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Knowledge Transfer from Presocratic Ideas to Eryximachus' Speech (Plato, 'Symposium' 185c4-188e4)

Debono Cauchi, Andrew

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**Knowledge Transfer from Presocratic Ideas
to Eryximachus' Speech (Plato, *Symposium* 185c4-188e4)**

Andrew Debono Cauchi

Student Number: s3789071

E-mail Address: a.debono.cauchi@umail.leidenuniv.nl

Supervisor

Dr Aistė Čelkytė

Second Reader

Dr R.M. van den Berg

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1. Introduction

1.1. Context of the Research Question

Plato's *Symposium* is a philosophical dialogue about Love.¹ Apollodorus, a disciple of Socrates, describes a symposium (συμπόσιον) hosted by the Athenian tragedian Agathon in celebration of his victory in the tragedy competitions (174a6-b1). One of the guests invited to Agathon's symposium, the physician Eryximachus, suggests that each guest should make an encomium (a speech of praise) in honour of the god Love (177a2-d5). Effectively, Eryximachus becomes a sort of "master of ceremonies" of the proceedings.² Six encomia follow Eryximachus' suggestion. These are made by Phaedrus, Pausanias, Eryximachus himself, Aristophanes, and Agathon respectively, culminating in Socrates' great speech in honour of Love (Ἔρως) (201d1-212c3). However, one last encomium, made by the reveller Alcibiades, is in honour of Socrates himself (214e9-222b7).

The third of these seven encomia is given by Eryximachus (185c4-188e4), the same physician who sets the objective of the *Symposium*.³ Throughout his speech, Eryximachus shows his erudition by discussing not only medicine, but also various other disciplines such as music, astronomy, and divination. The structure of Eryximachus' speech is shown in **Table 1**.

Theme	Reference
Introduction: the cure for Aristophanes' hiccups	185c4-e5
The duality of Love and its cosmic influence	185e6-186b2
Medicine	186b2-e3
Interlude: gymnastics and agriculture	186e4-187a1
Music	187a1-c8
Well-ordered individuals as skilful practitioners	187c8-188a1
Astronomy	188a1-b6

¹ For Plato's *Symposium*, I follow the edition of the Greek text by Burnet (1901, Vol. 2). Emlyn-Jones & Preddy 2022, 109-137 provide a useful introduction to the dialogue as a whole.

² Emlyn-Jones & Preddy 2022, 115.

³ It should be acknowledged immediately that Plato did not invent the characters of his dialogues. These were Athenians with active lives and interests. Therefore, Eryximachus has both a historical and a literary level. While his speech has a literary role in the *Symposium*, it also reflects ideas Plato would have thought a physician would uphold. For a discussion on Eryximachus' prosopography, see Nails 2002, 143-144.

Divination and piety	188b6-d3
Conclusion: Love praised and Aristophanes' hiccups cured	188d4-e4

Table 1: The Structure of Eryximachus' Speech (185c4-188e4)

Eryximachus' speech is permeated by the metaphysical theme of opposites. First of all, the principal subject of Eryximachus' speech itself, Love, constitutes a pair of opposites. The physician begins by claiming that Love is a double: "τὸ μὲν γὰρ διπλοῦν εἶναι τὸν Ἔρωτα δοκεῖ μοι καλῶς διελέσθαι", "For on the one hand I think [it] to be defined finely that Love is a double" (186a2-3).⁴ Eryximachus later clarifies that this double Love actually constitutes two opposite Loves, one beautiful (καλός) and the other base (αἰσχροός) (186c7-d1). Kenneth Dover interprets Eryximachus' double Love more generally as two opposite Loves present in each discipline, the "good" and the "bad" Love. Essentially, the rule of "good" Love results in order and good, whereas the rule of the "bad" Love results in disorder and harm. For example, in the case of medicine, the "good" and "bad" Loves bring about health and illness of the body respectively.⁵ Moreover, this double Love is cosmic, because it is found not only in human souls (αἰ ψυχᾶς τῶν ἀνθρώπων) but also in bodies of all animals (τὰ σώματα τῶν πάντων ζώων), things which are produced in the earth (τὰ ἐν τῇ γῆ φυόμενα), and everything else which exists (186a3-7).

Opposites also find their way into the definitions of the several disciplines discussed by Eryximachus. In Eryximachus' view, these disciplines have an analogous definition, which may be formulated generally as follows: X is the knowledge of love matters (τὰ ἐρωτικά) of A in relation to B and C, where A is an entity or entities related to the discipline X being discussed, and B and C are two opposing principles related to the same discipline X. For example, medicine (ἰατρική) (X) is defined as the knowledge of love matters of the body (ἐπιστήμη τῶν τοῦ σώματος ἐρωτικῶν) (A) in relation to the two opposites of repletion (πλησμονή) (B) and depletion (κένωσις) (C) (186c5-7). Using the formulation above, **Table 2** shows the definitions of the various disciplines discussed by Eryximachus.

⁴ All translations from Greek are my own.

⁵ Dover 1980, 105. Moreover, note here that the concept of duality in Eryximachus' speech is inherited from the previous speech by Pausanias (180c1-185c3).

Discipline (X)	Knowledge of Love Matters (ἐπιστήμη τῶν ἐρωτικῶν)		
	A	B	C
Medicine	Body	Repletion	Depletion
Gymnastics	Unmentioned		
Agriculture			
Music	Harmony and Rhythm	High and Quick	Low and Slow
Astronomy	Courses of Stars and Seasons	Hot and Dry	Cold and Wet
Divination	Affairs of Human Love	Right and Piety	(Wrong and Impiety)

Table 2: Defining the Disciplines in Eryximachus' Speech

While discussing disciplines and defining them in terms of opposites, Eryximachus seems to be using Presocratic ideas.⁶ Indeed, Eryximachus' speech mentions and cites Heraclitus directly (187a1-6). In addition, Eryximachus' double Love may be said to resemble Empedocles' Love and Strife. The references to music and astronomy are also undeniably Pythagorean. Moreover, given the physician's medical background, there might also be traces of Alcmaeon. The use of Presocratic ideas⁷ in Eryximachus' speech shall be the subject of this thesis. Therefore, it seems desirable now to turn to a *status quaestionis* of this topic.

1.2. The *Status Quaestionis*

Since the start of the 20th century, Eryximachus' speech and its role in Plato's *Symposium* has attracted increasing scholarly interest. Eryximachus' speech has become a fairly well-discussed topic,⁸ and scholars have not failed to notice the physician's use of Presocratic

⁶ Emlyn-Jones & Preddy 2022, 119 refer to Eryximachus as "a medical man familiar with Hippocratic medicine and the pre-Socratic philosophers".

⁷ Throughout this thesis, I refer to 'the use of Presocratic ideas' rather than 'Presocratic influences'. As Kahn 1985, 241 points out, to speak of 'influences' means to assume a necessary and universal causality between Presocratic ideas and Eryximachus' speech. This is a complex and possibly unprovable relation. Therefore, it seems much more productive to discuss, as Kahn suggests, the use of Presocratic ideas in Eryximachus' speech rather than Presocratic influences.

⁸ In general, scholarly views on Eryximachus' speech are divided into two groups. The first group constitutes a more traditional interpretation of the speech where Eryximachus is viewed as a parodic stepping-stone towards the greater speech of Socrates (201d1-212c3). For example, see Corrigan & Glazov-Corrigan 2004, 62-68, Dorter 1969, 215-234, Gould 1963, 29-32, Levin 2009, 275-308, Levin 2014, 73-109, Taylor 1929, 216-218, and Trivigno 2017, 48-69. The second group attempts to overthrow the first by

and Hippocratic ideas. Since Heraclitus is mentioned and cited by Eryximachus (187a1-6), numerous scholars examine the relationship between Heraclitus' ideas and Eryximachus' speech. For example, de Campos interprets Heraclitus' citation from a medical perspective by reading Eryximachus' speech using the Hippocratic corpus.⁹

Scholars also tend to draw a brief parallel between the double Love in Eryximachus' speech and Empedocles' Love and Strife.¹⁰ Daniel E. Anderson analyses the use of Empedoclean ideas in Eryximachus' speech more extensively. Anderson's basic argument is that Eryximachus' "mask" is his profession,¹¹ but this "mask" is Empedoclean, and it revolves around the premise that Love is the binding force of the cosmos.¹² For Eryximachus this is Ἔρως and for Empedocles this is Φιλότης.¹³ Anderson also traces the essential notions of Empedocles' philosophy through Eryximachus' speech. For example, in Eryximachus' speech, a medical theory similar to Empedocles' emerges because the inferior Love (Ἔρως) destroys both the harmony (ἁρμονία) of the body internally and between the body and the environment externally. Moreover, it is the physician's duty to bring about order between the two Loves (Ἐρωτες).¹⁴

Given Eryximachus' medical background, scholars have often compared his speech to Hippocratic ideas. For example, Marino analyses how Eryximachus' speech borrows the

arguing that Eryximachus' speech delivers its own relevant philosophical contribution to the *Symposium*. For example, see Candiotta 2013, 194-200, Candiotta 2015, 81-93, Edelstein 1945, 85-103, Hunter 2004, 53-59, Krinks 2013, 351, Marino 2016, 241-252, McPherran 2006, 71-95, and Rowe 1999, 53-64.

⁹ de Campos 2022, 1-24. See also McPherran 2006, 79-80, Levin 2009, 290-298, Levin 2014, 85-96, Parry 2016, 163-164, Saudelli 2019, 13-18, Wardy 2022, 3-8, and Wardy 2016, 97-140. For a further discussion on the use of Heraclitus' ideas in Eryximachus' speech, see chapter 2.1.

¹⁰ For example, see Camden 2023, 37-38, Craik 2001, 110, Krinks 2020, 5-7, Levin 2009, 291-292, Levin 2014, 84-87, Ludwig 2002, 71-73, Parry 2016, 163-164, and Scott & Welton 2008, 58-60.

¹¹ Anderson 1993, 31.

¹² Anderson 1993, 38-39.

¹³ Anderson 1993, 34. The author does not offer any reason for this difference in terminology between Empedocles and Eryximachus.

¹⁴ Anderson 1993, 35.

language and style of the Hippocratic treatises and applies it to philosophical ideas.¹⁵ In addition, Alcmaeon is sometimes also briefly associated with the physician's speech.¹⁶

Studies which consider Eryximachus' use of ideas from more than one Presocratic thinker are rarer. For example, Candiotta argues that Eryximachus' speech introduces a "cosmological medicine" based on the concept of harmony as found in the Presocratic ideas of Empedocles, Heraclitus, and Pythagoras.¹⁷ A more important study of this kind is Cynthia Freeland's paper "Eryximachus' Speech and Presocratic Thought: Love as Cosmic Harmony" (2013). Freeland argues that comparing Eryximachus' ideas to Presocratic views, especially those of Heraclitus and Empedocles, will clarify the physician's idea of "love as cosmic harmony."¹⁸ She also traces the notion of harmony as far back as Anaximander, in whose philosophy there is an idea of "balance as a principle of cosmic order."¹⁹ This harmony emerges more powerfully, Freeland claims, in Empedocles' philosophy, where Love (Φιλότης) and Strife (Νεῖκος) are the driving cosmic principles.²⁰ These principles are subsequently analogous to the two Loves (Ἔρωτες) in Eryximachus' speech. Freeland's study also reviews the scholarly debate on whether Eryximachus' citation and interpretation of Heraclitus (187a3-b2) are correct.²¹ Her position is a compromise: perhaps Eryximachus may not have understood Heraclitus entirely wrongly, but neither did he capture the profound sense of the philosopher's claims.²²

1.3. Research Question and Motivation

The present thesis aims to revisit this problem of Presocratic ideas in Eryximachus' speech by asking this research question: how does Eryximachus' speech use Presocratic ideas involving opposites? I shall attempt to offer an innovative solution to this problem

¹⁵ Marino 2016, 241-252. See also Camden 2023, 40-46, Craik 2001, 109-11, de Campos 2022, 1-24, Green 2014, 21-51, Hunter 2004, 55-56, Konstan & Young-Bruehl 1982, 42-43, Levin 2009, 275-308, Levin 2014, 77-84, McPherran 2006, 76-86, Sukava 2007, 122-127, Sukava 2014, 251-255, and Trivigno 2017, 64-67.

¹⁶ For example, see Camden 2023, 44, 46, Costa 2016, 150, Konstan & Young-Bruehl 1982, 46, Levin 2009, 292, McPherran 2006, 74, and Saudelli 2019, 11.

¹⁷ Candiotta 2013, 195-199 and Candiotta 2015, 83-90.

¹⁸ Freeland 2013, 91.

¹⁹ Freeland 2013, 91.

²⁰ Freeland 2013, 92.

²¹ Freeland 2013, 93-95.

²² Freeland 2013, 95.

by interpreting these Presocratic ideas using a theory of knowledge transfer. In doing so, this thesis will also attempt to supply, where necessary, a new and more comprehensive explanation for claims already made in the scholarly literature.

The motivation for this research question is threefold. First, apart from being situated in the *Symposium*, one of the most important Platonic texts, Eryximachus' speech is an important piece of evidence to understand the Platonic view on medicine. In fact, Susan B. Levin views Eryximachus' speech as an intermediary position between the "overt lauding" of medicine in the *Gorgias* and the retraction of this praise in the *Republic*.²³

Second, this research question considers Eryximachus' speech as a medical example of the Platonic use of Presocratic ideas. In doing so, it also sheds light on the reception of Presocratic ideas in Platonic thought, building on studies such as Charles H. Kahn's paper on the use of Heraclitean ideas in Plato.²⁴

Finally, even though the Presocratic ideas in Eryximachus' speech are not a new problem, there is still much to be desired. For example, Anderson's study admittedly relies on a Loeb Classical Library translation and not an edition of the Greek text.²⁵ Consequently, there is some lack of clarity in interpretation. For example, the cycle between Empedoclean Love and Strife is not articulated well enough and is described only as a "transition" between Love and Strife.²⁶ Moreover, as the *status quaestionis* above shows, too few studies examine the use of ideas from more than one Presocratic thinker in Eryximachus' speech.²⁷

1.4. Scope, Structure, and Methodology

In answering the research question, the present thesis will consider the Presocratic thinkers Heraclitus, Empedocles, and Alcmaeon.²⁸ The selection of Heraclitus is natural,

²³ Levin 2009, 276 and Levin 2014, 73.

²⁴ Kahn 1985, 241-258.

²⁵ Anderson 1993, xi.

²⁶ Anderson 1993, 32-33.

²⁷ For studies of this kind, however, see especially Candiotta 2013, 194-200, Candiotta 2015, 81-93, and Freeland 2013, 91-95.

²⁸ There could also be a discussion on the use of Pythagorean ideas in Eryximachus' speech, but the limited space of this thesis does not allow for this.

since he is explicitly mentioned by name and cited in Eryximachus' speech (187a3-6). Given Eryximachus' medical background, the selection of Empedocles and Alcmaeon is justified because they are the chief medical Presocratic thinkers.²⁹ Evidence suggests that Plato was well aware of Empedocles,³⁰ and scholars have already shown the significance of Empedocles in relation to Plato's *Symposium* specifically.³¹ The justification of Alcmaeon's selection is less direct. Although he is not mentioned by name in the Platonic corpus, scholars have shown that his ideas were used by both Empedocles³² and Plato.³³

Moreover, I shall limit my study specifically to Presocratic ideas involving opposites, since this is the fundamental metaphysical theme underlying Eryximachus' speech.³⁴ Therefore, each of the three Presocratic thinkers above will be represented by an idea involving opposites. In the case of Heraclitus, the selected idea will be the unity of opposites, in the case of Empedocles the principles of Love and Strife, and in the case of Alcmaeon the definition of health and disease.

The use of each of these Presocratic ideas in Eryximachus' speech will be discussed in separate chapters. Therefore, Chapter 2 will consider the use of Heraclitus' unity of opposites in Eryximachus' speech. Chapter 3 will then focus on the physician's use of Empedocles' Love and Strife. Finally, Chapter 4 will discuss the use of Alcmaeon's definition of health and disease in Eryximachus' speech.

To answer the research question, in each of these chapters I shall perform a methodology of four steps. First, a fragment or fragments attributed to each of the three Presocratic philosophers will be selected.³⁵ The selected fragments will describe the Presocratic idea

²⁹ On the importance of Empedocles and Alcmaeon in Greek medical thought, see Longrigg 1993, 47-81. On Empedocles specifically, see also van der Eijk's preface in Jouanna 2012, x-xi and Jouanna 2012, 195-227. On Alcmaeon specifically, see also Guthrie 1962, 341ff. and Zhmud 2014, 98.

³⁰ Empedocles is mentioned by name at least twice in the Platonic corpus (*Meno* 76c8 and *Theaetetus* 152e3-4). Moreover, a much-quoted passage from the *Sophist* contrasts Heraclitus, represented by the Ionian Muses, with Empedocles, represented by the Sicilian Muses (242d6-e2).

³¹ For example, see Dover 1980, 113, 118 and O'Brien 2002, 176-193.

³² For example, see Guthrie 1962, 347-348 and Zhmud 2014, 100-101.

³³ For example, see Guthrie 1962, 349, 351, 359, and Zhmud 2014, 99.

³⁴ For a discussion on the role of opposites in Eryximachus' speech, see chapter 1.1 above.

³⁵ For the Presocratic fragments, I follow the Greek text of Diels and Kranz (1960), hereafter abbreviated as DK. Both *testimonia* (A fragments) and *ipsissima verba* (B fragments) are considered. Moreover, the numbering of Laks and Most (2016), hereafter abbreviated as LM, is also given.

under discussion. Second, a close reading of these Presocratic fragments will be carried out, supported by discussions from recent scholarly literature. These two steps will serve to discuss which Presocratic ideas are used in Eryximachus' speech.

In doing so, they lay the groundwork for the third step, which is to show how knowledge transfer takes place from these Presocratic ideas to Eryximachus' speech. For the purposes of this thesis, I understand the term 'knowledge transfer' to mean the implicit processes by which ideas from the source, here Presocratic fragments, are used in the target context, here Eryximachus' speech. To describe how this process takes place, I shall use the theoretical framework found in chapter 5 of Kjell Arne Røvik's monograph *A Translation Theory of Knowledge Transfer: Learning Across Organizational Borders* (2023).³⁶ Røvik describes knowledge transfer as a continuum between "efforts to *replicate*" (fidelity to source) and "efforts to *adapt*" (fit to target context).³⁷ This continuum contains three different translation modes, each with their own operational rules.³⁸ The first is the reproducing translation mode, which uses the operational translation rule of 'copying'.³⁹ In this mode, the aim is "to identify, preserve, and recreate in the translated target context version all elements [of the source] and the relationships between them". Therefore, the effort inclines towards 'fidelity' to the source.⁴⁰ The second is the radical translation mode, which uses the operational translation rule of 'alteration'.⁴¹ Here the aim is "to act unbound by the source context [... and] to deviate severely from the source version". Therefore, the effort inclines towards 'fit' to the target context.⁴² The third is the modifying mode, which uses the operational translation rules of 'omission' and 'addition'.⁴³ In this mode, the aim is to "balanc[e] competing concerns

³⁶ Røvik 2023, 145-177. Since Røvik identifies 'knowledge transfer' with 'knowledge translation', I understand the terms synonymously in this thesis, but prefer to use the term 'knowledge transfer'.

³⁷ Røvik 2023, 151 (emphases in the original).

³⁸ These are conveniently summarised in Røvik 2023, 177.

³⁹ Røvik 2023, 155-163.

⁴⁰ Røvik 2023, 155.

⁴¹ Røvik 2023, 163-170.

⁴² Røvik 2023, 163-164.

⁴³ Røvik 2023, 170-176.

of replications and adaptations”. Therefore, the effort here lies between ‘fidelity’ and ‘fit’, where the translator preserves some elements of the source but adapts others.⁴⁴

Røvik’s theory is useful to this particular study for at least two reasons. First, Røvik’s theory is a typology and not simply a taxonomy. Therefore, unlike a simple comparative reading between texts, a typology allows us to “hypothesize relationships between the types”.⁴⁵ In other words, it does not only compare the source (Presocratic fragments) to the target context (Eryximachus’ speech),⁴⁶ but it also provides the terminology to explain how the two are related. Second, Røvik’s theory allows for cases where the source is not necessarily mentioned in the target context. For instance, Røvik describes an example from popular music where Elvis Presley’s song *That’s All Right* (1954) was experienced as pure novelty. In reality, it was a case of radical knowledge transfer from Arthur Crudup’s song *That’s All Right, Mama* (1946).⁴⁷ In this respect, Røvik’s theory is very suitable since Eryximachus’ speech does not explicitly mention Empedocles and Alcmaeon as it does Heraclitus.

Finally, having discussed how knowledge transfer takes place, I shall reflect briefly on how the different Presocratic ideas combine with each other in Eryximachus’ speech.

⁴⁴ Røvik 2023, 170.

⁴⁵ Røvik 2023, 152-153.

⁴⁶ As the *status quaestionis* above demonstrates, this has already been done.

⁴⁷ Røvik 2023, 169.

2. Eryximachus' Music and Heraclitus' Unity of Opposites

The relation between Eryximachus' speech and Heraclitus is very direct. The physician mentions Heraclitus by name and supposedly cites a fragment attributed to him. The immediate context of the citation is the discussion on music (187a1-d4). To conclude his discussion on medicine, Eryximachus says that Asclepius knew how to implant love (ἔρως) and unity (ὁμόνοια) in the four elements (186e1-2). After a brief comment on gymnastics (γυμναστική) and agriculture (γεωργία) (186e4-187a1), the discussion turns to music:

μουσική δὲ καὶ παντὶ κατάδηλος τῷ καὶ μικρὸν προσέχοντι τὸν νοῦν ὅτι κατὰ ταύτῃ ἔχει τούτοις, ὥσπερ ἴσως καὶ Ἡράκλειτος βούλεται λέγειν, ἐπεὶ τοῖς γε ῥήμασιν οὐ καλῶς λέγει. τὸ ἔν γάρ φησι “διαφερόμενον αὐτὸ αὐτῷ συμφέρεσθαι,” “ὥσπερ ἁρμονίαν τόξου τε καὶ λύρας.”

And music [is] also clear to everyone who is paying even a little attention, that it holds with these [disciplines, i.e. medicine, gymnastics, and agriculture] according to these same [principles, i.e. the implantation or removal of Love as necessary], perhaps just as even Heraclitus wishes to say, since he does not say [this] quite finely in words. For he says that the one “while disagreeing itself, agrees with itself”, “just like harmony both of the bow and of the lyre.” (187a1-6)⁴⁸

The aim of this chapter is to understand how Eryximachus' speech uses Heraclitus' unity of opposites. However, I shall first briefly review the scholarly polemic on Heraclitus' citation in Eryximachus' speech. Then, an interpretation of Heraclitus' original fragment (DK B51 = LM D49) will be proposed through a comparison with two other fragments, DK B10 = LM D47 and DK B67 = LM D48. Finally, I shall then use Røvik's theory of knowledge transfer to show how Heraclitus' fragment is used in Eryximachus' speech.

⁴⁸ Scholars identify this citation with DK B51 = LM D49. For example, see Dover 1980, 107 and Emlyn-Jones & Preddy 2022, 191 n.52.

2.1. The Scholarly Polemic on Heraclitus' Citation in Eryximachus' Speech

The citation of Heraclitus in Eryximachus' speech has raised a scholarly polemic. How well does Eryximachus understand Heraclitus' thought in DK B51 = LM D49?⁴⁹ Since this problem is directly related to how Eryximachus' speech uses Heraclitus, it seems desirable to contextualise this chapter by a survey of this scholarly debate.

Some scholars view Eryximachus' citation of Heraclitus negatively. For example, Dorter holds that Eryximachus interprets this fragment incompletely, because he leaves out the adjective 'contrary-turning' (παλίντροπος) in relation to the harmony of the bow and the lyre.⁵⁰ Levin argues that Eryximachus' use of the particle 'perhaps' (ἴσως) indicates that he is confused as to what Heraclitus actually means, and that this reveals the physician's lack of refined insight.⁵¹

Other scholars are less negative but perhaps more sceptic, neither praising nor criticising the interpretation of the fragment in Eryximachus' speech. For example, Kahn contends that the "misquotation [of Heraclitus' fragment in full] is a natural one". He argues that the use of the adjective παλίντροπος was widely understood by this time due to the Homeric tradition and therefore the term is implied without the need for explicit mention.⁵² Kenneth Dover advises caution in any case: "what Heraclitus meant and what Plato thought he meant *might* be different; and what Plato wished to portray Eryximachus as thinking [about] Heraclitus *might* be different again."⁵³

Another possible and innovative position is held by Robert Wardy. While still deeming Eryximachus' interpretation "patronising" and his judgements "facile", Wardy

⁴⁹ Freeland 2013, 93-95 presents a useful summary of the main positions in this polemic.

⁵⁰ Dorter 1969, 226-227.

⁵¹ Levin 2009, 292-295 and Levin 2014, 85-89. Similar arguments are made by Saudelli 2019, 16-17 and Trivigno 2017, 62.

⁵² Kahn 1979, 195.

⁵³ Dover 1980, 107 (emphases added).

“systematically reverse[s]”⁵⁴ Eryximachus’ interpretation of Heraclitus’ citation and uses the results to build an interpretation of Plato’s *Symposium* as a whole.⁵⁵

Yet another position constitutes a compromise between several of these positions, which is held by Cynthia Freeland and Laura Candiotta among others. Freeland argues that while Eryximachus may not fully understand the meaning of the Heraclitean fragment, he is not required to. To Freeland, Eryximachus’ interpretation of Heraclitus’ fragment as an agreement between opposites is “perfectly acceptable” as it stands.⁵⁶ Moreover, Laura Candiotta maintains that “Eryximachus transforms Heraclitus’ own maxim [...] to his own advantage” in expressing his own views on harmony and its role in the cosmic system.⁵⁷

2.2. Reading Heraclitus’ Fragment DK B51 = LM D49

Following the readings of Freeland and Candiotta, I shall now propose an interpretation of the Heraclitean fragment used by Eryximachus (DK B51 = LMD49) in comparison to two other fragments, namely DK B10 = LM D47 and DK B67 = LM D48.⁵⁸ A comparative reading of these three fragments will serve as a stepping stone to show how Eryximachus uses the Heraclitean doctrine of the unity of opposites.

The two fragments DK B10 = LM D47 and DK B67 = LM D48 run as follows:

συνάψεις· ὄλα καὶ οὐχ ὄλα, συμφερόμενον διαφερόμενον, συνᾶδον διᾶδον, καὶ
ἐκ πάντων ἔν καὶ ἐξ ἑνὸς πάντα.

⁵⁴ Wardy 2016, 111.

⁵⁵ Wardy 2002, 2-3 and Wardy 2016, 111-112. Moreover, Wardy 2016, 138-139: “Plato intends that his readers appreciate that the *Symposium* is a Heraclitean unity – better, that in reading the *Symposium*, one variously unifies it [...]”.

⁵⁶ Freeland 2013, 95-96.

⁵⁷ Candiotta 2015, 83-84. A similar conclusion is made by de Campos 2022, 1-24 and Saudelli 2019, 11-13. They argue that it is natural for a physician to understand Heraclitus differently, because Heraclitus’ unity of the opposites is frequently adapted when applied to medical contexts.

⁵⁸ Note that Laks and Most 2016, 160-161 (Vol. 3) place DK B10, B67, and B51 in succession. Kahn 1979, 84-85 also places DK B51 and B10 consecutively, but inverts the order of Laks and Most, i.e. DK B67 = Kahn CXIII and DK B10 = Kahn CXIV.

Points of contact:⁵⁹ wholes and not wholes, something coming together something being at variance, something in unison something being dissonant, and one out of everything and everything out of one. (DK B10 = LM D47)

ὁ θεὸς· ἡμέρη εὐφρόνη, χειμῶν θέρος, πόλεμος εἰρήνη, κόρος λιμός·
ἀλλοιοῦται δὲ ὄκωσπερ <πῦρ>, ὁπότεν συμιγῆ θύμασιν, ὀνομάζεται καθ'
ἡδονὴν ἐκάστου.

The god: day night, winter summer, war peace, satiety famine: and he is changed in such a manner as <fire>, whensoever he is mingled with spices, he is called according to the pleasure of each. (DK B67 = LM D48)

Even at face value, these fragments are clearly representative of Heraclitus' doctrine of the unity of opposites. In fact, M.R. Wright cites both these fragments as examples of "sayings that have two opposites copresent" and "united in one god".⁶⁰ Therefore, the initial premise of Heraclitus' doctrine is that these opposites exist simultaneously but are presided over by some unity. Let us now turn to a brief interpretation of these two fragments.

Fragment DK B10 = LM D47 beings with the substantive συνάψεις, meaning 'points of contact'. According to Patricia Curd, these points of contact are psychological and occur between the sensible world and our mind. These points of contact enable us to realise the truth about sensible objects, namely that they are "both a converging unity and a diverging plurality."⁶¹ In the words of Charles H. Kahn, this means that sensible objects form part of a "system" which has several "components" out of which a unity emerges, and then all sensible objects emerge from this same unity in turn.⁶² Therefore, the opposites listed in DK B10 = LM D47 form part of a unity out of which the sensible world emerges. What is this unity?

⁵⁹ Note that the first word could also be read as συλλάψεις, i.e. 'graspings'. Mouraviev 2006, 18 also comments that there are 15 possibilities of how this word could be read including both substantive and verbal forms.

⁶⁰ Wright 2008, 422.

⁶¹ Curd, 1991, 539.

⁶² Kahn, 1979, 286.

The answer is found in the second fragment, DK B67 = LM D48, which assigns another list of opposites under the label of ‘the god’ (ὁ θεός), who is then likened to fire (πῦρ). However, this ‘god’ is not a physical substance or an underlying element, but actually the “unifying structure” which consists of the “balancing of [these] opposites”.⁶³ Moreover, the Heraclitean ‘god’ has another property, namely that he is changed (ἀλλοιοῦται). This change occurs between opposites such as the ones listed in DK B67 = LM D48 which are simultaneously present in the same unity.

However, if ‘the god’ is a unifying structure, as alluded to in DK B10 = LM D47, then how are we to understand this additional property that he can also change from one opposite to another? David W. Graham and Richard Neels propose a solution, which is to understand the changes between these opposites as a transformational equivalence.⁶⁴ Essentially, this means that the opposites labelled under the term ‘the god’ change into each other such that if X is altered, Y is obtained (where Y is the opposite of X), possibly through intermediate stages. Likewise, if Y is altered, X is obtained, also possibly through intermediate stages.⁶⁵ Therefore, it is through transformational equivalence that ‘the god’ acts as a unity in which opposites can change into each other. This essentially summarises Heraclitus’ unity of opposites.

In light of these readings, it is now possible to evaluate DK B51 = LM D49, the fragment used by Eryximachus, which runs as follows:

οὐ ξυνιαῖσιν ὄκως διαφερόμενον ἑωυτῶι ὁμολογέει· παλίντροπος ἀρμονίη
ὄκωσπερ τόξου καὶ λύρης.

They do not understand how while differing, it agrees with itself: in such a manner as a contrary-turning harmony of a bow and a lyre. (DK B51 = LM D49)

This fragment consists of two sentences. First, there is a reference to something being at variance, i.e. opposite, while agreeing with itself, i.e. unity. My reading of the two fragments studied above shows that this sentence may be understood as a reference to

⁶³ Kahn 1979, 279.

⁶⁴ Graham 2006, 123, Graham 2008, 175, and Neels 2018, 448.

⁶⁵ Graham 2006, 123-124 and Graham 2008, 175.

the unity of opposites. Both DK B10 = LM D47 and DK B67 = LM D48 list several sets of opposites, i.e. things being at variance, yet these opposites are united under some form of unity in such a way that through this unity they agree with themselves. In DK B10 = LM D47, the unity is the 'graspings' (συνάψεις), whereas in DK B67 = LM D48, it is 'the god' (ὁ θεός).

The second sentence of DK B51 = LM D49 requires more discussion. What does Heraclitus mean by harmony (ἁρμονία)? Kahn suggests three possible meanings of the term: "physical fitting together of parts", "military or social agreement between potential opponents", and "musical attunement of strings and tones."⁶⁶ The mention of the bow (τόξον) inclines towards Kahn's first meaning of ἁρμονία, since the reference appears chiefly to be in regard to the physical composition and structure of the device. However, the reference to the lyre (λύρα) diverts the meaning of ἁρμονία towards the third and more musical sense. In any case, the common factor between both is that they display a tension which then results in a harmony. Therefore, as Patricia Curd argues, the references to the bow and lyre have are a metaphor to explain how the world operates, namely through the unity of opposites: "Differing, it agrees, and the result is a connection or concord."⁶⁷ Since, as we have seen, the Heraclitean world order operates through the unity of opposites, the Heraclitean reference to harmony (ἁρμονία) is to be understood as a result of the unity of opposites.

Furthermore, as we have seen in DK B67 = LM D48, Heraclitus' cosmic order is represented through the image of fire. This notion is further affirmed in DK B30 = LM D85, where the term cosmos (κόσμος) is identified with fire (πῦρ). From this evidence we can infer that fire is a symbol for both the order in Heraclitus' cosmic system as well as its constant changes.⁶⁸ Therefore, the Heraclitean image of fire is also symbolic of the harmony (ἁρμονία) achieved by the unity of opposites.

⁶⁶ Kahn 1979, 196.

⁶⁷ Curd 1991, 539.

⁶⁸ Kahn 1979, 134, 137-138, Graham 2006, 126-127, Graham 2008, 175, and Neels 2018, 446.

2.3. Knowledge Transfer from Heraclitus to Eryximachus' Speech

Having discussed Heraclitus' fragment DK B51 = LM D49 in light of the unity of opposites, I shall now use Røvik's theory to show how knowledge transfer takes place from Heraclitus to Eryximachus' speech. In terms of Røvik's theory of knowledge transfer, Eryximachus' speech may be said to engage with Heraclitus using partly the reproducing mode and partly the modifying mode of knowledge transfer.

According to Røvik, the reproducing mode consists of "a propensity to identify, preserve, and recreate in the translated target context version all elements [of the source] and the relationships between them".⁶⁹ Moreover, the operational rule of this mode is copying, which is "duplicating, making a similar, or preferably identical, version of a model conceived of as an original, or a template."⁷⁰ Eryximachus' speech uses the reproducing mode because apart from mentioning Heraclitus (187a3) and 'the one' (τὸ ἓν) (187a4-5), a concept with strong Heraclitean connotations, it also partly cites a Heraclitean fragment (DK B51 = LM D49) (187a5-6). Therefore, the citation in Eryximachus' speech may be interpreted as an effort to 'copy' Heraclitus. From this point of view, Eryximachus' use of Heraclitus reflects the effort to replicate, and not yet to adapt, and for this reason, Eryximachus may be said to engage with the reproducing mode.⁷¹ This type of effort to replicate is not found in Eryximachus' engagement with Empedocles and Alcmaeon, making the engagement with Heraclitus all the more particular and explicit.

Having said that, Eryximachus' speech does not 'copy' Heraclitus' fragment exactly. Therefore, apart from an effort to replicate Heraclitus, there is also another effort to adapt the Presocratic idea. This is why Eryximachus may also be said to use the modifying mode of knowledge transfer.⁷² In Røvik's theory, the modifying mode is a "balanc[e of] concerns for replication with concerns for adaptations, or fidelity versus fit."⁷³ It gives the actor in

⁶⁹ Røvik 2023, 155.

⁷⁰ Røvik 2023, 161.

⁷¹ Røvik 2023, 151 and 155.

⁷² Note that the use of the modifying mode does not imply the use of the reproducing mode, because the former involves the effort to balance fidelity to source with fit to context, whereas the latter involves only the effort to replicate. Since, as we shall see, Eryximachus makes both efforts in respect to Heraclitus, then he is engaging with both modes.

⁷³ Røvik 2023, 171.

the target context the autonomy “to interpret the template and to adjust based on knowledge about the target context.”⁷⁴ This is precisely what Eryximachus does with Heraclitus’ citation. He uses Heraclitus’ citation for his own context such that McPherran also calls Eryximachus’ use of Heraclitus a “correction”.⁷⁵

Eryximachus’ speech uses the Heraclitean fragment during the discussion on music (187a1-c8). However, in Heraclitus’ fragment, music is not the subject of the fragment. On the contrary, the only musical reference occurs in a simile, signalled by ὄκωσπερ, by the reference to the lyre (λύρη) (DK B51 = LM D49). The central claim of the fragment, as discussed above, is the unity of the opposites. In other words, in Heraclitus’ fragment, i.e. the source, the musical reference is one manifestation of the Heraclitean doctrine, whereas in Eryximachus’ speech, i.e. the target context, music is the subject of the present discussion. Therefore, even the context of Heraclitus’ citation is part of Eryximachus’ modification of the Presocratic idea.

Let us now turn to how Eryximachus uses the two operational rules of Røvik’s modifying mode of knowledge transfer, omission and addition. The fragment of Heraclitus as used in Eryximachus’ speech consists of at least two omissions. According to Røvik, omission refers to elements from the source context which are either adjusted to the target context and therefore expressed differently or removed entirely in the target context.⁷⁶ Røvik calls the latter case “subtraction”, which occurs when “an identifiable element of the desired source-context practice [...] has been removed and does not appear in the target context version.”⁷⁷ Both omissions in Eryximachus’ speech with respect to Heraclitus’ fragment are subtractions. The first “subtraction” is the adjective ‘contrary-turning’ (παλίντροπος) which is found in the original fragment of Heraclitus (DK B51 = LM D49), but not in Eryximachus’ citation. Since scholars have already discussed the consequences of this subtraction, I shall not go into further detail at this point.⁷⁸

⁷⁴ Røvik 2023, 172.

⁷⁵ McPherran 2006, 80.

⁷⁶ Røvik 2023, 173-174.

⁷⁷ Røvik 2023, 174.

⁷⁸ For example, see the views of Dorter and Kahn as discussed in chapter 2.1 above.

Eryximachus' second "subtraction" is more interesting. This subtraction takes place in the physician's restriction on the term ἄρμονία. Soon after he mentions and cites Heraclitus (187a1-6), Eryximachus copies the term ἄρμονία from Heraclitus' fragment (187b4). How does Eryximachus use this Heraclitean term? As Kahn argues, the term might refer to a "physical fitting together of parts",⁷⁹ like in a bow or a lyre as mentioned in Heraclitus' fragment. It could also signify "military or social agreement between potential opponents".⁸⁰ After all, there are several references to political harmony in Eryximachus' speech.⁸¹ For example, towards the end of his speech, Eryximachus holds that Love makes us able to associate with (ὁμιλεῖν) each other (ἀλλήλοις) and the gods (τοῖς κρείττοσιν ἡμῶν θεοῖς) (188d4-9).

However, by equating ἄρμονία with συμφωνία and ὁμολογία (187b4-5), Eryximachus limits the sense of the terms only to the one sense of musical harmony.⁸² Through the juxtaposition of ἄρμονία with συμφωνία, the sense already turns musical, because συμφωνία refers more strictly to unison of sound.⁸³ The point which Eryximachus is making here is that through music (ἡ μουσικὴ τέχνη), high-pitched (ὄξύ) and low-pitched (βαρύ) notes, two opposites which are originally in tension, can be made to agree (ὁμολογεῖν) (187a8-b2). Note also that the verb ὁμολογεῖν is also copied from Heraclitus' fragment. Therefore, the use of the verb ὁμολογεῖν here clarifies the sense of the third term in Eryximachus' list, its cognate noun ὁμολογία. Two opposites are unified in harmony, in an 'agreement' (ὁμολογία).⁸⁴ This is more or less similar to Heraclitus' unity of opposites, whereby tension and difference create harmony,⁸⁵ and this harmony is the kind of 'agreement' (ὁμολογία) sought in Eryximachus' discussion on music. Whereas Heraclitus' ἄρμονία is a general result achieved from the unity of opposites, for Eryximachus this term is specifically musical.

⁷⁹ Kahn 1979, 196.

⁸⁰ Kahn 1979, 196.

⁸¹ Sheffield 2006, 21 and Marino 2016, 252.

⁸² Kahn 1979, 196.

⁸³ *LSJ*, s.v. "συμφωνία".

⁸⁴ *LSJ*, s.v. "ὁμολογία".

⁸⁵ Curd 1991, 539.

Therefore, by juxtaposing three distinct terms, ἄρμονία, συμφωνία, and ὁμολογία (187b4-5), the physician subtracts the meanings of the term ἄρμονία from a general to a musical harmony. This subtraction shows that regardless of Eryximachus' degree of understanding of Heraclitus' fragment, he still modifies the doctrine for his own purpose, a discussion on music.

On the other hand, Eryximachus also modifies Heraclitus' fragment using the operational rule of addition. Røvik's addition refers to elements not originally in the source context which are then added in the target context. These added elements may originate either from the background of the source, from the target context itself, or from an external context.⁸⁶ In the use of Heraclitus' fragment, Eryximachus' speech has at least three additions.

The first addition occurs not in the actual citation of Heraclitus, but rather in the physician's immediate interpretation of it. Eryximachus holds that harmony (ἄρμονία) arises out of elements which were previously (πρότερον) differing, but then (ὑστερον) coming into agreement (187c1-2). As Levin points out, Eryximachus' point here is that harmony cannot occur unless the opposing elements are brought into agreement, hence the "sharp disjunction between πρότερον and ὑστερον".⁸⁷ Therefore, by introducing these temporal adverbs Eryximachus qualifies the way in which harmony comes into existence. This is modification of the original Heraclitean view, whereby harmony exists even with opposites copresent. Since this "sharp disjunction", as Levin puts it, is not found in Heraclitus' fragment and is therefore an addition which originates from Eryximachus' speech, i.e. the target context.

The second addition occurs in the framing of the discussion on music (187a1-d4) within Eryximachus' speech. Eryximachus' discussion on music is framed by the repetition of two terms in the same order: ἔρως and ὁμόνοια, once at 186e1-2 before the discussion on music and again at 187c3-4 after. The addition of the term ἔρως anchors Eryximachus'

⁸⁶ Røvik 2023, 175.

⁸⁷ Levin 2009, 292-293.

speech to the objective of the *Symposium* as a whole. For the objective of the dialogue is to praise the god Love, and this was set by the physician himself earlier (177d2-5).

More importantly, however, I believe that the purpose of Eryximachus' addition of the term ὁμόνοια is to show the physician's awareness of the concept of Heraclitean unity. While this term bears connections to the notion of harmony (ἁρμονία), unison of sound (συμφωνία), and agreement (ὁμολογία), the term ὁμόνοια also has the specific nuance of 'concord', 'unanimity',⁸⁸ or indeed for that matter, 'unity'. Therefore, the use of the term ὁμόνοια might serve as a reference to a specific sense of unity, an idea which Eryximachus himself articulates as 'the one' (τὸ ἓν) directly before citing Heraclitus (187a4-5). In this way, the term ὁμόνοια might be seen as a prelude (186e1-2) and a postlude (187c3-4) respectively to the Heraclitean unity of opposites as found in DK B51 = LM D49, which is then also alluded to in the discussion on music in Eryximachus' speech. The unity which Eryximachus refers to is musical, and occurs between differing pitches and differing rhythms which eventually come together through music (187a8-b2 and 187b7-c2). Therefore, the use of ὁμόνοια to refer to an 'agreement' or 'unity' shows a sensitivity to the Heraclitean idea of unity of opposites. Following this line of thought, it can be seen that this addition to Heraclitus' fragment in Eryximachus' speech is significant not only in the discussion on music, but also in the framing of it, through the repeated use of the two terms ἔρωσ and ὁμόνοια. Therefore, through his addition of the terms ἔρωσ and ὁμόνοια (186e2 and 187c4), Eryximachus retains the crucial Heraclitean concept of unity, he gives it a name not found in the Heraclitean fragment, and he also anchors the concept to the objective of the *Symposium*, which is to praise Love. As such, this addition also originates from Eryximachus' speech, i.e. the target context.

The third addition occurs in Eryximachus' understanding of knowledge (ἐπιστήμη) and the craftsman (δημιουργός). For Eryximachus, it is through knowledge that the craftsman is able to unite the opposites which permeate the various disciplines discussed (187c8-d4). In Sheffield's words, this "good practitioner" also becomes the "expert lover [...] who

⁸⁸ *LSJ*, s.v. "ὁμόνοια".

embodies this harmony and order.”⁸⁹ For example, medicine is defined as knowledge of love matters of the body in relation to the opposites of repletion and depletion (186c5-7). In this case, the physician, represented in Eryximachus’ speech by Asclepius, is able to bring love and unity (186e1-2) between the opposites of repletion and depletion through knowledge of love matters of the body.

Knowledge and craftsmanship also have a role, even if indirectly, in the same Heraclitean fragment which Eryximachus uses. The fragment begins with the phrase ‘they do not understand’ (οὐ ξυνιᾶσιν) (DK B51 = LM D49). The verb is the third person plural of συνίημι and refers to those who do not understand the unity of opposites.⁹⁰ Therefore, this phrase creates a clear distinction in the fragment between those who understand the unity of opposites and those who do not understand it. As we have just seen, Eryximachus also emphasises the role of the craftsman (δημιουργός), the person who understands (187c8-d4). The proximity of Eryximachus’ discussion on the craftsman to Heraclitus’ citation might suggest that the physician is sensitive to the Heraclitean idea that uniting opposites requires knowledge from someone who understands, a craftsman. However, Eryximachus also adds a term to identify those who understand, the craftsman (δημιουργός), in contrast to those who do not, which Heraclitus mentions explicitly. As such, even this addition originates from Eryximachus’ speech, i.e. the target context.

The findings of this chapter point to the following conclusions. Eryximachus’ speech uses Heraclitus’ fragments to Eryximachus’ speech partly through Røvik’s reproducing mode of knowledge transfer (because he makes a special effort to replicate Heraclitus’ fragment) and partly through the use of the modifying mode (because while replicating, he also adapts the fragment). Eryximachus modifies Heraclitus through at least two omissions and three additions. The first omission subtracts the term παλίντροπος, which is found in Heraclitus’ fragment but not in Eryximachus’ speech. The second omission occurs in Eryximachus’ subtraction of the meanings of ἄρμονία. Whereas Heraclitus uses the term to denote a general result of the unity of opposites, Eryximachus restricts

⁸⁹ Sheffield 2006, 20-21.

⁹⁰ Leshner 2008, 472.

ἄρμονία to a musical sense. Eryximachus' first addition is the introduction of the adverbs πρότερον and ὕστερον to show temporal gaps between previous musical disharmony and subsequent musical harmony. The second addition introduces the term ὁμόνοια to denote the concept of Heraclitean unity. Finally, Eryximachus' last addition introduces the term δημιουργός in reference to the expert who is able to harmonise, or indeed 'unite' opposites.

3. Eryximachus' Medicine and the Empedoclean Principles of Love and Strife

οὗτος δὲ τὰ μὲν σωματικὰ στοιχεῖα ποιεῖ τέτταρα, πῦρ καὶ ἀέρα καὶ ὕδωρ καὶ γῆν, αἴδια μὲν ὄντα, πλήθει δὲ καὶ ὀλιγότητι μεταβάλλοντα κατὰ τὴν σύγκρισιν καὶ διάκρισιν, τὰς δὲ κυρίως ἀρχάς, ὑφ' ὧν κινεῖται ταῦτα, Φιλίαν καὶ Νεῖκος. δεῖ γὰρ διατελεῖν ἐναλλάξ κινούμενα τὰ στοιχεῖα, ποτὲ μὲν ὑπὸ τῆς Φιλίας συγκρινόμενα, ποτὲ δὲ ὑπὸ τοῦ Νείκου διακρινόμενα [...]

And this [philosopher, i.e. Empedocles] on the one hand considers the bodily elements [to be] four, fire and air and water and earth, which are everlasting, but change in multitude and scarcity according to the combination and separation, on the other hand [he considers] the principles properly, by which these [elements] are put in motion, [to be] Love and Strife. For it is necessary for the elements to continue being put in motion in alternation, sometimes being brought into combination by Love, sometimes being separated by Strife [...] (DK A28 = LM D80)

In this fragment, Simplicius succinctly summarises the main components of Empedocles' physics. According to Empedocles, everything in the world can be explained in terms of the two opposing principles (ἀρχαί) of Love and Strife influencing the four elements (στοιχεῖα), fire, air, water, and earth.⁹¹ These six entities provide the basic framework for Empedoclean physics, which is then expanded in the poem *On Nature* (Περὶ φύσεως).

The present chapter aims to explore how Eryximachus' speech uses Empedoclean ideas. To achieve this, the most important fragment from Empedocles' poem *On Nature* shall first be discussed. Next, I shall argue that the Hippocratic corpus is an ideal bridge between Empedocles' ideas and Eryximachus' speech, given the common ground of medicine. These discussions will provide a context for the third step, which is to show

⁹¹ These six governing entities of Empedocles' physics are also mentioned together in DK A30 = LM D97 and DK A33 = LM D56.

how there is knowledge transfer from the Empedoclean fragment to Eryximachus' speech using Røvik's theory. Finally, I shall reflect on how the use of Empedocles' ideas combines with the use of Heraclitus' ideas in Eryximachus' speech.

3.1. Reading *On Nature's Most Important Fragment* (DK B17 = LM D73)

Out of all the fragments associated with the poem *On Nature*, scholars generally agree that DK B17 = LM D73⁹² is the most important and most foundational.⁹³ This lengthy fragment of over 75 lines describes in detail the Empedoclean worldview whereby Love (Φιλότης) and Strife (Νεῖκος) govern the cosmos. I shall now discuss two characteristics of Love and Strife described in this fragment, which are then subsequently used in Eryximachus' speech.

The first aspect pertains to the function of Love and Strife, i.e. what these two principles *do* to the world they govern. The function of these two Empedoclean principles appears clearly from the beginning of the fragment, which runs as follows:

δίπλ' ἐρέω· τοτὲ μὲν γὰρ ἔν ηὔξηθη μόνον εἶναι
ἐκ πλεόνων, τοτὲ δ' αὖ διέφυ πλέον' ἐξ ἑνὸς εἶναι.
δοιὴ δὲ θνητῶν γένεσις, δοιὴ δ' ἀπόλειψις·
τὴν μὲν γὰρ πάντων σύνοδος τίκτει τ' ὀλέκει τε,
ἢ δὲ πάλιν διαφυομένων θρεφθεῖσα διέπτει.
καὶ ταῦτ' ἀλλάσσοντα διαμπερὲς οὐδαμὰ λήγει,
ἄλλοτε μὲν Φιλότητι συνερχόμεν' εἰς ἑν ἅπαντα,
ἄλλοτε δ' αὖ δίχ' ἕκαστα φορεύμενα Νείκεος ἔχθει.

I shall tell a double [account]: for sometimes [the elements]⁹⁴ increased to be only one out of more, other times they separated again to be more out of one. And double [is] the birth of mortals, and double [is] their death: for on the one

⁹² Since LM take into account the Strasbourg papyrus, which DK could not have considered, the numbering of the former authors alone is preferred for this particular fragment.

⁹³ Wright 1981, 167 and Emlyn-Jones & Preddy 2022, 188 n.48. Trépanier 2004, 31-34 and Primavesi 2008, 10-12 discuss the importance and of this fragment in the context of the entire poem.

⁹⁴ Borrowed from LM 2016, 411 (Vol. 5).

hand a combination of everything both brings forth and destroys the [birth],⁹⁵ on the other hand the [other birth], when [everything] was separated, was nourished and flew apart. And not one [element],⁹⁶ while continually changing place, stays, sometimes being joined all together into one by Love, other times being each carried away asunder again by the hatred of Strife. (LM D73.233-240)

These eight lines convey the principal function of Love and Strife in the cosmos. Sometimes Love joins elements together such that they become one out of many. In other times, Strife's hate carries them away from each other such that they become many out of one. Oliver Primavesi qualifies these claims by arguing that heterogenous and homogenous aggregations of elements are not always created by Love and destroyed by Strife. Primavesi believes that Empedocles' claim should be understood in terms of mixtures and non-mixtures of elements rather than in terms of separate elements alone: "Love produces *mixtures of different* elements, and these *mixtures of different* elements are then dissolved by Strife."⁹⁷ For example, Love may separate a homogenous mass to create a mixture and Strife may use a homogenous mass to create a non-mixture.⁹⁸ Essentially, the basic function of Love in Empedocles' system is to act as a unitive force, as opposed to Strife, which acts as a separating force.⁹⁹

A second noteworthy characteristic of Love and Strife is their cyclical alternation. This cycle is also mentioned in fragment LM D73:

ἡδὲ πάλιν διαφύντος ἐνὸς πλέον' ἐκτελέθουσι,
τῆι μὲν γίνονται τε καὶ οὗ σφισιν ἔμπεδος αἰών·
ἧι δὲ διαλλάσσοντα διαμπερὲς οὐδαμὰ λήγει,
ταύτηι δ' αἰὲν ἕασιν ἀκίνητοι **κατὰ κύκλον**.

⁹⁵ Borrowed from LM 2016, 411 (Vol. 5).

⁹⁶ Borrowed from LM 2016, 411 (Vol. 5).

⁹⁷ Primavesi 2016, 7 (emphases in the original).

⁹⁸ Primavesi 2016, 7. The author also argues that homogenous masses are produced by the "attraction of like to like" in the elements. The principle of similar attraction is also Empedoclean (for example, see DK B90 = LM D68).

⁹⁹ Freeland 2013, 92 and Primavesi 2016, 7.

And, when the one separated again, [the elements] come into being as many, on the one hand to that extent they are both born and [there is] no lasting life for them: and, as long as they are continually changing, not one [element] stays, on the other hand to this extent they are always unmoved **in a circle**. (LM D73.241-244)

These four lines indicate that the elements do not have a steadfast life and do not stay still but are continually changing in a cycle. In other words, the influence of Love and Strife alternate in a cosmic cycle. Therefore, as Primavesi argues, this cycle consists of a period of increasing Love, which brings about a mixture of different elements from a non-mixture, followed by a period of increasing Strife, which brings about a non-mixture of different elements from a mixture.¹⁰⁰

The cyclical alternation between periods of Love and Strife raises a problem. For if Love brings mixtures of elements together which are then dissolved by Strife in alternations, how should we interpret Empedocles' claim further above that mortals have two births and two deaths, one under Love and another under Strife (LM D73.235-237)? John Palmer outlines three principal solutions to the problem.¹⁰¹ The first solution maintains that there is in fact no cycle between Love and Strife and Empedocles' references to cycles are all microcosmic changes in mortal beings. Therefore, there is only one linear evolution.¹⁰² The second solution argues that the cycle between Love and Strife is reversing. The reversal occurs through a "double zoogony" whereby an evolutionary process occurs in the period of Love. However, this implies that the same evolutionary process must occur in reverse order during the period of Strife. Due to such an odd idea, this interpretation is less favoured.¹⁰³ The third solution argues that the cycle between Love and Strife is non-reversing. One proponent of this solution is David Furley, who argues that compounds may be said to be born when elements form a mixture, becoming a unity from many elements. On the other hand, these compounds may be said to die

¹⁰⁰ Primavesi 2016, 7 and 10.

¹⁰¹ Palmer 2009, 264-269 presents a more detailed overview of this problem.

¹⁰² Palmer 2009, 265.

¹⁰³ Palmer 2009, 267 and Palmer 2016, 31-32.

when their elements separate, becoming many from one.¹⁰⁴ The non-reversing cycle interpretation therefore holds that the double birth and death should be understood as four stages which form a “single, quasi-evolutionary process”.¹⁰⁵

3.2. Empedocles, Eryximachus, and the Hippocratic Corpus

Having considered two principal characteristics of Empedocles’ Love and Strife, I shall now attempt to argue that the Hippocratic corpus is an ideal bridge between Empedocles’ ideas and Eryximachus’ speech. Such a bridge might be possible and ideal due to at least three reasons.

First, scholars have already shown convincingly that as a Presocratic with medical interests, Empedocles can be associated with the Hippocratic corpus.¹⁰⁶ For example, James Longrigg argues that the Hippocratic theory of the four humours is essentially an analogue of Empedocles’ theory of the four elements.¹⁰⁷ In both theories, the “basic constituents” of bodies are limited to four and harmony between these four constituents results in health.¹⁰⁸ In another study, Jouanna shows how the theory of sensation, thought, and soul in the Hippocratic treatise *Regimen* bears close associations with Empedocles’ ideas and Plato’s *Timaeus*.¹⁰⁹

Second, Hippocratic ideas are clearly used in Eryximachus’ speech.¹¹⁰ Susan B. Levin believes that through the character of Eryximachus, who represents the class of physicians, “Plato rejects medicine’s claim to be the *technê* par excellence”.¹¹¹ In attempting to prove her claim, she often compares Eryximachus’ ideas to claims in the Hippocratic treatises. For example, Levin points out that Eryximachus’ claim that the things which exist can be observed from medicine (186a7) is similar to the position in

¹⁰⁴ Furley 1987, 84.

¹⁰⁵ Palmer 2009, 267.

¹⁰⁶ For a general discussion on the convergence between Presocratic interests and medicine, see van der Eijk 2008, 386-389. For a specific discussion on Empedocles’ medical influence, see Longrigg 1993, 69-76.

¹⁰⁷ Longrigg 1993, 90-92 and Wright 1981, 26-27.

¹⁰⁸ Longrigg 1993, 91. For the Empedoclean fragments which bear this idea, see DK A86, A87, and B98 = LM D211, D210, D58a.

¹⁰⁹ Jouanna 2012, 195-227.

¹¹⁰ For discussions on these, see the literature cited in p.5 n.15.

¹¹¹ Levin 2009, 275-276 and Levin 2014, 73-75.

chapter 20 of *On Ancient Medicine*.¹¹² Silvio Marino also stresses how Eryximachus borrows the medical style of Hippocratic treatises and synthesises it with his philosophical project.¹¹³ In another study, de Campos argues that the citation of Heraclitus in Eryximachus' speech should be understood through a medical reading. In doing so, he compares Heraclitus and Eryximachus with Hippocratic treatises such as *On Diet*¹¹⁴ and *On Aliment*.¹¹⁵

Finally, Eryximachus' speech itself embodies one direct piece of evidence which suggests that the physician is familiar with Hippocratic ideas. At the beginning of his speech, before his praise of Love, Eryximachus suggests three cures for Aristophanes' hiccups: either to hold his breath for a long time, or to gargle with water, or else to tickle his nose with something until he sneezes once or twice (185d6-e3).¹¹⁶ As we learn from Aristophanes after Eryximachus' speech, it is the sneezing cure which actually works (189a1-3). This cure is in fact Hippocratic. For example, it is found in the *Aphorisms* 6.13.1-2: “Ὑπὸ λυγμοῦ ἐχομένῳ πταρμοὶ ἐπιγενόμενοι λύουσι τὸν λυγμόν.”, i.e. “For someone who is afflicted by a hiccup sneezing which came on after [the hiccup started] puts an end to the hiccup.”¹¹⁷ Therefore, considering Empedocles' associations with the Hippocratic corpus and the Hippocratic references in Eryximachus' speech in turn, it seems desirable to bridge and Empedocles and Eryximachus through a Hippocratic reading.

3.3. Knowledge Transfer from Empedocles to Eryximachus' Speech

Towards the end of his discussion on Empedocles and Eryximachus' speech, Daniel E. Anderson states that Eryximachus “has borrowed the Empedoklean mask of his profession.”¹¹⁸ I shall now attempt to unpack what this “Empedoklean mask” consists of by using Røvik's theory to show how knowledge transfer takes place from Empedocles to

¹¹² Levin 2009, 279 and Levin 2014, 80.

¹¹³ Marino 2016, 241-252.

¹¹⁴ de Campos 2022, 6-10.

¹¹⁵ de Campos 2022, 10-16.

¹¹⁶ For an analysis of Eryximachus' suggested cures for Aristophanes' hiccups, see Sukava 2007, 122-127.

¹¹⁷ For Hippocratic treatises, I follow the edition of the Greek text by Littré (1839-1861). Moreover, this Hippocratic reference is cited in Craik 2001, 109-110.

¹¹⁸ Anderson 1993, 38. Camden 2023, 38 n.59 and Ludwig 2002, 72 also identify Empedocles as one of Eryximachus' sources, but do not discuss further.

Eryximachus' speech. In doing so, the ideas from my earlier reading of Empedocles' most important fragment shall be applied, while using the Hippocratic corpus as a bridge between Empedocles' ideas and Eryximachus' speech.

First, I shall argue that Eryximachus' speech uses the Empedoclean principles of Love and Strife by engaging with Røvik's modifying mode of knowledge transfer. As we have seen, this mode is a "balanc[e of] concerns for replication with concerns for adaptations, or fidelity versus fit."¹¹⁹ In other words, Eryximachus retains some elements of Empedocles' ideas but adapts others. By doing this, the physician uses the operational rule of omission, specifically the kind of omission which Røvik terms as a "toning down". This occurs when the target context, here Eryximachus' speech, changes certain elements of the source, here the Empedoclean doctrine of Love and Strife, and formulates them in an innovative way.¹²⁰

How does this omission, or indeed "toning down", occur? Let us begin where Eryximachus begins: medicine. In his discussion on medicine, the physician summarises his main medical claim as follows:

δεῖ γὰρ δὴ τὰ ἔχθιστα ὄντα ἐν τῷ σώματι φίλα οἷόν τ' εἶναι ποιεῖν καὶ ἐρᾶν ἀλλήλων. ἔστι δὲ ἔχθιστα τὰ ἐναντιώτατα, ψυχρὸν θερμῷ, πικρὸν γλυκεῖ, ξηρὸν ὑγρῷ, πάντα τὰ τοιαῦτα· τούτοις ἐπιστηθεὶς ἔρωτα ἐμποιῆσαι καὶ ὁμόνοιαν ὁ ἡμέτερος πρόγονος Ἀσκληπιός [...]

For there is need then to be able to make the most hostile [elements] which are in the body friends and [for these elements] to love each other. And the most opposite [elements] are most hostile, cold to heat, bitter to sweet, dry to wet, all these such [elements]: our ancestor Asclepius was able to produce love and unity in these [...] (186d5-e2)

At first glance, the proximity of love (ἔρωσις) and unity (ὁμόνοια) might suggest that Eryximachus believes only in Love as a single entity which unites opposites, a kind of

¹¹⁹ Røvik 2023, 171.

¹²⁰ Røvik 2023, 173-174.

Heraclitean unity of opposites, which we have seen in the previous chapter. This suggestion would dismiss any use of Empedoclean ideas, because the core of the Empedoclean worldview consists of the duality of Love and Strife. In fact, scholars such as Susan B. Levin reject any comparison between Eryximachus and Empedocles.¹²¹ More explicitly, Philip Krinks claims: “In Eryximachus there appears to be only the *single* force of eros.”¹²²

However, we must recall that Eryximachus speaks of the double Love (ὁ διπλοῦς ἔρωσ) (e.g. 186a2, 186b4, and 187c7). Therefore, Eryximachus’ Love cannot be a single force if it is by definition double. Moreover, there is already a hint of knowledge transfer from Empedocles in the use of the term διπλοῦς, for this is also the first word of Empedocles’ most important fragment (LM D73.1). While Empedocles tells a double account, Eryximachus discusses a double Love.

The contrast between the opposites in Eryximachus’ double Love emerges more clearly in his discussion on astronomy (188a1-b6). Here Eryximachus explains that when the elements heat, cold, dry, and wet are brought together under the orderly Love (ὁ κόσμος ἔρωσ) in the composition of the year’s seasons, there is harmony and prosperity. However, if the Love with wanton insolence (ὁ μετὰ τῆς ὕβρεως ἔρωσ) takes possession there is destruction and wrong-doing (188a2-8). Later, in the discussion on divination and piety (188b6-d3), Eryximachus also warns that every kind of impiety arises if no one gratifies, honours, and places the orderly Love (ὁ κόσμος ἔρωσ) first in their every task (188c2-4). Therefore, for Eryximachus, the double Love constitutes two opposites, one which is orderly and seeks harmony, and another which is disorderly and seeks destruction.

Since in Eryximachus’ worldview the double Love is cosmic (187e6-7), then the double Love is not only astronomical, but also medical, such that there should be an orderly and disorderly Love which bring about harmony and destruction in the body.¹²³ At this point,

¹²¹ Levin 2009, 292 and Levin 2014, 85 and 87.

¹²² Krinks 2020, 7 (emphasis added).

¹²³ Anderson 1993, 34-35, Freeland 2013, 92-93, and Scott & Welton 2008, 58-60 make this claim tentatively, but I expand it further using a Hippocratic idea.

the medical role of Eryximachus' orderly and disorderly Love can be better understood by referring to Hippocratic theory of the four humours. The premise of this theory is succinctly formulated in the treatise *On Nature of Man*:¹²⁴

Τὸ δὲ σῶμα τοῦ ἀνθρώπου ἔχει ἐν ἑωυτῷ αἷμα καὶ φλέγμα καὶ χολὴν ξανθὴν τε καὶ μέλαιναν, καὶ ταῦτ' ἐστὶν αὐτέῳ ἡ φύσις τοῦ σώματος, καὶ διὰ ταῦτα ἀλγέει καὶ ὑγιαίνει. Ὑγιαίνει μὲν οὖν μάλιστα, ὀκόταν μετρίως ἔχη ταῦτα τῆς πρὸς ἄλληλα κρήσιος¹²⁵ καὶ δυνάμιος καὶ τοῦ πλήθους, καὶ μάλιστα μεμιγμένα ἦ· ἀλγέει δὲ ὀκόταν τι τουτέων ἔλασσον ἢ πλεόν ἢ ἢ χωρισθῆ ἔν τῷ σώματι καὶ μὴ κεκρημένον ἢ τοῖσι ζύμπασιν.

And the body of the human has in itself blood and phlegm and both yellow and black bile, and the nature of the body is these, and through these it is ill or healthy. Accordingly [the body] is especially healthy, whenever these have mixing and power and number in proportion with respect to each other, and they have especially been mixed: but [the body] is ill whenever any one of these [humours] is lesser or more [in power] or was separated in the body and has not been mixed in the body with all the [humours] together. (4.1-7)

The basic argument of the passage above is that the proportionate mixture of the four humours causes health in the body. This is the same idea which Eryximachus has when he mentions the ability of the physician (represented by Asclepius) to produce love and unity in the elements of the body (186d5-e2). On the other hand, separation between the humours causes illness, and this is when the physician is required to restore the balance by implanting love and unity. Therefore, given Eryximachus' medical background, we can now understand that his orderly Love seeks health, a mixture within the body, whereas his disorderly Love seeks illness, a separation within the body.¹²⁶

¹²⁴ Camden 2023, 46 n.78 links Eryximachus' speech to Hippocratic treatises such as *On Nature of Man*.

¹²⁵ Note that the term κρᾶσις is also used by Eryximachus in his discussion on astronomy (188a4). Therefore, the use of this medical term in an astronomical context reinforces Eryximachus' claim that the same laws apply to the whole cosmos.

¹²⁶ In this spirit, Dover 1980, 105 also calls the two opposite Loves the "good" and "bad" Love respectively.

With this understanding of the role of the orderly and disorderly Love in Eryximachus' speech, the physician may be said to use the Empedoclean idea of Love and Strife. In doing so, he engages with Røvik's modifying mode of knowledge transfer using the operational rule of omission, specifically a "toning down".¹²⁷ Let us recall that Empedoclean Love acts as a unitive force, whereas Empedoclean Strife acts as a separative force (LM D73.233-240).¹²⁸ Therefore, the function of Empedocles' Love is mixture, and mixture results in health, which is the aim of Eryximachus' so-called orderly Love (ὁ κόσμος ἔρωσ) (188a2-3). Contrastingly, the function of Empedocles' Strife is separation, and separation results in illness, which is the aim of Eryximachus' disorderly Love (ὁ μετὰ τῆς ὑβρεως ἔρωσ) (188a7). Therefore, Eryximachus has modified Empedocles' Love and Strife by 'toning them down' into his orderly and disorderly Love respectively.

On the other hand, Eryximachus' speech also uses Røvik's radical mode of knowledge transfer in engaging with Empedocles' cosmic cycle between Love and Strife.¹²⁹ Røvik describes the radical mode as consisting of "[the knowledge] translators' propensity to act relatively unbound by source context versions", which results in severe deviations from the source.¹³⁰ In engaging with this mode, Eryximachus uses the operational rule of alteration as hybridization, which refers to "processes where translators select particular elements from various sources and combine them" to create a distinct and innovative idea.¹³¹

As we have seen, Empedocles' most important fragment reveals that Love and Strife operate in a cycle (κατὰ κύκλον) (LM D73.244). In Eryximachus' speech, there is no such cycle. In fact, it is stated that:

¹²⁷ Røvik 2023, 171-174.

¹²⁸ See also Freeland 2013, 92 and Primavesi 2016, 7.

¹²⁹ Note that the use of the modifying mode here does not imply the use of the radical mode, because in the former there is the effort to balance fidelity to source with fit to context, whereas in the latter there is only effort to alter into an innovative idea. Since Eryximachus makes both efforts in respect to Empedocles, then he is engaging with both modes.

¹³⁰ Røvik 2023, 163-164.

¹³¹ Røvik 2023, 170.

καὶ ἐν μουσικῇ δὴ καὶ ἐν ἰατρικῇ καὶ ἐν τοῖς ἄλλοις πᾶσι καὶ τοῖς ἀνθρωπεῖσι καὶ τοῖς θεῖσι, καθ' ὅσον παρῆκει, φυλακτέον ἑκάτερον τὸν Ἔρωτα· ἔνεστον γάρ.

And then in music and in medicine and in every other both human and divine [matter], as far as it is allowed, each of both Loves must be observed: for both are present. (187e6-188a1)

The use of ἑκάτερος here, generally meaning ‘each singly’,¹³² combined with the dual form ἔνεστον emphasise what Candiotta calls “the necessary coexistence” of the double Love.¹³³ The same idea of copresence is found in the Hippocratic theory of the four humours. Sometimes the four humours in the body are in proportion, and so the body is healthy, and sometimes they are in disproportion, and so the body is ill. In any case, the humours are always copresent. This necessary coexistence implies that none of Palmer’s three solutions with regard to the Empedoclean cycle hold for Eryximachus’ speech.

However, this does not mean that Eryximachus’ speech abandons the idea of the cycle altogether. Eryximachus uses cyclical concepts, and some of these are regular and others irregular. For example, in his discussion on astronomy, the physician describes the seasons of the year (188a1-b6), which are themselves a regular cycle. Other cycles are indirectly implied and irregular. For example, Eryximachus mentions the notions of health and disease (186b4-8). Bodies are sometimes healthy, sometimes ill, and this might occur for several times in a cycle during their lifetime. A similar idea can be applied to Eryximachus’ discussion on musical harmony (ἁρμονία) (187b2-4). An instrument might be in tune at a given time, but through use or by time, it will eventually become out of tune and need retuning for several times in a cycle.

Therefore, Eryximachus is using the radical mode because he is not bound by a crucial idea in the source, in this case Empedocles’ cosmic cycle, and creates a different idea,¹³⁴ which is more akin to the coexistence of humours found in Hippocratic doctrine. In doing

¹³² *LSJ*, s.v. “ἑκάτερος”.

¹³³ Candiotta 2013, 195 and Candiotta 2015, 83. Krinks 2020, 7 reaches a similar conclusion.

¹³⁴ Røvik 2023, 163-164.

so, the physician uses the operational rule of alteration as hybridization because specific elements from the source,¹³⁵ in this case the idea of Empedoclean Love and Strife, are combined into a distinct and more Hippocratic idea.

How does Eryximachus' speech combine the use of Empedocles' principles of Love and Strife with Heraclitus' unity of opposites? As we have seen, in the Heraclitean unity of opposites changes take place under one and the same entity, the god. Contrastingly, in the Empedoclean cycle, change is in itself representative of the two separate entities Love and Strife. In renouncing the Empedoclean cycle through his engagement with Røvik's radical mode of knowledge transfer, Eryximachus opts for a Hippocratic copresence between the orderly and disorderly Love. This principle of copresence between opposites, presumably prompted by Eryximachus' medical background, is then compatible with Heraclitus' unity of opposites. In fact, both Heraclitean fragments (DK B10 = LM D47 and DK B67 = LM D48) which have been discussed previously are representative of the "two opposites copresent".¹³⁶

In conclusion, the present chapter draws the following findings. Eryximachus uses the Empedoclean principles of Love and Strife through two modes of knowledge transfer. On the one hand, he engages with the modifying mode because he makes an effort to adapt the idea. In doing so, the physician retains the Empedoclean concept of duality (τὸ διπλοῦν), but adapts Love and Strife to his own orderly and disorderly Loves. On the other hand, Eryximachus also engages with the radical mode because he also makes a special effort to fit the idea within his own context. He uses this mode when engaging with Empedocles' idea of the cosmic cycle, because he alters the idea of the cycle between Love and Strife into a copresence between the double Loves. Furthermore, through his engagement with Røvik's modes of knowledge transfer, Eryximachus also manages to synthesise Heraclitus' unity of opposites and Empedocles' Love and Strife.

¹³⁵ Røvik 2023, 170.

¹³⁶ Wright 2008, 422.

4. Eryximachus' Physiology and Alcmaeon's Definition of Health and Disease (DK B4 = LM D30)

As was the case with Empedocles, the common ground shared by Eryximachus and Alcmaeon is medicine. Since the latter half of the 20th century, scholars have come to recognize the originality of Alcmaeon's medical thought.¹³⁷ Alcmaeon is also thought to have formulated an important definition of health and disease (DK B4 = LM D30), which Leonid Zhmud calls "the first rational theory in Greek medicine".¹³⁸ This definition is said to be 'rational' because it shows Alcmaeon's ability to merge his conception of health and disease with his philosophical worldview.¹³⁹

Alcmaeon's definition is the starting point of this chapter, for the aim here is to show how Eryximachus uses Alcmaeon's definition. In order to attempt this, the fragment which contains Alcmaeon's definition of health and disease (DK B4 = LM D30) shall first be read to provide a context for the subsequent discussion. Then, I shall describe how knowledge transfer takes place from Alcmaeon's definition to Eryximachus' speech using Røvik's theory. Finally, I shall reflect on how Alcmaeon's ideas combine with those of Empedocles and Heraclitus in Eryximachus' speech.

4.1. Reading Alcmaeon's Definition of Health and Disease (DK B4 = LM D30)

The fragment which describes Alcmaeon's definition of health and disease runs as follows:

Ἄλκμαίων τῆς μὲν ὑγείας εἶναι συνεκτικὴν τὴν <ίσονομίαν> τῶν δυνάμεων,
ὕγροῦ, ξηροῦ, ψυχροῦ, θερμοῦ, πικροῦ, γλυκέος καὶ τῶν λοιπῶν, τὴν δ' ἐν
αὐτοῖς <μοναρχίαν> νόσου ποιητικὴν· φθοροποιὸν γὰρ ἑκατέρου μοναρχίαν.

Alcmaeon [says that] on the one hand the essential [cause] of health is the
<equality> of the powers, of wet, dry, cold, hot, bitter, sweet, and the remaining

¹³⁷ For comments on Alcmaeon's importance and originality as a thinker, see Guthrie 1962, 341, 359, Longrigg 1993, 48-49, Kouloumentas 2014, 868, and Zhmud 2014, 98.

¹³⁸ Zhmud 2014, 98.

¹³⁹ Longrigg 1993, 52.

ones, on the other hand [the essential] cause of disease [is] the <supreme rule> among them: for a supreme rule of each is destructive. (DK B4 = LM D30)

Alcmaeon's definition of health and disease is remarkable for at least two reasons. First, Alcmaeon uses political concepts to make a medical analogy with health and disease. The terms isonomy (ἰσονομία) and monarchy (μοναρχία) signify contrasting modes of government. Whereas the former refers to equality within a political class, the latter refers to the total power of a single tyrant over a city-state (πόλις).¹⁴⁰ In Longrigg's words, the use of the terms isonomy and monarchy here "mark the application of politico-social concepts to the physical sphere".¹⁴¹ Jaap Mansfeld also notes this to be a rare occurrence in Alcmaeon's intellectual context, because the comparison is not being made to a human body or soul but to a political body (πολιτεία or πόλις).¹⁴²

Second, Alcmaeon's definition constitutes the basic premise of the Hippocratic theory of the four humours.¹⁴³ According to Alcmaeon's definition, the opposite powers (δυνάμεις) bring about health if they are in isonomy, i.e. in some form of balance. However, they bring about disease if one of them rules in monarchy, i.e. some form of imbalance. This definition forms the basis of humoral theory due to the principal idea that balance brings about health and imbalance brings about disease.¹⁴⁴ Therefore, Alcmaeon's definition is remarkable in this sense because it marks his influence on one of the most important concepts in Hippocratic theory.¹⁴⁵

Since Alcmaeon is subjecting the notions of health and disease to the larger political sphere,¹⁴⁶ his definition of health and disease may also be termed physiological.¹⁴⁷ In other words, Alcmaeon's definition understands health and disease to form a constituent part of nature (φύσις) as a larger cosmic whole. Therefore, the principles that apply on a

¹⁴⁰ Zhmud 2014, 99.

¹⁴¹ Longrigg 1993, 52-53.

¹⁴² Mansfeld 2018, 264. For a more detailed explanation of the wider application and meaning of the political terms ἰσονομία and μοναρχία, see Kouloumentas 2014, 881-884.

¹⁴³ Longrigg 1993, 53, Jouanna 2012, 23, and Zhmud 2014, 99.

¹⁴⁴ For a more detailed explanation of this analogy, see Kouloumentas 2014, 873-881.

¹⁴⁵ Longrigg 1993, 53.

¹⁴⁶ Longrigg 1993, 52.

¹⁴⁷ I am using the term 'physiological' to refer to nature (φύσις) as a whole. For a discussion of physiology in this sense, see van der Eijk 2008, 390-391 and Nutton 2012, 28-31.

micro-level (e.g. animal or human bodies) apply also on a macro-level (e.g. the city-state). As such, the notions of balance as health and imbalance as disease are also cosmological,¹⁴⁸ in the sense that they constitute a certain world order (κόσμος). Therefore, there is certain order in the body which produces bodily health if upheld and disease if not upheld. Likewise, there is also an order in the city-state which produces isonomy or 'political' health if upheld and monarchy or 'political' disease if not. Therefore, the body is a microcosm of the city-state and the city-state is a macrocosm of the body in turn. This microcosm-macrocosm conception also has subsequent developments in Platonic thought. For example, in the *Timaeus*, the cosmos (ὁ κόσμος) is expressly thought of as a living creature (ζῶον ἔμψυχον) (30b6-d1), transforming the relation between the two into a microcosmic-macrocosmic level.¹⁴⁹

4.2. Knowledge Transfer from Alcmaeon to Eryximachus' Speech

Following the above reading of Alcmaeon's definition of health and disease, I shall now use Røvik's theory to describe how knowledge transfer takes place from Alcmaeon's definition of health and disease to Eryximachus' speech. In this process of knowledge transfer, Eryximachus uses Alcmaeon's definition by engaging with Røvik's modifying mode of knowledge transfer. As previously discussed, the modifying mode is a balance between fidelity to the source and fit to the target context.¹⁵⁰ Therefore, Eryximachus' speech, modifies Alcmaeon's definition of health and disease by retaining some of its original elements and adapting others.

Before turning to how Eryximachus uses Røvik's operational rules to modify Alcmaeon's definition, let us survey the elements of the definition which he retains. Among the elements which Eryximachus retains are the concepts of health (τὸ ὑγιές) and disease (τὸ νοσῶδες) (186b5-8) as well as the three pairs of opposites given in Alcmaeon's definition, namely cold and heat, bitter and sweet, and dry and wet (186d6-e1). In a similar way,

¹⁴⁸ Mansfeld 2018, 271 discusses this cosmic aspect.

¹⁴⁹ For a discussion on the microcosm-macrocosm conception of the *Timaeus*, see Robinson 1995, 88-89.

¹⁵⁰ Røvik 2023, 171.

Eryximachus also retains Alcmaeon’s idea that health comes about through the balance of opposites and disease through the imbalance of them (186c7-e3).

Eryximachus also retains, even if more indirectly, the physiological nature of Alcmaeon’s definition. The initial premise of the physician’s speech is that Love is a double (τὸ διπλοῦν) (186a1). We have already seen that the double Love consists of two opposite Loves, a “good” and a “bad” Love which seek the ‘healthy’ and ‘unhealthy’ respectively in relation to a particular subject.¹⁵¹ Eryximachus holds that the double nature of opposite Loves manifests itself not only in human souls, animals, and plants, but also in everything that exists concerning both the affairs of humans and gods (καὶ κατ’ ἀνθρώπινα καὶ κατὰ θεῖα πράγματα) (186a2-b2). Moreover, since Eryximachus’ double Love is found everywhere in the world, its principles apply for the entirety of nature.¹⁵² Therefore, there is nothing to preclude that it might apply on both microlevels, such as the human body, as well as macrolevels, such as the city-state.

Eryximachus’ speech describes applications of the double Love on a microlevel, for example in the body. Eryximachus explains that the most skilled physician (ἰατρικώτατος) is the one who knows how to make even the most hateful elements (τὰ ἔχθιστα) in the body friends (φίλα) and to implant love (ἔρᾶν) among them (186c7-e3). If there is friendship between the elements in the body, then they are reconciled in a balance, which is a form of equality. This state is comparable to Alcmaeon’s isonomy. On the other hand, if there is no friendship between the elements, they are not reconciled in a balance, and one (or more) of them has more power than the others. This state is comparable to Alcmaeon’s monarchy.

Moreover, since Eryximachus’ double Level permeates all of nature, there is nothing to preclude the existence of a double Level on a macrolevel, such as the city-state. Therefore, we could also posit that there is a “good” Love and a “bad” Love in relation to the ‘health’ and ‘disease’ of the city-state respectively. In this case, the “good” Love should seek ‘political’ health in the form of a balance or equality of elements within the city-state.

¹⁵¹ Dover 1980, 105.

¹⁵² Marino 2016, 242.

Alcmaeon’s definition supplies the term *ἰσονομία*, which matches this description. On the other hand, the “bad” Love seeks ‘political’ disease in the form of an imbalance or supremacy of elements within the city-state. The term which Alcmaeon supplies, *μοναρχία*, corresponds to this description.

In the knowledge transfer process, Eryximachus modifies Alcmaeon’s definition through at least one occurrence of each of the two operational rules of the modifying mode, which are omission and addition. In Røvik’s terms, Eryximachus’ omission is a “toning down” because an aspect of the source, Alcmaeon’s definition, are told differently in the target context, Eryximachus’ speech.¹⁵³ Whereas Alcmaeon’s definition uses the political terminology of *δυνάμεις*, *ἰσονομία*, and *μοναρχία*, Eryximachus’ speech does not. In fact, Jaap Mansfeld draws a very brief parallel between Alcmaeon’s definition and Eryximachus’ speech in this respect. He comments that while Eryximachus bases his conception of medicine on Alcmaeon’s definition, instead of *ἰσονομία* and *μοναρχία*, Eryximachus’ speech contrasts terms such as *φιλία*, *ἔρᾶν*, and *ὁμόνοια* with *ἔχθιστα* and *ἐναντιώτατα*.¹⁵⁴ However, this does not mean that some of the terms in Eryximachus’ speech do not have political nuances. For example, Eryximachus’ uses of terms such as *ὁμολογία* (187b4, b5, and c2)¹⁵⁵ and *ὁμόνοια* (186e2 and 187c4)¹⁵⁶ which also have political nuances.

Moreover, Eryximachus uses the operational rule of addition, because he adds an element to the source and in doing so, he completes his target context narrative.¹⁵⁷ In this case, Eryximachus adds terms related to order (*κόσμος* and *κόσμιος*) to make the physiological dimension in Alcmaeon’s definition more direct. During the course of the physician’s speech, we gradually learn that the double Love enforces a certain order on the world. Eryximachus explains that those who are orderly (*κόσμιοι*) have the kind of Love which should be gratified and guarded (187d4-5). Soon after, we learn that this Love is the orderly one (*ὁ κόσμος ἔρωσ*). Under the orderly Love, heat, cold, dryness, and wetness

¹⁵³ Røvik 2023, 173-174.

¹⁵⁴ Mansfeld 2018, 266-267.

¹⁵⁵ *LSJ*, s.v. “ὁμολογία”, which can mean ‘terms of peace’ or ‘truce’.

¹⁵⁶ *LSJ*, s.v. “ὁμόνοια”, which can mean ‘unanimity’ or ‘unity’ in political contexts.

¹⁵⁷ Røvik 2023, 175.

come to a temperate harmony (ἀρμονία) and mixture (κρᾶσις) to create a good blend of the four seasons during the year. The result of this harmony is prosperity (εὐετηρία) and health (ὕγιεια) for humans, animals, and even plants (188a2-6). The association with Alcmaeon's definition of health and disease follows almost naturally. In Eryximachus' speech, if there is order, then there is harmony. This is the "good Love" which brings health, in the same way Alcmaeon's state of equilibrium, isonomy, brings health. However, if there is no order, then there is no harmony. This is the "bad" Love, which brings harm, in the same way Alcmaeon's state of imbalance, monarchy, brings disease.

Finally, I shall now reflect on how Eryximachus' use of Alcmaeon's definition combines with the use of Empedocles' principles of Love and Strife and Heraclitus' unity of opposites. As we have seen, Eryximachus alters Empedocles' cosmic cycle between Love and Strife into a copresence between the two. The following argument will show that this radicalised version of Empedocles is compatible with Eryximachus' modification of Alcmaeon's definition.

Alcmaeon posits that health is an isonomy and disease is a monarchy (DK B4 = LM D30). Isonomy is a kind of mixture. In actual fact, it is a 'mixture' of citizens in the same political class.¹⁵⁸ Moreover, monarchy is a kind of separation, because one individual is being separated from the rest of the citizens in the city-state in respect to political power.¹⁵⁹ Therefore, recalling my Hippocratic reading of Empedocles, a parallel emerges between Alcmaeon's isonomy and monarchy on one hand and Empedocles' Love and Strife on the other. For Alcmaeon's isonomy and Empedocles' Love both aim for mixture, whereas Alcmaeon's monarchy and Empedocles' Strife both aim for separation. If we are to contextualise this parallel within Eryximachus' speech, a further parallel emerges: if Empedocles' Love and Strife are paralleled with Alcmaeon's isonomy and monarchy, then these two pairs are also paralleled with Eryximachus' orderly and disorderly Loves respectively. However, this 'triple parallel' only holds if the three pairs are always copresent, which Eryximachus' radicalisation of Empedocles guarantees. Moreover, since

¹⁵⁸ Zmud 2014, 99.

¹⁵⁹ Zmud 2014, 99.

Eryximachus retains the copresence of opposites found in Alcmaeon's definition, then compatibility with the physician's modification of Heraclitus' unity of opposites is not a problem. This is because the copresence of two opposites is a central feature of the Heraclitean doctrine of the unity of opposites. In fact, the copresence of two opposites is found in both fragments which have been discussed previously (DK B10 = LM D47 and DK B67 = LM D48).¹⁶⁰

In conclusion, the present chapter found that Eryximachus engages with Alcmaeon's political definition of health and disease using the modifying mode of knowledge transfer. Eryximachus retains Alcmaeon's notions of health as a form of balance and disease as a form of imbalance as well as the three pairs of opposites in Alcmaeon's political definition. However, Eryximachus 'tones down' the political terminology found in Alcmaeon's definition, and adds terminology related to order (κόσμος) to make clear the physiological dimension of the Presocratic definition. Moreover, the use of Alcmaeon's definition in Eryximachus' speech also blends with the physician's use of Empedocles' Love and Strife and Heraclitus' unity of opposites.

¹⁶⁰ For a more comprehensive discussion of these fragments, see chapter 2.2.

5. Conclusion

The present thesis has attempted to revisit the question of how Eryximachus' speech uses Presocratic ideas. I have aimed to shed new light on Eryximachus' use of three Presocratic ideas, which were Heraclitus' unity of opposites, the Empedoclean principles of Love and Strife, and Alcmaeon's definition of health and disease. In doing so, an innovative theory of knowledge transfer was applied and a series of four methodological steps was performed for each Presocratic idea under consideration. First, Presocratic fragments describing each idea were selected. Then, a close reading of these fragments was carried out. Third, I applied Kjell Arne Røvik's theory of knowledge translation as described in chapter 5 of his monograph *A Translation Theory of Knowledge Transfer: Learning Through Organisational Boundaries* (2023) to show how knowledge transfer takes place. Finally, the combination of the different Presocratic ideas in Eryximachus' speech was briefly discussed.

First, Chapter 2 focused on how Eryximachus' speech uses Heraclitus' unity of opposites. The physician engages with Heraclitus partly through the reproducing mode (when the effort is replication) and partly through the modifying mode (when his effort is adaptation). When Eryximachus engages with Heraclitus through the modifying mode, there are at least two omissions and three additions. The omissions were both subtractions and concerned (1) the term *παλίντροπος* from the Heraclitean fragment which is missing in Eryximachus' speech and (2) Eryximachus' subtraction of meanings in the term *ἁρμονία* from a general to a purely musical sense. On the other hand, the additions concerned (1) the adverbs *πρότερον* and *ἕστερον* to emphasise the previous disharmony and the subsequent harmony, (2) the terms *ἔρω* and *ὁμόνοια* to frame Eryximachus' citation of Heraclitus with a concept of unity in the framework of the *Symposium* as a whole, and (3) the term *δημιουργός* in reference to the knowledgeable craftsman who can unite opposites.

Next, Chapter 3 aimed to examine Eryximachus' use of Empedocles' principles of Love and Strife. Knowledge transfer takes place from Empedocles to Eryximachus' speech

partly through the modifying mode (when his effort is adaptation) and partly through the radical mode (when his effort is fitness to his own context). In engaging with the modifying mode, Eryximachus retains the functions of the Empedoclean duality Love and Strife but he moulds them into his own orderly and disorderly Loves. On the other hand, Eryximachus engages with the radical mode by altering the idea of the cosmic cycle between Love and Strife into a copresence between the double Loves.

Finally, Chapter 4 discussed the use of Alcmaeon's definition of health and disease in Eryximachus' speech. Eryximachus uses Alcmaeon's definition by engaging with the modifying mode of knowledge transfer. The principal element retained from Alcmaeon's definition is the notion of health as a form of balance and disease as a form of imbalance. Moreover, Eryximachus uses the operational rule of omission to subtract the political terminology of isonomy (ἰσονομία) and monarchy (μοναρχία) found in Alcmaeon's definition. However, the physician uses the operational rule of addition to introduce terms related to order and strengthen the physiological nature of Alcmaeon's definition.

Throughout the preceding chapters, Røvik's theoretical framework of knowledge transfer has provided this study with at least three advantages. First, it supplied a typology which allowed us to formulate a theory on the relationship between the ideas in the source, Presocratic thinkers, and the ideas in the target context, Eryximachus' speech. When applied with their respective operational rules, the reproducing, modifying, and radical modes of knowledge transfer formulated an explanation of *how* Eryximachus uses Presocratic ideas. In doing so, the theory of knowledge transfer yielded an account which is far more nuanced than one given only through a comparative close reading.

Second, Røvik's theory can be applied comprehensively to understand how any Presocratic idea is used in Eryximachus' speech. This was particularly useful for the present thesis, because the Presocratic thinkers Empedocles and Alcmaeon are not acknowledged by Eryximachus in the same way as Heraclitus, who is mentioned by name and partly cited. Nonetheless, the same theory of knowledge transfer was applied to all three Presocratic thinkers likewise. Moreover, the application of Røvik's theory could

also be extended further to consider Eryximachus' use of other Presocratic thinkers not included in the present thesis, such as Pythagoras.

Finally, in applying Røvik's theory of knowledge transfer, I have focused the discussion on the use of Presocratic ideas in Eryximachus' speech. In discussing the use of ideas, the problem of 'influences' has been circumvented. In other words, it does not matter if or to what extent Plato was actually influenced by Heraclitus, Empedocles, or Alcmaeon when composing Eryximachus' speech. The point is that the physician's speech uses ideas which can be traced back to these three Presocratic thinkers.

In fact, the combined use of these three Presocratic ideas produces an innovative final result in Eryximachus' speech. The physician's double Love consists of a Heraclitean copresence of two opposite Loves. However, these two opposite Loves have an Empedoclean function, whereby one is orderly, seeking unity and good, and the other is disorderly, seeking separation and harm. Eryximachus' double Love also possesses a characteristic derived from Alcmaeon, namely that it is physiological and applies on both microlevels and macrolevels in the cosmos. Therefore, as Røvik's theory of knowledge transfer has just shown, Eryximachus' use of Presocratic ideas displays a nuanced complexity combined with a reflective philosophical sophistication.

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