in the ethical part of the curriculum, and yet, just like cosmology and theology, psychology too was a subdiscipline of physics,¹⁰ and I cannot see how one could give a coherent account of Stoic ethics

not say that Stoic ethics can be expounded without reference to cosmic nature. See Brunschwig, 'Book-Title', 95.

⁹ Plut. *Stoic. repugn.* 1035 B, trans. Cherniss. Cf. Brunschwig, 'Book-Title', 91 ff.; Annas, *Morality*, 163 ff.

¹⁰ See e.g. the articulation of topics at D.L. 7. 156–7: the treatment of the nature of the soul comes after the discussion of meteorology and geography.

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without making reference to some basic notions of Stoic doctrine on developmental and cognitive psychology.

Nevertheless, Brunschwig's argument points to a genuine difficulty. If physics is posterior to ethics, how could Chrysippus base his ethics on physics? In a way, Plutarch is right in objecting that Chrysippus would need to put his physics first if he wanted to build his ethics upon it.¹¹ There might be a way out, however, and the clue seems to be offered by Brunschwig himself in the same paper. For he shows convincingly that Chrysippus used a dialectical method in ethics and that he even wrote a book in order to defend this methodology.¹² It seems entirely reasonable for him to have avoided the above-mentioned circularity between physics and ethics by providing a preparatory delineation via a dialectical discussion of the matter.¹³ The title of Chrysippus' work, *On Ends*, I suggest, reinforces this hypothesis, for it speaks of *telē* in the plural, so was presumably not only about Chrysippus' own conception of *telos*. In such a work, it would be more than appropriate to refer also to previous discussions of the moral end. Indeed, Cooper

¹¹ Indeed, as Jacques Brunschwig himself has pointed out to me *per litt.*, one should not take the borders between the different parts or *eidē* of philosophy too rigidly when speaking about the pedagogical exposition of the doctrine. Moreover, D.L. 7. 40 explicitly contradicts Plutarch's assertion about Chrysippus: 'Others, however, give the first place [in their curriculum] to logic, second to physics, and third to ethics; among those who do so are Zeno in his *On exposition* [*Περὶ λόγον*], and Chrysippus, Archedemus, and Eudromus.'

¹² Brunschwig, 'Book-Title', with reference to Chrysippus' book title *On the Fact that the Ancients Admitted Dialectic along with Demonstrations*, and to Zeno [of Tarsus], two books listed in Diogenes Laertius' catalogue of Chrysippus' works (D.L. 7. 201). J. Barnes, 'Aristotle and Stoic Logic', in K. Ierodiakonou (ed.), *Topics in Stoic Philosophy* (Oxford, 1999), 23–54 at 32 n. 21, translates the title differently: *That the Ancients Admitted Dialectic as a Reputable Subject* (along with proofs of this fact). But why would Chrysippus add formal proofs to the fact that the ancients admitted dialectic as a reputable subject?

¹³ It is true, as Gisela Striker has pointed out to me, that 'dialectic' in Chrysippus' book title can also mean formal logic and not arguing from merely plausible or generally accepted premisses. But then, what would be the force of the '*along with demonstrations*' (*σὺν ταῖς ἀποδείξεσι*) clause? But if one does not want to build so much upon a single book title, one can refer to the Aristotelian (or for that matter, Platonic) distinction between the way to and from first principles. The fact that ethics is founded on physics or theology does not mean that these subjects should be taught first. Quite the contrary, if one follows the Aristotelian methodology, teaching, as well as investigation, has to start from what is familiar to the learner. So, if the first principles in the strong sense come from physics, it is good didactic practice not to start from there, because the beginner would not be able to follow. It still does not mean, however, that some endoxic, provisional presentation of physics and theology cannot be part of the ethical phase of the curriculum.

has raised the possibility that Plato's *Timaeus*, for example, could have figured in Chrysippus' dialectical preparatory discussions of ethical doctrines.¹⁴ Annas in her reply dismisses this possibility on the grounds that there is no trace of a Stoic treatment of the *Timaeus* in such a context; moreover, we cannot find 'any attempt to show how this or similar material could be relevant to the development of the actual ethical discussion'.¹⁵

In what follows, I shall argue for the relevance of a passage at the end of Plato's *Timaeus* for Chrysippus' theory of *telos*. My strategy will be as follows. First I shall briefly examine the passage in question. I shall turn second to the early Stoic theory of the *telos*. Then, in a third move, I shall explore the hypothesis that there is an important structural and probably historical connection between the Platonic and the Chrysippean theories. I shall argue that Chrysippus could work out quite a few of his own ideas on the subject through a dialectical discussion of the *Timaeus*' concept of *telos*, but without putting all his cards on the table, and thus that he could leave the full account of his psychology, physics, and theology to the subsequent stage of his teaching. Finally, I shall point out via a parallel analysis that, despite the strong correspondences, the most significant difference between the Platonic and the Stoic positions lies in the cognitive content of the cosmological knowledge required for achieving the *telos*.

II

The internal conditions of a good life constitute the central topic of many Platonic dialogues and in different texts Plato comes up with varied but closely connected answers. It is relatively rarely remarked that the *Timaeus* also makes an important contribution to this question. Before concluding his long monologue on the constitution of the cosmos and the human body, Timaeus affirms that *eudaimonia* stems from the observation of the movement of the celestial bodies. No doubt most of us would find it pleasant to lie down on the sand of a Mediterranean beach on a clear summer night and watch as the stars slowly travel above our heads. But Timaeus

¹⁴ Cooper, 'Comments', 597.

¹⁵ J. Annas, 'Reply to Cooper' ['Reply'], *Philosophy and Phenomenological Research*, 55 (1995), 599–610, at 605.

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is not speaking about such passing moments of soothing calm and silent joy. He is not speaking about some kind of *hēdonē*, but about *eudaimonia*, the 'good life'. How can a good life be grounded on the observation of celestial movements? It will be useful to quote the relevant passage of the *Timaeus in extenso*:

Hence if someone has devoted all his interest and energy to his appetites or to competition, all his beliefs must necessarily be mortal ones, and altogether, so far as it is possible to become *par excellence* mortal, he will not fall the least bit short of this, because it is the mortal part of himself that he has developed. But if someone has committed himself entirely to learning and to true wisdom, and it is these among the things at his disposal that he has most practised, he must necessarily have immortal and divine wisdom, provided that he gets a grasp on truth. And so far as it is possible for human nature to have a share in immortality, he will not in any degree lack this. And because he always takes care of that which is divine, and has the *daimōn* that lives with him well ordered [*εὖ κεκοσμημένον τὸν δαίμονα*], he will be supremely happy [*εὐδαίμονα*]. Now for everybody there is one way to care for every part, and that is to grant to each part its own proper nourishments and motions. For the divine element in us, the motions which are akin to it are the thoughts and revolutions of the whole world. Everyone should take a lead from these. We should correct the corrupted revolutions in our head concerned with becoming by learning the harmonies and revolutions of the whole world, and so make the thinking subject resemble the object of its thought, in accordance with its ancient nature; and by creating this resemblance, bring to fulfilment [*τέλος*] the best life offered by gods to mankind for present and future time. (*Tim.* 90 B 1–D 7, trans. Sedley)

Many key elements of this passage are familiar Platonic concepts. More specifically, it is a central feature of Socratic and Platonic ethics that the good and virtuous life is explained not so much in terms of actions and decisions or wealth, health, and fame, but as a particular psychological and epistemological condition. What makes the *Timaeus*' description nevertheless unusual, at least in the Platonic context, is its cosmological turn. To be sure, the distinctive topic of the dialogue makes all this quite appropriate. But in order to develop this cosmological account of *eudaimonia*, Plato has to introduce a particular psychological and astronomical theory according to which there is a close structural and functional correspondence between the rational part of the individual soul, on the one hand, and the world soul, which is responsible for the movements of the heavenly bodies, on the other hand.

Timaeus in the first part of his speech explains that the Demiurge first produced the two circles of the world soul, which are made responsible for the movements of the fixed stars and the planets respectively. Then from the residue of the same mixture, already less pure in quality, and applying the same complex mathematical structure, he fashioned the rational part of the individual human soul. In this way, Timaeus assures a basic kinship and isomorphism between the rational part of the individual soul and the cosmic world soul. There is an important difference, however. The circles of the world soul always revolve in a harmonious and regulated manner, whereas the circles of the human soul get confused and stirred up by the impressions reaching the soul at and after the birth of the individual. Nevertheless, if one concentrates one's intellectual efforts on the celestial motions, the circles of one's soul can emulate their heavenly archetypes and thus regain their orderly and harmonious movements. And this harmony in our heads is the psychological condition of the *telos*, the goal and fulfilment of human life. According to the etymological explanation offered by Timaeus in the passage quoted, we shall have a good life, become *eudaimōn*, when our *daimōn*, the divine part in us, i.e. our rational soul, is well ordered, *eu kekasmēmenon*.

This reasoning can be seen as a novel formulation of the third argument for the immortality of the soul in the *Phaedo*, known as the 'affinity argument' (*Phaedo* 78 B–80 B). Socrates argues there that the human soul is a middle term between non-composite, immortal, and divine beings on the one hand, and composite and hence destructible physical things, on the other hand. He also adds the important qualification that the soul's original nature is closer to the divine than to the physical, but that the soul becomes like what it is constantly occupied with. If one cares most for what is bodily, and is thus filled with bodily desires and pleasures, then one's soul gets permeated with the bodily, and becomes like it. If, by contrast, one spends most of one's time studying the divine, intelligible Forms, then one's soul becomes as pure as possible, and reaches an ideal, divine state at death. The argument is built on two premisses: first, on the idea, perhaps Pythagorean in origin, that the goal of human life is 'becoming like god' (*homoiōsis theōi*), and, second, on the epistemological doctrine, operative also in Aristotle, according to which the knower becomes like the known.

The passage quoted from the *Timaeus* echoes the *Phaedo* closely.

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The argument is built, once again, on the premiss that the knower becomes like the known. Moreover, it also conceives the goal of human life as the perfection of the soul by means of becoming similar to something kindred but superior and divine.¹⁶ None the less, the argument in the *Timaeus* differs from the *Phaedo* in at least two notable points.

First, the non-composite nature of the soul is a crucial assumption in the *Phaedo*'s argument, whereas *Timaeus* speaks about three distinct parts of the human soul in accordance with Plato's later psychology. In the *Timaeus*, the three parts of the soul are even allotted different anatomical locations. In this model not the soul as such, but only the rational part of the soul, located in the head, can become like its divine archetype. Moreover, even the rational soul itself is a composite entity: a compound of six different components, structured into two circles.

Second, and more important, the *Timaeus* has the claim—starting in a Platonic context—that the divine relative of the soul, on which it should focus its attention, and to which it should assimilate itself, is not the transcendent Forms, but the immanent world soul.¹⁷ Even if the eternal paradigms are less prominent in this dialogue, they are certainly there, and have their role both in the ontology and in the cosmogonical narrative.¹⁸ Had he wanted to, Plato would surely have been able to devise a way to restate in the *Timaeus* that one should study the eternal paradigms and get order in one's soul by emulating the paradigmatic beings. But *Timaeus* urges us instead to observe the movement of the heavenly bodies and thus become like the immanent cosmic world soul.¹⁹ Quite

¹⁶ The *locus classicus* for the Platonic version of 'becoming like god so far as is possible' is *Theaet.* 176 A–B. Many Middle Platonists considered this to be the Platonic *telos*. Cf. the helpful long note in C. Lévy, *Cicero Academicus: Recherches sur les Académiques et sur la philosophie cicéronienne* [Cicero] (Rome, 1992), 341–2 n. 17.

¹⁷ The world soul is said to envelop the physical cosmos also from the outside. This feature, however, does not make it transcendent: it is still the soul of the physical organism which is the cosmos.

¹⁸ This is the feature of the dialogue that caused so much concern for Owen. See G. E. L. Owen, 'The Place of the *Timaeus* in Plato's Dialogues', *Classical Quarterly*, NS 3 (1953), 77–95, repr. in R. E. Allen (ed.), *Studies on Plato's Metaphysics* (London, 1965), 313–38, and in G. E. L. Owen, *Logic, Science and Dialectic*, ed. M. Nussbaum (Ithaca, 1986), 65–84.

¹⁹ It is interesting to note, without unduly pressing the point, that the *Theaetetus*' account of 'becoming like god' is also largely cosmological. The philosopher described there is mainly concerned with 'geometrizing upon earth' and 'astronomiz-

notably, Timaeus also calls the world divine and a 'god' (34 B). By making the world and the world soul divine, he can arrive at a cosmological formulation of the Pythagorean normative programme of 'becoming like god', whereas by his distinctive psychological theory he can at the same time give a cosmological interpretation of the Socratic normative programme of the 'care for the soul'.

The third difference between the *Phaedo* and the *Timaeus* is that although the mediating position of the soul between the divine and the physical is retained in the latter dialogue, it gets articulated in a more complex manner. The soul's mediating position is assured already by its ingredients. As mentioned above, the soul is composed of the two kinds of the three supreme genera; one kind of each is indivisible and changeless like the Forms, whereas the other kind is divisible and related to the physical realm. In this way, the substance of the soul already contains the fundamental ontological categories of both spheres of the world, whatever this rather metaphorical language about the mixture of the supreme genera might actually mean. But with the introduction of the world soul the human soul's upward connection has become twofold. The human soul is related to the Forms owing to its indivisible ingredient; yet it is also related, and even more closely, to the world soul with which it shares both its substance and structure. The human soul is made of less pure ingredients and its structure gets corrupted, but it still remains a close relative of the world soul. A question to which we shall have to return later is whether the human soul first has to attain knowledge of the world soul in order to get acquainted with Forms, or whether there are two independent ways upwards, one directed towards the world soul, the other going directly to the Forms.

In any case, Timaeus at the end of the passage quoted affirms that we can reach the *telos*, the fulfilment or goal of human life, if we get the movements of the rational part of our soul back into order and harmony by studying and hence internalizing the harmony of the celestial revolutions. Arguably, this is the first technical formulation

ing in the heavens', and the personification of this ideal is the anecdotal star-gazing Thales, who falls into the well. Of course, the Forms as such are missing from the *Theaetetus*. But Alcinous, *Didasc.* 28. 3, gives theoretical content to this point when he says that 'The end would be likening oneself to god—by which we mean, obviously, the god in the heavens, not, by Zeus, the God above the heavens, who does not possess virtue, being superior to this' (trans. Dillon, modified). On Alcinous' interpretation see J. Annas, *Platonics Ethics, Old and New* (Ithaca, 1999), 64–5.

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of the *telos* of the good human life;²⁰ a theme which would become the central concern of ethics for Aristotle and the Hellenistic philosophers. In what follows, I shall argue that the importance of the *Timaeus* passage goes far beyond this terminological point, and is a formative element in the Stoic theory of the *telos*. So let me now turn to that theory.

III

Eudaimonia conceived as the *telos*, the goal or fulfilment of human life, is inseparable from rationality and virtue in the Stoic system: *eudaimonia* is primarily the state of the perfectly rational and virtuous wise person.²¹ The process that leads up to this condition is initiated by *oikeiōsis*, which can be schematically summarized as follows. Every animal from the earliest phases of its life has a natural tendency to self-love and self-preservation. It selects those things that are helpful to the preservation of its existence, and avoids those that are harmful.²² In the same way, a human being's primary impulse is to promote the preservation of his or her constitution (*syntaxis*). But owing to a primary form of reflection, one comes to the awareness that one's actions and the comparable actions of animals show a distinct pattern. By the observation of these behavioural patterns, one realizes that the choices of man and other animals are not governed by chance; the natural inclinations and actions of a living being are all oriented towards the preservation of the living being's existence. Thus one understands that the nature

²⁰ So D. Sedley, "‘Becoming Like God’ in the *Timaeus* and Aristotle" [‘Becoming’], in T. Calvo and L. Brisson (eds.), *Interpreting the Timaeus–Critias* (Sankt Augustin, 1997), 327–40 at 333, revised as ‘The Ideal of Godlikeness’ [‘Godlikeness’], in G. Fine (ed.), *Plato 2: Ethics, Politics, Religion, and the Soul* (Oxford, 1999), 309–28 at 321. The passage certainly does not explicitly contain the Aristotelian characterization underlying the Hellenistic discussion of the topic: ‘for the sake of which everything is done’ and ‘what is itself done for the sake of nothing else’. It nevertheless connects the *telos*, *eudaimonia*, and the best possible life in a way characteristic of the later debates about the *telos*. And this certainly could give enough warrant for later Platonists to treat it as the Platonic definition of the *telos*.

²¹ e.g. D. L. 7. 87–89; Cic. *Tusc.* 5. 40 ff.; Epict. *Disc.* 1. 6. 12 ff.; Sen. *Ep.* 79. 9–10.

²² D. L. 7. 85 ff. and Cic. *Fin.* 3. 16–17. On the role of the ‘cradle argument’ in Hellenistic ethical theory see J. Brunschwig, ‘The Cradle Argument in Epicureanism and Stoicism’, in M. Schofield and G. Striker (eds.), *The Norms of Nature* (Cambridge and Paris, 1986), 113–44.

of a living being is such that its primary impulses (*hormai*) promote self-preservation. In this way one becomes conscious of the fact that the natural behaviour of animals and men not only fits into a systematic pattern but is also rationally explicable.²³

The story takes a fairly counter-intuitive turn at the next stage. The Stoics claim that what the person on the path towards wisdom realizes is not that our first impulses promoting self-preservation are good, as the naturalist would hold. The Stoics maintain instead that the person apprehends 'through insight and reasoning' (*cogitatione et ratione*: Cic. *Fin.* 3. 21) that individual beings, including him- or herself, are actually unimportant. The only genuine good is the all-embracing rational, harmonious, and providential nature the workings of which are manifested also in the rationally explicable actions of animals and the rational actions of humans, and all those things which he or she previously valued are at a completely different, lower order of value.²⁴ This is the insight that makes one wise, because from this moment onwards one will consider cosmic nature, this rational and providential system recognized as the only genuine good in the strict Stoic sense, as the ultimate reference point for one's actions. Only on the basis of this insight can one's actions and considerations be in agreement with the rational nature governing the cosmos, and, according to the Stoics, this is what makes one's life a rational, virtuous, and good life.²⁵

To the standard exposition of *eudaimonia*, we might add an alternative account, which is clearly of interest to our present discussion. In Cicero's *On the Nature of the Gods*, towards the end of the extended exposition of the Stoic arguments (or rather examples) for teleology in nature, Balbus says the following:

Then again, has not our human reason [*ratio*] advanced to the skies? Alone of living creatures we know the risings, settings, and courses of the stars.

²³ I have left out here some important moments of *oikeiōsis*, such as interpersonal relations, for they are not immediately relevant to my present argument.

²⁴ The Stoics try to emphasize this also by distinguishing selection (*ἐκλογή*) which aims at things 'in accordance with nature', on the one hand, and choice (*αἵρεσις*), which aims at genuine goods, on the other.

²⁵ The main source of the reconstruction is Cic. *Fin.* 3. 16–26, together with D.L. 7. 84–131. For a critical analysis of the theory and its individual steps see e.g. S. G. Pembroke, 'Oikeiosis', in A. A. Long (ed.), *Problems in Stoicism* (London, 1971), 114–49; White, 'Basis'; Engberg-Pedersen, 'Discovering'; G. Striker, 'The Role of *Oikeiosis* in Stoic Ethics', *Oxford Studies in Ancient Philosophy*, 1 (1983), 145–67, repr. in Striker, *Essays*, 281–97; and Striker, 'Following'. Obviously, Annas would question the relevance of the points made in the last two sentences.

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The human race has laid down the limits of the day, the month, the year; they have come to recognize eclipses of the sun and moon, and have foretold the extent and the date of each occurrence of them for all days to come. Such observation of the heavens allows the mind to attain knowledge of the gods, and this gives rise to religious devotion [*pietas*], with which justice and the other virtues are closely linked. These virtues are the basis of the blessed life [*vita beata*] which is equivalent and analogous to that enjoyed by the gods; it yields to them only in their immortality, which has no relevance to the good life. (Cic. *ND* 2. 153, trans. Walsh)

Even though the text is encomiastic rather than argumentative, its general thrust is more or less clear. It seems to echo the *Timaeus* from a distinctively Stoic perspective. It follows Plato on some crucial points, but nevertheless voices some disagreements. It concurs with Plato on the fundamental point that the understanding of the periodicity of the heavenly revolutions leads to a good life, analogous to that of the gods. But while this process evolves through mathematics and philosophy in Plato—as we shall see later—the Stoic account, at least partly owing to the specific subject of the *On the Nature of the Gods*, takes theology and religious feeling to be the intermediate step. Moreover, the good life is tantamount to the highest attainable form of immortality for Plato in both the *Phaedo* and the *Timaeus*, whereas Balbus finds it important to point out that immortality has nothing to do with a good life for a human being. As individual immortality is ruled out in the standard Stoic doctrine, Balbus' point about immortality reinforces the feeling that this passage contains a critical reflection on the Platonic position.

IV

A salient feature of the Stoic discussion of *telos* is that the different definitions and formulations offered by the successive generations of Stoic philosophers show both a high level of coherence, and at the same time a surprising amount of variety.²⁶ The different doxographical accounts are a little confusing, but they certainly show that this double movement involving basic agreement and a considerable measure of disagreement had been a characteristic feature right from the start.

²⁶ The best general discussion of the differences and the underlying unity is in Striker, 'Following'.

The most authoritative account is provided by Diogenes Laertius (7. 87–9). According to this account, first Zeno defined the good for a human being as ‘living in agreement with nature’. In this definition, he took his starting point from rationality conceived as particular human nature. Then, in a second move, Cleanthes shifted the emphasis to the role universal, cosmic nature should have in building up a good human life. Finally, Chrysippus placed the accent on the appropriate relationship between universal, cosmic nature and particular, human nature.²⁷

When Chrysippus shifted attention to the relationship between the cosmic rational principle and human rationality, he explained the genuine meaning of *eudaimonia* by a reference to one’s *daimōn* which, in the context, means one’s governing soul. He said that

living in agreement with nature comes to be the goal, which is in accordance with the nature of oneself and that of the whole, engaging in no activity wont to be forbidden by the universal law, which is the right reason pervading everything and identical to Zeus, who is the director of the administration of existing things. And the virtue of the happy man [*eudaimōn*] and his good flow of life are just this: always doing everything on the basis of the concordance (*συμφωνία*) of each man’s *daimōn* with the will of the administrator of the whole. (D.L. 7. 88)

Speaking about that which on the side of man should be in concordance with the universal rational agent, the text uses the word *daimōn*. John M. Rist in his classic book *Stoic Philosophy* offers a detailed argument to show that Chrysippus is unlikely to have used this expression in referring to the human *hēgemonikon*, the governing part of the soul. Instead, Rist maintains, Chrysippus must have spoken of a ‘guardian spirit’ that oversees the actions of a human being *from the outside*.²⁸ But this, I submit, does not quite con-

²⁷ For an alternative account of the same story see Stob. ii. 75. 11–76. 8 WH. According to this version there had not in fact been any substantive disagreement between the three founding fathers of Stoicism, only an effort to find a more fitting wording for the very same notion. As this account goes, Zeno’s original formula was ‘living consistently’ (*ὁμολογουμένως ζῆν*), but his disciples found this wording not sufficiently explicit. Cleanthes therefore inserted the specification *τῇ φύσει*; and this is how we get the formula ‘living in agreement with nature’, which then became the standard Stoic definition of *telos*. The language of the passage makes it clear, however, that in Stobaeus’ view Cleanthes did not intend to change the meaning of Zeno’s formula, and that the other members of the school did not take this as a substantive modification either. On the improbability of the story about the ‘incomplete formula’, see Striker, ‘Following’, 223.

²⁸ J. M. Rist, *Stoic Philosophy* (Cambridge, 1969), 262 ff.

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vince. On Rist's interpretation, Chrysippus first posited a guardian spirit for each person, then assumed a concordance between individual guardian spirits and the *hēgemonikon* of the cosmos, and finally stated that happiness comes when one acts according to the concordance between one's guardian spirit and the *hēgemonikon* of the cosmos. The introduction of such an overseeing 'guardian spirit' is clearly superfluous, causing an unwanted complication in the scheme and an unnecessary mediation in the relationship between individual human nature and cosmic nature, which is after all the focal point of Chrysippus' view. Moreover, apart from a passing and inconclusive reference in Plutarch (*De Iside* 360 E), we have no other evidence to suggest that Chrysippus, or any other early Stoic, was interested in *daimones*, taken in the sense of guardian spirits. It would then indeed be strange if Chrysippus had built his theory of the *telos* on such guardian spirits. It is therefore more reasonable to assume that the word *daimōn* refers to the rational soul, or perhaps the *hēgemonikon* of man, which is in fact a constitutive factor in the Stoic account of *telos*.

If, on the other hand, we accept that the word *daimōn* refers in this passage to (some aspect of) the rational, individual soul, then we have to tackle the question: why does it figure in this context even though it was not part of Chrysippus' technical psychological vocabulary? Of course, the etymology of *eudaimonia* is so transparent in Greek that it does not require any external allusion to be connected with one's *daimōn*. Or, one could argue, Chrysippus may be referring to Xenocrates' formulation of *eudaimonia*: 'happy [*eudaimōn*] is the one who has a virtuous [*spoudaia*] soul; for this [i.e. the soul] is each man's *daimōn*' (Arist. *Top.* 112^a36–8 = fr. 236 IP). Yet the most economical answer, suggested recently by some scholars,²⁹ is that the text is alluding here to the passage we have quoted from Plato's *Timaeus*. For Chrysippus' specific emphasis is on the central role the connection and *harmonia* between one's rationality (called here one's *daimōn*) and the governing principle of the cosmos must play in achieving *eudaimonia*—and this is exactly what the *Timaeus* passage is about.

²⁹ R. Goulet in the recent French translation of Diogenes Laertius gives the reference to the *Timaeus* passage in a footnote, whereas G. Reydam-Schils in her book on Stoic and later Platonic readings of the *Timaeus* provides a helpful discussion of the assumed echo of the *Timaeus* from the point of view of the analogy between human and divine (G. Reydam-Schils, *Demiurge and Providence: Stoic and Platonic Readings of Plato's Timaeus [Demiurge and Providence]* (Turnhout, 1999), 69–70).

The text in Diogenes Laertius is usually treated as a genuine fragment (or close paraphrase) of Chrysippus. This would be most remarkable for our point of view, because it would show that Chrysippus acknowledged via this allusion a basic point of convergence between the *Timaeus*' conception of *eudaimonia* and *telos* and his own position. But the wording is remarkable even if we take the more sceptical stance according to which Diogenes Laertius only records a synthesized account of the Stoic position on the *telos*, with occasional references to the individual views. In this case, one could argue, the specific formulation ascribed to Chrysippus might be no more than a paraphrase offered by Diogenes' sources.³⁰ Yet Diogenes' source is well informed and non-polemical.³¹ Thus even if the specific wording and the allusion to the *Timaeus* are not due to Chrysippus, it may still well encapsulate the gist of Chrysippus' tenet on *eudaimonia*, and show that it is comparable to the Platonic position.³² In what follows, I shall examine this question more closely, and try to show that Chrysippus had good reason, even from a generally anti-Platonic Stoic standpoint, to assimilate some important aspects of the Platonic stance in developing his own theory of *telos*.

³⁰ As David Sedley has reminded me, the formula is not expressly attributed to Chrysippus in Diogenes' text. The reason why it is commonly, and as I see it plausibly, treated as Chrysippean appears to me as follows. Formally, the sentences I have quoted above are presented as parts of the argument developing the formula 'to live according to one's experience of what happens by nature'. The connection is made by a *γάρ* followed by a *διόπερ*. Moreover, at the beginning of 7. 89 Diogenes comes back to the claim that the nature with which one should live in accordance is both universal nature and the nature of man—the claim that opened the testimony I have quoted. But this time Diogenes explicitly identifies this position as being that of Chrysippus, also in order to distinguish it from the stance of Cleanthes, who had spoken exclusively about universal nature.

³¹ So e.g. Inwood, 'Review of Annas', 654.

³² The most likely candidate for such a well-informed and sympathetic source, who could be made liable for a Platonizing rendering of Chrysippus, is Posidonius. Yet Posidonius, as reported by Galen, referred to the *Timaeus* passage in his polemics *against* Chrysippus (on which see below). It seems unlikely to me that Posidonius first rephrased Chrysippus' position sympathetically but from a Platonizing point of view—this would be recorded by Diogenes Laertius—and then criticized it from the same Platonizing perspective—which would be recorded by Galen. It seems more probable, I believe, that Posidonius wanted to offer a corrective to the Chrysippean appropriation of the *Timaeus* by pointing out that Chrysippus could not take Plato's point correctly because of his mistaken unitary psychology.

V

The above short quotations and brief summaries already indicate that there are significant points of contact between the Platonic and the Stoic accounts, especially in the version of the latter offered by Chrysippus. Indeed, several features of the *Timaeus* could make this text particularly interesting for the Stoics in general, and Chrysippus in particular. The Stoics' main claim about the world concerns its rationality and teleological organization. Now from the whole Platonic corpus, and indeed from the entire pre-Stoic literature, the *Timaeus* is the work that argues for the rationality and teleological organization of the cosmos in the most comprehensive and detailed manner. That feature in itself must guarantee a Stoic interest in this particular Platonic text. This must hold even more strongly for Chrysippus, who had the most serious interest in physics among the early Stoics. As a matter of fact, we have a few fragments of Chrysippus in which he alludes to or criticizes different parts of the *Timaeus*.³³

Besides, it must be of utmost importance for the Stoics that Plato in this dialogue found at last something immanent to be valued. For, as is well known, what the materialist Stoics disliked most about Plato was his theory of Forms. And this is the point where the difference with the *Phaedo* becomes significant. In the *Timaeus*, as mentioned above, the divine object that one has to occupy oneself with and that one should become like is the cosmic world soul, and

³³ This we can see, for example, in his argument for the self-sufficiency of the cosmos, which echoes *Tim.* 33 c (Plut. *Stoic. repugn.* 1052 D (= *SVF* ii. 604), a quotation from Chrysippus' book *On Providence*), the argument for the best cosmological structure from the goodness of the god, which touches upon *Tim.* 29 D, and the argument for the teleological nature of human anatomy from the relative thinness of the bones of the skull, alluding to *Tim.* 75 A–B (Gellius 7. 1. 7 (= *SVF* ii. 1170), a quotation from the fourth book of Chrysippus' *On Providence*). He is, however, more than ready to refer to Plato by name when it comes to criticism. This is what he does, for example, in his *Physical Propositions*, where he objects to the *Timaeus*' account of nourishment (Plut. *Stoic. repugn.* 1047 c (= *SVF* ii. 763), with reference to *Tim.* 70 c and 91 A.). When discussing Chrysippus' possible appropriation of the *Timaeus*, one should also note that even though the *Timaeus* was apparently a key text in the Academy up to the generation of Polemo, it became considerably less prominent with the advent of the sceptical Academy because it could be considered a 'dogmatic' dialogue. If so, it had become something like a 'free' text by the time of Chrysippus—a text that could be used by a Stoic, perhaps even against the Academic sceptics.

not the transcendent Forms. This in itself should turn the Stoics' attention towards the *Timaeus*.

But the correspondences go considerably deeper. Let me give a brief analysis by highlighting eight notable points.

(1) A divine rationality permeates the entire cosmos, and the functioning of the cosmos is determined by this rationality. In the *Timaeus*, this divine rationality is the Demiurge and the world soul, whereas in the Stoic system it is the active principle, also known as god or Zeus.³⁴ It is worth noting that the action of the world soul in the *Timaeus* is not limited to the celestial sphere. Plato's speaker emphasizes that 'The soul was woven together with the body from the centre on out in every direction to the outermost limit of the universe' (36 E). Besides, Timaeus seems to endorse the tenet developed in the *Phaedrus*, and argued more extensively in the tenth book of the *Laws*, that the soul is the source of movement. If so, the action of the world soul cannot be restricted to the self-contained realm of celestial revolutions.³⁵ On the other hand, even though the Stoic active principle completely permeates the cosmos, it manifests itself in its most divine and rational form in the heavenly bodies and their motions.³⁶ Chrysippus explicitly claimed that the governing part, *hēgemonikon*, of the cosmic active principle is the aether concentrated in the celestial region.³⁷

(2) The rationality of the cosmos is at the same time the guarantee of its goodness: the cosmos is good because it is structured rationally

³⁴ On the important structural and possibly also historical connections between the Platonic world soul and the Stoic active principle, see D. Sedley, 'The Origins of Stoic God' ['Origins'], in D. Frede and A. Laks (eds.), *Traditions of Theology* (Leiden, 2002), 41–83.

³⁵ The *Timaeus* is admittedly less explicit on this point. Moreover, the description of the pre-cosmic irregular motion of the *χώρα* raises the possibility that sublunary motions at least partly originate from the erratic motions of the *χώρα*, somehow regulated by the diacosmic activity of the Demiurge. Plutarch attempted to harmonize the two theories by bringing in important and relevant points from *Laws* 896 D–898 C and the myth of the *Politicus*. He ultimately claims that soul, before receiving a rational structure, is responsible for the chaotic motions of the *χώρα* (*Anim. procr.* 1013 E ff.); the hypothesis is ingenious, and certainly able to solve some problems, but at the same time it creates some formidable difficulties.

³⁶ See e.g. the summary of Chrysippus' position in Cic. *ND* 1. 39 and 2. 36 ff.

³⁷ There is some uncertainty as to the exact physical identification of the governing part of the cosmic reason. According to D.L. 7. 139 (= *SVF* ii. 194. 15), the cosmic *hēgemonikon* is the sky, whereas according to Arius Didymus fr. 29, it is the *aithēr*, and according to D.L. 7. 1, it is the purest part of the *aithēr* (see *SVF* ii. 634, 642, 644). Cf. e.g. E. Bréhier, *Chrysippe et l'ancien stoïcisme* [*Chrysippe*], 2nd edn. (Paris, 1951), 148 n. 2; J. B. Gould, *The Philosophy of Chrysippus* (Leiden, 1971), 122.

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and functions rationally. And we appreciate its goodness through the realization of its rational structure and functioning. There is no denying that, in the *Timaeus*, the rational structure of the world is primarily due to the cosmogonical activity of the Demiurge. It is no accident, however, that the Demiurge and the world soul got fused into each other at a very early stage of the reception of the *Timaeus*; it is highly likely that these two principles got merged not only by the Middle Platonists, but already in the interpretations advanced by the immediate disciples of Plato.³⁸ Moreover, the Stoic active principle might, as David Sedley has argued in a recent paper ('Origins'), historically be an heir to the Academic merging of the Demiurge and the world soul, via the connection between the Academic Polemo and Zeno, the founder of the Stoic school.

(3) Rationality is the distinctive feature of man. Rationality also puts man into a privileged position with respect to the cosmos, and the organizing faculty of the cosmos. Owing to this feature, man, or rather man's rationality, is not simply a part of the cosmos taken as a whole, but also a whole on its own; a microcosm which mirrors the macrocosm. This relation is manifest in the *Timaeus* through the supposed isomorphism between the world soul and the individual rational soul. But we find the same idea expressed in another form in the Stoic tenet that only the cosmic nature and the entirely rational and virtuous actions of the wise person are good in a strict sense. Thus, human rationality is the only element of the world which is not only subsumed as a part of cosmic rationality, but which can itself reproduce and imitate the rationality and goodness of cosmic nature.³⁹ It is worth noting in this respect that, according to the Stoics, the good in the strict sense does not show degrees. If the actions of the wise person are good, they are good in the same sense as the cosmic nature.

³⁸ This development is probably the outcome of an effort to harmonize the more complex theory of principles of the *Timaeus* with the dualistic scheme of Plato's 'unwritten doctrines'. Cf. the testimony in Theophrastus fr. 230 FHS&G (=Simpl. *In Phys.* 26. 7–15 Diels) with comments in Sedley, 'Origins'.

³⁹ Cf. D.L. 7. 87; Cic. *Fin.* 3. 63 ff.; *ND* 2. 37. On the individual mirroring cosmic rationality, see G. B. Kerferd, 'What Does the Wise Man Know?' ['Wise Man'], in J. M. Rist (ed.), *The Stoics* (Berkeley and Los Angeles, 1978), 125–36 at 132; White, 'Role', 68. It is also significant that according to Cic. *ND* 2. 16, Chrysippus argued for the rationality of the cosmos from human rationality. See also B. Inwood, 'Stoic Ethics (Parts I–VII)', in K. Algra, J. Barnes, J. Mansfeld, and M. Schofield (eds.), *The Cambridge History of Hellenistic Philosophy* (Cambridge, 1999), 675–705 at 682–3.

(4) The full realization of the similarity between cosmic rationality and individual rationality does not follow automatically from rationality taken as the distinctive feature of man. Both for Timaeus and for Chrysippus, the correspondence between individual nature and cosmic nature can manifest itself only if the individual actively studies the workings of cosmic nature, and thus becomes aware of its teleological organization, harmony, and rationality. Henceforth, man can emulate and imitate the positive features of cosmic nature by observing it. This idea is put forward explicitly in the *Timaeus* passage quoted above. Cicero informs us that Chrysippus maintained that 'man has emerged for the contemplation and imitation of the universe' (*ND* 2. 37, trans. Walsh). And indeed, this corresponds to the idea behind Chrysippus' *telos* formula according to which the fulfilment of human life is 'to live according to one's experience of what happens by nature' (*D.L.* 7. 87), and thereby become virtuous, rational, and happy.⁴⁰

(5) In accordance with this doctrine, one must have a certain amount of physical and cosmological knowledge in order to attain the goal of human life. But the study of physics is needed not in the interest of acquiring scientific knowledge for its own sake, but because one can understand the rational and teleological nature of the causal structure of cosmic processes only through these physical enquiries. What one needs is not a full account of all natural phenomena, but a clear and well-grounded understanding of those causal principles which manifest themselves in individual phenomena. I shall return to this point at the end of the paper.

(6) The process of understanding and assimilation starts at birth and finishes—at least theoretically—at the complete fulfilment of man's rational potentialities. The most important turning point in this process comes about when one's primary concerns are no longer centred on one's physical needs and the preservation of the self, but are turned towards the cosmic horizons. Notably, both the Platonic and the Stoic account give a description of this process from the moment of birth, in order to mark that step which distinguishes man's development from that of other animals.

(7) The fulfilment of man's internal potentialities through the

⁴⁰ I do not claim that the two Chrysippus fragments are equivalent. But the basic idea expressed in both is that man's crucial cognitive function is reflection on the functioning of cosmic rationality. The major difference between the two fragments is that they focus on different spheres where cosmic rationality manifests itself.

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observation of cosmic nature is at the same time the process through which man becomes like god. The theme of becoming like god is prominent in both the Platonic and the Stoic traditions, even though the polemics between the two schools would at a later stage reveal significant differences in the content and interpretation of this normative principle.⁴¹

(8) The fulfilment of one's rational capacities through the observation of cosmic nature and thereby becoming like god is the ultimate condition of virtue,⁴² and by the same token, of *eudaimonia*, the goal and fulfilment of human life.

Thus, taken as a whole, the *Timaeus* is the text in which Plato tries to explain cosmic *physis* and human *physis* by deriving them from the same rational principle, and by showing that both can be viewed from a moral point of view with reference to the Good.⁴³ And the *Timaeus* is the text in which Plato tries to show that a good life for a human being can be attained by establishing the right relationship between human rationality and cosmic rationality. If Diogenes Laertius' testimony has any claim to truth, this is exactly the gist of Chrysippus' position on the *telos*. And if I am right in maintaining that Chrysippus' *telos* formula as quoted by Diogenes contained a reference to the *Timaeus*, then I think it is reasonable to assume that Chrysippus was thinking about such correspondences between the Platonic and the Stoic positions.

⁴¹ On this point see e.g. Lévy, *Cicero*, 325 ff.

⁴² It is a notorious problem, discussed by ancient and modern interpreters, what kind of virtue might result from becoming like god. Will this divine virtue also contain the lower, civic and political, virtues? Obviously, the Stoic sage will not forget his civic tasks. The question is more complicated in the case of Plato, and the *eudaimōn* of the *Timaeus* does not seem to care much for such things. But we should not forget the dramatic context. 'Timaeus' speech is flanked by Socrates' and Critias' speeches, both predominantly about civic and political virtues; and the three speeches are meant to propose a unified, or at least not contradictory, picture. Moreover, according to Socrates' commendation, Timaeus is not only an expert scientist who has reached the summit of philosophy, but has also had high political functions in his home town (20 A).

⁴³ The moral point of view in the description of the human body has been rightly stressed by C. Steel, 'The Moral Purpose of the Human Body: A Reading of *Timaeus* 69–72', *Phronesis*, 46 (2001), 105–28. I would not, however, follow Steel in claiming that cosmic teleology is basically anthropocentric teleology: what the cosmos as a whole and the constitution of its parts participate in is Good in an absolute sense and not 'Good for man'.

VI

I have discussed thus far the basic correspondences between the *Timaeus* and the Chrysippean position. But there are of course important differences as well. There are two points that I consider particularly important in this respect. I shall speak first about the cosmic and human psychology underlying the respective theories, and shall then return to the question of the extent and content of physical knowledge required for a good life.

Even if Chrysippus retained the basic structural elements of the analogy between cosmic and human rationality, he none the less introduced important modifications in both components of it. First, on the side of the cosmic rationality, the celestial revolutions do not have the same privileged position in the Stoic ethical doctrine as in the *Timaeus*—with the possible exception of the somewhat isolated passage quoted above from Cicero's *On the Nature of the Gods*. This is consistent with the fact that the *Timaeus* conceives rationality and teleology in terms of the mathematical organization of nature, whereas the main characteristic of cosmic rationality for the Stoics is the providential workings of nature. The mathematical structure is most obviously visible in the sphere of the heavenly motions, whereas the providentiality is manifested most noticeably in living beings. What is still common is that both Plato and Chrysippus focus on those phenomena which manifest most clearly the assumed characteristics of the cosmic principle: mathematical structure in the celestial motions, but providentiality in the behaviour of terrestrial living beings.

There is a significant shift with respect to the other constituent of the microcosm–macrocosm analogy as well. For Chrysippus radically objects to the tripartite Platonic psychology;⁴⁴ moreover, he locates the unitary soul not in the head but in the heart. Consequently, the easily visualizable analogy between the spherical world soul and the spherical human rational soul is lost.

A further remarkable feature of the *Timaeus* is that, even though it retains the tripartite psychology and emphasizes the importance of the right balance between the soul and the body of the individual, it concentrates on the rational part of the soul when it finally comes to define the fulfilment of human life in the passage quoted above.

⁴⁴ See e.g. Galen, *De placitis Hipp. et Plat.* 4. 1. 6, p. 000 De Lacy.

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It says, just a Stephanus page earlier, that ‘Indeed, we must give an even higher priority to doing our utmost to make sure that the part that is to do the leading is as superbly and as perfectly as possible fitted for that task’ (*Tim.* 89 D, trans. Zeyl). But in the passage about the *telos* of human life, there is in fact no mention of the lower parts of the soul. In this sense, the *Timaeus* passage viewed in isolation gets once again closer to the *Phaedo* than to the *Republic*, where, consistently with the political perspective on psychology, Plato focuses on the proper relationship between the different parts of the soul. The fact that the *Timaeus* is able to produce an account of *eudaimonia* and the *telos*—at least formally and in a narrower sense—with reference only to the rational part of the soul could certainly make this scheme more palatable for Chrysippus,⁴⁵ since for him one crucial part of the *telos* is perfect rationality, the total overcoming of all those functions which Plato assigns to the two lower parts of the tripartite soul.⁴⁶

It is remarkable that the Platonizing Stoic Posidonius makes an unmistakable reference to our *Timaeus* passage in his discussion of the right interpretation of the Stoic doctrine of *telos*:

The cause of the affections, that is of inconsistency [*ἀνομολογία*] and of unhappiness [*kakodaimonia*], is not to follow in everything the *daimōn* in oneself, which is akin and has a similar nature to the one [sc. *daimōn*] which governs the whole universe, but at times to deviate and be swept along with what is worse and beastlike. Those [sc. Chrysippus and his followers] who have failed to observe this neither give the better explanation for the affections in these things [sc. in the sphere of goods and the *telos*], nor do they hold correct opinions about the good life and consistency. For they do not see that the foremost thing in it [sc. happiness] is to be led in no way by that which is irrational and unhappy [*kakodaimōn*], that is what is godless in the soul. (Posidonius fr. 187 Kidd=Galen, *De placitis Hipp. et Plat.* 5. 469–70, p. 326. 21–7 De Lacy, trans. Kidd, modified)

The fragment is often brought into connection with *Tim.* 90 A–D, but its relation to the *telos* formula ascribed to Chrysippus by

⁴⁵ On Chrysippus’ reception of the *Timaeus*’ psychology, see the discussion in Reydam-Schils, *Demiurge and Providence*, 62 ff.

⁴⁶ I am not considering here the obvious difference between Platonic dualism and Stoic materialism. For an interesting discussion, with special reference to the importance of the psychology of the *Phaedo* for the Stoics, see D. Sedley, ‘Chrysippus on Psychophysical Causality’, in J. Brunschwig and M. Nussbaum (eds.), *Passions and Perceptions: Studies in the Hellenistic Philosophy of Mind* (Cambridge, 1993), 313–31.

Diogenes is often ignored.⁴⁷ Posidonius is arguing here against the monolithic Chrysippean psychology and criticizes the Chrysippean doctrine of the psychological conditions of *eudaimonia* from this perspective. He must have consulted Chrysippus' *On Ends* for this purpose, and—if Diogenes' testimony is correct—read Chrysippus' allusion to the *Timaeus* in the first book of the work. Hence it is more than appropriate for him to criticize Chrysippus' stance by referring to the same passage in Plato in order to point out that Chrysippus could not make good use of the passage because of his mistaken unitarian psychology. From this point of view, it is understandable that Posidonius evokes from the *Timaeus* not the actual passage about *eudaimonia* and the *daimōn* in us, but the slightly earlier one, the one I have just quoted, about the leading position of the rational part over the two other parts of the soul. Posidonius can place against Chrysippus' allusion to that formulation of the same text in which only the rational part of the soul is mentioned this other formulation in which Plato, consistently with the model of the *Republic* and indeed the major thrust of the *Timaeus*, speaks about the right relationship between the three parts of the soul.

VII

Let us now return to our original question: the epistemological conditions of a good life, and the actual knowledge of physics and cosmology required for it. This will turn out to be the basis of the difference between the two theories.

The *Timaeus* is not without ambiguity when it comes to the epistemological status of astronomy and cosmology. On the face of it, empirical astronomy has gained in importance in comparison with the earlier works. The educational curriculum of the Guardians in *Republic* 7 offers a suitable contrast. In the *Republic*, astronomy cannot be in any way treated as providing justice or *eudaimonia*—it is one important step, but certainly not the ultimate step, on the ladder upwards.⁴⁸ It is unlikely, I would maintain, that the *Timaeus*

⁴⁷ Reydam-Schils, *Demiurge and Providence*, 111–15, notes the connection with the Chrysippus passage and gives a suggestive discussion of the Posidonius fragment.

⁴⁸ For a comparison see e.g. G. R. Carone, 'The Ethical Function of Astronomy in Plato's *Timaeus*', in T. Calvo and L. Brisson (eds.), *Interpreting the Timaeus–Critias* (Sankt Augustin, 1997), 341–50; Sedley, 'Becoming' and 'Godlikeness'.

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is meant to overwrite the hierarchy of sciences established in the *Republic*.⁴⁹

One could claim that the emphasis on astronomy should simply be explained by the specific subject matter of the dialogue:⁵⁰ as we are speaking in this dialogue about cosmology, we should also make it clear in what way cosmology can have its share in the care of the soul and in building up a virtuous, rational, and good life. But the text seems to go further than that. The passage at the end of the *Timaeus* seems to maintain that the study of the heavenly revolutions is a valid and indeed *sufficient* means for the care of the soul. And Timaeus makes this claim not only at the end of his speech, but also at another pivotal point. He expresses the very same idea in very similar terms while articulating the two major structural parts of his monologue, in the passage where he gives the teleological explanation of eyesight (47 A–C). Timaeus states there, just as at the end of the dialogue, that we can rearrange the disorderly motions of our rational soul by observing the heavenly motions. Yet in this place he also makes it clear that the study of the motions of the heavenly bodies is not so much an end, but rather a starting point. He claims that the observation of the periodicity of the heavenly revolutions may bring us to the discovery of numbers—i.e. to mathematics—and teaches us the concept of time (*χρόνον έννοια*). And through all this, he says, one can arrive at philosophy, which makes even our present discourse possible.

Taking this remark as our lead, we can say, I think, that astronomical enquiry is not an end in itself, but instrumental in a complex, manifold way. It is instrumental, first, because it can make the circles of the rational human soul orderly via the application of ‘the knower becomes like the known’ principle. Second, the orderliness of one’s rational soul is the condition of the possibility of rational thought as such, and thus of any higher-order enquiry. Third, through the gradual understanding⁵¹ of the periodicity of heavenly motions, one learns the fundamentals of mathematics. If we can assume that the ultimate aim of astronomical enquiry as prescribed by Timaeus is the understanding of the mathematical structure and

⁴⁹ Although it is not without significance that Socrates leaves out the themes of the central books of the *Republic* from the summary of his speech from the day before.

⁵⁰ Cf. Sedley, ‘Becoming’, 337–8~‘Godlikeness’, 326–7.

⁵¹ It is worth mentioning that Timaeus even in the passage about the teleological explanation of sight does not speak about star-gazing, but about learning and understanding. This is especially so at 90 D.

functioning of the world soul, then, I suggest, we get remarkably close to the ideal mathematical studies set forth in the *Republic*. The agent of the *Timaeus* starts from the observation of the heavenly movements, and finally arrives at a highly abstract mathematical structure. This mathematical structure, which determines the underlying structure of physical reality, is governed by proportionalities in which the different mathematical disciplines—astronomy, harmonics, stereometry, geometry, and arithmetic—converge. This is how, at the summit of mathematical studies, the student attains a synoptic view and understands the basic kinship and relatedness of the mathematical disciplines.⁵² Moreover, if one also understands the epistemological functioning of the world soul—that is, how and what the circles of the Same and the Different proclaim when touching different kinds of entities—one understands the principles of dialectic. The Demiurge is good and wanted the physical world to be as good as possible, and this is why he constructed the world soul as the most important of all the entities of the physical world. Thus, even though this is not stated in so many words in the text, if one understands the structure and functioning of the world soul, one understands that which is the most immediate manifestation of the Good in the physical world.

If so, the knowledge required for *eudaimonia* finally turns out to be abstract mathematics and dialectic. This knowledge is, however, achieved in a bottom-up way (or ascension), and therefore presupposes advanced astronomical and mathematical knowledge, and a fair amount of information about the physical world.

Let us see now how the Stoics conceive this matter. A clear grasp on the fundamental causal structure of the cosmos, and thus a fair degree of physics and cosmology, is certainly indispensable for the understanding of the goodness and teleology of the world. It is not entirely obvious, however, whether the Stoic sage is supposed to be able to give a teleological account of each particular phenomenon. Should we expect the sage with his or her perfect rationality to be able to tell us through what causal chain this or that apparent local bad event integrates into the teleology of the whole, and thus turns out to be good or at least neutral? Or is it enough if he or she has

⁵² As has been shown in relation to the Guardians' curriculum in the *Republic* by the brilliant analysis in M. Burnyeat, 'Plato on Why Mathematics is Good for the Soul', *Proceedings of the British Academy*, 103 (2000), 1–81, esp. 64–74.

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acquired such a deep understanding of the goodness and rationality of the whole that he or she can satisfactorily infer from the general principle to the value of the parts? George Kerferd has shown in an important paper ('Wise Man') that, according to the majority of the ancient evidence, we should not expect the sage to possess a detailed knowledge of every part of the cosmos. To this we could add that it is not even clear what is the minimum requirement in physics and cosmology to pass the Stoic comprehensive exam in wisdom.⁵³ We can reasonably assume that Chrysippus would set the standard considerably higher than, say, Marcus Aurelius.⁵⁴

But the genuine ethical function of cosmology lies elsewhere—not in the ability to teach us why this or that tragedy is actually a happy event, but rather in virtuous human conduct. Now, what makes the actions of the wise person 'good' and 'virtuous' in the strong Stoic sense of these words is not so much the action itself, but rather the intellectual disposition, the insight on which the action is grounded; this is a crucial factor in the Socratic legacy for Stoic ethics. Genuinely virtuous action requires knowledge.⁵⁵

Yet the content of this knowledge, for the Stoics, is not knowledge of the Good, and not even of mathematical ratios determining the basic structure of reality, but the awareness of the rationality, teleology, and providentiality of cosmic divine rationality as it manifests itself in the constitution and functioning of terrestrial living beings, and, further, the understanding of how human rational action can be in accordance with, mirror, and promote this cosmic rationality. This, I suggest, is the core of the difference between the Platonic and the Stoic positions. As we have seen, cosmological knowledge eventually becomes abstract mathematics and dialectic in the *Timaeus*, because it is in such mathematical structures that

⁵³ White, 'Role', 71–3.

⁵⁴ It is not entirely clear how deeply Zeno was interested in cosmology and physics. He certainly had one major work on the subject, called *On the Universe* (D.L. 7. 4), in which he laid down the foundations of Stoic physics. Cleanthes, for his part, elaborated on the physical doctrines of his master in two books (D.L. 7. 174). It seems clear at any rate that it was Chrysippus who worked out in detail the Stoic physical and cosmological doctrines. We know at least the title of numerous works on physics by Chrysippus, even if the catalogue of his works in Diogenes Laertius unfortunately breaks off before it reaches the subject. On the physical works of Chrysippus see Bréhier, *Chrysippe*, 30–47.

⁵⁵ On this very important point see the illuminating essay by M. Frede, 'On the Stoic Conception of Good', in K. Ierodiakonou (ed.), *Topics in Stoic Philosophy* (Oxford, 1999), 71–94.

the good reveals itself in the most immediate way. For the Stoics, by contrast, the cognitive basis of the wise person's rational ethical disposition is the understanding of the functioning of the cosmic divine rationality and the reflection on the relationship between cosmic and human rationality.⁵⁶ This is how cosmology becomes eventually not mathematics and dialectic but a specific pantheistic conception of theology. Although the account of *eudaimonia* in the passage quoted above from Cicero's *On the Nature of the Gods* is in a way unorthodox, it well captures this move from astronomy to theology as the epistemological requirement of *eudaimonia*.

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⁵⁶ This has been emphasized by White, 'Basis' and 'Role'. Remarkably, self-reflection does not seem to play any part in the *Timaeus* scheme. The agent apparently does not need to clarify the relationship between him- or herself and the world soul: it is enough to concentrate on the world soul. This seems to be part and parcel of the quasi-mechanical operation of 'the knower becomes like the known' epistemology: one understands the external, cosmic harmony, and thus becomes internally harmonious 'automatically'. In the Stoic scheme, by contrast, reflection on the relationship between cosmic and human rationality has a crucial role.

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