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‘WE’ AND EMPEDOCLES’ COSMIC LOTTERY:
P. STRASB. GR. INV. 1665-1666, ENSEMBLE A

BY

S. TRÉPANIÉ

“Soy de un país vertiginoso donde la lotería es parte principal
de la realidad . . .”

J.L. Borges, *La lotería en Babilonia*

ABSTRACT

This paper presents an alternative interpretation and reconstruction of *ensemble a* from the Strasbourg papyrus of Empedocles, *P. Strasb. gr. Inv. 1665-1666*, first published by A. Martin and O. Primavesi in 1999. I claim that Martin and Primavesi’s working hypothesis for the reconstruction of lines **a (ii) 3-17**, upon which most of their individual supplements rely, is wrong, and that the doctrinal implications they draw from it are unfounded. Against them, I propose an alternate reconstruction of the text. If correct, two consequences follow from my alternative. First, it presents further reasons to reject a controversial variant reading revealed by the papyrus, retained by the editors, and the “we” of my title. Second, it provides new support for the role of chance in Empedocles’ cosmic cycle, a theme largely ignored in modern scholarship on Empedocles.

Introduction

This paper is the philological counterpart of another study, both of which serve the goal of re-appraising Empedocles’ cosmic cycle in light of new evidence from the Strasbourg papyrus.¹⁾ Such a reappraisal is required not only on account of this new evidence, but also because Martin and Primavesi, the editors of the papyrus (henceforth M-P), failed to appreciate the extent to which this new material undermines or overturns previous views of the cycle, rather

1) Alain Martin & Olivier Primavesi, *L’Empédocle de Strasbourg (P. Strasb. gr. Inv. 1665-1666): introduction, édition et commentaire*, with an English Summary (Berlin/New York 1999). S. Trépanier, *Empedocles on the Ultimate Symmetry of the World*, Oxford Studies in Ancient Philosophy 24 (2003), 1-57, henceforth *Ultimate Symmetry*.

than allowing us to choose among and refine those views already on offer. In particular, I wish to show that M-P's commitment to a particular line of interpretation has vitiated their editorial work, especially in their reconstruction of *ensemble a*, the longest new section of text and the continuation of the fundamental fragment B17 Diels-Kranz. (*Ensemble* is the editors' term for continuous passages, the longest of which, *ensemble a*, contains two columns, (i) and (ii), followed by line numbers.) Specifically, I will argue that M-P's basic working hypothesis for *a* (ii) 3-17, upon which most of their reconstruction and individual supplements rely, is dubious at best, and cannot support the doctrinal implications they seek to draw from it. Against them, I will present an alternate reconstruction and interpretation of *ensemble a*. If correct, my reconstruction offers further grounds to reject what has already proven to be the most controversial editorial decision taken by M-P, the retention of a hitherto unknown reading at *a* (i) 6, *a* (ii) 17 and *c* 3. More positively, I hope to show that ignoring this new variant allows the papyrus' genuine importance to come to light: it reveals the role of chance in Empedocles' conception of the cosmic cycle.

Ensemble a and fr. B17 Diels-Kranz

The identification of *ensemble a* as the continuation of Empedocles' fr. B17 DK is quite sound, based as it is on a five-line overlap with the end of B17, M-P 159-66. Beyond the overlapping section, *ensemble a* contributes a further 34 lines to B17's 35 lines, thus making of it the longest extant passage of Presocratic verse, although some of the new lines are quite damaged. From Simplicius' commentary on Aristotle's *Physics*, 157.25 ff. Diels and the source of B17, we know that B17 stood in the first book of the work Simplicius calls the *Physics*, τὰ φυσικὰ, and now a stichometric mark on the last line of *ensemble a*, a capital gamma Γ, meaning 300, indicates that fr. B17 + *ensemble a* spanned lines 232 to 300 of that same book.²⁾

The extraordinary length of Simplicius' citation—even before the extraordinary luck of now having its continuation *and* absolute posi-

2) M-P 162, in their version of DK 17, rather arbitrarily do not include line 9, inserted by Bergk, followed by Diels, *Poetarum Philosophorum Fragmenta* (Berlin 1901), so that their count goes back to 233.

tion secured—attests to its importance, which is amply confirmed by its content. In terms of doctrine, fragment B17 was and remains the most important in the *corpus*, because it provides us with the most extended description of Empedocles' first principles and of their interaction to form the cosmic cycle. Further still, Empedocles' insistence in these lines on the more basic entities of his system, as well as his consistent use of simple terms in naming them, cf. B17.18-20, as opposed to his tendency elsewhere to vary their names, or identify them with traditional divinities, clearly gives the passage an introductory or programmatic flavor. Of course, since these lines occurred more than two hundred lines into the poem, they cannot be from the opening of the poem, as was sometimes thought on the basis of a remark by Simplicius, in *Ph.* 161.21 Diels. Instead, they must mark the beginning of a doctrinal section, perhaps *the* doctrinal section of the poem, following what will have then been a rather long proem, at 200 plus lines.³⁾

The new material falls at least into two, or as M-P have it, three, sections. The clearest break occurs at lines **a (ii) 21-30**, where Empedocles takes nine whole lines to signal an important transition, and announces to the disciple that, among other, things he will demonstrate to him what he calls 'the coming together and development of life', ξύνοδόν τε διάπτυξίν τε γενέθλης. Before that, however, M-P also propose to recognize a second break at **a (ii) 3**. On their reconstruction, Empedocles pursued the general exposition of the cosmic cycle begun in fr. B17 DK only down to line **a (ii) 2**, and then, in lines **a (ii) 3** to **a (ii) 17**, gave an account of the reign of Strife, that phase of the cycle when the elements separate from one another. Only after that, according to M-P, would he have turned to describing 'the coming together and development of life'. On my reading of this material, this second section on Strife

3) This new information has important repercussions for the debate on the reconstruction of the Empedoclean corpus, in particular the debate over the number of his main works, where scholarly opinion is sharply divided between two options. The traditional view, as in DK, is that the corpus should be divided between two poems, *The Physics* and *The Purifications*, while recent challenges have argued for the existence of only one original work. The question is complex, and need not be addressed here. I will deal with it at length in *Empedocles: An Interpretation*, forthcoming, by Routledge.

is an artifact of the editors' own invention. As I will try to show, better sense can be had from the passage by positing that the general presentation of the system begun in fr. B17 DK simply continued all the way down to **a (ii) 21**. Thus, against M-P, I recognize only one *major* division over the whole of fr. B17 DK + *ensemble a*, that beginning at **a (ii) 21**.⁴⁾

The three thêtas

Before I can begin, however, and in order to complete this introduction, I must refer to a debate that is closely related to my own concerns here and which, even at this early stage of the discussion, has already attracted a fair deal of attention. The issue is that of the 'three *thêtas*'.⁵⁾

Perhaps the single most controversial decision taken by M-P in their edition is the adoption of the two or three *thêtas* in what I will call the 'unification formula'. This formula is a recurring poetic phrase in Empedocles, one of a number minted by Empedocles himself in a creative re-use of the stock phrases he inherited from the epic tradition. It occurs most conspicuously in fragments B17 and 26, where Empedocles deploys it as part of a wider poetic motif, one that embodies his central philosophical theme, the alternation of 'One' and 'Many'. This philosophical theme is most commonly articulated in the form of an AB motif. The motif itself consists of a contrast between (A) a process of unification, associated with unity or 'One' and (B) a process of separation, leading to 'Many', or plurality.⁶⁾ Most often, the motif contrasts them over two paired lines, symmetrically opposing the unification formula (A)

4) Shorter articulations, marked by a direct address to the disciple, occur at B17.14, 17.21 and 17.26. For similar general criticisms of M-P on this point, see A. Laks, *A propos du nouvel Empédocle: les vers 267-290 du poème étaient-ils l'hypothèse d'une double cosmogonie?* *Hyperboreus* 5 (1999), 15-21, and my *Ultimate Symmetry*, 33-6.

5) My remarks here overlap closely with my presentation of the same problem in *Ultimate Symmetry*, 1-4.

6) For these motifs, see D.W. Graham, *Symmetry in the Empedoclean Cycle*, CQ 38 (1988), 297-312 and my own *The Structure of Empedocles' Fragment 17*, *Essays in Philosophy*, I.1, 1-22, available online at <http://humboldt.edu/~essays/archives.html>.

in the first line with the separation formula (B) in the second. In the (A) portion of the motif, Empedocles nearly always uses *συνέρχομαι* to describe the process of unification, as at fr. B17.7-8:

ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἓν ἅπαντα
ἄλλοτε δ' αὖ δίχ' ἕκαστα φορεύμενα Νείκεος ἔχθει.

The new reading, while it keeps the same verb in the same position, presents a variant, in two, or arguably three, instances of the (A) portion of the motif: **a (i) 6**, **c 3**, and **a (ii) 17**. In those three instances, instead of the neuter plural participle, the only known form throughout the entire indirect textual tradition, the copyist wrote a *θ* instead of a *ν* at the end of the verb, so that instead of the neuter plural participle ‘coming together’ the lines have a first person plural ‘we come together’. Thus, ignoring for now the full restoration of these lines, we have:

a (i) 6	[συνερχόμεθ' εἰς ἓνα κόσμον
a (ii) 17	[] μεσάτους τ' [. . . ε]ρχόμεθ' ἔν μ[όνον εἶναι.]
c 3	[συν]ερχόμεθ' εἰς ἓν ἅπαντα

But at lines **a (i) 6** and **c 3**, a second hand, perhaps of the owner of the manuscript or the διορθωτής, the ancient copy-editor, corrected the *thêtas* back to a *nu*, turning the verb into the participial form already familiar from the indirect tradition.⁷⁾ Presented with the choice, M-P retain the copyist's text, over that of the corrector, i.e. they think the ‘we’ is the original text. In their view, the variant is too systematic to indicate the possibility of a random error.⁸⁾ As for **a (ii) 17**, which was not the object of a correction, M-P restore the verb with an *εἰσ-* rather than a *συν-* prefix, to the imperfect *εἰση]ρχόμεθ(α)*, ‘we were coming together to’. That is because they refuse even to entertain the possibility that it was an instance of the unification formula.

7) In **a (i) 6**, the correction is unmistakable, whereas in **c 3**, the papyrus is too damaged to reveal the actual letter, but the traces of a correction above the still legible *ν* indicate the summits of two vertical lines, suitable for a N or H. For **c 3**, see M-P 142 and plate V.

8) 91: “Nous excluons en tout cas que les formes de la 1e personne du pluriel puissent résulter, par une extraordinaire coïncidence, de trois fautes survenues de manière indépendante dans le texte . . .”

Although not without its supporters, the decision has already attracted a fair amount of criticism.⁹⁾ My own view, arrived at independently of studies since published, puts me squarely among the dissenters.¹⁰⁾ Yet since others have already put into print strong grounds to reject the ‘we’, I see no need to reformulate all them here, and will concentrate instead on the construction of an alternative text. To be sure, one way of testing the three *thêtas* reading is to consider whether, when we do consider this new material without the “we”, this produces a better text. On this point, at least as far as *ensemble a* is concerned, I hope that the contrast in final results will speak for itself.

1. *The reign of Strife*

In order not to seem to prejudge the matter, and so as better to let the reader test for him or herself the worth of M-P’s interpretation, I begin with a preliminary survey of the evidence for the reign of Strife, that phase of the cycle which M-P claim to find described in lines **a (ii) 3** through **17**.

Unlike the *Sphairos*, the unification of all things under Love, we do not know if Empedocles had a name for that phase of the cosmic cycle which Simplicius terms ἡ ἐπικράτεια τοῦ Νείκου, and I will call the reign of Strife. This may be because Empedocles did not conceive of it as a phase *per se*, as suggested by O’Brien in

9) In support of the ‘we’ there is B. Inwood, CR 50 (2000), 5-7, and A. Laks, *Reading the Readings: On the First Person Plurals in the Strasburg Empedocles*, in: V. Caston & D.W. Graham (eds.), *Presocratic Philosophy: Essays in Honour of Alexander Mourelatos*, (Aldershot 2002), 127-37. Laks, who takes into account some of the first criticisms addressed at M-P, defends the variant readings as variants, to be decided by philological criteria on a case-by-case basis, but is quite critical of the doctrinal implications of the ‘we’ championed by M-P. Because Laks’ study was only available to me at an advanced stage in the writing of this work, I will confine my remarks on his contribution to the footnotes of the relevant sections below. Other reviews include M. Gemelli Marciano, in *Gnomon* 72 (2000), 389-400, who does not take a side, while C. Osborne in *Recycling* is quite skeptical, esp. 344-9, as is S. Mace, CW 95 (2002), 195-7. Finally, J. Mansfeld & K. Algra, *Three Thêtas in the ‘Empédocle de Strasbourg’*, *Mnemosyne* 54 (2001), 78-84, flatly reject them, 81: “And the Θ s in the papyrus fragment discussed above are simply wrong. The slightly bizarre interpretation based on them may be abandoned.”

10) See my abstract in the abstract book of the American Philological Association 131st Annual Meeting (Dallas, December 27-30 1999), page 97.

Empedocles' Cosmic Cycle (Cambridge 1969), henceforth *ECC*, 55-9, who proposes that the complete sway of Strife last but an instant.¹¹⁾ Then again, perhaps the chaotic nature of Strife's reign may have rendered it indescribable in positive terms, as being without definite or regular features.¹²⁾ This is certainly suggested of it by Plutarch's terms ἀκοσμίαν καὶ πλημμύλειαν, whose dialogue *On the Face in the Moon* provides us with our only specific evidence for this phase of the cycle. Although the passage incorporates anachronistic terminology, much of it is clearly meant as a paraphrase of Empedocles, so that it is worth quoting at length. The passage in question, 926d-f, is part of a rebuttal to an interlocutor advancing the physical doctrine of natural places:

... so that look here and consider, my dear fellow, lest placing and leading each thing back to where it 'belongs by nature', you do not philosophize a dissolution of the world, and drive Empedocles' Strife into matters, or better still, you set the ancient Titans against nature, along with the Giants, and wish to see that legendary and frightful chaos and dissonance, setting all the heavy and the light apart

when neither is seen the shining form of the sun,
nor the shaggy might of the earth, nor the sea

as Empedocles says, and earth does not contain any warmth, nor water air, no upper regions heavy substances, nor lower light ones. But unmixed and without Love and solitary [are then] the first principles of the world, not wanting to enter into mixture or form a community with each other, but fleeing and turning away and carried along on particular and self-willed motions...¹³⁾

The passage and fragment have given rise to various interpretations. The similarity of the fragment to the description of the *Sphairos*

11) Although O'Brien's work remains the most detailed reconstruction of Empedocles' doctrine of the cosmic cycle, M-P's interpretation of the cycle strikes me as too narrowly dependent upon that single work. For a similar verdict, see C. Osborne, *Rummaging in the Recycling Bins of Upper Egypt*, Oxford Studies in Ancient Philosophy 18 (2000), 329-56, esp. 336-7. It should be clear, however, that my argument here is not so much about the merit of O'Brien's reconstruction, but rather concerns the use M-P make of it to explain what is going on in *ensemble a* (ii) 3-17.

12) So W. Kranz, *Empedokles. Antike Gestalt und romantische Neuschöpfung* (Zurich 1949), 354 note 45.

13) ὡσθ' ὄρα καὶ σκόπει, δαμόνιε, μὴ μεθιστὰς καὶ ἀπάγων ἕκαστον, ὅπου πέφυκεν

resulted at one time in their being identified as a single fragment, as in fr. B27 DK. Today, most scholars recognize them as separate descriptions of an a-cosmic phase, a time when the familiar ordering of the world applies no more.¹⁴⁾ As such, it is somewhat puzzling to find Empedocles denying the perceptible aspect of the great masses in terms so close to that of the *Sphairos*; if anything, one should expect the elements to be all the more separate and distinct under Strife. The fragment then tells us little more than that, under absolute Strife, the furniture of the world is otherwise arrayed than in the cosmic phases, and we are consequently forced to rely upon Plutarch's testimonium to fill in the details. But there as well these are not all that forthcoming.

On the one hand, the last section in particular leaves us with a strong impression of violent and disorderly motion, not inappropriate for the rule of Strife. Such a characterization of Strife's rule, as a sort of chaos, I will label the *tohu-bohu* interpretation, after Tannery who first championed it over a century ago.¹⁵⁾ At the same time, instead of out and out disorder and chaos, the concept of natural places, although attacked here, perhaps hints at something more regular. As Aristotle points out at *Metaphysics* 985a23-7, the separation of the elements is also a unification, from the standpoint of the individual elements,¹⁶⁾ and this suggests a patterned arrange-

εἶναι, διάλυσίν τινα κόσμου φιλοσοφῆς καὶ τὸ νεῖκος ἐπάγῃς τὸ Ἐμπεδοκλέους τοῖς πράγμασιν, μᾶλλον δὲ τοὺς παλαιοὺς κινήσιν Τιτᾶνας ἐπὶ τὴν φύσιν καὶ Γίγαντας καὶ τὴν μυθικὴν ἐκείνην καὶ φοβερὰν ἀκοσμίαν καὶ πλημμέλειαν ἐπιθεῖν ποθῆς, χωρὶς τὸ βαρὺ πᾶν καὶ χωρὶς τιθεῖς τὸ κούφον

ἔνθ' οὐτ' ἠελίοιο διείδεται ἀγλαὸν εἶδος,

οὐδὲ μὲν οὐδ' αἴθης λάσιον μένος, οὐδὲ θάλασσα

ἴσιν φησιν Ἐμπεδοκλή, οὐ γῆ θερμότητος μετεῖχεν, οὐχ ὕδωρ πνεύματος, οὐκ ἄνω τι τῶν βαρέων, οὐ κάτω τι τῶν κούφων· ἀλλ' ἄκρατοι καὶ ἄστοργοι καὶ μονάδες αἱ τῶν ὄλων ἀρχαί, μὴ προσιέμεναι σύγκρισιν ἐτέρου πρὸς ἕτερον μηδὲ κοινωνίαν, ἀλλὰ φεύγουσαι καὶ ἀποστρεφόμεναι καὶ φερόμεναι φορὰς ἰδίας καὶ αὐθάδεις. M. Pohlenz (ed.) (1960), with frag. after Inwood (Toronto 2001), fr. 31; δεδιττεται MSS; διείδεται from Simplicius, in *Ph.* 1183.28 = Emp. B27 DK.

14) M.R. Wright, *Empedocles: The Extant Fragments, Edited with Introduction, Commentary, and Concordance* (New Haven 1981), fr. 19 and 21; Inwood, *Poem* (Toronto 2001), fr. 31 and 33.

15) P. Tannery, *Pour l'histoire de la science hellène: de Thalès à Empédocle* (Paris 1887), 319.

16) πολλαχοῦ γοῦν αὐτῷ ἡ μὲν φιλία διακρίνει τὸ δὲ νεῖκος συγκρίνει. ὅταν μὲν γὰρ εἰς τὰ στοιχεῖα διίστηται τὸ πᾶν ὑπὸ τοῦ νεῖκου, τότε τὸ πῦρ εἰς ἓν συγκρίνεται

ment of some kind. Fragments B17 and 26, moreover, speak of the many as the result of a gradual process of separation, a 'growing apart' which gives us grounds for entertaining ideas of regularity and constancy. Based on some of these considerations O'Brien, *ECC*, 146-55, proposed a "concentric circles" model, where the elements under Strife gather themselves individually into four concentric and revolving spheres, according to weight.

Concerning the first possibility, Tannery's *tohu-bohu*, there is, I suspect, a deeper mystery concerning the very notion of chaos, which I do not propose to delve into. To modern minds, the idea of indeterminacy in nature, as opposed to our limited grasp of it, may seem difficult to accept. Thus, to me at any rate, Tannery's *tohu-bohu* is less appealing than the more regular concentric-circles model, simply because it is more difficult to imagine. But then again O'Brien's version also strikes me as overly clean and neat. Of course O'Brien does not suppose that Empedocles has a *doctrine* of natural places, since simply postulating differences in weight between the elements is sufficient to produce his circles. Perhaps Aristotle's criticisms at *GC* 333b23-334a9 do show that Empedocles—at least part of the time—made use in his cosmology of explanations in terms of the weight of the elements, e.g. when the *aither* leapt up first out of the sphere to form the sky, because it was lightest.¹⁷) But it is still some way from there to O'Brien's concentric circles. What is clear is that there is much in Empedocles which Aristotle might have found anticipating his own view, at least in part.

καὶ τῶν ἄλλων στοιχείων ἕκαστον. But Aristotle does not refer to the separated elements as concentric circles. One might expect bands or rings, perhaps as in Parmenides' cosmology.

17) But Aristotle's discussion is not at all conclusive on the point. At most, one can cite testimonium A49a, now thought by Inwood, *Poem*, fr. 40, to be derived from an actual fragment. If so, the last sentence becomes more significant: "Moreover, aither, being much lighter, moves all round it without diversion." But then again, at *De Caelo* 309a19, Aristotle singles out Empedocles and Anaxagoras for having given no explanation at all for weight. Finally, an earlier passage of the same work, 295a13, says that Empedocles gave as the cause of the earth's stability at the center the swiftness of the *aither's* rotation at the periphery, illustrating his point by comparison to a ladle swung in a circle, whose contents do not spill, even when upside down, due to the force of the rotation. Thus perhaps speed, not weight, was how Empedocles explained the position of the elements. For discussion, see L. Perilli, *La teoria del vortice nel pensiero antico* (Pisa 1996), 55-64.

A further hesitation concerning the concentric-circles model is the difficulty of reconciling it with fragment B35. This important fragment describes the return of Love and mixture to the elements, probably expanding from the center. But if the separation of the elements is as regular as predicted by the concentric-circles model, then Love in the initial phase of its expansion will not have available to it for mixture the lighter or swifter materials at the periphery, still under the sway of Strife. As it happens, Love has at its disposition “volunteers standing together here and there”, B35.6, so that we do not find confirmation of a clean stratification of the elements.¹⁸⁾ The least we can say, based on fragments B17 and 26, is that under the full reign of Strife we should imagine separation; when we also factor in Plutarch’s testimonium, confirmed in part by Aristotle, we can probably imagine rapid movement of some sort.

2. Critique of Martin and Primavesi, *ensemble a (ii) 3-17*

I begin with M-P’s text and translation of the passage, plus a few lines on either end, necessary for a full discussion of the debated lines:

a (i) 4	ἀλλ’ αὐτ’ ἔστιν ταῦτα, δι’ ἀλλήλων, γε θεόντα·
B 17.35	γίγνεται ἄλλοτε ἄλλα καὶ ἠνεκῆς αἰὲν ὁμοῖα.
a (i) 6	[Ἄλλ’ ἐν μὲν Φιλότητι(?) συνερχό]μεθ’ εἰς ἓνα κόσμον,
7	[ἐν δ’ Ἐχθρῆι γε πάλιν διεφύ(?) πλέ]ον’ ἐξ ἑνὸς εἶναι,
8	ἐξ ὧν πάντ(α) ὅσα τ’ ἦν ὅσα τ’ ἐστ(ι) ὅσα τ’ ἔσσειτ’ ὀπίσσω·
9	ἰδένδρεά τ’ ἐβλάστησε καὶ ἀνέρες, ἠδὲ γυναικες,
a (ii) 1	ἰθῆρες τ’ οἰωνοί τε καὶ ὕδατοθρίεμμονες ἰχθύς,
2	καὶ τε θεοὶ δολιχαίων, ες τιμήισ[ι φέριστοι.]
3	[Ἐ]ν τῆι δ’ αἴισσοντα [διαμπ]ερὲς οὐδ[αμὰ λήγει]
4	[π]υκνήισιν δίνηισ[ιν]τ.[]
5	[ν]φλεμές, οὐδέ πο[τ’]

18) Fr. B35.6-7 DK: ἀλλὰ θελημὰ συνιστάμεν’ ἄλλοθεν ἄλλα / τῶν δὲ μισγομένων χεῖτ’ ἔθνεα μυρία θνητῶν. The word θελημὰ, if it can be taken to mean “volunteers”, as it is by Wright, *Extant Fragments*, 207, would imply a less regular and mechanical process, closer to a “recruitment drive” among the elements, where Love finds converts wherever she can, cf. fr. B22 DK. The stratification of the elements then would be less of a bar to such a formation, but then again it is by no means implied by the imagery of fragment B35. For some further criticisms of O’Brien’s position, see D.J. Furley, *The Greek Cosmologists*, I (Cambridge 1987), 88-94.

- 6** [πολλ]οὶ δ' αἰῶνες πρότερ[οι(?)]]
7 [πρὶν] τούτων μεταβήνα[ι]]
8 [πά]ντη δ' αἴσσογ[τ]α διαμ[περὲς οὐδαμὰ λήγει·]
9 [οὔ]τε γὰρ ἠέλιος τ[] . ν . []]
10 [ὄρ(?)]μὴ τῆιδε γέμου[σα(?)]]]
11 [οὔ]τε τι τῶν ἄλλωγ []]
12 [ἀλ]λὰ μεταλλάσσογ[τ' αἴσ]σει κύκλωι [ἀπάντη·]
13 [δῆ τό(?)]τε μὲν γὰρ γαί(α) [ἀβ]άτη θέει ἠέλ[ιός τε]
14 [σφαίρα(?)] τ' ὄσην δὴ κα[ί ν]υν ἐπ' ἀνδράσι τεκμήρασθαι(?)]
15 [ὡς δ' α]ἴψτως τάδ[ε π]άντα δι' ἀλλήλων [τε θέεσκεν(?)]
16 [κάλλο]υς τε(ε) ἄλλ[(α) ἴκα]νε τόπους πλαγ[χθόντ' ἰδίου]ς τε(?)]
17 [αυθάδη(?)]· μεστάτους τ' [εἰση]ρχόμεθ' ἐν μ[όνον εἶναι].
18 [Ἄλλ' ὅτ]ε δὴ Νεῖκος [μὲν ὕ]περβατὰ βέν[θε' ἴκηται]
19 δ[ίνη]ς, ἐν δὲ μέσ[ηι] Φ[ιλ]ότης στροφά[λιγγι γένηται].
20 ἐν [τῆι] δὴ τάδε πάντα συνέρχεται ἐν [μόνον εἶναι].

‘Rather, just these things are, running only through one another: they become different things at different times, and yet these are throughout always similar. But under Love we unite together to form a single ordered whole, whereas under Hatred, in turn, it (i.e. the ordered whole) grew apart, so as to be many from one, (**a (i) 8**) out of which (i.e. many things) come all beings that were and are and will be hereafter: trees sprang forth and men and women, and beast and birds and fishes nurtured in water, and also gods of long age and preeminent in their honours. Under her (i.e. Hatred) they never cease from continuously shooting in all directions (**a (ii) 4**) in frequent whirls . . . without pause, and never . . . and many generations . . . before passing over from them . . . And they never cease from continuously shooting in all directions: (**a (ii) 9**) for neither the sun . . . the onrush full of this . . . nor any of the other things . . . but, as they change, they shoot in all directions in a circle. For at that time the (then) impassable earth runs, (**a (ii) 14**) and the globe of the heavens, as large indeed as even now it can be judged by men to be. And in just the same way all these things (i.e. the elements) were running through one another and, having been driven away, each of them reached different and peculiar places, self-willed; and we were coming together to the middle places, so as to be only one. But whenever Strife has reached the depths, thus violated, of the whirl, and Love has come to be in the midst (**a (ii) 18**) of the eddy, then under her (i.e. Love) all these things unite so as to be only one.’

Their general understanding of the passage is the following, 187: “Si le papyrus offre ici un véritable récit, sans rupture chronologique, sans autre digression, une conclusion simple peut être tirée de la place qu’occupent les événements décrits en **a (ii) 3-17**: il y a de

bonnes chances pour que ces événements se déroulent sous le règne de la Haine . . .”

According to M-P, this identification rests on three considerations:

(1) The restoration [Ἐ]ν τῆι opening line **a (ii) 3** refers back to [ἐν δ' Ἐχθρηι] at **a (i) 7**, indicating that the whole section is an account of Strife's rule, balanced off against the briefer mention of the beginning of Love's rule at **a (ii) 20**, ἐν [τῆι] δὴ τάδε πάντα συνέρχεται ἐν [μόνον εἶναι.]

(2) The nature of the movement described in the heavily mutilated central section is best understood as inspired by Strife. Thus verbs like *leaping*, ἀΐσσοντα at **a (ii) 3** and **a (ii) 8**, the *whirls* δίνησι[ν] at **a (ii) 4**, *runs*, θέει at **a (ii) 13**, and *wandering*, πλαγ[χθέντ'] at **a (ii) 16**, as well as (?) *in a circle*, κύκλωι at **a (ii) 12** all seem most appropriate to the rule of Strife, in which the elements move in rapid, circular movements.

(3) The mention of the earth and sun in different positions, or having different aspects than at present, cf. **a (ii) 9** and **a (ii) 13**, suggest an a-cosmic period or phase of the cycle.

General critique

Of the three, (3) seems by far the most conclusive. Only slightly contingent upon small restorations, these lines clearly indicate we are dealing with a period in which things were different than they now are. At **a (ii) 13**, the earth, *impassable* if ἀβ[ύ]πτη is correct, 'runs', as perhaps does the sun. At **a (ii) 14** some other unknown object(s) is perhaps not as large as can be esteemed by men, depending upon how one divides τωσην. In the same area, [οὔ]τε γὰρ ἡέλιος opening line **a (ii) 9**, probably coordinated with **a (ii) 11** [οὔ]τε τι τῶν ἄλλων, may also indicate the absence of familiar phenomena. The minimal conclusion appears to be that we are dealing with an a-cosmic phase of the cycle.

This would leave us to choose between the *Sphairos* and the reign of Strife. M-P claim that the verbs of movement listed above in (2) make the choice obvious: this must be the reign of Strife, since the Sphere is immobile.¹⁹) Unfortunately, it is not so clear. For one

19) 188: "Le Sphairos doit d'emblée être écarté, car le triomphe de l'amour

thing, the picture is complicated by the prepositional phrase δι’ ἀλλήλων at **a (ii) 15**, always associated with Love and mixture, as by a possible instance of the unification formula at **a (ii) 17**. The participle μεταλλάσσον[τ(α), **a (ii) 12**, moreover, is inconclusive, being a variant upon ἀλλάσσοντα or διαλλάσσοντα, familiar from earlier formulations, and not associated with any particular phase. Finally, the participle αἴσσοντα, *leaping*, may have some associations with Strife, but it is also the verb Empedocles uses to describe the locomotion of the limbless god of fr. B134.4-5:

ἀλλὰ φρὴν ἱερὴ καὶ ἀθέσφατος ἔπλετο μούνον,
φροντίσι κόσμον ἅπαντα καταίσσουσα θεῶησι

This, I think, invalidates any direct characterization of the verb as necessarily related to Strife. The same applies for **a (ii) 13**’s θέει, employed at fr. B17.34 to describe the concourse of the elements, leading to the formation of various beings. Lastly, πλαγ[χθέντ(α) also has various connotations. While it mostly involves separation, e.g. fr. B20.5, at fr. B22.3 the wandering is conceived of from the elements’ point of view, and they are described as driven into mortals, i.e. by the action of Love. This leaves us only with ‘closed packed whirls’ as a link to Strife. Thus, M-P’s second general consideration is considerably weaker than they suppose.

And what of (1), the restoration of [’E]ν τῆι at **a (ii) 3**? It is undoubtedly the weakest of all. The line comes right after the formula describing the first-principles’ capacity to generate all things, and a repetition of the AB motif of alternation, at **a (i) 6-7**. The extant text, based on comparisons with other similar lines, such as fr. B17.6, 26.11 or again 17.12, allows a secure restoration of most of the line, except the first foot:

a (ii) 3]ντη δ’ αἴσσοντα [διαμπ]ερές οὐδ[αμὰ λήγει]

The two most likely supplements are ἐν τῆι or πάντη. Both possibilities have good parallels in the corpus. ἐν τῆι opens line **a (ii) 20**, and is repeated verbatim at fr. B35.5, where its antecedent is Φιλότης. πάντη in turn opens fr. B22.8, where it has the sense

s’accompagne d’une tranquillité absolue, exempte de tout mouvement.” But this is only one possible view, once again that of O’Brien, *ECC*, chapter 2.

‘completely’, rather the spatial connotation it would have here. M-P propose ἐν τῆι, as they readily admit, for more subjective reasons than objective philological criteria.²⁰⁾ They suggest that the line opens the section by a clear announcement of the cosmogony of Strife: ‘Under her (i.e. Hatred), they never cease from continuously shooting about in all directions in frequent whirls . . .’

A potent objection to this is that their papyrological claim about the spacing is hard to allow. Based on the excellent photograph in their edition, the available space is more suitable for two letters than one.²¹⁾ But even if one lets that pass, equally grave problems follow.

The first of these is that there is no preserved suitable feminine antecedent for Strife in the preceding lines. The only likely candidate would be in the formulation of the AB motif of alternation at **a (i) 6-7**. But if the preserved line-ends there allow an all but certain identification of that motif, they provide no positive candidate for a possible feminine antecedent. In fact, and this is where M-P’s text truly begins to strain belief, nowhere in the known corpus can they find a feminine synonym for Strife that would fit both the meter and the required level of generality. (At p. 181, they consider but discount *στάσις*, *δῆρις* and *ἔρις*.) Undeterred by this, they nevertheless supplement **a (i) 7** with ἐν δ’ Ἐχθρηι, on the merit of a fragment of Lysias.²²⁾ Thus, the restoration of line **a (ii) 3** rests on nothing more solid than another conjecture, and at that upon a word otherwise unattested in the corpus. Even if we were to grant it, it is not apparent how the audience is to identify the ‘her’ as

20) 190: “La priorité, pour trancher la question, doit donc être laissée au sens et à la cohérence de l’exposé.” Six lines down, at **a (ii) 8**, in a practically identical case, they chose πάντηι because the space at the beginning of the line allows for two letters.

21) 189: “L’espace vacant . . . si l’on respecte l’alignement général de la colonne, paraît un peu plus large qu’un caractère de module moyen, mais plus étroit qu’une suite de deux caractères.”

22) Lysias fr. 115 Thalheim: Ὠμην <δὲ> ἔγωγε τοσαύτηι φιλίαι συναρμόσθαι τὴν ἐμὴν καὶ τὴν σὴν εὐνοίαν, ὥστε μηδ’ ἂν τὴν Ἐμπεδοκλέους ἔχθραν ἐμποδῶν γενέσθαι ἡμῖν. Even though ἔχθρη is a form more at home in prose than epic, this of course does not eliminate the possibility of its use by Empedocles, cf. Φιλία, DK B18, definitely suspect until confirmed by the papyrus, **d 3**. All the same, its use here is obviously forced, and is clearly at the service of their restoration of **a (ii) 3**.

Strife, since M-P restore the first half of **a (i) 6** with 'Ἄλλ' ἐν μὲν Φιλότῃτι, another feminine singular introduced by ἐν.

3. *Counter-interpretation of a (ii) 3-17: Chance and possible worlds*

As should be apparent by now, the flaw of M-P's interpretation is that they approach the passage with a preconceived and overly detailed notion of what it ought to describe, namely O'Brien's reconstruction of the reign of Strife. The end result is the imposition of an implausibly fleshed-out scheme upon a skeleton too frail and partial to support it.²³⁾ In fact we do not know if the passage describes the world under Strife, mostly because we do not know exactly what such a state must be like.

I return instead to the one seemingly certain fact about this passage: it describes an organization of the cosmos other than our own. In other words, Empedocles seems to be saying that, while the elements and first principles will always exist, their current disposition or organization is not permanent. It may be that we need not go beyond this to render the passage intelligible.

Among the general cosmological notions I suggest are at play in the passage, the most important are those, common to Empedocles and Democritus at least, if not the general run of Ionian science, that the world itself changes, that these changes occur over great spans of time, and that our own world is not the only possible one, because its construction contains an element of chance.²⁴⁾ As we know especially from Democritus, this can go so far as to countenance the possibility of many different worlds, including some without familiar features such as the sun and moon, or even life.²⁵⁾

23) 189: "Nous proposons donc d'y reconnaître un traitement développé du "monde B", depuis le moment, brièvement mentionné, où il est mis fin à l'unité du Sphairos, **a (i) 7**, en passant par la zoogonie contemporaine du règne de la Haine, **a (i) 8-a (ii) 12**, jusqu'à l'évocation plus détaillée des circonstances dans lesquelles se produit finalement la διάλυσις κόσμου . . ."

24) For a collection of evidence and general discussion see W.K.C. Guthrie, *History of Greek Philosophy*, II (Cambridge 1965), 159-67 for Empedocles, and 404 ff. for Democritus. Fragment 4 of Anaxagoras should also be mentioned in this context, as it perhaps provides evidence for his belief in a plurality of worlds, or at least of a plurality of civilizations, but see Furley, *The Greek Cosmologists*, 71.

25) On Leucippus, see DK 67 A1 (= Diogenes Laertius 9.30 ff.); on Democritus, DK 68 A40.

Although in Empedocles the role chance plays in the creation of the world is not as significant as it is for Democritus—for in Empedocles chance operates alongside the demiurgic activity of Love—neither can it be wholly expurgated from the work. It was a strong enough theme to draw the criticisms of Aristotle at *GC* 334 and, less assuredly, to raise the ire of Plato at *Laws* 10.889b (= A 48 DK). While more would need to be said to refine the similarities and differences between Empedocles and the early Atomists, one key difference worth pointing out is that where the Atomists imagined innumerable worlds both simultaneously and through time, Empedocles will have limited their variation to different combinations of the ever-present elements over time.

Before I can apply this hypothesis to the philological evidence, I begin by responding to the potential objection that my counter-proposal may be too weak on its own merits. In other words, do we have any evidence that Empedocles ever makes such a point? There are three relevant pieces of evidence.

According to Aristotle, *GC* 334a, Empedocles held that the distribution of the elements in the world, when they are separated from the *Sphairos* under the growing influence of Strife, occurs by chance. To support this, he quotes a single line, fr. B53:

οὕτω γὰρ συνέκυρσε θεῶν τοτέ, πολλαίκι δ' ἄλλως

The fragment, whose grammatical subject Aristotle tells us was the *aither*, unambiguously asserts that when the *aither* sprang up first in this our world, it was not so much a mechanically predetermined event as a chance happening. Consequently, we can suppose, in another revolution of the cycle, another arrangement could befall the elements. The second instance is less clear, because it occurs in a fairly mutilated section of *ensemble d*. At lines **d 11** and **12**, breaking from the topic of the previous lines, Empedocles embarks upon a description of the origin of life. As he tells us, this occurred when a *much suffering mixture* was drawn out of the primordial slime by the element fire. Of most interest in the current context is his choice of verbs to describe the moment when fire initiated the process: *συνετύγγανε*, *it so happened*, cf. *συνέκυρσε θεῶν* above. Thirdly, there is Empedocles' invocation of chance in the formation of animals, known to us from fragments B57 to 61 DK, along with Simplicius'

remarks. The theory describes the emergence of life over several distinct phases. In a first zoogonic moment, Love produced separate limbs and organs. Then, as these chanced to meet, they formed various, mostly monstrous assemblages, of which in the end only the small, non-monstrous fraction survived to produce known species. The theory was infamous, so long as the ancient teleologists were concerned, because of its very avoidance of intelligent design.²⁶⁾ Thus, since chance is indisputably an explanatory factor in the formation of animals, what is to prevent applying this to cosmology as well, as Aristotle's evidence indicates we can?

Finally, before turning at last to the text, I record one last general point in support of my claim that the passage simply continues Empedocles' general presentation of his system, begun in Fr. B17. This is that the majority of the fully extant, conjugated verbs in *ensemble a* are in the present grammatical tense, the tense used to state general facts and eternal truths. This includes $\theta\acute{\epsilon}\epsilon\iota$ at **a (ii) 13** and $\sigma\upsilon\nu\acute{\epsilon}\rho\chi\epsilon\tau\alpha\iota$ at **a (ii) 20**.²⁷⁾ The only exception might be the possibility of reading of $\hat{\eta}\nu$ in the sequence $\tau\omicron\sigma\eta\nu$ at **a (ii) 14**. Although not conclusive, this certainly strengthens the view that what we have in *ensemble a* is not an account of the reign of Strife, but simply the general presentation of Empedocles' cosmic system, continuing the exposition begun in fragment B17.

Based on that hypothesis, I suggest the following reconstruction of lines **a (i) 6-a (ii) 17**.²⁸⁾ A commentary with discussion of relevant points follows.

26) The evidence on these different phases is obscure and poorly transmitted, and its interpretation controversial. For a recent discussion, see J. Wilcox, "Whole-Natured Forms" in *Empedocles' Cosmic Cycle*, in: A. Preus (ed.), *Before Plato. Essays in Ancient Greek Philosophy VI* (Albany 2001), 109-22; for a discussion of the theory's ancient critics, see Furley, *The Greek Cosmologists*, chapters 12 and 13.

27) Two other verbs, $\acute{\iota}\kappa\eta\tau\alpha\iota$ and $\gamma\acute{\epsilon}\nu\eta\tau\alpha\iota$, at **a (ii) 18** and **19** respectively, which are not preserved but whose restorations in the subjunctive mood are fairly secure, based on known parallels, also indicate general repetition or regular occurrences, see M-P 218 ff. The two subjunctive aorists, subordinated to the indicative present $\sigma\upsilon\nu\acute{\epsilon}\rho\chi\epsilon\tau\alpha\iota$, signal completed actions which always or regularly precede that of the main verb, cf. H.W. Smyth, *Greek Grammar* (Cambridge MA 1956), #1943-4 and 2409.

28) References to Inwood in the apparatus are to Inwood, *Poem* (Toronto 2001).

- a (i) 4** ἄλλ' αὐτ(ᾶ) ἔστιν ταῦτα, δι' ἀλλήλων δὲ θέοντα
B17.35 λιγίνεται ἄλλοτε ἄλλα καὶ ἠνεκέες αἰὲν ὁμοῖα,
6 [καὶ ἐν μὲν Φιλότητι συνερχόμεν' εἰς ἕνα κόσμον,
7 [ἐν δὲ Κότῳ διαφυόμενα πλέ]ον' ἐξ ἑνὸς εἶναι,
8 εἰξ ὧν πάντ(α) ὅσα τ' ἦν ὅσα τ' ἔστ(ι) ὅσα τ' ἔσσει' ὀπίσσω,
a (ii) 1 ἰθὺρὲς τ' οἰωνοὶ τε καὶ ὕδατοθρῆεμνες ἰχθῦς
2 καὶ τε θεοὶ δολιχαίωνες τιμῆσι[ι φέριστοι.]
3 [Πά]ντη δ' αἴσσαντα [διαμ]περὲς οὐδ[αμὰ λήγει]
4 [π]υκνήσιν δίνησ[ιν]τ.[]
5 [ν]ωλεμές, οὐδέ πο[τ'
6 []οὶ δ' αἰῶνες πρότερ[]
7 [πρὶν] τούτων μεταβῆνα[ι ἐς ἔθνεα μυρία θνητῶν (?)]
8 [πά]ντη δ' αἴσσαν[τ]α διαμ[περὲς οὐδαμὰ λήγει.]
9 [οὔ]τε γὰρ ἡέλιος τ[] . ν . []
10 []μη τῆιδε γ . μ . . []
11 [οὔ]τε τι τῶν ἄλλων []
12 [ἀλ]λὰ μεταλλάσσαν[τα κρατ]εῖ κύκλωι []
13 [καὶ πο]τὲ μὲν γὰρ γαί(α) [ὑ]πάτη θέει ἡελ[ίτοι]
14 [πᾶσα], τὸς' ἦν δὴ κα[ί ν]υν ἐπ' ἀνδράσι τηλεθόωσα.]
15 [ὧς δ' α]ὔτως τάδ[ε π]άντα δι' ἀλλήλων [θέει αἰεῖ]
16 [ἄλλο]υς τ(ε) ἄλλ[οτε ἄλ]λα τόπους πλαγ[χθέντα ἕκαστα]
17 [ἄλλοτε ἄν] μεσάτους τ[ε συνε]ρχόμεν' ἐν μ[όνον εἶναι.]

a (i) 4 δι' ἀλλήλων δὲ θέοντα Simpl. in Ph. Diels, Inwood; δι' ἀλλήλων γὰρ θέοντα, M-P

a (i) 6 συνερχόμεθ' 1^a manu, συνερχόμεν' 2^a manu; συνερχόμεν' scripsi, cf. **a (ii) 20** τάδε πάντα συνέρχεται, B26.5 ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἕνα κόσμον; συνερχόμεθ', M-P, Inwood || [καὶ ἐν μὲν Φιλότητι] supplevi; forsā [ἀλλ' ἐν vel ἡδ' ἐν μὲν Φιλότητι]

a (i) 7 [διαφυόμενα πλέ]ον cf. B17.2 ἐκ πλεόνων, τοτὲ δ' αὖ διέφυ πλεόν' ἐξ ἑνὸς εἶναι, B17.5 ἡ δὲ πάλιν διαφυομένων θρεφθεῖσα διέπτῃ, 17.10 ἡδὲ πάλιν διαφύοντος ἑνὸς πλεόν' ἐκτελέθουσι; [ἐν δ' Ἐχθρῳ γε πάλιν διέφυ(?)] M-P || [Ἐν δὲ Κότῳ cf. B21.7 Ἐν δὲ Κότῳ διάμορφα καὶ ἀνδιχα πάντα πέλονται

a (i) 8-a (ii) 2 = Arist. *Metaph.* 1000a29-32, cf. M-P 176-8.

a (ii) 3 [Πά]ντη δ' αἴσσαντα, cf. B22.8 πάντη συγγίνεσθαι ἀήθεα; [Ἐ]ν τη, M-P || [διαμ]περὲς οὐδ[αμὰ λήγει], M-P, Inwood, cf. B17.12 ἦι δὲ διαλλάσσαντα διαμπερὲς οὐδαμὰ λήγει

a (ii) 4-6 4 [π]υκνήσιν δίνησ[ιν M-P, Inwood. || **5** [ν]ωλεμές, οὐδέ πο[τ' M-P, Inwood || **6** πολλ]οὶ δ' αἰῶνες, M-P

7 [πρὶν] τούτων μεταβήνα[ι, M-P, τούτων μεταβήνα[ι, Inwood. De sex principiis E. loquitur, cf. B35.9-11 de Discordia, οὐ γὰρ ἀμεμφέως / τῶν πᾶν ἐξέστηκεν ἐπ’ ἔσχατα τέρματα κύκλου / ἀλλὰ τὰ μὲν τ’ ἐνέμιμε μελέων, τὰ δὲ τ’ ἐξεβεβήκει, B35.15, διαλλάξαντα κελεύθους. || Ad fin. [ἐς ἔθνεα μυρία θνητῶν] temptavi, cf. B35.16, vel forsā [εἰς ἕνα κόσμον ἅπαντα], cf. B26.5 εἰς ἕνα κόσμον, B134.5 κόσμον ἅπαντα καταΐσουςα.

8-9 **8** cf. **a (ii) 3** || **9** [οὔ]τε γὰρ ἡέλιος, M-P, Inwood.

11 [οὔ]τε τι τῶν ἄλλων [ὅσα νῦν ἐσορῶμεν ἅπαντα (?)], cf. B38.2 ἐξ ὧν δῆλ’ ἐγένοντο τὰ νῦν ἐσορῶμεν ἅπαντα; [οὔ]τε τι τῶν ἄλλων, M-P, Inwood.

12 [ἀλ]λα μεταλλάσσο[ν] [τα κρατ]εῖ κύκλωι cf. B26.1 ἐν δὲ μέρει κρατέουσι περιπλομένοιο κύκλιοι; ἀλ]λά μεταλλάσσο[ν] [τ’ αἴσ]σει κύκλωι [ἀπάντη], M-P || Ad fin. forsā [τάδ’ ἕκαστα] vel [τάδ’ ἐναλλάξ]

13 [καὶ πο]τὲ scripsi; [δῆ τό(?)]τε M-P || [ὑπ]άτη, cf. B76.3/*ensemble b 2* ἐνθ’ ὄφει χθόνα χωρτὸς ὑπέρτατα ναιετάουσαν, de testudinibus, cervis et conchis, et A35, Aetius 2.7.6 Ἐ. ἔλεγε μὴ διὰ παντὸς ἐστῶτας εἶναι μηδ’ ὀρισμένους τοὺς τόπους τῶν στοιχείων, ἀλλὰ πάντας τοὺς ἀλλήλων μεταλαμβάνειν; Achilles, *Isagoga* 4 p. 34, 20 ff. ὁ δὲ Ἐ. οὐ δίδωσι τοῖς στοιχείοις ὀρισμένους τόπους, ἀλλ’ ἀντιπαρῶρειν ἀλλήλοισι φησίν, ὥστε τὴν γῆν μετέωρον φέρεσθαι καὶ τὸ πῦρ ταπεινότερον; fr. B54, apud Arist. *GC* 334a5; Philoponus, *Comm. in Ph.* (CAG 16), p. 271, 17 ff. (= Bollack, vol. ii, # 216); γαί(α) [ἀβ]άτη, G. Most, M-P, Inwood || ἡελ[ίοιο cf. B56; ἡελ[ίος τε, M-P, Inwood

14 [πᾶσα], τόσ’ ἦν δὴ, sc. γαῖα, **a (ii) 13**, cf. **a (i) 8/B** 21.9 πάντ(α) ὅσα τ’ ἦν, κτλ., 71.4 τόσσ’, ὅσα νῦν γεγάασι συναρμοσθέντ’ Ἀφροδίτη; [σφαῖρα (?)] τ’ ὄσῃν M-P, τ’ ὄσῃν, Inwood. Forsā etiam [τῶν τε (?)] τόσ’ ἦν δὴ . . . τ[εκμήρασθαι(?)], cf. B35.10,16, vide **7 supra**, B75.1 τῶν δ’ ὅσ’ ἔσω μὲν πυκνά, κτλ., B 23.10 θνητῶν, ὅσσα γε δῆλα †γεγάασιν†, B89 et Wright # 152.1. || τ[ηλεθώσα], cf. B112.7 ἐς ἄστεα τηλεθάοντα, Wright #152.2/Inwood # 85 [δ’ ὄ]ρπ[ηξ]ιν ἰπέστη τηλεθ[άοντα, *Ilias* 6.148-9 ὕλη/τηλεθώσα φύει, 22.423, 23.142. || τ[εκμήρασθαι(?)], M-P

15 [ὥς δ’ α]ῦτως M-P, Inwood || [θέει αἰεῖ], cf. δι’ ἀλλήλων δὲ θέοντα, B17.34/26.3, **a (ii) 13** et B108.1, ὅσσον <δ’> ἀλλοῖοι μετέφυν, τόσον ἄρ σφισιν αἰεῖ. Hiatus, cf. **a (ii) 13** θέει ἡελ[; [τε θέεσκεν(?)], M-P.

16 ἄλλους τ(ε) ἄλλ[οτε ἄλ]λα, cf. B17.35 γίνεταί ἄλλοτε ἄλλα; [κᾶλλο]υς τ(ε) ἄλλ[α ἴκα]νε, M-P || πλαγ[χθέντα ἕκαστα], cf. DK 22.3 ὅσσα φιν ἐν θνητοῖσιν ἀποπλαγχθέντα πέφυκεν, B59.2 ταῦτά τε συμπίπτεσκον, ὅπη συνέκυρσεν ἕκαστα, B17.8/26.6 ἄλλοτε δ’ αὖ δίχ’ ἕκαστα φορεῦμενα Νείκεος ἔχθει, B20.5 **c 6** πλάζεται ἀνδιχ’ ἕκαστα περὶ ῥηγμῖνι βίοιο; πλαγ[χθέντ’] ιδίους τε(?)], M-P.

17 [ἄλλοτε ἂν] μεσάτους, cf. **a (ii) 16** *supra*; ἀνά cf. B112.2, 113.3, **a (ii) 26-7** || ε]ρχόμεθ' MS τ[ε συνε]ρχόμεν' scripsi, cf. **a (ii) 20** ἐν [τῆτι] δὴ τὰδε πάντα συνέρχεται ἐν [μόνον εἶναι], **a (i) 6** συνερχόμεν' (2a manu), B20.2 συνερχόμεν' (= **c 3**, 2a manu); τ[(ε) εἰση]ρχόμεθ(α) M-P, Inwood

4. *Commentary*²⁹⁾

a (i) 6-a (ii) 3 It will be recalled that the hinge upon which M-P make their interpretation of lines **a (ii) 3-17** turn is the restored demonstrative [Ἐ]ν τῆτι at **a (ii) 3**. The τῆτι in question, according to the editors, has as an antecedent their own supplement ἐν δ' Ἐχθρῆτι at **a (i) 7**. I have already offered some general criticisms of that restoration, but I have not yet shown how [Πα]ντῆτι might also be preferable to the alternative. To do that, I must first go back to consider the restoration of preceding verses, in particular the lines **a (i) 6-7**.

a (i) 6-7 The preserved line-ends allow us to recognize this as a certain instance of the AB motif of alternation, as M-P also recognize, 179-82, but the missing first half of each verse cannot be restored with certainty. Further complicating matters is that the first hand's text has συνερχόμεθ(α), as it also does at **a (ii) 17** and **c 3**. Here at **a (i) 6**, however, a second hand has corrected this back into the participial form of the verb. M-P choose here, as in both other instances, to preserve the reading of the first hand. For my immediate purposes it will suffice to object that M-P's text cannot make sense of the second hand's motivation at **a (i) 6**: if the verb in the B half of the motif, the verb of separation, was in the indicative mood, as in M-P's διέφω, what then could have inspired the second hand to correct the unification verb to the participle?³⁰⁾ As

29) For convenience of reference, in what follows the reader may want to have DK, Wright, or Inwood in hand.

30) A. Laks, in *Reading the Readings*, 132, defends such an asymmetrical, indicative/participle construction, to which he compares (yet does not identify with) **c 3**/B20.3, where he also believes such a construction obtains. The crucial difference between his reading and that of M-P is that in **a (i) 6**, he does not think that 'we' is to be identified with the first principle Love, but expresses the notion that 'we' as well are the products of generation. While I find this much more satisfying than M-P's approach, I am not convinced by his reading of **c 3**, which I for

it stands, M-P are right to have their text reproduce Empedocles’ normal poetic practice, where he balances the unification and separation verbs in the motif, matching an indicative mood to an indicative, a participle to a participle. But allowing them that much, it seems that if the verb of separation had been in the indicative, then we must posit a mistake on the part of the corrector, rather than the first hand. This, while not impossible, seems far less probable than the reverse.³¹⁾

Instead, if we follow the second hand and read the first verb as a participle, the most likely restoration of **a (i) 6** is: Φιλότητι συνερχόμεν’ εἰς ἓνα κόσμον. The second line, in turn, can be compared to fr. B17.2 (= B17.17) and B17.10 (= B26.9). Both of these, as well as fr. B17.5, suggest that the most likely verb for the line is διαφύεσθαι. But in B17.2 the verb is given in the indicative, and at B17.10, as a participle, it is subordinate to ἐκτελέθουσι. If the decision to retain the participle at **a (i) 6** is correct, then a participle will be required for **a (i) 7**. Fr. B17.5 suggests one possibility, which would produce διαφνομένων πλέ]ον’ ἐξ ἑνός εἶναι. But that same genitive participle could also easily be rendered in the nominative, thereby matching συνερχόμεν’, to give διαφνόμενα πλέ]ον’ ἐξ ἑνός εἶναι.³²⁾

one find no better than the Simplicius’ text of B20 (see also Algra & Mansfeld, 79), nor do I find the parallels adduced by M-P for **c 3** apposite, see 276-7 (Laks does not offer any). Finally, as for **a (i) 6** itself, Laks does not reckon with (1) the general superiority of the textual tradition represented by Simplicius, nor (2) the consistency of Empedocles’ poetic practice within that tradition, where a careful and deliberate balance is always maintained in the depiction of Love and Strife, see Graham, *Symmetry in the Empedoclean Cycle*. While I do not rule out Laks’ reading of the ‘we’ as implausible, it would take more than the shaky **c 3** to establish the indicative/participle construction as an actual Empedoclean formulaic variant.

31) M-P could have strengthened their case by positing [ἐν δὲ Κότῳ διαφνόμεθα κτλ., at **a (i) 7** which would also only need an exchange of *nu* for *thêta*, but this would still not overcome the general objection that the two ‘we’s appear suddenly, without any link to the context, which is consistently cosmological and impersonal, cf. **a (ii) 18-20** and Algra & Mansfeld’s discussion, *Three Thêtas*.

32) The final vowel in διαφνόμενα would then be long by position, cf. the epsilon opening ἔπλετο in DK 21.2 λιπόξυλον ἔπλετο μορφῆι. That deprives the verse of its penthemimeral caesura, but this slight anomaly conforms to other known cases, see M-P 124, *Règle 1*, with *comparanda* and *bibl.* On a different note, Laks points out, *Reading the Readings*, 132, that the verse-end πλέ]ον’ ἐξ ἑνός εἶναι when it occurs at B17.2, **a (ii) 17** and **a (ii) 20** follows a conjugated verb. This, he suggests, weighs against having it depend upon a participle here. But since

Allowing that either is viable, then for the remaining first foot and a half, known Empedoclean formulas offer three further possibilities. The first we get via a small modification to B17.5, the second from comparison to B26.6, the third from B21.7:

[ἦ δὲ πάλιν διαφουμένων/διαφούμενα πλέ]ον' ἐξ ἑνὸς εἶναι
 [ἄλλοτε δ' αὖ διαφουμένων/διαφούμενα πλέ]ον' ἐξ ἑνὸς εἶναι
 [ἐν δὲ Κότῳ διαφουμένων/διαφούμενα πλέ]ον' ἐξ ἑνὸς εἶναι

The second, based on B26.6 and positing a neuter nominative plural, is perhaps the closest match for line **a (i) 6**. Yet, given that we do not know what specific form that line took, no one supplement for **a (i) 7** is demonstrable to the exclusion of the other two. If we draw upon stylistic considerations, in particular a tight symmetrical correspondence between the two paired lines, as in other instances of the AB motif, then for **a (i) 6**, this favors combining M-P's ἐν μὲν Φιλότητι, based on B21.8, with my third possibility, to give the text I print above.³³⁾

A more important result of this reconstruction is that, by reverting to the participle for both verbs, this affects the grammatical construction of the lines in the immediate vicinity, as well as their punctuation. By choosing the participle, the two verbs become grammatically subordinated to the previous lines, and by extension so does **a (i) 8-a (ii) 2**, another recurring Empedoclean poetic formula, which I will call the zoogonic formula. In this connection, I may add, I see no reason to regard the end of Simplicius' quotation of B17 as necessarily indicating the end of the sentence.

a (ii) 3 The goal of this section, I may remind the reader, was to illustrate the greater viability of [Πα]ντήι at **a (ii) 3**. In the first place, then, if the alternate reconstruction I offer is correct, there

there is no grammatical bar to that construction (e.g. B62.6 πῦρ . . . θέλον πρὸς ὁμοῖον ἰκέσθαι), I see no reason to exclude it as a possibility, either here or at **a (ii) 17**, where choosing the participle would produce *two* instances of the construction.

³³⁾ This is preferable stylistically, with a closer balancing of ἐν μὲν Φιλότητι against Ἐν δὲ Κότῳ, as in DK 21.7-8. Moreover, a reconstruction with ἄλλοτε . . . ἄλλοτε, perhaps attractive on a comparison with B26.5, would be lacking a noun for Strife that would correspond to Φιλότητι. In any case, any one of the supplements considered above for line **a (i) 7**, seems as viable as that offered by M-P.

was no ἐν δ' Ἐχθρῆι at **a (i) 7** to serve as an antecedent to the suggested [Ἐ]ν τῆι at **a (ii) 3**. Instead, that the scope of the passage remained on the level of a general presentation of the cosmic system can be shown through an excellent parallel for the whole sequence, fragment B21.7-14, one noted by the editors themselves. This fragment, moreover, as we know from Simplicius, *in Ph.* 159.13 Diels came after fragment B17, and is a recapitulation of earlier content, probably our very passage.

In fr. B21.7-14 we find the same general sequence of thought as **a (i) 6-a (ii) 3**. In both, the first two lines give the AB motif (actually BA in B21), and the next four express the zoogonic formula. In B21, the zoogonic formula is followed, without any stronger coordination than a γάρ, by a reiteration of the formula asserting the self-identity of the first principles. It is the same line that occurs *before* the AB motif and zoogonic formula at fr. B17.34 and B26. Its meaning there is quite general and adds little to the understanding of the passage. Why not assume the same in the papyrus? On this view, the papyrus' αἴσσουντα will merely be a variant for θέοντα, a general term of movement, with no more significant signposting than δέ, and comparable to other sameness-in-change formulas, cf. B17.34-5. By deflating the significance of αἴσσουντα, moreover, the reading πάντῃ gains in strength, for we need no longer manage a transition via [Ἐ]ν τῆι to explain this new type of movement. Instead, we simply have the same sequence of ideas as in B21.7-14: alternation of one and many, capacity to generate the world and its contents, permanence in change.

a (ii) 3-5 At **a (ii) 6**, the nominative plural []οὶ δ' αἰῶνες probably indicates the beginning of a new sentence or clause, so that I will consider **3-5** together. What is to be made of [π]υκνήσιν δίνῃ[σιν]? M-P understand these *tight* or *compact* whirls to be their strongest evidence in their case for the reign of Strife. While I do not think this necessarily wrong, I doubt that there is sufficient evidence to reach any conclusions about the line (for one suggestion, see below), and merely point out that the δίνῃ is one of the least understood features of Empedocles' system. Indeed, Simplicius quotes fr. B35 explicitly to prove that there is still a δίνῃ under Love, *in De Caelo*, CAG 7, 528.3-530.26, Heiberg, whereas Aristotle seems

to assume that under complete Strife it no longer exists or has any effect, *De Caelo*, 295a30-3. Equally important is that at fr. B17.25, in the miniature hymn to Love, Empedocles overtly describes Love herself as *whirling*, either among mortals or the elements: τὴν <sc. Love> οὗ τις μετὰ τοῖσιν ἐλισσομένην δεδάηκε / θνητὸς ἀνὴρ, a passage often overlooked in discussions of the whirl.³⁴⁾

a (ii) 6-8 As suggested above, []οἱ δ' αἰῶνες probably marks the opening of a new sentence, one that either ends at **a (ii) 8** or takes a strong break, since the opening of the next line, [οὐ]τε γὰρ ἠέλιός, appears to open a parenthesis to explain it. If M-P are right to interpret the previous three lines as an allusion to the reign of Strife, then their [πολλ]οἱ δ' αἰῶνες, *many generations*, could refer to the duration of the *close-packed whirls*. Instead of this, however, and here is where their interpretation begins to err seriously, at 194 they suggest that since μεταβῆναι is the verb used to describe the transmigration of the soul in later authors, the reference in question here is to the souls, which, *qua* particles of Love, are moving back to the center of the cosmos. While granting that this is of a piece with their retention of the 'we' at **a (i) 6** and **a (ii) 17**, closer attention to context should have kept matters in perspective: the subject of these lines, as over the previous forty lines, remains the first principles and their ability to generate the world. If so, the verb is probably better understood as conveying some physical or cosmological lore, as in B35.9-11, or again B35.14-5.³⁵⁾ Specifically, I point out that ἐξεβεβήκε from B35.11, which describes the action of Strife leaving the elements, closely recalls μεταβῆνα[ι, except that in the papyrus the verb will apply to the elements. Closer still, the phrases τὰ πρὶν μάθον ἀθάνατ' εἶναι and διαλλάξαντα κελεύθους from B35.14 and 15 respectively, which describe the passage of the elements from unmixed to mixed states, seem more than adequate to justify taking μεταβῆνα[ι as a description of the movement of the elements. Indeed, based upon these lines and their sequel at DK B 35.16, I

34) It does not figure in L. Perilli's chapter on Empedocles in *La teoria del vortice nel pensiero antico* (Pisa 1996), a serious omission.

35) For B35.9-11 see apparatus to line **a (ii) 7**. B35.14-5: αἴψα δὲ θνήτ' ἐφύοντο, τὰ πρὶν μάθον ἀθάνατ' εἶναι / ζωρά τε τὰ πρὶν ἄκηρα, διαλλάξαντα κελεύθους.

would go so far as to suggest the following restoration to the second half of **a (ii) 7**:

[πρὶν] τούτων μεταβῆνα[ι ἐς ἔθνεα μυρία θνητῶν]³⁶⁾

If, as I suggest, the subject of these lines remains cosmological, then perhaps their point was that while the first-principles underlie all life, as stressed in the zoogonic formula, **a (i) 8-a (ii) 2**, they also have a ‘cosmic life’ of their own, lasting many ages before they grow into mortals, ‘driven away from themselves’, cf. B22.3.³⁷⁾ As seems likely on general compositional principles, the lines between the two identical(?) verses **a (ii) 3** and **a (ii) 8** form a group, this group could stand as an antithesis to or qualification of the life-generating capacities of the first-principles asserted in the zoogonic formula: in addition to their time as living creatures or cosmic phenomena, the elements also ‘lie fallow’ for many eons, without forming any compounds.

a (ii) 9-14 This and the next section are the most important in establishing the idea of a negation of the current order of things. The most important line in this respect is **a (ii) 13**, where we learn that ‘the earth runs’, but **a (ii) 9** [οὐ]τε γὰρ ἠέλιος, probably coordinated with **a (ii) 11** [οὐ]τε τι τῶν ἄλλων, most likely convey a similar idea. Given the better preservation of **a (ii) 12-4**, it will be best to start at the end of the section, and then come back to the opening verses.

I begin by ignoring M-P’s σφαῖρα, since there is nothing to support it beyond fitting the meter. Doing so, however, means that **a (ii) 14** becomes much less intelligible, so that the place to begin is

36) Cf. B35.16 τῶν δέ τε μισγομένων χεῖτ’ ἔθνεα μυρία θνητῶν. On the meter, M-P 195: “Notons enfin que, pour que le vers présente une césure au troisième pied, il faut que la syllabe finale de μεταβῆνα[ι s’abrège. Le mot qui suivait commençait donc par une voyelle, brève en l’occurrence.” On ἐς as a good Empedoclean form, cf. B 35.1, 112.7, 115.10, 128.7.

37) For further details, see *Ultimate Symmetry*, 36-8, where fr. B22 is discussed. This is perhaps also to be linked with fr. B2.3 DK, παῦρον δ’ ἐν ζωῆσι βίου μέρος ἀθρήσαντες, where mortals are faulted for ‘fixing their gaze on the small part of life in the living’, by which Empedocles perhaps means the short span the eternal elements spend in living creatures.

line **a (ii) 13**, γαῖ[(α) . . .]ἄτη θέει, ‘the earth runs’. The word following γαῖ(α), is most likely an adjective. The lacuna indicates a space of three letters, but the meter requires two shorts. Instead of [ἄβ]ἄτη, adopted by the editors at the suggestion of G. Most, I propose γαῖ(α) [ὑπ]ἄτη, ‘the earth runs uppermost’ (i.e. is highest).³⁸⁾ For the end of the line, [ὑπ]ἄτη requires a genitive of respect, easily supplied by the conjecture ἤελ[ίσιο].

The radical idea that the sun, i.e. the element fire, can find itself beneath the element earth, which here runs, another property usually associated with the sun, powerfully illustrates the world’s potential topsy-turvydom. It is an *adunaton* that confounds mortal expectations, comparable to the solar eclipse in Archilochus, #122 in West, *Elegi et Iambi Graeci*, 2nd ed. It is also well attested for Empedocles, in the fragments and in the doxography. The closest comparison in the fragments comes from *ensemble b 2*/fr. B76.3 ἔνθ’ ὄψει χθόνα χρωτὸς ὑπέρτατα ναιετάουσας, where Empedocles appears to be arguing that the elements can be arrayed in a number of different ways, and illustrating this by reference to animals with the ‘hard parts’ on the outside (i.e. earth), and the soft (i.e. water) on the inside, such as mussels, sea-snails, tortoises, and horned stags.³⁹⁾ This would be in contrast to most other animals, whose bones are surrounded by soft flesh, but perhaps also the current cosmos, with earth or the hard parts at the center, surrounded by liquids and other ‘softer’ outer layers. Another instance of this general notion, but referring to the inversion of fire and earth, is probably what lies behind fr. B52, stating that ‘there are many fires burning beneath the earth’, and placed by DK alongside fragments B53 and 54, where Empedocles describes the *aither* reaching down into the earth. Lastly, the idea that the earth, or some part of it, at some point rests atop fire is strongly implicit in *ensemble d*, frag-

38) Although the elision of the final A in γαῖα would be required by grammar and the meter, the available space, along with a faint trace of that elided A before the lacuna, indicate that the letter was in the text. To explain this, it is necessary therefore to postulate a probable instance of *scriptio plena*, as in M-P’s own supplement, see 200 and 17. As in the other cases reported by M-P, the *scriptio plena* I posit here would have been intended to aid the intelligibility of the manuscript.

39) M-P 141 with commentary. As such I think this strengthens the case for the proximity of *ensemble b* to **a**, as argued by the editors, 108.

ment B62 and Inwood fr. 40 (= fr. A49a DK), where fire bursts out from the central mixture to rush up into the heavens.

While that is already good support for such a notion, the doxography provides us with even more compelling evidence. From Aetius 2.7.6 (= DK 31 fr. A35) we learn that: 'Empedocles said that the elements do not stand [i.e. one place] for all time, nor are their positions defined, but that they all take each others' place in turn.' From Achilles, *Isagoga*, 4 p. 34, 20 ff., ed. Maas, an introduction to Aratus, we are told even more specifically that: 'Empedocles does not assign definite positions to the elements, but says they give way to one another, so that the earth is carried into the upper regions and fire down to the lowest places.'⁴⁰) This is clear and unambiguous, and all the more compelling for its direct reference to the inversion of earth and fire. Lastly, for the sake of even greater clarification of the concept involved, I cite a testimonium from John Philoponus, in his *Commentary on Aristotle's Physics* (CAG XVI) p. 261, 17 ff.:

Empedocles says that it is through chance that air obtained the upper region. For all things being previously mixed together in the Sphere, once they had been separated by Strife, each was carried into the place it now is, not by providence, but as it chanced. And indeed, he says concerning the upward movement of the air:

for thus it chanced to be running then, but often otherwise (fr. B53 DK)

For at present the water is above the earth, but at another time, if it so happened in another world-formation, when once again the world arises from the Sphere, it would obtain another disposition and place.⁴¹)

This last evidence illustrates its point by reference to earth and water (a link to DK 76/*ensemble* **b**?), not fire and earth, but it

40) I give the Greek text in the apparatus to line **a** (ii) **13**.

41) ὁ γοῦν Ἐμπεδοκλῆς ἀπὸ τύχης φησὶ τὸν ἀέρα τὴν ἄνω χώραν κατελιφέναι· συγκεχυμένων γὰρ ὄντων πάντων ἅμα ἐν τῷ Σφαιρίῳ πρότερον, διακριθέντα ὑπὸ τοῦ Νείκου ἕκαστον ἐνεχθῆναι εἰς τὸν τόπον ἐν ᾧ νῦν ἔστιν, οὐκ ἀπὸ προνοίας, ἀλλ' ὅπως ἔτυχε. λέγει γοῦν περὶ τῆς τοῦ ἀέρος ἐπὶ τὸ ἄνω κινήσεως·

οὕτω γὰρ συνέκυρσε θεῶν τοτέ, πολλάκι δ' ἄλλως
νῦν μὲν γὰρ ὑπὲρ τὴν γῆν εἶναι τὸ ὕδωρ, ἄλλοτε δ' εἰ τύχοι ἐν ἑτέρῳ κοσμοποιίᾳ, ἦνίκα πάλιν ἀπὸ τοῦ Σφαιροῦ γίνεται κόσμος, ἄλλην τιὰν τάξιιν καὶ τόπον ἀπολαβεῖν.

nevertheless gives a much clearer statement of the possibility of variation from one world to the next. As such, it supports not only the specific point at hand, but is the clearest statement from the ancient evidence for a distinction, on Empedocles' part, between the eternal sameness of the alternation of one and many, and the variation between mortal worlds, each of which, it seems, contains some measure of historical accident. If this is correct, then Empedocles' cosmic cycle was quite different from the Stoic cycle, to which it is often compared, and which is eternally the same in all regards.

Proceeding now from μὲν γὰρ γαῖ(α) [ὑπ]άτη θεεί η̄ελ[ί(ο)ιο], which I take to be fairly secure, we are better able to consider the remaining material. If the point of **a (ii) 13** remains a general one, as perhaps indicated by the use of the present tense, then for the opening of that same verse, the supplement [καὶ πο]τέ 'and even sometimes', with its implied rebuke of mortal expectations, might give better sense than M-P's [δὴ τό]τε.

As for **a (ii) 14**, the suggested genitive η̄ελ[ί(ο)ιο] gives reason to posit another genitive opening the line, hence [τῶν τε (?)], and for this one may compare DK B75.1 and DK B23.10 (quoted in the apparatus). That in turn, with its implication of a quantification of some sort, encourages me to read the preserved sequence τ(ο)σην as a more Empedoclean-looking phrase, τός(α) ἦν δὴ, rather than M-P's τ' ὄσην.⁴²) For the end of the line, M-P suggest τ[εκμήρασθαι(?)] based on Aratus, *Phaenomena*, 932. That would yield:

13 [καὶ πο]τέ μὲν γὰρ γαῖ(α) [ὑπ]άτη θεεί η̄ελ[ί(ο)ιο]

14 [τῶν τε], τός ἦν δὴ, κα[ί] ν[υ]ν ἐπ' ἀνδράσι τ[εκμήρασθαι(?)]

'For even sometimes the earth runs atop the sun, as well as the others (i.e. the elements), as many as were at that time, and <which> men may now discern by indications.'⁴³)

42) A good parallel for that is found no further than **a (i) 8**, $\text{λεξ} \hat{\omega}\nu \text{πάντ(α) ὄσα τ' ἦν ὄσα τ' ἔστ(ι) ὄσα τ' ἔσσειτ' ὀπίσσω}$. The reading τ' ὄσην, moreover, is rather irregular, since it preserves the τ before a rough breathing, as M-P themselves recognize, 203.

43) Some type of reasoning from clues to form inferences might be meant, as can be seen by comparison to lines **a (ii) 25** ὄσ[σ]α τε νῦν ἔτι λοιπὰ πέλει τούτοιο τ[όκοιο(?)] and **d 14** [τῶν καὶ (?)] ν[υ]ν ἔτι λείψανα δέρκεται ἠώς. The line might look ahead to fr. B21, where the elements are shown as the main ingredients in the world-bodies.

But again the line is quite mutilated, so that I also put before readers the following possibility:

14 [πᾶσα], τόσ’ ἦν δὴ κα[ί ν]υν ἐπ’ ἀνδράσι τ[ηλεθόωσα]

‘... [earth] ... all of it, as much as was then, and now flourishing in the age of men.’

M-P’s τ[εκμήρασθαι] has merit, but allows them to ignore a good Empedoclean verb, *τηλεθάειν* ‘to bloom’ or ‘flourish’. In epic the verb mostly appears in the participle and at the end of the line, e.g. *Il.* 22.423 or 23.142, but its most famous instance is *Il.* 6.148-9, the comparison between the generations of men and the leaves which a flourishing wood grows, ὕλη / *τηλεθόωσα* φύει. Empedocles uses the verb twice in the extant fragments, both in the participle and at the end of the line. In DK 112.7 ἐς ἄστεα *τηλεθάοντα*, it is applied metaphorically to cities, in fragment #152.2 Wright/Inwood #85 more directly to plants or trees. For a position at the end of line 14, the meter is best satisfied by the feminine singular of the aorist participle, as in *Il.* 6.149, which form would be governed by the noun γαί(α). On the model of **a (i) 8**, the conjecture [πᾶσα], equally possible in terms of space, would also support reading *τοσην* as the correlative clause τόσ(η) ἦν δὴ. As a notion, the ‘flourishing earth’ can be compared to B 27.2, where Empedocles speaks of the αἴης λάσιον μένος ‘the shaggy might of the earth.’⁴⁴)

Proceeding from that, I offer some further suggestions for the interpretation of **a (ii) 9-12**. For **a (i) 11** [οὔ]τε τι τῶν ἄλλων, a comparison with fr. B38.2 suggests: [οὔ]τε τι τῶν ἄλλων [ῶσα νῦν ἐσορῶμεν ἅπαντα].

As for **a (ii) 12**, M-P’s ἀί[σσει] remains debatable, since that specific verb depends more on the hypothesis of the domination of Strife than its occurrence at **a (ii) 3** and **8**. In fact, the participle

44) In both cases, the only difficulty is the imperfect tense of εἶναι. But as B35 shows, Empedocles tends to use present tenses to depict eternal or iterative activity in the cycle (or often simply in the main clause), while using past tenses to denote actions which precede it, or are subordinate to it, considered in a shorter linear sequence. B35.5, gives, in the present tense, the main idea of the fragment, ἐν τῇ δὴ τὰδε πάντα συνέρχεται ἐν μόνον εἶναι, whereas the detailed description of Love’s expansion and Strife’s retreat features ἔστηκε, ἔρυκε, ἐξέστηκεν, ἐνέμμενε, ἐξεβεβήκει, κτλ., see M-P 209.

μεταλλάσσο[τ(α)] suggests instead that what we have here is something close to the theme of ‘constancy in change’, cf. fr. B17.6, 17.12, 17.34, **a (ii) 3** and **a (ii) 8**. The participle ἀλλάσσοντα here is identical to those instances, and in the same position as in B17.6 and 17.12, with only the prefix μετα- being new. Unlike there, however, at **a (ii) 12** Empedocles seems to be stressing ‘change’ rather than continuity. This might drive us back to M-P’s interpretation, but a better parallel expressing the idea of change *in general* is fr. B26.1 ἐν δὲ μέρει κρατέουσι περιπλομένοιο κύκλωιο. Based upon that, I propose [ἀλ]λα μεταλλάσσο[τα κρατ]εῖ κύκλωι[, which when taken with **a (ii) 13**, also has the advantage of restoring a coherent sequence of thought to the passage: the picture of the earth running atop the sun would serve as an illustration of the general point that all the elements have their turn at dominance, here rendered quite concretely as a vertical stratification.

a (ii) 15-17 These three lines are where in my view M-P’s edition proves most unsatisfactory. Here again is M-P’s text and translation:

- 15** [ὡς δ’ α]ὔτως τάδ[ε π]άντα δι’ ἀλλήλων [τε θέεσκεν(?)]
16 [κᾶλλο]υς τε(ε) ἄλλ[(α) ἴκα]νε τόπους πλαγ[χθέντ’ ἰδ]ίους τε(?)]
17 [αὐθάδη(?)] μεσάτους τ’[εἴση]ρχόμεθ’ ἐν μίονον εἶναι.]

‘And in just the same way all these things (i.e. the elements) were running through one another and, having been driven away, each of them reached different and peculiar places, self-willed; and we were coming together in the middle places, so as to be only one.’

According to M-P, the lines describe the final moments before Strife breaks the cosmos apart, 188-9:

Un détail permet de préciser que l’état décrit à la fin du passage ne constitue pas encore le sommet de la διάλυσις κόσμου, qui ne dure d’ailleurs qu’un bref instant, selon D. O’Brien: il est explicitement signalé en **a (ii) 15** que les éléments continuent à s’entrecroiser dans leur course, τάδ[ε π]άντα δι’ ἀλλήλων [τε θέεσκεν(?)]. Nous croyons donc que les dernières lignes décrivent, non le point extrême de la διάλυσις κόσμου, mais la dernière étape du mouvement qui y conduit: sous la pression forte de la Haine, les mélanges se défont, libérant en tous sens les éléments, qui se croisent une dernière fois pour rejoindre les lieux distincts qui leur sont assignés, comme le précise **a (ii) 16**, [κᾶλλο]υς . . . τόπους . . . [ἰδ]ίους τε (?)].

This interpretation relies upon three moves. The first is context, that is, the interpretation of **a (ii) 3-17** as a description of increasing Strife. The second is the decision to let the personal verb []ρχόμεθ(α) stand as transmitted, rather than emend it to the participle. While the burden of proof naturally rests with whoever would change it, I do not think it is as heavy as M-P reckon. Their third move, contingent upon the first two, is the identification of this 'we' with Love. M-P base this rather hypothetical identification upon the 'retreat' of Love under the reign of Strife, which they picture as a flight to the center of the cosmos, 90-5. My criticisms here center on their second move, the retention of the reading]ρχόμεθ(α) at **a (ii) 17**. As for the third, if I am correct about the second, there is no third.

The surviving]ρχόμεθ(α) is the only conjugated(?) verb in the passage, and hence of importance in reconstructing the three lines. The obvious supplement is συνερ]ρχόμεθ(α), on the model of other 'A' lines from the AB motif. Its position in the center of the line, moreover, conforms to all other Empedoclean uses of the verb, which, when combined with the line ending ἐν μ[όνον εἶναι], make it an almost certain addition to the list of unification formulas. But M-P, having made up their minds that the passage describes the triumph of Strife, and restored other verbs in a past tense on the weakly supported ἴκα]γξ at **a (ii) 16**, overlook this connection. In fact, proper emphasis on the thematic resonance of each line should have served as a corrective to their overwrought interpretation. For once this link has been made for **a (ii) 17**, it is clear that its 'B' counterpart in the motif, the line describing plurality and separation, is what we must have at line **a (ii) 16**.

Although somewhat less obvious than for **a (ii) 17**, the mention of wandering to other or separate places is naturally linked to the idea of separation, as expressed for example in fr. B21.7, ἐν δὲ Κότῳ διάμορφα καὶ ἄνδιχα πάντα πέλονται. The most obvious hypothesis for the interpretation of lines **a (ii) 17** and **18** therefore is that they are yet another instance of the AB motif of alternation, albeit here in BA form, as at B21.7-8.⁴⁵⁾

45) Although M-P are aware of both lines' link to this motif, they believe that the personal form of the verb at line **a (ii) 16**, combined with their interpretation

Thus, I propose:

- 15** [ὤς δ' α]ὔτως τάδ[ε π]άντα δι' ἀλλήλων [θέει αἰεί]
16 [ἄλλο]υς τ(ε) ἄλλ[οτε ἄλ]λα τόπους πλαγ[χθέντα ἕκαστα]
17 [ἄλλοτε ἄν] μεσάτους τ[ε συνε]ρχόμεν' ἐν μ[όνον εἶναι]

'In just this way all of these always run through one another, at one time each of them different, wandering apart to different places, at another coming together in the central [places] to be only one.'

For **a (ii) 15**, θέει is suggested on the model of B17.34, there in the participial form, here in the present tense, as at **a (ii) 13**. To complete the line, I suggest αἰεί, as at B108. At **a (ii) 16**, the lacuna of the third and fourth feet can be supplemented with ἄλλ[οτε ἄλ]λα, which occur in exactly the same metrical position at B17.35.⁴⁶ As for the end of the line, I propose πλαγ[χθέντα ἕκαστα] on comparison with B17.8 (= B26.6), and *ensemble c* 6/fr. B20.5. For line **a (ii) 17**, [ἄλλοτε] is supported by the identification of the line as an instance of the unification motif 'A', where it occurs at the opening of the verse, e.g. at fr. B17.7.

The most important difficulty remains what to make of τ[. . .]ρχόμεθ(α) at **a (ii) 17**. Unlike the other two instances of this new reading, **a (i) 6** and **c 3**, no correction of it was made by the second hand. M-P take this to mean none was needed. Against them, I think that the possibility of emending the verb to συνε]ρχόμεν', as indicated by the second hand in the other two instances, is quite good: a mere three lines later, **a (ii) 20** describes the unification of the cosmos under Love as impersonally as ever, and with no mention of 'we'.

of the general context, allow them to forgo this more obvious route. The result is that, while they do link **a (ii) 17** to Strife, they blithely overlook line **a (ii) 16**'s link to the unification theme, and refuse to associate the two lines as part of the theme of alternation, in their terminology "un balancement", 94 note 4: "La forme εἰση]ρχόμεθ' de **a (ii) 17** n'a pas retenu l'attention du correcteur, parce qu'elle est utilisée seule, en dehors d'un balancement; elle échappe par conséquent à tout reproche en matière de parallélisme."

46) Although M-P tentatively read the two poorly preserved letters following the lacuna as NE, they are also compatible with ΛΑ. Also, since I take the τ(ε) of that line as coordinating the subordination of two paired participial clauses, there is no need to posit a crasis of καί and ἄλλους opening the line, a space anyway more suited to four letters, as in [ὤς δ' α]ὔτως in the previous line.

This reconstruction has the following advantages over that of M-P. It preserves the thematic continuity of fr. B17 and *ensemble a* in terms of subject-matter and compositional principles, does not disrupt the general present-tense exposition, and does not require us to suppose that Empedocles had given specifications before it concerning demon-lore (as do M-P 92-3). Further, this reconstruction meshes better with Empedocles' doctrine of the cosmic cycle, in particular by elucidating the difficult lines B17.3-5. For taken together, the three lines specify the double manner in which the 'running through one another' of the first principles occurs. At one time, it results from the drive to separation, at another the pull to unification. Thus, yet again, we find that both processes of unification and separation produce the middle spectrum within which mortal life is possible.⁴⁷⁾

The most drastic departure from M-P is the decision to emend the verb of **a (ii) 17** into the participial form of the indirect textual tradition. According to M-P, the strongest argument for preserving the new variant is the fact that it is not an isolated instance, but one of three identical variants in the same verb. Despite that, and some further arguments advanced by M-P and now Laks⁴⁸⁾ I hope that the construction of a plausible alternative does away with the need to refute their arguments point by point. While I am skeptical that a precise explanation for the three *thêtas* can be given, the most likely explanation is that they simply represent a systematic error of some sort, either a hypercorrection, or a crude misunderstanding.⁴⁹⁾ This need not, in turn, imply that its corrections are all

47) For my interpretation of these lines, with bibliography, see *Ultimate Symmetry* 22-8.

48) M-P sum up their discussion on the point at p. 93: "Il est temps de porter un jugement sur la valeur de la leçon ειση]ρχόμεθ' en **a (ii) 17**, des variantes συν.ερχόμεθ' en **c 3** et συνερχόμεθ' en **a (i) 6**. Nous pensons que, dans les trois cas, la 1^e personne du pluriel représente la leçon authentique, remontant à Empédocle. Deux considérations nous incitent à privilégier cette dernière hypothèse: d'abord, le fait qu'en **a (ii) 17** l'indicatif ειση]ρχόμεθ' n'ait donné lieu à aucune addition supralinéaire de la part d'une 2^e main et que la syntaxe interdise pratiquement d'installer à sa place, par voie de conjecture, un participe; ensuite, le fait qu'en **c 3** l'indicatif συν.ερχόμεθ' offre une issue, sinon facile, du moins acceptable, à l'incongruité syntaxique du texte transmis par la transmission indirecte." For criticisms of M-P's attempt to take all three readings together, and a more sensible defense of the *thêtas*, see Laks, *Reading the Readings*.

49) See Osborne, *Rummaging* 346, and Mansfeld & Algra, *Three Thêtas* 80-1.

necessarily well thought through.⁵⁰) Especially if the copyists' mistake was of a systematic or mechanical kind, this would invite a mechanical and unreflecting style of correction, particularly over a long stretch of text. In other words, the second hand caught the mistake at **a (i) 6** and **c 3**, but **a (ii) 17** escaped his notice.

Conclusion

The alternate reconstruction and interpretation advanced here shows the viability of the participial form $\sigma\upsilon\nu\epsilon\rho\chi\acute{o}\mu\epsilon\nu(\alpha)$ at lines **a (i) 6**, **a (ii) 17** (and indirectly at **c 3**) and further weakens the case for retaining the three *thêtas*.

On the level of doctrine, the material from the papyrus helps confirm the traditional, 'symmetrical' picture of the cosmic cycle, first advanced by Panzerbieter (1844). Beyond that, however, the new material does not in all points confirm the most detailed reconstruction of the cycle on traditional lines, that of O'Brien in *ECC*. In particular, if my restoration of line **a (ii) 13**, is sound, the new material reinforces doxographic evidence for the role for chance in the cosmic cycle. According to these sources, which modern scholarship on Empedocles has generally ignored, Empedocles' cosmic cycle did not consist of a *completely identical* pattern of recurring events, as in the later Stoic doctrine of the cosmic cycle. The alternation of One and Many, the *Sphairos*, Love, Strife and the four elements, all these will have been eternally the same; everything else, including the relative position of the four elements from world to world, was left to chance. If correct, this is an important and novel contribution to our understanding of Empedocles' cosmic cycle, and brings out more clearly than ever Empedocles' close affinities with the ancient Atomists.

Empedocles' cosmic lottery, and if I am correct, I see no other way of describing it, is reminiscent of the great $\delta\alpha\sigma\mu\acute{o}\varsigma$ which Poseidon describes at *Iliad* 15.187 ff., whereby the three eldest sons

50) E.G. Turner, *Greek Papyri, an Introduction* (Oxford 1965, reprint 1980), 93: "But several of our surviving papyrus manuscripts, and especially those that are beautifully written, contain such serious un-noted errors that it is clear their proof-reading was of a summary, superficial kind, if done at all. This phenomenon has long been known to palaeographers and textual critics."

of Kronos received their shares of the world. Here the only difference is that the lots are cast anew each turn of the cycle, and the element-gods (cf. B6) do not keep their dominions once and for all. The inspiration for this novelty may well have been the democracies of Empedocles' day, where sortition was the favored means of mediating the competing claims of different but equal individuals.⁵¹⁾ The *locus classicus* for this notion in Empedocles is B17.27-9, where the first principles resemble nothing so much as citizens of a cosmic democracy:

ταῦτα γὰρ ἴσα τε πάντα καὶ ἥλικα γένναν ἔασι,
 τιμῆς δ' ἄλλης ἄλλο μέδει, πάρα δ' ἦθος ἐκάστωι,
 ἐν δὲ μέρει κρατέουσι περιπλομένοιο χρόνοιο.

'For all of these are both equals and coevals,
 and each guards his privileges, each has his own character,
 but they rule in turns as time revolves.'

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51) On this background, see G. Vlastos' classic paper *Equality and Justice in early Greek Cosmologies*, *Classical Philology* (1947), 156-78, reprinted, with some changes, in *Studies in Greek Philosophy: Volume I. The Presocratics*, ed. D.W. Graham (Princeton 1993), 57-88.