# Plato’s *Timaeus*: Physics for the Sake of Philosophy

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A Thesis

In the Department of

INDI

Presented in Partial Fulfillment of the Requirements

For the Degree of

Doctor of Philosophy (INDI) at

Concordia University

Montréal, Québec, Canada

August 2014

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**CONCORDIA UNIVERSITY**
**SCHOOL OF GRADUATE STUDIES**

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## ABSTRACT

**Plato's *Timaeus*: Physics for the Sake of Philosophy**

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It should be reasonable to think of the *Timaeus* as an exposition on physics or, what I consider to be synonymous, cosmology. Such a view, in fact, is a constant in commentary on the dialogue. What is less prevalent, I find, is prolonged attention to why cosmology is at issue in the first place, and in this dissertation, at the most general level, I am filling in for this lack of attention. The *Timaeus* is not solely a physical treatise. Rather, it is part of a larger multifaceted narrative. As we learn at the outset of the dialogue, the previous day Timaeus and his cohort, which includes most notably, Critias, ask Socrates to offer his views on the nature of the ideal city. Socrates accepts but asks the group to reciprocate with a story about his city at war. They agree and the following day return to tell the story. When digging deeper, we see that Socrates is asking more specifically for an encomium to his city that highlights not only its actions in war but also its warriors' education as philosophers. Critias, who spearheads the response, recognizes these details though instead of offering a story entirely his own, he draws on Solon's account of the culture of ancient Athens and its battle with Atlantis. This account includes not only the martial component of the encomium but also specifics about the Athenian warriors' education which, as it turns out, is centered on the study of the *kosmos*. In the end, Critias and Timaeus split the task of presenting Solon's account. Critias will relay the story about the Athenian warriors' victory but only after Timaeus, who shows cognizance of both Socrates' interest in philosophy and the ancient Athenians study of the *kosmos*, presents an account of the

cosmological education of philosophers. Thus, my most comprehensive contention is that the physical views expressed in the *Timaeus* are first and foremost the substance of an educational program that acts as the gateway to philosophy and consequently to superior philosopher-warriors, and I spend the majority of the dissertation unpacking this claim.

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**Introduction**

In what follows, I offer, first, a general overview of my project; second, a synopsis of the four chapters that compose this dissertation; and third, a description of my methodology.

*General Overview*

The *Timaeus* is not an independent work. Rather, it is the premier dialogue in an unfinished trilogy that also includes, the *Critias*, of which we have only a fragment, and the *Hermocrates*, which is forecast in the *Critias* but was presumably never written.[1] Building on these considerations, in my investigation of the *Timaeus*, I start from the assumption that the physical views presented by the main character, Timaeus, can only be adequately understood if this larger context or story is taken into account.

The larger story is one that, in a literal sense, surrounds Timaeus' physics. Prior to the physics, we get a rich prologue that can be divided into three parts. In the first part, Socrates reminds his interlocutors—Timaeus, Critias, and Hermocrates—of the speech he had given them the previous day, a speech about the best city and its citizens. After going over the high points of his speech, which concerned the education and upbringing of philosopher-warriors, Socrates then reminds Timaeus and company of the request he made of them. The request was that they repay his account of the ideal city with a story of its philosopher-warriors engaged in battle.

In the second part of the prologue, we get a trial run or mini-version of the story that Timaeus and company hope will fulfill Socrates' request. The story is told by Critias though it is not Critias' own creation. Rather, he borrows the tale from Solon. On the whole, the tale is a discussion of the history of ancient Greece. It includes the bad times, cataclysmic events like floods and conflagrations that destroy Greece's cities and people, and the good times, the fine

[1] See Cornford (1937): 7-8.

laws and heroic military victory of the first Athenians over the aggressive military forces of Atlantis.

In the final part of the prologue, Critias proposes that Timaeus and himself work together to tell the latter more positive part of the history as a way of fulfilling Socrates' request. Socrates accepts this as fulfillment, and the plan for the two speeches is further described and solidified. Timaeus will speak on the generation of the universe and mankind, and Critias will follow him with a story about the ancient Athenians and their battle with Atlantis. Thus, in the end, Timaeus' physics is surrounded on the one side by the prologue, and on the other by Critias' story about the war with Atlantis, a story which is (or at least was meant to be) the content of the dialogue, *Critias*.

Now, I think, what should be striking here is the apparent disconnect between Socrates' request for a story about a war and Timaeus' story about the universe. On the face of it, the one simply does not seem to be relevant to the other. Yet when Critias proposes the plan for the speeches, Socrates is not at all surprised to hear that he will be getting a speech about physics or cosmology. In fact, he seems quite happy about it. So the solution to this initial problem seems to be a project that involves taking a closer look at Socrates' request, and ultimately this dissertation is just that.

First and foremost, I aim to show that Socrates actually secures what he wants, and showing this involves two things. On the one hand, of course, I will need to determine what Socrates' is asking of Timaeus and company. On the other, I will also need to establish that Timaeus and Critias, in particular, really give him what he wants.

In sum, I claim that Socrates is seeking out an encomium to his ideal city, an encomium that undoubtedly includes a story about a war but one that also includes reference to the warriors'

education in philosophy. I further assert that Critias takes on the task of telling the story about the war, and Timaeus provides the tale of philosophical training via cosmology.

Accordingly in Chapter 1, I begin by establishing the substance of Socrates' request and how Timaeus and Critias act to fulfill it. I then move in Chapter 2 to show that Timaeus is indeed taking up the educational portion of the task, and I lay out in broad strokes what I take his educational program to be. In Chapters 3 and 4, I complete the project by sharpening the focus onto the pivotal moments I see in the progress of philosophical training.

*Synopsis of Chapters*

**1. Socrates' Request: Encomium, Education, and War**

As indicated, I begin in Chapter 1 with the intent of establishing the substance of Socrates' request as well as Timaeus and Critias' role in fulfilling it, and this interest is ultimately born of a desire to solve what I call, the irrelevance problem. The irrelevance problem indicates two kinds of obscurity. Not only is it unclear what the topic of cosmology has to do with topic of war, but it is also equally unclear why Timaeus' cosmological account precedes the martial account intended for the *Critias*.

In short, my analysis of Socrates' request is meant to address both arms of the problem. First, Socrates is not asking for a mere story about a war. More precisely, he is asking for an encomium to his ideal city which includes both a martial component and, it seems, an educational component. Concerning the topical arm of the problem, then, I argue that the educational and martial aspects of the request explain the presence of the topic of cosmology, construed as education, and the topic of war. Second, drawing on the discussion of encomium in the *Symposium*, I argue further that Socrates' request for encomium is actually a request for a particular structural or presentational order. In proper encomium, one first presents the relevant

qualities in the subjects of praise which, in this case, means presenting the warriors' education as philosophers. Only after does one present the deed made possible by such qualities and for which we praise the subject, the deed being, of course, the victory of the Athenians over Atlantis. Thus, in the end, Critias' role in the larger project is to present an account of this victory. Timaeus' role, on the other hand, is not only to offer a picture of the philosopher's cosmological education. He must also speak first so that we might be mindful of the connection between philosophy and the warriors' success on the battlefield.

### 2. The Educational Program of the *Timaeus* in Outline: Medicine, Cause, and the Tripartite Structure of Timaeus' Speech

Establishing the substance of Socrates' request and how, in particular, Timaeus will act to fulfill it can only serve as partial support for my interpretation. Accordingly, I enter Chapter 2 with the idea that I must further demonstrate the presence of a philosophy-centered educational program in Timaeus' speech. In fact, we might think of Chapter 2 as well as the two that follow as catering primarily to this task.

Broadly speaking, then, I suggest that Timaeus thinks of education in two ways. First, education is a medical enterprise intended to make us healthy or more specifically to help us recuperate from the psychic damage that we are told is a result of our embodiment. In fact, it seems that Timaeus has taken many of the traditional subject matters such as gymnastics, music, and astronomy and incorporated them into the curriculum precisely according to their ability to produce health. Moreover, as I argue, the epitome of such well-being and accordingly the pristine product of Timaean education is, in short, the philosopher, who is not only physically fit but who has also fully recuperated from the psychic damage incurred at incarnation.

Second, education is, in a significant sense, a study of the causes, in particular, necessary and intelligent cause. We see this in Timaeus' description of the aspiring philosopher who

certainly studies both causes but also studies them in a particular order, namely beginning from the intelligent and then moving on to the necessary. Further, given the three part structure of his speech and its connection to these two causes, we also see that the order in which Timaeus presents these three parts is itself parallel to the progress of the philosopher's education—the first part of the speech being a study of intelligent cause, the second of the necessary, and the third, in short, the study of both. Thus, it appears that Timaeus' commitment to education is not at all superficial but rather even penetrates the very structure of his speech.

In the end, I consider the medical and causal pictures of education to be the more explicitly stated formats. By contrast, I conclude the chapter by introducing what I take to be the implied stages of Timaeus' educational program, stages that will be the focus of Chapters 3 and 4. I divide these stages into two groups according to their place in the progress toward philosophy and the production of the philosopher, one marking the pre-philosophical stages and the other the philosophical. Our progress through the former extends from our birth and the damage done to our immortal soul upon incarnation to the collection of astronomical data or observational astronomy. The philosophical stages begin from mathematical astronomy and the healing it brings and conclude with the full-fledged philosopher who is master of his emotions and desires and consequently is a superior candidate for war.

**3. The Pre-philosophical Stages: Embodiment and the Existence and Convalescence of Intellect**

In chapter 3, I address the pre-philosophical stages of Timaeus' educational program, stages that cover two areas of interest. First, Timaeus suggests that our souls, in particular our immortal souls, are ideally composites of healthy, revolving, circular rings, one of which is our intellect and the others which are at least part of our faculty of sense-perception. Moreover, our psychic revolutions, as Timaeus calls them, bear kinship to the orbits we see in the heavens,

orbits which, as we are told, are manifestations of the psychic revolutions of the living god that is the universe itself. Upon embodiment, however, our immortal souls are distorted, and they lose their proper shape and motion, and the pre-philosophical stages technically represent not only the damage caused by incarnation but also the different phases in the educational progress toward the healing of our immortal souls and, in particular, our intellects. This convalescence, as indicated above, follows on the heels of the final pre-philosophical stage which consists in collecting data on the speeds of the heavenly revolutions and which serves, in turn, as preparation for comparing them mathematically and consequently, in the very act of computation, restoring the proper shape and speed of our own intellectual revolutions.

Sandwiched between our damaging embodiment and data collection, the second stage and area of interest concerns the mere existence of intellect. I include this stage for two reasons. On the one hand, Timaeus seems to be at some pains to paint a motivating portrait of an unsavory character who does not believe in intellect, a character who, in some sense, is punished for his failure to believe and, accordingly, a character we should not be. Thus, this phase, in some sense, is about choosing education and more specifically choosing to believe in intellect enough to pursue its treatment. On the other hand, apart from suggesting a belief in intellect, Timaeus posits the existence of quantitatively distinct intellects, individual intellects. In short, this has great bearing on the possibility of education, to the extent that moral responsibility or, more generally speaking, agency has such bearing. In essence, education does not make sense in a world controlled entirely by necessity and the gods. Rather, education assumes that virtue or health is up to us.

**4. The Philosophical Stages: Following Intellect and the Production of the Philosopher-Warrior**

Having chosen to believe in intellect and the need for treatment and further having gathered the astronomical data from the heavens to be applied in such treatment, we arrive at the philosophical stages. I divide these stages in two as I think Timaeus also does. The first stage involves following the heavenly revolution of intelligence, and as I argue, such devotion amounts to one sense of Timaeus' use of the term *philosophia*. "Following" in this instance indicates imitation, and the act of imitating, I claim, involves correctly calculating the relative speeds of the heavenly revolutions. In fact, this calculation results in an intellect on our part that mimics the perfect spatial characteristics of the universe's revolution of intelligence.

The second stage and thus the second sense of *philosophia* involves following the intellect in us. In short, this allegiance amounts to the exertion of control over mortal soul which is effected in part through an uncanny control over body. More specifically, in this stage, we master our emotions and desires through advanced control over the circulatory system and organs inside us like the liver, to which the lowest desires of appetitive soul are attached.

In this final chapter, I also take into account the primary upshot of achieving the height of philosophy, the philosopher-warrior, and here I focus, in particular, on what makes him an ideal candidate for war. First, the philosopher's superior control over his own physiology translates to an equally superior control over his enemies, and as we might suspect, ultimately what is at issue is a body that supports or assists in the maintenance of intellectual dominion and even in the midst of the most passionate moments of battle. Second, the philosopher is the ideal warrior because he will never fight for the sake of increasing his wealth or the size of his nation.

*Methodology*

On the most general level, this dissertation is an exegetical project. For starters, this means that I am thinking of the text in a certain way: namely, I conceive of the text as a network of the characters' desires, reasons for the existence of those desires, and the fulfillment of those desires. As already indicated, I am concentrating on what Socrates wants and how it is that he gets what he wants via the speeches of Timaeus and Critias. This is, however, where my analysis of character ends. I do not, for instance, try to develop or incorporate a more detailed portrait of Plato's Socrates nor do I attempt to grasp at the historical Socrates. I also do not draw on Platonic or historical portraits of Critias or the more mysterious Timaeus.

Ultimately, this move is part of a larger strategy that involves staying as close to the text of the *Timaeus* as possible. Concentrating on the network of the characters' intentions and interactions means that I not only steer clear of situating the *Timaeus* within the history of physics that precedes Plato but also that I choose not to draw on other Platonic dialogues (with one exception—my appeal to the *Symposium* in Chapter 1). Bypassing the former, I gather, should not be that alarming. Bypassing the latter, however, will be particularly controversial given the long history of reading the *Timaeus* as a continuation of the *Republic*, an issue I discuss in some detail in Chapter 1. In sum, I conclude that consulting the *Republic* is unnecessary for an adequate understanding of the *Timaeus* though I certainly do not mean to suggest that consulting the *Republic* is not or cannot be illuminating. What I am claiming instead is that "the dialogue," in this case the *Timaeus*, is a respectable unit of analysis in its own right and one distinct from what I take to be the more customary unit of analysis—i.e., Plato's thought, an entity spanning multiple dialogues. I am, however, not alone in wanting to address only a single

Platonic work. Margaret Mackenzie shares a similar sentiment[2] as does Sarah Broadie who tells us in her recent book on the *Timaeus*:

> In what lies ahead no conclusions have been allowed to hinge on potential evidence from dialogues other than the *Timaeus-Critias*. This is partly because adequate evaluation of any such evidence would have led me beyond a reasonable limit. It also seemed no bad project in itself to see how far one can get examining the *Timaeus-Critias* solely from within, so to speak. Thus I have not attempted to establish any features of the Timaean account by inference from trends of Plato's thought appearing in other dialogues or other late dialogues. Such inferences require decisions on difficult and often indeed scarcely decidable questions such as whether a given pattern or habit of thought is in fact discernible elsewhere to the exclusion of contrary patterns, or whether some pattern found in one dialogue can be assumed to carry over to another.[3]

For me, the drawback of starting our interpretation from outside the *Timaeus*, and again I am thinking of starting from the *Republic*, is that we run the risk of covering up the larger project that unites the *Timaeus* and *Critias* with the larger project of the *Republic*, as Cornford and Johansen may be seen to do (again, see Chapter 1).[4] Accordingly, by narrowing the focus, I intend to draw out the unique project that envelops the *Timaeus* and *Critias*.

I am interested in this unique project both in its own right and for methodological reasons. In this dissertation, I aim to understand the *Timaeus* as a whole though I start from the assumption that if one wants to understand the *Timaeus* one must first establish the larger project

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[2] Described in Gill (2000): 63 with n. 19.

[3] Broadie (2012): 5-6.

[4] Cornford (1937): 5-6, and Johansen (2004): 7-9.

of which both the *Timaeus* and *Critias* are a part and then illuminate the *Timaeus* or more precisely Timaeus' speech within the context of this project. The further assumption is that the substance of this larger project is to be found in Socrates' request. In other words, the request is the source of the overarching narrative that unites the speeches of both Timaeus and Critias, and in the main this dissertation is a reproduction of the uniting narrative I find, a narrative established by what Socrates' wants from Timaeus and company and concluded, at least for my purposes, by Timaeus' detailed response to Socrates' desires.

**1. Socrates' Request: Encomium, Education, and War**

**1.1 Introduction: The Irrelevance Problem and Socrates' Request—A Contemporary History**

**1.2 Socrates' Summary of the Events of the Previous Day: Socrates' Politeia and His Request**

*1.2.1 Socrates' Request: Metaphorical and Literal*

*1.2.2 Encomium, Education, and War*

**1.3 Critias' Proposal for Fulfilling Socrates' Request**

*1.3.1 Critias Connects with Socrates: The Two-fold Relevance of Solon's Story*

*1.3.2 Critias' Delegation to Timaeus*

**1.4 Plato's *Symposium* and the Order of Encomium**

**1.5 Conclusion: Thematic vs. Structural Unity**

**1.1 Introduction: The Irrelevance Problem and Socrates' Request—A Contemporary History**

This dissertation is the product of an attempt to deal with what one might call, "the irrelevance problem." This problem can be cashed out in two ways. First, what does Timaeus' story about the creation of the universe and mankind have to do with Critias' story about ancient Athens at war with Atlantis? Or more precisely, why does Timaeus' story come before Critias' full speech or even after Critias' trial run? Alternatively, one might frame the problem by asking, what does Timaeus' story have to do with Socrates' request for a story about a war? In fact, given this request, why is there a cosmological story at all? In each case, the issue is the irrelevance of one to the other, whether it be in terms of the apparent incongruity between the speeches themselves or between what Socrates asks for and what he gets.

I approach the problem from the latter point of view not only because it first struck me that way but also because I find the solution to the irrelevance problem ultimately through appeal to Socrates' request and the unity it provides. Surprisingly enough, however, in employing this approach, I find my own work as well as a large portion of contemporary scholarship on the matter in a unique position. The vast majority of the history of critical engagement with the *Timaeus* pays no attention to the irrelevance problem nor to Socrates' request, and I take it that this is a side-effect of the predominant tendency to read the dialogue selectively, the best examples of which are Cicero, who is primarily concerned with the theology and "mathematical cosmology" of the premier part of Timaeus' speech,[5] and Calcidius who has a similar focus

[5] See Sedley (2013): 200-1. Cicero incorporates only *Tim.* 27d-47b, a stretch of text that highlights the activities of the craftsman god, the demiurge.

though by contrast at least exhibits some interest in the formation of the elements.[6] At the same time, this is not to say that the irrelevance problem or, just generally, concern for unity never shows up. Certainly commentators as remote from us as Longinus had enough interest in the question to offer a solution at the very least—the war story is intended to serve as a kind of enticing carrot that will draw horsey readers through Timaeus' dense exposition.[7] Proclus too, from whom we get the above information about Longinus, weighs in on the issue claiming that the war story serves as an image of cosmological issues, an image meant to reinforce our understanding of the true focus of the *Timaeus*, the study of nature.[8] So here I am definitely not claiming that no one has ever addressed the issue of relevance. In fact, the issue appears to be quite old. Rather, what I want to understand is what happened to put the issue and its attendant investment in Socrates' request on the map with the current contrasting force of an interpretive imperative, a force represented I think by the two most prominent monographs on the *Timaeus* written in English in the last ten years: Johansen's 2004 *Plato's Natural Philosophy* and Broadie's 2012 *Nature and Divinity in Plato's Timaeus*. In Johansen, not only is the irrelevance problem more or less the motivation for the entire account, but Johansen, at least in part, also

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[6] See Backhouche (2011): 25-30. Calcidius addresses only 17a-53c. At 53c, the demiurge leaves the narrative, for the most part, and Timaeus takes over with his mathematical speculations on the nature of the four elements—fire, air, water, and earth.

[7] Proclus: 83.19-25. For some general information on Longinus, see Tarrant (2007): 35-7 and 74-6. Longinus was "the early teacher of Porphyry." Porphyry, of course, is most famous for his work with Plotinus.

[8] Proclus: 83.29-84.7

uses Socrates' request as a principle of unity to help solve the problem just as I do.[9] Similarly, Broadie begins her extended discussion of "The Timaeus-Critias Complex" from the irrelevance problem and also appeals to Socrates' request as a unifying principle to be used for the solution of the problem.[10] So again, what happened?

In short, Cornford happened. I am tempted to think, however, that only one of his ideas is really at issue because, with respect to the matter at hand, only one thing really changed in his work, albeit a very big thing. In Cornford's 1937, *Plato's Cosmology*, the long tradition of seeing a dramatic connection between the *Republic*, *Timaeus*, and *Critias*, a tradition at least as old as Thrasyllus[11] and extending as far as Taylor,[12] comes to an end. Cornford claims that the dramatic date of the *Republic*, established by the festival of Bendis, and the dramatic date of the *Timaeus*, established by the Panathenaea, are in reality too far apart to assert that the conversation in the *Timaeus* takes place two days after the *Republic*.[13] Now, in my assessment,

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[9] Johansen (2004): 4 and 7-8.

[10] Broadie (2012): 115-6.

[11] Diogenes Laertius: 1.3.60. For a full treatment of Thrasyllus' role in the editing of the Platonic corpus, see Tarrant (1993).

[12] Taylor (1968): 13. For a post-Taylor commentator who commits to the dramatic connection, see Krell (1975): 408 (Cited in Schoos (2010): 103).

[13] Cornford (1937): 4-5. In the European world, to which Cornford gives credit, however, Hirzel (1895): 257, is the first to dissolve the connection. He is followed in France by Rivaud (1925): 19. I think it also important to note that Taylor (1968): 45, almost saved the dramatic connection between the dialogues, citing for the *Timaeus* the date of the Plynteria, also a festival of Athena, which follows directly after the Bendidea. Cornford, however, notes not only that *en tē panegurei* (*Tim*. 21a2) "implies an important

Cornford's move here is a kind of catalyst for two things. First, because the tight dramatic connection to the *Republic* has been dissolved, I suggest that contemporary scholars, Cornford included, are more likely to shift some or even much of their focus to the connection between the *Timaeus* and *Critias*, and they are because the two dialogues now make up a work in a significant sense distinct from the *Republic*. Second, as a result of the new autonomy of the *Timaeus* and *Critias*, we are also more likely to look for unifiers within them rather than in the *Republic*, and as far as I am concerned this is where Socrates' request enters the picture.

In fact, I see the first appeal to Socrates' request as a unifier not surprisingly in Cornford himself. Cornford interprets the request in terms of a desire to see Socrates' theoretical *politeia* factualized,[14] though in this move Cornford has certainly not done away with all concern for the *Republic*. To the contrary, it appears that themes from the *Republic*, in particular the factuality, or more appropriately, the feasibility of Socrates' *politeia*, more or less do the unifying work. The important thing to note, however, is that Cornford, nonetheless, distills this theme through his feasibility interpretation of Socrates' request and also equally importantly uses this interpretation to unify the speeches of Timaeus and Critias, claiming that Timaeus establishes the feasibility of the city's morality by showing its presence in the stars while Critias establishes feasibility in his assertion that such a city did in fact exist in the past.[15] So, in the end, what is important to see here is the beginnings of the two part contemporary move to explain not only the relevance of the *Timaeus* to the *Critias* but also to incorporate Socrates' request into the

festival," which it appears the Plynteria is not, but also claims that the Plynteria comes five days after the festival of Bendis rather than two.

[14] Cornford (1937): 3.

[15] Op. Cit.: 5-6.

explanation of this relevance. In fact, in one way or another, this is the very thing we see in Johansen and Broadie both of whom (though they appear to be entirely unconscious of it) are ultimately working from Cornford's template. I will now address their accounts, accordingly.

For Johansen, in essence, Socrates requests a story about a war,[16] and like Cornford, Johansen draws on the *Republic* for unity while also distilling what he finds there through his interpretation of Socrates' request. Johansen asserts that Plato makes Socrates ask for a story about a war because in the *Republic*, though Plato discussed justice in the individual and within the context of the state, Plato failed to discuss justice in relation to other states and moreover failed to provide an adequate basis for this justice.[17] Accordingly, Timaeus and Critias will remedy this deficiency, Timaeus offering a preface on human nature designed to provide the cosmological basis for this justice between states and Critias offering Solon's story about the war with Atlantis as an illustration of such justice.

What Johansen adds to Cornford's template, however, is teleology construed as the notion that nature works for the best.[18] For Johansen, Timaeus' cosmology is, in fact, ultimately a study of teleology. Teleology, it seems, is both the study of nature at its rational best,

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[16] I refer here mostly to the first Chapter of Johansen (2004), "What is the *Timaeus-Critias* about," in which the primary focus is war. See in particular: 8-11.

[17] Johansen (2004): 9 and 15-16. Though in some sense it may be correct to say that Plato only partially addresses the issue of justice in relation to other cities in the *Republic*, I think it would be false to say that he does not consider this issue at all. In book V, Plato is explicitly concerned with matters of military ethics—i.e. how soldiers are to deal with their enemies (*Republic* 468a-471c). See also Jaeger (1943): 254-8.

[18] Johansen (2004): 22.

victorious over the "injustice" of necessity, and a study of nature's similarity to, support of, and demand for human nature at its own rational best, at its most just, at its most real. In this respect, Timaeus' cosmological story aligns with Critias' war story to the extent that Critias' story is also an example of human nature at its most real, human nature in the midst of battle, and the ways in which its most real aspects, its rationality, its justice, just like the kindred universe, triumph over the earthly irrationality and injustice typified by the Atlanteans.[19] Teleology construed as nature working for the best, as nature working for justice is, in the end, the basis of this triumph in both contexts and thus the unifier of the two speeches.

Broadie makes a similar move to Johansen's minus the explicit appeal to teleology. In fact, what she says may even amount to a criticism of his use of teleology as a unifier. For Broadie, the victory of rationality (which for Johansen is just another way of saying teleology), while apparent in both speeches, is not enough to tell the full story of their unity.[20] In addition, she emphasizes that one interested in unity must also, as we should expect, understand Socrates' request but not so much in terms of what he is asking for, as Johansen does, but in terms of what Socrates represents as the character motivating the two speeches via his request in the first place. In short, Socrates represents a certain conception of philosophy, and in making Socrates request the honorable and generous reimbursement of Timaeus' and Critias' speeches, Broadie claims that Plato means to draw our attention to some higher unifying point about philosophy. In fact, the theme of philosophy is the supreme unifier, and Timaeus' cosmology and Critias' historiography are unified by the fact that they are both genres of philosophy.[21] Again, as with

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[19] Op. Cit.: 22.

[20] Broadie (2012): 115-6.

[21] Op. Cit.: 115-20.

Cornford and Johansen, in the end what we have here is the resolution of the irrelevance problem through appeal to a unifier found in Socrates' request.

Now all this being said, I see my own work as very much a part of this contemporary tradition and precisely to the extent that I look to Socrates' request in order to resolve the irrelevance problem. One might say that I depart from this tradition, however, insofar as I am taking both one step backwards and one step forwards. I am taking a step backwards in the sense that I will not be appealing to any unifying themes above and beyond what I find in Socrates' request. I am taking a step forward in the sense that, unlike my predecessors, I leave behind the tendency to infuse Socrates' request with any themes from the *Republic* or any understanding of what Socrates represents or how he is traditionally conceived. It is my hope that the unity I find by taking both these steps is a stronger kind of unity than the traditional allegorical or thematic unity, a stronger unity I refer to as "structural unity" because, ultimately, I am pursuing an explanation of structure or, in particular, an explanation of the order of presentation—i.e. why Timaeus' speech precedes Critias' full account of the war. The significance of this will become apparent below. In the meantime, I think it is best to offer a rough division of Socrates' introductory summary into parts so that I can elaborate on and delineate interpretations that focus specifically on Socrates' request and also lay the groundwork for the presentation of my own interpretation.

### 1.2 Socrates' Summary of the Events of the Previous Day: Socrates' *Politeia* and His Request

The *Timaues* begins with Socrates' summary of the events of the previous day. Essentially, the day before two things take place: Socrates gives a speech on the ideal *politeia* to Timaeus and company, and he requests that he be repaid for his speech with speeches to be given

by Timaeus and company. Accordingly, Socrates' summary can be divided in two. The first part contains an overview that addresses the social structure of the *politeia*, the role and nature of its warriors, the education and remuneration of these warriors, and in some general way marriage and child-rearing. The second part contains a metaphorical and literal description of the speech Socrates requested as well as an account of what motivates him specifically to approach Timaeus et al. To make all this clear, I offer the following outline:

**First Part: Socrates summary of His Speech (17c-19b2)**

1. The social structure of the *politeia* and the role and nature of the warriors (17c10-18a7)

2. The education and remuneration of the warriors (18a9-c5)

3. Marriage and child rearing (18c6-19a6)

**Second Part: Socrates Summary of His Request (19b3-20c3)**

1. The metaphorical description of the speech requested (19b3-c2)

2. The literal description of the speech requested (19c2-8)

3. Socrates' motivation for asking Timaeus and company (19c8-20c2)

For the time being, I am interested only in items 1. and 2. from the second part of the summary.

*1.2.1 Socrates' Request: Metaphorical and Literal*

I start from Socrates' metaphorical description of his request, which in some sense also amounts to a description of his most raw reason for requesting a follow up speech to his own. It is as follows:

> All right, I'd like to go on now and tell you what I've come to feel about the political structure [*peri tēs politeias*] we've described. My feelings are like those of a man who gazes upon magnificent looking animals, whether they're animals in a painting or truly alive but at rest, and who then finds himself longing to look at them in motion or engaged

> in some struggle that shows off their distinctive physical qualities. I felt the same thing about the city we've described. (19b3-c2: tr. Zeyl with modifications)[22]

Socrates is motivated by a feeling. This feeling amounts to an experience of beauty, and more specifically to an experience of beautiful animals at rest, and as the passage says, whether they are images in a painting or truly alive but motionless. Further, it seems that this feeling is one that craves more of the same, more of that feeling of beauty, and the intensity of this feeling, it appears, can be increased by seeing the beautiful animals actively engaged in conflict.

As we see from the last line of the passage, the description of this motivating feeling is a metaphorical description, or analogy, for another feeling Socrates has, his feeling about the ideal *politeia*. In other words, Socrates' description here is analogous to or revealing of what, I suggest, he literally wants which is, as we will see, a speech not about animals in motion but about his city in motion, his city actively engaged in conflict with its enemies.

As far as commentators like Reydams-Schils and Slaveva-Griffin are concerned, however, this metaphorical description of Socrates' request is not merely metaphorical, as I have suggested. To the contrary, it also contains information about the literal content of the speech Socrates wants or at least information that Timaeus and Critias can be seen to take up and weave into their own accounts. Reydams-Schils, inspired by Proclus, sees in Socrates' reference to animals at rest and animals in motion two ontological categories, unchanging being (animals at rest) and always changing becoming (animals in motion).[23] Moreover, she contends that

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[22] For the most part, I use the translation of Zeyl (2000). I indicate, however, when the translations are my own.

[23] Reydams-Schils (2001): 41. For similar work by Reydams-Schils on Socrates' request see, Reydams-Schils (2002) and (2011). Also see Proclus: 60.12-20, for his claim to see being and becoming in the

Socrates is looking for a speech that incorporates these two aspects of reality and in a way that also serves as "a reality check" for his ideal *politeia*.[24] In her assessment, however, Critias clumsily construes this request in terms of historical reality, speaking only to becoming and thus fails to give Socrates' what he wants. Timaeus, on the other hand, correctly understands Socrates' request and fulfills it at least to the extent that he incorporates both being and becoming into his account and even explicitly employs the notion of living things.[25]

Slaveva-Griffin also sees literal substance in the metaphorical description though I think her account is in some sense more abstract than that of Reydams-Schils. Slaveva-Griffin claims that Socrates requests images and gets them from both Critias and Timaeus. Critias delivers, at minimum, a mimetic account of ancient Athens while Timaeus capitalizes on the use of image not only as the mimetic form of his speech but also as a kind of content—the universe itself is an image of the eternal living thing.[26]

In the end, readings of Socrates' request like those of Reydams-Schils and Slaveva-Griffin typify one group of interpretations, a group I delineate, as one might suspect already, by the mining they do on what I have been referring to as Socrates' metaphorical description. These interpretations, though I think on some level necessary and even desirable, nevertheless, tend to

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metaphorical description. I do not offer an account of Proclus here, however, because Proclus is not really interested in Socrates' request *qua* request nor *qua* unifier. Rather, he is much more interested in it *qua* allegorical.

[24] Reydams-Schils (2001): 41. Compare Cornford (1937): 5-6 for a similar feasibility interpretation of Socrates' request.

[25] Reydams-Schils (2001): 49.

[26] Slaveva-Griffin (2005): 312 and 325.

be abstract or too general. That is, they seem in some sense to be only minimally helpful when it comes to illuminating the specifics of Timaeus and Critias' accounts. On the other hand, the redeeming quality of such interpretations, apart from the fact that they appeal, at least implicitly, to Socrates' request as a unifier, is precisely the work they do to expose the connection between the request and the form and content of Timaeus' speech, something I will be at some pains to do myself in Chapter 2.

I single out another group of interpretations of Socrates' request by the focus they place on the literal description of his request. In fact, I suggest that, in some sense, this is the most popular way of interpreting the request. The literal interpretation of the request is based on the following passage:

> I'd love to listen to someone give a speech depicting our city in a contest with other cities, competing for those prizes that cities typically compete for. I'd love to see our city distinguish itself in the way it enters the war and in the way it pursues the war: exhibiting those qualities which belong to it by means of education and training—that is, with respect to the good results of its actions and how it negotiates with the other cities. So on these matters, Critias and Hermocrates, I charge myself with being quite unable to offer fitting encomium to our city and its men. (19c2-19d2: tr. Zeyl with modifications)

The typical take-away from this passage is, more or less, the view that Socrates is asking for a story about a war, and I reiterate that this is, in a sense, the majority view.[27] Many scholars, however, also note that while Socrates certainly wants a story about a war, he also stipulates the

[27] See Archer-Hind (1888): 61; Taylor (1928): 13; Sallis (1999): 27; as seen above, Johansen (2004): 8-11; Zuckert (2011): 331; and to some extent Broadie (2012): 137.

incorporation of education into that story.[28] And though I think these two interpretations are prevalent enough, they are never much more than interpretations in passing, claims made about the request over the course of some other account or argument. That being said, I will add that both of these interpretations are, in one way or another, an additional source of the irrelevance problem, as I have framed it. In other words, the presence of Timaeus' cosmological story is particularly suspicious when we read into Socrates' request a near exclusive emphasis on war. As we will soon see, however, solving the problem means doing away with this exclusivity by giving education and war equal weight in the request, an equal weight I achieve for the most part by emphasizing that Socrates requests an encomium. Thus, in the end, I think it is safe to say that my interpretation, like the majority, relies entirely on the literal description of the request. Unlike the majority interpretation, however, I appeal not just to war or education but also to encomium.[29]

*1.2.2 Encomium, Education, and War*

It is best to begin with what I referred to above as Socrates' motivation to ask Timaeus and company for the speech he desires. I should emphasize ahead of time, however, that the passage that follows takes place in the specific context of Socrates' request for encomium. The relevance of this context will become apparent soon enough. For now, the passage is as follows:

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[28] See Gill (1977): 300; in some measure, Zeyl (200): xxvii; Johansen (2004): 8-11, who at least touches on the matter regardless of his emphasis on the war aspect of the request; and Howland (2007): 8.

[29] Erler (1997)(cited and described in Reydams-Schils (2001), 43), is the only other commentator I have found who is interested in encomium in the *Timaeus* though he is not necessarily interested in encomium in the context of Socrates' request. Rather, he is mostly interested to see how encomium plays out in Plato's successors.

Now on these matters [*tauta oun*], Critias and Hermocrates, I charge myself with being quite unable to offer fitting encomium [*egkōmiasai*] to our city and its men. That this should be so in my case isn't at all surprising. But I have come to have the same opinion of the poets, our ancient poets as well as today's. I have no disrespect for poets in general, but everyone knows that imitators as a breed are best and most adept at imitating the sorts of things they've been trained to imitate. It's difficult enough for any one of them to do a decent job of imitating in performance, let alone narrative description, anything that lies outside their training. And again, I've always thought that sophists as a class are very well versed in making long speeches and doing many other fine things. But because they wander from one city to the next and never settle down in homes of their own, I'm afraid their representations of those who are both philosophers [*philosophōn*] and politicians [*politikōn*] would simply miss the mark. Sophists are bound to misrepresent whatever these leaders accomplish on the battlefield when the engage any of their enemies, whether in actual warfare or in negotiations.

So that leaves people of your sort, then. By nature as well as by training [*trophē*] you take part in both philosophy and politics at once. Take Timaeus here. He's from Locri, an Italian city under the rule of excellent laws. None of his compatriots outrank him in property or birth, and he has come to occupy positions of supreme authority and honor in his city. Moreover, he has, in my judgment, reached the very height of philosophy [*philosophias*]. As for Critias, I'm sure that all of us here in Athens know that he's no mere layman in any of the areas we're talking about. And many people whose testimony must surely be believed assure us that Hermocrates, too, is well qualified by nature and training to deal with these matters. Already yesterday I was

> aware of this when you asked me to discuss matters of government [*peri tēs politeias*], and that's why I was eager to do your bidding. I knew that if you'd agree to make the follow-up speech, no one could do a better job than you. Of contemporary men, only you could give a full account that shows the city in a fitting war and exhibits the qualities that belong to it [*ta prosēkonta*]. So having spoken about the things you asked of me, I in turn requested that you speak about the things I was just saying. (19c9-20b7: tr. Zeyl with modifications)

It seems that Socrates has been mildly devious. We should recall the feeling of beauty he has about his city, a feeling that, just as with the beautiful animals, can be increased by seeing his city engaged in war. It appears, however, that this feeling is not something Socrates is experiencing for the very first time when he describes it to Timaeus and company. Rather, it looks like a feeling he has been intending to gratify for a while. In fact, he has even considered it enough to know the kind of people that can help him gratify it, people like Timaeus and company, people who are both philosophers and politicians.

So the previous day when Socrates agrees to give a speech about his *politeia*, he agrees on the basis of two things. First, he is already confident in the ability of his interlocutors to give the encomium capable of intensifying his feeling of beauty. Second, Socrates agrees to speak because they have already agreed to give a follow-up speech. It is a "this for that" scenario and one that takes place, I assume, even before Socrates begins his speech (though the text may be seen to suggest that he gives the details of the reimbursement speech he expects from Timaeus

and the others only after finishing his own speech about the city—*eipon dē tapitaxthenta antepetaxa umin a kai nun legō*).[30]

The next thing to consider are the details of the request. Socrates describes his request here, the things he was just now saying (*a kai nun legō),* as a request for "a full account that shows the city in a fitting war (*polemon*) and exhibits the qualities that belong to it (*ta prosēkonta*)." In this formulation, I notice a pair, war and qualities, a pair that Socrates also uses in two other places to describe what he wants. The first additional instance is in the metaphorical description of his request and is, in some sense, also figurative. There he describes his desire to see the beautiful living things "engaged in a struggle *(kata tēn agōnian athlounta)* that shows off their distinctive physical qualities (*prosēkein*)." Further, the pair is also present in the literal description of the request: "I'd love to see our city distinguish itself in the way it enters the war (*polemon*) and in the way it pursues the war (*polemein*): exhibiting those qualities (*ta prosēkonta*) which belong to it [.]" The qualities at issue are "education (*paideiai*) and training (*trophēi*)," both of which are in the dative, which suggests that the qualities are exhibited, in

[30] I find that there is confusion over when Socrates first makes his request, some thinking that he made it the day before (Cornford (1937): 3 and myself) and some thinking that Socrates springs it on Timaeus and company the day of (Slaveva-Griffin (2005): 315, and Zeyl (2000): 5, implicitly in his translation—"And now that I am done speaking on my assigned subject, I've turned the tables and assigned you to speak on the subject I've just described."). I call attention to this confusion in a footnote rather than in the body of this chapter because it seems to make almost no real difference to any interpretation I have come across with the exception of Slaveva-Griffin (2005) who relies on the fact that the request is happening for the first time in the temporal present of the dialogue. As we can see from the above, however, Timaeus and the others were already made aware of the details the day before.

some sense, as a result of their education and training. In this way, they are educational qualities. Thus, at this point, the substance of Socrates' request amounts to displaying how these educational qualities contribute to specific aspects of the city's military actions and more specifically to the good results (*praxeis*) of these actions which it should be reasonable to assume are, in sum, success on the battlefield.

The further claim is that the educational qualities and military actions are descriptive of the encomium Socrates' wants to hear. Recall the beginning of the motivation passage above: "So on these matters (*tauta oun*), Critias and Hermocrates, I charge myself with being quite unable to offer a fitting encomium (*encomiasai*) to our city and its men." The "*oun*" here is continuing the narrative about "these matters" (*tauta*).[31] These matters are the details about the educational qualities and military actions Socrates' has just presented and the continuation suggests that they provide the details of the encomium.

So directed by these findings, I claim that Socrates' request is a request for an encomium with two parts. One part concerns war, undoubtedly. The other part, however, concerns education and, I take it, more precisely the education of warriors.

To start to gather information about this education, I return to the first part of Socrates' summary, the summary of Socrates' speech on the ideal *politieia*. It might be good before digging in there, however, to explain why I do not make the further return trip to the *Republic* itself.

Recall Cornford's dissolution of the dramatic connection between the *Republic* and the *Timaeus* and *Critias*. As a result, the first part of Socrates' summary, rather than indicating dramatic continuance, is reduced to an indication or even a mandate on Plato's part that we keep

[31] Lidell, Scott, Jones, and McKenzie, (1996): "*oun*."

the *Republic* in mind when reading the *Timaeus* and *Critias*. Taking Cornford and Johansen as examples here, responding to this mandate means resorting to the notion that the *Timaeus* and *Critias* are an extension or continuation of overarching tasks left incomplete in the *Republic*. As far as Cornford is concerned, Plato failed to demonstrate the feasibility of Socrates' *politeia* in the *Republic* and makes good on that failure in the *Timaeus* and *Critias* both by grounding the city's morality in the structure of the universe and by establishing the previous existence of such a *politeia* in the distant past. Similarly, Johansen claims that in the *Republic* Plato, though focusing on justice, fails to consider justice between states and remedies this failure with a war story that stretches, in one way or another, across both the *Timaeus* and *Critias*.

In both cases, however, it is unclear to me what it is in the resemblance between the first part of Socrates' summary and the *Republic* that suggests we follow one procedure over another or really any procedure at all. In other words, why should we construe Plato's mandate in the way Cornford and Johansen do? What in the resemblance demands that we approach the *Timaeus* and *Critias* by finding an overarching, yet uncompleted task in the *Republic* and then, having found such a task, apply it by suggesting that the *Timaeus* and *Critias* complete it?

In the end, what we see here most is that Cornford's dissolution of the dramatic continuation only really excised the dramatic segment of the notion. As evidenced by Johansen, the interpretation that sees the *Timaeus* as a continuation of the *Republic* is still very much alive, and it is in claims about the instructions supposedly dictated by the resemblance. My point here, however, is precisely to the contrary. There are no such instructions in the resemblance. Apart from a lost convention, claims about continuation have no respectable basis in the text. Again, it does not seem to me to be the case that the resemblance suggests any particular way in which we

should hold the *Republic* in mind and certainly does not suggest an interpretation and procedure as precise as that of Cornford and Johansen.

Zuckert and Rowe also caution readers away from construing the *Timaeus* as a continuation of the *Republic* though on other grounds. Zuckert goes so far as to suggest that we are missing the point of the *Timaeus* if we think, as both Cornford and Johansen do, that Timaeus' cosmology is meant to ground the political agenda of the *Republic*. In fact, in her assessment, neither Critias nor Timaeus can be seen to fulfill such a goal. Critias fails because the social structure of ancient Athens is too different from that of Socrates' *politeia*. Timaeus fails not only because his account will not allow for the female guardians of Socrates' state but also because, for Timaeus, all humans, at least initially, have the same nature. Having identical natures destroys the foundation of Socratic social structure which is based entirely on the existence of different natures in different people. Given these failures, she suggests that it would be odd to think that either dialogue is meant as continuing support for the *Republic*.[32]

For his part, Rowe notes the absence of the philosopher-rulers in Socrates' summarized *politeia* and in its identical twin, ancient Athens. Instead of philosophers in the robust sense of the philosopher-rulers of *Republic* Book VII, what we have is something more like the dog-philosophy of the guardians in the early books of the *Republic*. Along the same lines, Rowe sees further contrast in Critias' depiction of the successful *politeia* as a product of the divine intervention of Athena and Hephaestus rather than that of philosophers.[33]

So given the lack of instruction in the resemblance as well as the significant differences between the two dialogues, how should we proceed? I think most, even in the face of these

[32] Zuckert (2011): 335 and 350.

[33] Rowe (1997): 51-2.

problems, will assert that we cannot do away with all attention to the *Republic*. There is absolutely too much pressure to make the connection whether this pressure is coming from Plato himself or from the scholarly community. In light of this pressure then, we might build on an observation that Cornford has made. Namely, Socrates' summary at the beginning of the *Timaeus* resembles most the early books of the *Republic*, books which I follow Jaeger in claiming are focused on the education of warriors.[34] Thus, in short, we might conceive of the resemblance to the *Republic*, if it offers any direction at all, as a kind of pinpointing guidance that narrows our focus and alerts us to the discussion of the warrior's education to come in the *Timaeus* and *Critias*. And though in some respects this approach might be safer, in the end, I see it as just another version of the interpretations like Cornford's and Johansen's. As such, it is equally unfounded. Unfortunately, because we cannot find any precise procedure to follow in the resemblance, we are left only with speculations about how to proceed. And in the end, because of the additional problem of the significant contrast between the *Republic* and the *Timaeus* and *Critias*, I do not make the return trip to the *Republic*. Instead, I go only as far as Socrates' summary of his *politeia* and now reconvene my search for information there about the warriors' education.

In the summary, I note first its military spirit. It is natural to read the summary of the *politeia* entirely in terms of the *phulakes*, or warriors, whose sole job it is to fight in defense of all whether the threat be internal or external (*to…en monon epitēdeuma…pro panton…polemein…ei te tis exothen ē kai ton endon ioi kakourgēsōn*: 17d1-2). Given Socrates' request for a story about a war with other states, however, I emphasize the warriors' actions in battle toward external threats. These actions are described by Socrates' as fierce (*chalepous*:

[34] Cornford (1937): 4, and Jaeger (1943), generally speaking: 198-278; and for a summary: 279-80.

18a1; *chalepoi*: 18a8) and such ferociousness, it appears, springs from a warrior who is both superlatively spirited and philosophical (*ton phulakōn tēs psuchēs…hama men thumoeidē, hama de philosophon dein einai diapherontōs, hina pros ekaterous dunaito…chalepoi gignesthai*: 18a4-7).[35] Thus, in the context of my interpretation of the request, I am led to think that Socrates wants to hear a story about his warriors being fierce with their enemies and told in a way that highlights the educational cause of their ferociousness, a cause I take to be their education as philosophers.

As should already be apparent from the foregoing discussion about the *Republic*, there may be tension at this point for some who, considering the *Republic*, do not see the presence of full-fledged philosophers at all in Socrates' summary just as they do not in the initial books of the *Republic*. At most for them, what we get there as well as here is, as mentioned above, a comical reference to dog-philosophers whose philosophical nature amounts to nothing more than the ability to distinguish between friends and enemies and treat them appropriately. This philosopher, accordingly, if he is one at all, is certainly not the man who has left the cave, seen the form of the Good, and returned to rule out of obligation. I think, however, that the absence of this philosopher is precisely the nuance or novelty of the *Timaeus*.

Recall Broadie's sophisticated interpretation of the request. By making Socrates the impetus to both speeches, Plato is expressing his intention to expand the scope of philosophy.[36] If Broadie is right, it should be no surprise, contra those for whom there is tension, that what we find about philosophy in the *Timaeus* and *Critias* strikes us as different from Plato's earlier work on the subject. Zuckert has a similarly sophisticated take on the matter. According to Zuckert,

[35] Compare Johansen 2004: 10-11, who reads Socrates' summary of the ideal *politeia* similarly.

[36] Broadie (2012): 116, 120, and 122.

through the contrast between Socrates' silent presence and Timaeus' monologue, Plato means to bring out a contrast between their two conceptions of philosophy the result of which is a broader conception of philosophy as a whole.[37]

I also share Zuckert and Broadie's general hunch that philosophy and the philosopher are in one way or another the focus of the *Timaeus*. I depart from them, however, in the way I capitalize on this hunch. While both seem to find the theme of philosophy in a sophisticated analysis of what the characters represent and the bearing these representations have on the meaning of the characters' interactions, I, instead, find philosophy in the very mouth of Socrates himself and in one way or another right there in the substance of his request. For this reason, I consider the step backwards from Broadie I mentioned above to be justified. In other words, if her point is that we must consider both what the characters represent and their interactions within this representational context because it is only through such consideration that we can come into contact with the important theme of philosophy, I should be allowed to innocently neglect her demand because I encounter the important theme without such consideration.

I do not mean to suggest here, however, that I have done away with all concern for the relationship between the characters. Part of understanding Socrates' request undoubtedly includes understanding how the characters interpret it and respond to it accordingly. In what follows then, I establish that the characters understand Socrates' request as a request for an encomium with an education and a war component and that they, Timaeus and Critias, work together to give him just that, Timaeus speaking to education and Critias to war.

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[37] Zuckert (2011): 331-2.

**1.3 Critias' Proposal for Fulfilling Socrates' Request**

One of Hermocrates rare contributions follows directly on the heels of Socrates' description of his motivation for approaching Timaeus and company. As stated above, Socrates agrees to tell his story about the *politeia* if his interlocutors agree to give a follow up encomium with both an educational and martial component, an encomium they are qualified to give because each of them is both a philosopher and politician. Hermocrates responds with the report that the group of them were considering the parameters of the encomium as soon as they left Socrates the previous day (*hōste kai chthes euthus enthende…kai eti proteron kath hodon au tauta eskopoumen*: 20b6-8). In fact, Critias even told them about a potential request-fulfilling story during their trip home and is now encouraged by Hermocrates to offer it to Socrates as a test of its eligibility. With Timaeus' additional approval, Critias then tells an abbreviated version of Solon's account of the war between ancient Athens and Atlantis. This abbreviated trial run, however, appears to include much more than the relevant components of the encomium. So before moving on to identify these components in Critias' trial speech, I think it is important to explain the seemingly extraneous material.

*1.3.1 Critias Connects with Socrates: The Two-fold Relevance of Solon's Story*

I suggest that we think of Critias as doing two things when he relays the abridged version of Solon's account. Consider the following passage. Critias is addressing Socrates:

> While you were speaking yesterday about politics and the men you were describing, I was reminded of what I've just told you [Solon's account] and was quite amazed as I realized how by some supernatural chance your ideas are in substantial agreement with what Solon said. I didn't want to say so at the time, though…I decided I would first have to recover the whole story, and then tell it…That's why I was so quick to agree to your

> request yesterday since I thought we would be well supplied if I gave this one. (25e2-26a6: tr. Zeyl with modifications)

First, as already suggested, Critias is making points of contact with the request for an encomium. In fact, he agrees to the request at the time because he already has the beginnings of an account that he is confident will fulfill it. Second, Critias is making connections with Socrates' story about the *politeia*. As Socrates' goes over social structure, education, and so on, Critias is reminded of the same subjects in Solon's account, and the seemingly extraneous material we get in Critias' trial speech is reference to these kinds of things and in a way that makes it even clearer why he has chosen Solon's account.

To see how this works out, it is best to think of Solon's account in terms of the story of Deucalion and Pyrrha, a story Solon presents to the priests in order to lure them into a discussion about ancient history. Once long ago, there was a flood, a flood that spared only two people, a man, Deucalion, and a woman, Pyrrha. From them, all Greeks descend. This presentation (which in the text is more like a mere mention) is bait enough for the priests, and they respond by offering two revisions. These revisions make up the bulk of Solon's account.

First, according to the priests, there have been not one but many such destructive floods, and the bigger point is that these watery disasters explain the sad state of learning in Greece. They explain why the Greek historical record, as represented by the story of Deucalion and Phyrra, is in such disrepair, why it is something more like a children's tale than solid history. Every time the Greeks get established intellectually, a flood destroys the cities and with them most historical knowledge if not most other knowledge as well.

Second, the Greeks do not descend from Deucalion and Pyrrha. Rather, the true ancestors of the Greeks are unnamed Athenians, citizens of a city with excellent laws, laws

concerning class structure and *phronēsis*, as well as citizens of a city renowned for the noblest accomplishment on record—victory in battle over the aggressive military force of Atlantis.

Now, concerning points of contact between Solon's account and Socrates' description of the ideal *politeia*, there is, in a sense, only one. The social structure of ancient Athens as described in the second revision is organized according to occupation just as it is in Socrates' city. The warriors are to be separate from the craftsmen, the craftsmen from the shepherds, and so on for the rest. This point of contact, however, seems to be the only one that is entirely outside of what is stipulated by the request for encomium, the only one entirely outside of education and war.

In fact, as we have already seen above, one can easily read the discussion of natural disasters as devoted entirely to educational matters, as devoted to underscoring the importance of the city when it comes to learning. The floods destroy the Greek cities, and the absence of an enduring polity amounts to the absence of learning and ultimately to the defunct scientific state of Solon's Greece. This, however, appears to straddle the two types of contact. Certainly, it is safe to assume that, in his story of the previous day, Socrates emphasizes the city's educational role just as seriously as the priests do in their dissertation on natural disasters. I do not think, however, that this particular point is taken up as the definitive educational component of the encomium.

Instead, I suggest that the educational component, and likewise the most obviously present war component, is to be found in the second revision. To see this, notice first how the Egyptian priests structure their account of ancient Athens (23e4-6). They describe some of the ancient Athenian laws and then talk about the Athenians most glorious deed. The deed, of

course, is the war with Atlantis, but notice the character of the second law the priests discuss, the law concerning *phronēsis*, a law that it should be safe to say is a piece of educational legislation:

> In turn, regarding wisdom [*peri tēs phronēseōs*],[38] you see, I suppose, the law here—how much care it has given from the beginning to the *kosmos*, discovering all things from those divine beings to human affairs, down to divination and the art of medicine which aims at health, and also to all the other disciplines [*mathēmata*] that follow. (24b7-c3: my translation)

Aside from mention of wisdom (*phronēsis*), I take the law to be educational because it concerns "*mathēmata*." Certainly, the word has been used from the beginning of the *Timaeus*. In his recapitulation of the previous day's story, Socrates uses the word with respect to the education of his mythical warriors (*mathēmasin*: 18a9). The Egyptian priests use the word in their first revision to criticize the state of Greek learning (*mathēma*: 22b8). And now the priests use it in their presentation of the law concerning *phronēsis*.

The priests do more than just mention the ancient Athenians' educational legislation, however. They also speak, generally, as though the laws were responsible for the Athenians' excellence, a point which certainly lines up with Socrates' request for an encomium that shows success in war as a result of education (24d3-e). Further, it is noteworthy that in the context of the laws, the ancient Athenians are described as receiving their education and training from the goddess (*tēs theou…hē tēn te humeteran kai tēnde elachen kai ethrepsen kai epaideusen*: 23d6-7) and are also described generally as the pupils of the gods (*paideumata theōn*: 24d6). In fact in

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[38] I follow Cornford (1937) and Zeyl (2000) in translating *phronēsis* as wisdom. Compare Archer-Hind (1888) who translates it as "knowledge" and Luc Brisson (2001) who renders it quite literally as "la pensée."

the end, it appears that the laws themselves are divine tutelage, a further indication that the law concerning *phronēsis* is an educational one.

So what we have here already is a general picture of Critias' construal of and response to Socrates' request, a picture in which Critias offers a story, Solon's story, that speaks to both the educational and martial components of the encomium. The next thing to consider then is Timaeus' role within the framework established by Solon's story, a role which I reiterate ahead of time involves delivering the educational portion of the encomium, and in order to lay out Timaeus' contribution, I think it is best to start by taking a look at Critias' explicitly stated plan for fulfilling Socrates' request.

*1.3.2 Critias' Delegation to Timaeus*

Critias actually describes his plan twice, first generally and then shortly thereafter more specifically. In its general formulation, Critias pledges to make a complete substitution. In order to fulfill Socrates' request, the citizens of Socrates' city will be assumed to be those very Athenian citizens of Solon's account (26c7-d5). The two cities will harmonize in every way (*pantōs harmosousi*), and this substitution and total harmonization, I take it, includes not only the ancient Athenians' deeds in war but also their laws. Having reduced the two stories to one story about ancient Athens, Critias and the others will distribute the task of telling it amongst them. Socrates approves of this general plan, and Critias moves to state the more specific plan.

In its specific formulation, Critias describes the division of labor that will culminate in his own speech about the war. Timaeus will speak first, beginning with the generation of the universe (*kosmos*) and ending with the nature of men. Critias will follow Timaeus taking from him the men newly born in his speech and from Socrates his supremely educated men. These two groups of men will then undergo a kind of naturalization ceremony in which both groups are

made citizens of ancient Athens (27b1-6). These Athenians will be the virtuous citizens in Critias' speech.

It should be apparent, however, that as presented Critias' specific formulation represents a potential problem for my interpretation. Critias does not appear to think of Timaeus as contributing the educational component of Socrates' request. Rather, he points to Socrates. In response to this, I have a few things to say.

If we take Critias' remarks literally, we risk opening up other problems. First, as already noted, Critias claims that after Timaeus is done speaking, he will take Socrates' well-educated men and Timaeus' raw men and proceed with something like a courtroom naturalization ceremony in which the two groups of men will be made citizens of ancient Athens. Such a ceremony does not occur, and if we take Critias literally we will need to explain why there is no such ceremony following Timaeus' speech. The way I explain the ceremony's absence, of course, is by suggesting that Critias does not mean to be literal here.

We could take this point a bit further, however, and suggest that the naturalization ceremony has in some sense already occurred. In this case, we should pay attention to the general formulation of the plan noting that the transfer of Socrates mythical citizens into the realm of historical truth is described as having happened at the moment Critias mentions it (*nun metenegknotes epi talēthes*: 26c8-d). Noting further the substitution and total harmonization, we should also think that at least Socrates' well-educated men have lost their previous identities being entirely transformed into ancient Athenians. Thus, in his specific description, Critias only means to repeat what he has already said in his general description but in a way that now includes Timaeus' men. In other words, Critias only means to make the minimal claim that any

and all men present in either Socrates' or Timaeus' accounts will be considered to be ancient Athenians.

We might still want to be literal, however, about Critias' claim to take the educated men from Socrates and even so literal that we exclude Timaeus from having anything to do with education whatsoever. In this case, I think we should recognize the possibility that Critias does not intend to take just any men from Timaeus. After all, should we suppose that he will take the vicious cowards who will be reincarnated as women or even the most wicked and tyrannical men who will be reincarnated as mollusks? Certainly, to the contrary, the men Critias wants will be just like Socrates' men in the sense that they will be those who resemble most the virtuous Athenian citizens of Solon's story. What we should expect, then, is that Critias intends to take the men who follow the lead of intellectual soul, men who in the context of Timaeus' speech are also supremely educated, men who are philosophers like Socrates' *philosophoi phulakes*.

Being too literal will also cause us to miss the educational color Critias uses in his portrayal of Timaeus' role in the fulfillment of the request. Notice the resemblance between Critias' portrayal and the education of the ancient Athenians, its resemblance to the law concerning *phronēsis* and in particular to the succinct methodology expressed in the law. As far as the law is concerned, one moves through the study of *kosmos* by moving through the *mathēmata* in a certain way, beginning from what I take to be the divine *mathēmata* and moving down to more human subject matter. By beginning with Timaeus' interest in astronomy and ending with the nature of men, Critias is describing the same movement. In fact later in his speech, Timaeus himself returns our attention to this movement when he claims that vision has enabled us to see the divine stars and planets and the circling years, and in turn, has given us the

investigation of nature and ultimately philosophy, a definitively human affair (I discuss this more in Chapter 2).

In the end, then, my considered position is that when Critias claims to take the well-educated men from Socrates, we should not take him too literally but understand instead that singling out Socrates here is just the more explicit end of a description that also, albeit more subtly, includes Timaeus in the educational work to be done.

So consequently what we see in Critias' explicitly stated plan for fulfilling Socrates' request is the equally explicit claim that the story that will fulfill the request is Solon's story. I realize that in some sense this is already obvious. What I think is less obvious is that Solon's story fulfills Socrates' request in two ways. First, the story is created by a man who is, in some sense, both a philosopher and a statesman. Solon is one of the famous seven sages and in fact, if Critias is to be believed, the wisest of the seven, and it should go without saying that he is also something of a statesman. On the other hand, it seems somewhat ironic that Solon, a poet, and his story, a poem, will fulfill the request when Socrates explicitly claims prior to the telling of the story that the poets are incapable of offering proper encomium to his city. There seems to be even further tension in this regard when Socrates refers to Timaeus as a poet (*Crit*. 108b5) and by extension to what Timaeus has just delivered as a poem.

To alleviate this tension, I think we must reinterpret what Socrates means when he says that the poets are incapable of properly praising his city. He cannot mean that all poetry is out. After all, a poem in some sense will fulfill his request. Socrates must mean instead that the poet in particular cannot fulfill his request. Accordingly, it is not, I take it, Solon as poet who is at work here. Rather, it is Solon as philosopher-statesman.[39] Thus, poetry is acceptable as a

[39] See Welliver (1977): 46, who also suggests that Solon is a philosopher and statesman.

medium for fulfilling the request but only if the person handling that medium is also both a philosopher and statesman.

As should already be apparent, the second way Solon's story acts sufficiently as fulfillment is its inclusion of both the educational and martial aspects of the request. As noted above, not only does Solon's account clearly include a story about a war but it also speaks to Socrates' educational interests through the law concerning *phronēsis*, an educational law undoubtedly responsible for the ancient Athenians success in battle.

Thus, I conclude that Critias' plan for the speeches involves dividing Solon's story in two. Critias will tell the story of the war, and Timaeus will offer an account of the warriors' education along the lines of that described in the law concerning *phronēsis*. I say that he will offer an account "along the lines" of the law because I tend to think that while Timaeus both takes up the appropriate subject matter, *ho kosmos* (*Tim*. 28b3), and proceeds through it in accordance with the methodology suggested by the law concerning *phronēsis*, he adds to this raw structure his own beliefs (*kat' emēn doxan*: 27d5; *hōde oun tēn ge emēn autos tithemai psēphon*: 51d3; and *houtos men oun dē para tēs emēs psēphou logistheis*: 52d2; etc.). So, in essence, what we get in Timaeus' speech are his own views on education offered as a substitute for what is lacking in Solon's account or at the very least what is lacking in Critias' version of Solon's account.[40]

### 1.4 Plato's *Symposium* and the Order of Encomium

It is important to note further that Timaeus' speech on education comes first, and the full account of the war second, and on a very plain level this certainly makes sense. If the goal is to

[40] Compare the bolder claim made by Menn (1995): 5, that Timaeus has received his entire account from Solon.

give a speech about a city at war in a way that showcases its education, it stands to reason that one would first describe that education and then present the war. If we look to the *Symposium*, as I think we must, however, we see that the order is not just something that makes sense. Rather, it is the proper way to make an encomium.[41]

In the *Symposium*, we get a variety of encomia to Love. Among the encomia given, those of Agathon and Socrates stand out, and they do to the extent that they both endorse a method of praise similar to what we see in the encomium that fulfills Socrates request. This method of praise involves above all a proper order. As Agathon suggests, when one praises anything whatsoever, one ought to state the qualities in the subject of praise and then what happens as a result of those qualities (*eis de tropos orthos pantos epainou peri pantos logōi dielthein oios oion aitios ōn tugchanei peri hou an ho logos ēi. houtō dē ton erōta kai ēmas dikaion epainesai prōton auton hoios estin epeita tas doseis*: *Symp*. 195a2-3). Socrates follows by lauding Agathon's method (in fact, it is the only thing he appears to laud seriously) and adopts it insofar as the method amounts to stating first the qualities in the subject of praise and then the deeds, or actions (*kalōs moi edoxas kathēgēsasthai tou logou legōn oti prōton men deoi auton epideixai hopoios tis estin ho Erōs husteron de ta erga autou. tautēn tēn archēn agamai*:199c4-7). It is my claim, of course, that Timaeus' and Critias' speeches follow such an order, and as should already be obvious, Timaeus begins with the quality, education, and Critias follows with the action, the war.

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[41] For some general comments on encomium in the *Symposium*, see Richard Hunter (2004): 34-7 and 56-7, and for the rules of encomium see in particular, 35 and 71. For a more detailed treatment, see Nightingale (2000): 93-132.

It is additionally important to note that while Socrates approves of the order suggested by Agathon, he also offers a criticism. Those who have praised Love before him have not taken into account the truth of what they say about Love (198d1-2). Instead, they merely ascribe to the god the "greatest and most beautiful qualities" with no concern for whether Love has these qualities or not (198e1-3).

Critias, on the other hand, certainly emphasizes, as does Socrates, the truth of his speech (*Tim*. 20d7-8 and 26e4-5). That is the ancient Athenians and their laws really did exist, and the war with Atlantis really did happen. Thus, I suggest that the factuality of Critias' account is important because it fulfills a requirement of proper praise. Encomium must show concern for the truth.

### 1.5 Conclusion: Thematic vs. Structural Unity

As claimed above, my interpretation of Socrates' request leads to an identification of the structural unity of the *Timaeus* and *Critias*, a characterization I made in contrast to Johansen and Broadie's appeals to thematic unity. I also claimed that structural unity is a more robust kind of unity than thematic unity. What I failed to do, however, is say something about what these claims amount to.

Johansen's grounding assumption, and a perfectly reasonable one, is that the *Timaeus* and *Critias* make up a compositional unity.[42] Motivated by the problem of irrelevance, however, Johansen is interested to identify a unifying principle above and beyond composition. Ultimately, he finds it in a single theme, teleology. Like Johansen, Broadie is also driven by the problem of irrelevance and, similarly, searches for a unifying theme. She finds two. Initially, she posits unity in the theme of the triumph of rationality. To the extent that this theme fails to

[42] Johansen (2004): 7 n.1.

incorporate what Socrates represents, however, she moves on to find unity in the theme of Socratic philosophy.

Now, by my lights, those who employ the thematic approach offer only partial solutions to the irrelevance problem. Their solutions are merely partial, I take it, because they stem from equally partial conceptions of the problem. Ultimately, the problem is not just about the mysterious relationship between the contents of the *Timaeus* and *Critias*. It is not just a problem about the connection between the topics of cosmology and war, and it appears to me that those who appeal to themes are using them solely to connect these topics. In the end, what is lacking in the thematic solution to the problem is attention to the mysterious order in which the two dialogues are presented. In other words, we also want to understand why the cosmology comes before the full account of the war and a successful solution to the irrelevance problem will include an explanation of this order of presentation or what I am referring to as "structural unity."

In my mind, Johansen is more of an example of this lack of attention than Broadie. Broadie, at least, explicitly states the need for such explanation.[43] I am not convinced, however, that she actually fulfills this need. At most, via the theme of Socratic philosophy, she explains why the cosmology is included but not why it comes first. In the end, she accounts only for the mere "coupling" of the two rather than the order in which they are coupled.[44]

All this being said, I do not think that there is anything defective about the thematic approach in and of itself. It certainly seems possible to identify a unifying theme and use it to explain the structural unity of the *Timaeus* and *Critias*. In fact, this is precisely what I intend to

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[43] Broadie (2012): 118.

[44] Op. Cit.: 167-8.

do in Chapter 2 with the topic of education and the presentational order of the three parts of Timaeus' speech. The point is that I do not see those who employ the thematic approach following through with an explanation of the order of presentation, a problem I take to be the more serious, urgent, and neglected arm of the irrelevance problem.

In the end, my interpretation of Socrates' request, I assert, addresses both arms of the problem. Again, I claim that the substance of Socrates' request is the unifier. He wants an encomium in two parts, one educational and the other martial. The educational and martial aspects of the request explain the presence of the topic of cosmology, construed as education, and the topic of war. After all, it appears that the presence of both topics in one composition is precisely what we are trying to explain when we appeal to themes. In other words, as far as Johansen is concerned, it is because Plato wants to talk about teleology that we find stories about cosmology and war in the same composition. I am making a similar claim. But instead of appealing to Plato's interests, I appeal to Socrates'. Because Socrates wants to hear about education and war, we find stories about cosmology and war.

On the other hand, the proper method of encomium explains the presentational order of the speeches, their structural unity. In proper praise, one first presents the qualities in the subjects of praise which, in this case, I claim is the warriors' education as philosophers, a portrayal of which amounts to Timaeus' elaboration on the law concerning *phronēsis*. Only after does one present the deed made possible by such qualities and for which we praise the subject, the deed being, of course, the victory of the Athenians over the aggressive military force of Atlantis.

The upshot of the interpretation offered here in Chapter 1 is more generally speaking what I meant to have in a methodological sense all along—an account of the larger project of the

*Timaeus* and *Critias* and a picture of Timaeus' role in this larger project. I do not think, however, that one should construe the achievement of this goal as the end of all concern with Socrates' request. In a very important sense, every chapter in this dissertation is a further unpacking of the request or at least the educational portion of it. Thus, I enter the next three chapters with the idea that I am demonstrating the presence of an educational program in Timaeus' speech. I aim to show the presence of this educational program not only because I think it reinforces my interpretation of Socrates' request, however. I also hope, as indicated above, that seeing education in Timaeus' speech can help us to understand its tripartite structure.

# 2. The Educational Program of the *Timaeus* in Outline: Medicine, Cause, and the Tripartite Structure of Timaeus' Speech

## 2.1 Introduction

## 2.2. Preliminary Educational Data: The Educational Programs of Socrates and Solon

## 2.3 Harmonizing the Two Accounts: Health, Disease, and the Education of Body and Soul

### *2.3.1 Health and Disease in the Abstract*

### *2.3.2 Bodily Health and Disease*

### *2.3.3 Psychic Health and Disease*

### *2.3.4 Strength, the Greatest Disease, and the Work of Harmonizing the Accounts of Socrates and Solon*

## 2.4 Causal Investigation: The Curricular Sequence of Timaeus' Educational Program

## 2.5 The Educational Structure of Timaeus' Tripartite Speech

## 2.6 Conclusion: The Implicit Stages of Timaeus' Educational Program

**2.1 Introduction**

I reiterate that my initial motivation for exposing the educational aspects of Timaeus' speech is my belief that doing so provides the further necessary support for the thesis that Socrates wants an encomium with an educational component. In other words, if I can show Timaeus actually presenting an educational program, then we should have all the more reason to think that my interpretation of Socrates' request is on the right track. Technically speaking, however, I do not think it is enough to show the presence of just any educational program. It must be a program that, at least minimally, maps on to what we see both in Socrates' summary as well as in Critias' abridged version of Solon's story. Thus, in the first part of this chapter, I return to these two pictures of education and then spend the remainder showing how Timaeus not only takes them up but also how he departs from them.

Before moving on to these tasks, however, I should first note that while there is an overwhelming amount of literature on the topic of education in Plato, there is almost no work that has focused exclusively on the educational aspects of the *Timaeus*, and in some sense, this is not surprising. The *Timaeus* is certainly not as glaringly educational as works like *Meno*, *Protagoras*, *Gorgias*, and *Republic*, and as a result, I think it has been treated as a kind of last resort when it comes to thinking about Plato's views on education. Jaeger is our best example here. Offering an afterthought on the second book of his seminal three-volume work, *Paideia: The Ideals of Greek Culture*, he writes, "surveying the book now that it is finished, I could wish there had been a chapter on Plato's *Timaeus*, to examine the relationship between his conception of the cosmos and the fundamental paideutic tendency of his philosophy."[45] Accordingly, the widespread neglect of *paideia* in the *Timaeus* is surely not the consequence of commentators'

[45] Jaeger (1945): xiv.

inability to see the educational aspects of the dialogue. In fact, there are multiple acknowledgments of its educational components throughout the secondary literature[46] and even a few articles here and there written specifically on the topic.[47] These scattered instances, however, hardly amount to a sub-division of *Timaeus* studies. Thus, in the end, I bear almost all the weight of coming up with an account of Timaeus' views on education. While I do briefly discuss in this chapter educational approaches to explaining the presentational order of the three parts of Timaeus' speech, I postpone the important discussion of the possibility of education until Chapter 3.

**2.2. Preliminary Educational Data: The Educational Programs of Socrates and Solon**

As shown in the previous chapter, one might reasonably think that both Socrates' summary of the ideal *politeia* and Critias' abbreviated account of Solon's story are largely concerned with education. What I did not provide, however, is some commentary on how rich these two brief accounts are. By "rich," I mean to suggest that they cover the gamut of educationally relevant areas of interest. Thus, in both pictures, we see students, teachers, and subject matter.

Each account portrays its pupils in the same way. The students are warriors in training who are headed for philosophy. For Socrates, more precisely, the goal is the creation of combatants who are ferocious with their enemies, and this ferociousness is the direct product of their education as philosophers (*Tim*. 18a4-7). Similarly, the students in Solon's story are aspiring soldiers who, resembling their mother Athena, are at the same time lovers of wisdom,

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[46] I refer the reader to Chapter 1 n. 28 though I add here Druart (1999): 176-8, and Carone (2005): 25.

[47] I am thinking, in particular, of Turbayne (1976): 125-140, and Scolnicov (1997): 363-74.

and, just as in Socrates' account, their philosophical tutelage is administered for the sake of what it will enable them to accomplish as lovers of war (24c7-d6).

The two accounts diverge, however, with respect to who is guiding the prospective warriors along this route as well as the particular pursuits that pave the way. For Socrates, it is the state that educates the warriors, and the emphasized path runs through gymnastics and music (18a9-10). In Solon's account, it is the goddess who educates (23d6-7 and 24d6), and her teaching takes place, generally speaking, within the context of the law concerning *phronēsis*. This law stipulates the general study of the *kosmos* though specific sub-disciplines like medicine and divination are also indicated (24b7-c3). Furthermore, not only does Solon specify subject matter, but he also, unlike Socrates, indicates the order in which the subjects are discovered (*aneuriskō*) or investigated. This order can be taken to indicate that, within the context of the study of the *kosmos*, one first pursues divine subject matters and then moves on to human subjects (24b7-c3). Lastly, and again distinct from Socrates, Solon indicates potential obstacles for education, in particular the cycle of destructive floods that periodically decimate the Athenian region and all accumulated learning with them (23b5-c3).

### 2.3 Harmonizing the Two Accounts: Health, Disease, and the Education of Body and Soul

As I said at the outset of this chapter, showing the presence of an educational program in Timaeus' exposition should also involve showing how Timaeus' account corresponds to those of Socrates and Solon. I say this for two reasons, one practical and one textual. First, I think it will be helpful to have a comparable educational background against which we can view Timaeus' own thoughts on education, and I do not think we can find better points of comparison, in some sense, than ones internal to the *Timaeus* itself. Second, beyond this practical concern, I suggest that Timaeus is, in actuality, working from both of the programs presented above. Recall the

harmonization Critias claims to effect between Socrates' mythical city and that of Solon's ancient Athens (26d3-4). Given his role as a player in Critias' scheme, Timaeus, I take it, is also participating in this harmonizing project. In Timaeus' hands, however, this harmonization does not appear to involve the mere reduplication or eliminative merging of the two accounts. Timaeus does not simply sprinkle items from each here and there throughout his speech nor does he incorporate some components at the expense of others. Instead, Timaeus unifies the two accounts and all their educational cargo by coalescing them into a single context, a context that I suggest is first and foremost medical.

Consider that, at his most explicit and comprehensive, Timaeus describes education (*paideusis*)[48] as that enterprise which frees one from "the greatest disease" imparting to the contrary health and wholeness (*an men oun dē kai sunepilambanētai tis orthē trophē paideuseōs holoklēros hugiēs te pantelōs, tēn megistēn apophugōn noson gignetai*: 44b8-c2). Thus, in part, what I hope to bring out are the ways in which Timaeus uses these medical notions to organize the educational components we find in Socrates' and Solon's accounts. Accordingly, I begin with a general treatment of Timaeus' conception of health and disease.

[48] I take *paideusis* here to indicate a "system of education." See Lidell, Scott, Jones, and McKenzie, (1996): "*paideusis*."

*2.3.1 Health and Disease in the Abstract*

Commentators are undivided in their contention that, at the most general level, health is a kind of stability[49] and disease a disruption of this stability.[50] Insofar as it is a disruption, however, disease is a derivative concept, one dependent on the way in which health is conceived.[51] Accordingly, in order to understand what disease is for Timaeus, we should first arrive at some idea of his conception of health.

Timaeus' notion of health is itself founded on a metaphysics of the mortal organism which can be taken to posit three things: 1) mortal organisms are composites of body and soul (87e1-6), 2) body and soul are each composites of basic constituents—body is composed of the four elements (earth, water, air, and fire)(42e7-43a1) and soul of three parts (intellect, spirit, and appetite) (87a3-4 and 89e4-5), and 3) these basic constituents are capable of interacting—a) the components of body can interact with one another (and this includes interaction with those elements outside the body as well), b) the components of soul can interact with one another, and c) the components of body can interact with the components of soul and vice versa.

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[49] For the use of the term "stability," see—H. Miller (1957): 112; H. Miller (1962): 179; and Tracy (1969): 88 and 143. For the use of the synonymous language of "equilibrium," see—H. Miller (1957): 112; Tracy (1969): 143 and 151; for "balance"—Gocer (1999): 27; and for "symmetry"—Gill (2000): 70. Also see, Lautner (2011): 27, for the equally similar notion that health is indicative of the "undisturbed."

[50] For "disturbance" see, Tracy (1969): 84. For related language like "disruption"—Tracy (1969): 120, and Gill (2000): 64; "distortion"—Lautner (2011), 28; "deviation"—Grams (2009): 162; "alteration"—H. Miller (1962): 179; and "breakdown"—Tracy (1969): 85, and Gill (2000): 72.

[51] Compare H. Miller (1962): 179 and 183, who also claims that Plato's account of disease assumes an account of health.

The ultimate stipulation that encompasses these three items suggests that there are paragons for being or interacting.[52] Not only is there a way both body and soul should be as well as an exemplary manner in which they should interact. There is also a way in which the more basic constituents of each should be and behave with respect to one another. Health at its height, however, is the presence not just of one or even merely some of these ideals but rather this entire network of norms.[53] In other words, it seems that, in the final analysis, health is not a "relativistic concept."[54]

*2.3.2 Bodily Health and Disease*

Equipped with this general picture, I suggest that we consider first bodily health and disease if for no other reason than Timaeus' suggestion that the condition of the soul is significantly dependent on the condition of the body. Timaeus describes such health and disease in four ways.

First, bodily well-being is associated with a protocol, something like natural and ideal rules for the addition or subtraction of elements to or from elements in the body. This protocol stresses proper elemental type (the four elements also have sub-kinds: for instance, there are

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[52] Many commentators refer to the ideal as a bodily or psychic state of affairs in accordance with nature or *kata phusin*—Jaeger (1944): 21; H. Miller (1962): 181; Stalley (1981): 111-12; Ferngren and Amundsen (1985): 10; Lidz (1995): 531; and Gocer (1999): 30.

[53] Compare Tracy (1969): 139.

[54] See Gocer (1999): 27, who suggests that Plato "has nothing but contempt for what he considers the sophistical view that sees health as a relativistic concept that merely describes the degrees to which an individual fulfills his own potential…" For a more general historical treatment that does some work to situate Plato's thought, see Kudlien (1973).

different species of air), amount, and locale. Accordingly, physical health requires that elements accrue or attach to the same kind of elements and in their proper place and depart from the same kind of elements in the appropriate amount and arrive at an equally proper place. The accompanying notion of disease indicates, as we should expect from the above, a disruption of these conditions. Thus, illness results from the admission of an inappropriate type of element into the body, too much or too little of any element coming into or leaving its kindred elements, or the presence of an appropriate element in the body but in a place where it does not belong.

Second, bodily fitness suggests that there is an ideal procedure for the production and nourishment of structures like marrow, bone, flesh, and sinews. All four of these structures arise or are reared like a child from components in the blood, components that are capable, it seems, of producing marrow, bone, etc. because of their kinship with their progeny (*gignetai neuron men ex inōn dia tēn suggeneian*: 82c7-d1). Disease, on the other hand, specifies a reversal of this state of affairs though I think we should not take such a reversal to indicate a situation in which the flesh, for instance, produces the same components of blood which gave rise to flesh in the first place. Rather, flesh dissolves into the blood and produces various new and unsavory entities in it. The presence of these newcomers results, as Timaeus puts it, in a lack of mutual benefit (*echthra men auta autois dia to mēdemian apolausin heautōn echein*: 83a3-4) between the relevant citizens of the circulatory system. These citizens then become enemies and consequently move through the veins in every direction, a circumstance which in turn destroys the blood, relinquishing it of its role as the provider of nourishment and moreover causing mass physiological starvation.

Third, health seems to indicate a state of affairs in which apposite things are allowed to exit freely from the body, a free exit which appears to be the result of cleanliness or more

specifically clean outlets. Thus, healthy lungs, for instance, are marked by a pristine wind pipe free from any liquid clutter (*hreuma*) that might interfere with the departure of air. Disease, conversely, results from blockage. When elements are pent-up inside the body, they do damage to the veins, sinews, skin, and blood, and disease, in this case, is to be equated with such damage.

Lastly, physical health is a function of the size and strength of the body both in its own right and in relation to the size and strength of the soul. The appropriately sized body is one undisposed to the frequent sprains and injuries indicative of those who have towering frames. Yet, when it comes to its relationship with the soul, a body too scrawny in the face of an overbearing psyche is likely to be susceptible to something like bad colds.

Bringing all this together, bodily health appears to involve four levels of wellness. First, there is the purely elemental level. At this level, health describes a single and unwavering mode of interaction between identical elements. Second, there is the composite level. Here we have structures such as blood, flesh, and bone which are composed of particular elements though nonetheless structures whose health is described in terms of a mode of interaction between these structures rather than between the elements that constitute them. Next, we have a kind of split level. On the one hand, there is the body and on the other, the elements, and wellness here indicates a relationship between the two in which the appropriate elements are free to leave the body. Lastly, there is the level of the organism as a whole which I designate as such because of Timaeus' definition of the living thing as that which is composed of body and soul. Health, in this case, describes an ideal relationship between the relative strengths and sizes of the corporeal and spiritual components of mortals.

*2.3.3 Psychic Health and Disease*

When it comes to soul, Timaeus' account is much more unified it seems. Psychic health is conceived of in terms of strength (*errōmenos*) whether it be the strength of each individual part of the soul, the strength of the parts relative to one another (89e5-90a2), or the strength of the soul relative to the body (88b5-c1). The vigor of each portion of the soul can be further spelled out in terms of specific tasks, what Timaeus refers to as the soul's own motions (89e4-5). These tasks, which mortals may pursue or fail to pursue, are assigned by the gods who create each part of the soul, and the pursuit and accomplishment of these tasks represents the height of a mortal's psychological hardiness and accordingly his or her health.

Consider first, intellect whose task is two-fold. On the one hand, intellect's occupation is contemplative, and I use the word "contemplative" to describe its function because of Timaeus' emphasis on our relentless exercise of it (*aei therapeuonta to theion*: 90c4). Accordingly, by contemplation, I mean to indicate frequent activity. In particular, the objects of this constant contemplation, objects laid down by the gods, are "the harmonies and revolutions of the universe" (90d3-4) and "that which is beneficial for all" (71a1-2).[55] On the other hand, intellect's task is to rule over both spirited and appetitive soul, a relationship between the three parts of soul, as Timaeus indicates, representative of the healthy psychic state of the philosopher (73a4-8 and 91e2-6) (more on this below and in Chapter 4).[56]

Concerning spirited soul, its health is achieved through the fulfillment of its task as intellect's militant partner, a collaboration in which both work to control appetitive soul within

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[55] For the interesting parallel of the physician's expertise about the beneficial, see Holmes (2010a): 210 with n. 54.

[56] Compare Carone (2007): 103, who presents intellect in terms of its theoretical and practical functions.

or to combat injustice stemming from external enemies (70a2-c1). Appetitive soul, on the other hand, in a significant sense the primary spiritual adversary of all mortals, is meant for a surprisingly superior task. While intellect contemplates the universe and the beneficial and spirited soul strives for success, appetitive soul, at its best, is destined for the apprehension of truth, an occupation it pursues in sleep via its capacity for divination (71e1-2). Thus, nightly contact with "the riddling voice and vision" (72b3) of verity constitutes the health of the most lowly part of mortal soul.

The corresponding diseases of the soul are conceived in an equally unified manner, being canvassed entirely in terms of the absence of intellect (*anoia*) or, in line with what has been said thus far, in terms of the failure of intellect to fulfill its tasks. There are two species of this failure: madness and ignorance.[57] These diseases, as already indicated above, originate in the condition of the body, and I suggest, are best distinguished according to which disordered, bodily circumstance gives rise to them as well as the scope of their psychic effect.

Madness is the product of two related things. It is the consequence of "excessive pleasures and pains" (86b5-e5) which in turn are the product of an excess of sperm or a blockage due to lack of an external vent for a troublesome humors (86e5-87b9). Such conditions reduce the intellect to either forgetfulness or slow-wittedness and also utterly destroy our capacity to

[57] For the view that madness and ignorance are two distinct types of disease see Tracy (1969): 124; Mackenzie (1985): 176; Joubaud (1991): 180; and Gill (2000), 60. For the more obscure view that madness and ignorance are only two aspects of one disorder, namely, *anoia*, see Price (1995), 86; Stalley (1996): 365; and Lautner (2011), whose entire article is dedicated to the contention that madness and ignorance are merely two levels of the same disease. Whether one or the other of these views is the case has no bearing on the more general arguments of this chapter.

accurately sense the external world. Additionally, when in the grips of madness, spirited soul is filled with reckless abandon, or as the case may be, cowardice, while appetitive soul is afflicted by episodes of irritability or depression.[58] Thus, madness is a collection of these less than ideal states of affairs existing simultaneously across the three parts of soul.

Ignorance, by contrast, is a disease of the intellect alone. It is caused by an asymmetrical relationship between body and soul in which the desire of the body for food is stronger than the desire of intellect for wisdom (88a7-b5). The particular symptoms of this imbalance, like those of a mind in the grips of madness, are forgetfulness and slow-wittedness.

*2.3.4 Strength, the Greatest Disease, and the Work of Harmonizing the Accounts of Socrates and Solon*

To sum up both the bodily and spiritual context, I point to the most salient connection between the two—the notion that health is a specific kind of strength. As we saw above, at least at the level of the organism considered as a whole, the health of the body consists in its prowess. Similarly, strength defines psychic well-being though, in contrast to bodily fitness, strength encompasses every level of spiritual health. Consequently, it might be reasonable to think that disease, insofar as it is a disruption or distortion of health, should be associated in one way or another with weakness. We should recall, however, that in his principle description of education Timaeus does not refer to disease in such general terms. Rather, he is marginally more specific, claiming that education leads to our escape from "the greatest disease." I say "marginally" because Timaeus uses the phrase, "the greatest disease," or, "the greatest of diseases," four times

[58] See Tracy (1969): 124-134, for the connection between the diseases of the three parts of the soul and the above spectrum of vices.

throughout his speech while pinpointing only six categories of disease total. Moreover, three of the four line up directly with the categories rather than just being types within them.

The first greatest malady occurs when the production or nourishment of bodily structures such as flesh and sinews is reversed (84c5-6), and the second is to be associated with a particular type of physiological blockage (85c2). The final two instances of the greatest diseases, by contrast, are specifically illnesses of the soul. On the one hand, Timaeus cites excessive pleasures and pains which, as already indicated, amount to madness (86b6), and, on the other, the equally extreme infirmity, ignorance (88b5).

Thus, the natural question is: which of these greatest diseases does education help us escape? Some commentators emphasize ignorance[59] and others madness[60] though none include the other two options, and we'll see why momentarily. I, however, hazard the assertion that education helps us to escape from every one of the above and more generally speaking from all disease, and as I move to show education's versatility in this regard, I mean simultaneously to exhibit the ways in which Timaeus can be said to harmonize the accounts of Socrates and Solon.

I first address the story of our incarnation which envelops Timaeus' principle statement about our educational liberation from disease. In short, the demiurge makes our immortal souls which, before embodiment, are pristine and healthy compartments of our capacity for intellectual activity as well as our capacity for sense-perception. He then hands them over to his divine progeny who in turn install them into mortal bodies (42e7-43a6). Consequently, a terrible psychic tumult ensues caused by the voluminous torrent of food in the veins which utterly damages both our ability to reason and our ability to accurately perceive the external world

[59] See Bury (1929): 98 n. 2, and Brisson (2001): 243 n. 281.

[60] Joubaud (1991): 180.

(43e6-c5). This damaged condition is referred to by Timaeus as *anous* (44a8), a term synonymous with the all-embracing category of psychic illness, *anoia*, which I described above as the failure of intellect to perform its proper tasks. Accordingly, it should be no surprise that scholars choose to emphasize either ignorance or madness as the dour disease from which education frees us, and on the face of it both might seem like equally legitimate interpretive choices.

Ignorance is certainly a feasible description of the damaging effects of our incarnation given that it is produced by the body's intellectually overpowering, enormous intake of food. At the same time, madness appears to be equally appropriate to the extent that it is aligned with a damaged capacity for veridical sense-perception. What is missing for those who want to claim madness here, however, is any explicit reference to the bodily diseases Timaeus claims are responsible for madness, things like pent-up humors or excessive pleasures and pains. Thus, we should perhaps embrace the safer conclusion that by *anous* Timaeus means to suggest something more like ignorance, which is a disease of the intellectual component of immortal soul, than madness, which spans all three parts of soul. The significance of this will become progressively clearer as we proceed through the rest of this chapter as well as the remaining chapters. For the time being, let it suffice to say that what is entailed here is an intellect-centered educational program.

As far as the harmonizing project is concerned, what we should notice further about the incarnation story is its similarity to Solon's account of the cyclical flooding of Athens. As indicated in the previous chapter and above, the heavenly floods (*hreuma ouranion*) rush into the city of Athens like a disease (*nosēma*) and carry off all the educated urbanites on raging rivers (*potamon*) that rush them out to sea, leaving only the ignorant hill-people to rebuild. Likewise,

Timaeus presents an image of our helpless immortal souls being tossed about on a raging river (*potamon…polun*) as the waves of nourishment flood in (*katakluzontos*) and out, leaving us as ignorant, in a sense, as the Athenian mountain dwellers. Thus, what we see in Timaeus' account of our embodiment is an analogue to the flood that causes the Athenians' ignorance,[61] though with one noteworthy difference. Rather than stressing the loss of any knowledge, as Solon might be taken to do (23a7-b2), Timaeus stresses instead the loss of our pre-incarnate health,[62] and he does so, as we have just seen, by describing the initial catastrophe of our incarnation as *anous*, an ignorant condition which refers to the damaged capacities of immortal soul and not to some absent epistemological cargo.[63] Accordingly, the corresponding notion of health in this case ultimately amounts to a reclaiming of the proper powers of the immortal soul rather than, in contrast to Solon, the recovery of any true propositions it may have at one time possessed.

This goal of health, however, is certainly not disconnected from the goal of both Socrates' and Solon's educational programs—the production of philosophers. In fact, as indicated in passing above, Timaeus' description of the proper tasks of the immortal soul, in particular those of intellect, is in direct alignment with his description of the philosopher. In short, the philosopher is one in possession of a contemplative and sovereign intellect, and accordingly, to call someone a philosopher just is to call him healthy. Thus, the harmonization

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[61] Howland (2007): 15, also notes this similarity between the two stories. For further commentary on the similarity, see Wersinger (2001): 7-14.

[62] See Kalkavage (2001): 25, and Lautner (2011): 27, who also claim that the soul is healthy before entering the body.

[63] Compare Mackenzie (1985): 176 n. 55, who asserts that, in the context of the *Timaeus*, ignorance suggests a "disability" rather than a lack of knowledge.

of Socrates' and Solon's paideutic frameworks consists in recasting the philosopher as the paradigm of physical and psychic well-being and then further incorporating the components of each system according to their ability to produce such well-being.

Consider the subjects emphasized by Socrates, namely gymnastics and music. Taking gymnastics first, we see that in Timaeus' system frequent physical exercise is invoked for its preventative (*amunō*) effects. Such exercise maintains a peaceful and therefore healthy geography in which the constituent elements of the body get along like friends because they are placed next to friends (88e2-89a1). Bodily health may not be the only thing at stake here, however. It also appears that gymnastics contributes to the health of the soul albeit in an indirect manner. By maintaining bodily health, we shore up the source of psychic disease, though this prevention does not itself alone lead to total psychic health.[64] As we will see below and in some depth in the next chapter, there are further measures that must be taken to make the soul healthy. Lastly, gymnastics has a curative role to play, and in this role, exercise acts as the best purgative for the body (89a5-6).

In the end, however, gymnastics is not only something to be employed with respect to bodily or even psychic health. It also provides a further conceptual framework within the medical context for packaging pursuits which lie beyond the scope of physical exercise. Thus, we see Timaeus reducing the subjects outside of gymnastics to species of exercise and further reducing the motions produced by each to the nourishment proper to each entity nourished. Therefore, at its foundation, Timaeus' educational program is a dietetic system focused on delivering the appropriate "gymnastic" motions to their rightful consumer.[65] Music consequently

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[64] Compare the similar assertion of Ferngren and Amundsen (1985): 8, and Tracy (1969): 101.

[65] Compare Tracy (1969): 140.

is invoked for the kindred motions it feeds our immortal soul, in particular our intellects, whether these motions act in a curative or preventative fashion. Astronomy, too, is also to be pursued curatively or preventatively to the extent that the heavenly revolutions act as nourishment for our intellects.

Consider next the subject matters emphasized by Solon—the study of the *kosmos*, medicine, and divination. Firstly, Timaeus uses the scope of medicine, as I am in the midst of demonstrating, as an organizing concept intended to schematize the various aspects of education. We should be careful, however, not to confuse "concept" with metaphor or analogy here. In the *Timaeus*, the medical context is not at all analogical as it might be in many of Plato's other dialogues.[66] Rather, in particular, we should take the disease and health of the soul literally[67] and, as some have stressed, primarily because the diseases of the soul originate from diseases of the body.[68] In any case, it should suffice to reiterate that Timaeus incorporates medicine into his picture of education according to education's capacity to heal and maintain health. In fact, in Timaeus' account, education even replaces the ancient Athenian "medical art which aims at health" (24c1-2) insofar as education, rather than medicine, is the emphasized enterprise responsible for transporting us to well-being.

The bolder conjecture is that Timaeus also uses this take on medicine to organize the investigation of the *kosmos*, reducing the study of the universe, in a sense, to the study of healthy and unhealthy motions. In astronomy, for instance, we investigate the healthy heavenly

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[66] For a copious list of works on the use of medical analogy in Plato, see Holmes (2010b): 368 n. 3.

[67] For others who agree that health and disease are to be applied literally to soul in the *Timaeus*, see Tracy (1969): 124; Mackenzie (1985): 176; and Stalley (1996): 358 and 365.

[68] Stalley (1996): 358.

revolutions, and we do because the study of such motions either curatively or preventatively nourishes the kindred motions in ourselves (47b6-c4). In the study of the elements, we investigate the constant, element-arranging vibration of the receptacle because, ultimately, imitating this vibration results in our own bodily health (88d6-89a1). In turn, such study contributes to our understanding of unhealthy corporeal motions which are, at base, deviations from or disruptions of the proper arrangement of the four elements within our bodies.[69]

Lastly, divination, as we saw above, is equally enveloped by the medical context. As Timaeus claims, each of the three regions of the soul has its own proper motions and accordingly its own proper fare, and the fitting food for appetitive soul is the nourishing motion of divination, motion which comes in the form of dreams that make contact with the truth.

The further work of coalescing the accounts of Solon and Socrates involves the incorporation of the purveyors of education. In Socrates' case, the state appears to be the party responsible for educating its citizens, and there are certainly echoes of this in Timaeus' case. What seems to be emphasized by Timaeus, however, is the potential of the poorly governed state to reinforce the illnesses of its already diseased citizens. One also gets the feeling that the mismanaged society is altogether commonplace (87a7-b8). Accordingly, though not ideal, it seems that education is something to be pursued outside the context of the *politeia*, something to be sought on one's own.[70]

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[69] Compare Proclus: 6.10-13, who suggests that medicine involves the study of those things which are against nature, or *para phusin*, and in contrast to natural philosophy which studies what is according to nature, *kata phusin*.

[70] Compare Carone (2005): 53 and 75.

Appropriately enough, the universe itself has been set up to accommodate this lonesome pursuit. Just as in Solon's case, where the goddess educates the first Athenians by providing them with laws, Timaeus' demiurge embeds our tutelage in the law-like arrangement of the universe, creating the shining sun so that we might see the revolutions in the heavens and from them effect a cascade of discoveries from number, to the notion of time and the study of the nature of the universe, and eventually arrive at the greatest of human findings, philosophy. Consider the following passages which I take to be evidence of this divinely dispensed education.

> And so that there might be a conspicuous measure of their relative slowness and quickness with which they move along their eight revolutions, the god kindled a light in the orbit second from the earth, the light we now call the Sun. It would shine upon the whole heaven and as far as possible bestow upon all those living things that can learn from the revolution of the Same and uniform, a share in number. In this way and for these reasons night and day, the period of a single circling, the wisest one, came to be. A month has passed when the Moon has complete its own cycle and overtaken the Sun; a year when the Sun has completed its own cycle (39b5-7)…As my account has it, our sight has indeed proved to be a source of supreme benefit to us, in that none of our present statements about the universe could ever have been made if we had never seen any stars, sun, or heaven. As it is, however, our ability to see the periods of day and night, of months and years, of equinoxes and solstices, has led, on the one hand, to the invention of number and, on the other, has given us the idea of time and opened the path to inquiry into the nature of the universe. From these pursuits we have, in turn, acquired

> philosophy, a gift from the gods to the mortal race whose value neither has been nor ever will be surpassed. (46e6-47b1: tr. Zeyl with modifications)

Here we not only see that the demiurge's "kindling" of the Sun is intended to transport us to number via observations of the periods of day and night, etc. but also that the discovery of number leads to the further acquisition of the notion of time and the investigation of nature, and finally, the philosophical enterprise itself, and it appears that we even discover all these in this particular order.

In order to understand the relationship between endeavors such as philosophy and the other pursuits mentioned both here and above, however, I return to the context of health as strength. In short, given strength's connection with perpetual activity (89e6-90a1), we should think that our attention to each of these areas and thus our education in general must be equally unceasing. Intellect should never discontinue its contemplation of the stars or the beneficial, as Timaeus himself makes clear (90c4). Spirited soul should never stop its just contestation nor appetitive soul desist in its divination. And, of course, as Timaeus makes equally apparent, we should subject our bodies to constant agitation through exercise (88d7-8). At the same time, this relentless exercise of all our most important aspects does not appear to be perfectly balanced. While a healthy education, so to speak, neglects no pertinent subject matter, it nonetheless privileges intellectual pursuits over all others.[71] As Timaeus puts it, the student of mathematics should not ignore gymnastics nor the athlete the pursuits of the mind though, he makes it clear that both, and really every mortal living thing, should make sure to engage the intellectual above else.

[71] Compare Gill (2000): 68, who suggests that "physical and mental education need to be brought into proportion with one another."

In the final analysis, this program of constant care offers us a good way of thinking about Timaeus' educational program as a whole. In essence, there are three points of view from which we can scrutinize education. First, there is what one might call "the education of the body" which, through the nourishing motions of gymnastics, establishes stability in the body by shaking its elemental constituents into their proper locales. This is a crucial step toward total health, as we have seen, to the extent that diseases of the soul like madness and ignorance originate in the instability of the elements within us. Next, there is "the education of mortal soul" which involves both the motive fare of truth-filled, dreaming divinations to be consumed by appetitive soul and the sustenance of victory for its spirited counterpart. Lastly, we have "the education of intellect" which offers a diet of music and astronomical observations meant to cater to both its contemplative and sovereign functions. And all three of these levels, I reiterate, are in a significant sense never truly completed in the course of one's life but must be constantly engaged and the last of them more than the others. While residents of the mortal form, our education is unending and exceedingly intellectual.

### 2.4 Causal Investigation: The Curricular Sequence of Timaeus' Educational Program

What remains to be addressed is the order in which one should proceed through Timaeus' educational program. For instance, consider the law concerning phronesis described in Solon's account which I recall again in order to refresh our memories:

> In turn, regarding wisdom [*peri tēs phronēseōs*], you see, I suppose, the law here—how much care it has given from the beginning to the *kosmos*, discovering all things from those divine beings to human affairs, down to divination and the art of medicine which aims at health, and also to all the other disciplines [*mathēmata*] that follow. (24b7-c3, my translation)

Contained in the above, I suggest, is a general way of proceeding which regulates a more specific sequence. On the general level, the law stipulates that one ought to proceed from the discovery or investigation of the divine to the investigation of the human, and this progress, it appears, acts as a package for our advance through the more specific areas of interest. Ultimately, what I see in Timaeus' own account are echoes of this kind of order as well as nuanced additions.

For starters, Timaeus, like Solon, posits an order of discovery of the subject matters though I think one that is not as illuminating of the sequence of progress through the curriculum as we might like as interpreters. To reiterate,[72] Timaeus' short history starts with the observation of the revolutions of the heavenly bodies, leads to the invention of number, the notion of time, the investigation of the nature of the all, and lastly to philosophy, which appears to be the final destination. Apart from philosophy, we might be tempted to think that astronomy, mathematics, and perhaps even the investigation of the four elements are indicated here and further that Timaeus means to suggest that they have been discovered and perhaps are even to be studied in this order.

Also included in Timaeus' history, though as a kind of afterthought, is music (47c4-e2). Rather than discovering music, however, mortals receive it directly from the gods as a gift and also receive the kindred things that come with music like harmony and rhythm, the only stipulation being that we must use music only for intellectual purposes and not for pleasure. If we obey this command, the muses then dispense the attendant harmony and rhythm. In any event, it is unclear where music falls in the curricular sequence, though another temptation might be to put it at the end with philosophy given Timaeus' tendency to pair the two not only as he

[72] See 55-6 above.

could be taken to do in this history of discovery but also as we see him doing when he advises the athlete not to ignore these two pursuits in particular.

Rather than force the issue, however, I think we should be cautious. Even if it does seem clear that the sequence including number, time, the investigation of nature, and philosophy represents an order of discovery, it is not at all clear that it represents an order of investigation. Further, even if it were apparent, I do not think we could then show that any of these pursuits are in fact distinct from one another as Brisson suggests when he calls our attention to the lack of disciplinary autonomy at the time when the *Timaeus* was written.[73] Instead, we should think that pursuits like the above are, in some sense, inextricably linked. Thus, no matter how tempting it may be, I do not think we can derive with any precision a curricular sequence from Timaeus' history.

Taking a step backwards, then, what we might glean instead from Timaeus' account of the discovery of philosophy and music are two contrasting pictures that suggest two kinds of divine tutelage. The first is aloof. As we have seen, the demiurge creates the cosmos to be an educational catalyst which ignites a trajectory in us toward philosophy that we work on our own to complete. The second is immanent. The demiurge's divine children, in particular the muses, work hand in hand with us. They not only give us music, but if we use it properly, they also equip us with harmony and rhythm.

These two divine approaches with all their accompanying subject matters and everything they are meant either to inspire or instill in us should, it seems, be enough for our salvation from disease. But, in the end, it does not appear that they are. Timaeus adds one more layer of his own—cause. His recommendation that we pursue causal investigation is not only something

[73] Brisson and Meyerstein (1995): 17.

above and beyond what is strictly put in place by the gods for mortals, but it is also where we find Timaeus' most explicit statement on the order in which we should pursue our education.

Before moving on to discuss this order, however, I think it is important first to link causal investigation (conceived in its most general sense as a mere study of causes and without regard to the order in which we study them) with the educational context, a connection I see played out in two ways. First, Timaeus isolates a pair of causes, the intelligent and the necessary, and proposes that we investigate them because, ultimately, this is how the aspiring philosopher (*ton…nou kai epistēmēs erastēn*: 46d7-8) proceeds.[74] In other words, causal investigation is for those who hope to become philosophers, and given that the entire educational enterprise is devoted to the creation of such individuals, I see in causal inquiry a pursuit as educational as the gymnastics or astronomy also charged with such production. Second, Timaeus indicates that studying the causes leads to happiness (68e6-69a2), and happiness, in turn, is implicitly connected to health which as we have seen is the most explicit way of conceiving of the goal of education. Take the contemplative function of intellect discussed above and in particular the astronomical contemplation which amounts to one sense of intellect's well-being. Timaues aligns this same sense of well-being with our "supreme happiness" (90c4-d1), and given that health and happiness are synonymous and further that causal investigation contributes to the production of this happiness, it appears once more that we should consider the investigation of the causes to be a component in Timaeus' educational curriculum.

When it comes to the order of causal investigation, there are again only two relevant causes, the intelligent and the necessary (the latter of which I will also refer to as necessity).

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[74] For others who see the presence of the aspiring philosopher here, see Gordon (2005): 270; Howland (2007): 23; and Zuckert (2011): 351.

Accordingly, progress through the two, on some level, cannot be that complicated. The aspiring philosopher either pursues necessary cause first and then moves on to the intelligent or vice versa. Commentators who remark on the issue, however, are united in their contention that the former is the case,[75] and their position is founded on the following passage.

> And so all these things were taken in hand, their natures being determined then by necessity in the way we've described, by the craftsman of the most perfect and excellent among things that come to be, at the time when he brought forth that self-sufficient, most perfect god. Although he did makes use of the relevant auxiliary causes, it was he himself who gave their fair design to all that comes to be. That is why we must distinguish two forms of cause, the divine and the necessary. On the one hand, the divine, for which we must search in all things if we are to gain a life of happiness to the extent that our nature allows, and on the other hand, the necessary, for which we must search for the sake of the divine. Our reason is that without the necessary, those other objects, about which we are serious, cannot on their own be discerned, and hence cannot be comprehended or partaken of in any other way. (68e-69a: Tr. Zeyl with modifications)

The first thing to point out here is that divine cause is not some other cause in addition to intelligent cause, and though everyone accepts this conflation without a second thought, it should be reasonable to do so given Timaeus' habit of associating the intellectual with the divine (41c6-8, 44d3, and 65d6). What may or may not be reasonable, however, is the tacit rationale behind the construal that divine cause is the culmination of the order of investigation, a rationale, I take it, built on a conception either of what it means to do one thing for the sake of another or of what it means to be unable to do something without also doing something else. What I am suggesting

[75] I am thinking here of Strange (1999): 406; Karasmanis (2005): 180-1; and Zuckert (2011): 340.

is this. The commentators who accept that we begin from necessary cause and then move on to intelligent cause must think that doing ‘x’ for the sake of ‘y’ indicates a temporal order in which ‘x’ comes first and ‘y’ second. Accordingly, when Timaeus suggests that we search out the necessary for the sake of the divine, he means that we must investigate the necessary first and then arrive at the divine. The case is no different with the claim that we cannot apprehend divine cause alone. Again, for these commentators, if necessary cause is also required, it is as a pre-requisite.

At first glance, this conclusion seems like a perfectly reasonable one to draw. Many things that we do for the sake of other things precede those things for which they are done just as “*sine qua non*” things often precede what they make possible. What makes this construal problematic, however, is the fact that Timaeus prescribes an order of investigation elsewhere in the text that is quite to the contrary. Consider the following passage.

> Now all of the above are among the auxiliary causes employed in the service of the god as he does his utmost to bring to completion the character of what is most excellent. But because they make things cold or hot, compact or disperse them, and produce all sorts of similar effects, most people regard them not as auxiliary causes, but as the actual causes of all things. Things like these, however, are totally incapable of possessing any reason or understanding about anything. We must pronounce the soul to be the only thing there is that properly possesses understanding. The soul is an invisible thing, whereas fire, water, earth, and air have all come to be as visible bodies. So anyone who is a lover of understanding and knowledge must of necessity investigate first those causes that belong to the intelligent nature, and second all those belonging to things that are moved by others and that set still others in motion by necessity. We too, surely, must do likewise: we

> must declare both types of causes, distinguishing those that possess understanding, and thus fashion what is beautiful and good, from those which, when deserted by intelligence, produce only haphazard and disorderly effects every time. (46c7-e6: Tr. Zeyl with modifications)

Here the lover of understanding and knowledge, the aspiring philosopher mentioned above, begins his investigation not from necessity but from intelligent cause, and again this should produce problems for commentators who want to assert the reverse. So how should the apparent contradiction between the two passages be resolved?

Stephen Strange, for instance, attempts to alleviate this tension by appealing to Aristotle's views on the order of presentation. Thus, as far as Strange is concerned, when Timaeus suggests that we prioritize the necessary, he is speaking of investigation. But, when Timaeus stipulates the priority of the intelligent, or of final cause, he is following a procedure for presentation like the one we see advocated by Aristotle.[76]

I have two complaints about this solution. The first is methodological. I myself am hesitant to use Aristotle to resolve problems in Plato, the most obvious issue, of course, being chronology. In short, Plato wrote before Aristotle, and I think we should be suspicious of those who cast Aristotle's thought backwards onto Platonic works just as we are, generally speaking, of those who flirt with anachronism. Moreover, I think we should be particularly suspicious when it comes to imposing Aristotle's notion of final cause on the *Timaeus*, as Strange is doing, something which, as we saw in Chapter 1, is also the case with Johansen whose entire book on

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[76] Strange (1999): 406 n. 19.

the *Timaeus* is, in essence, about final cause. Apart from the anachronism of doing so,[77] the other major issue is Aristotle's own contention in the *Metaphysics* (I.7 988b6-15) that Plato does not, in fact, use final cause at all. Rather, he uses only material and formal cause (I.6 988a8-11).[78] Thus, Strange's move here is doubly suspect, and I recommend against it.

The second complaint I have is textual. Neither of the above passages support a distinction between the orders of investigation and presentation. In fact, both passages speak of investigation alone (*Tim*. 46e1—*metadiōkein*; and 68e7—*zetein*). Thus, I think if we are going to resolve the contradiction, we should dispense with the tacit assumption that is creating it in the first place, namely the assumption that 'x' for the sake of 'y' or 'x' as the *sine qua non* of 'y' indicates a one-way temporal flow in which 'x' precedes 'y'. Accordingly, rather than thinking of necessary cause as if it were the gateway to intelligent cause, we should think instead that our understanding of the former acts to reinforce our understanding of the latter. Ultimately, we include the study of necessary cause at all because comprehending it expands our grasp of intelligent cause, and it does, I take it, because studying necessity, in short, offers an additional angle on the sovereign function of intellect. So, in the end, we start from intelligent cause and then gather additional, though essential, information about it from our further study of necessary cause.

The question that naturally follows is: why this order rather than the reverse? Timaeus' answer, I suggest, can be boiled down to the following proposition: if the universe and the things

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[77] See Brisson (2009): 212 n. 1, who suggests outright that Johansen's work is a case of anachronism. Of course, it follows that Strange's work is as well.

[78] For an excellent piece on how Aristotle is right not to see final cause in Plato and more specifically in the *Timaeus*, see Johansen (2010). For a similar claim, also see Sedley (2007): 114 n. 47.

in it have come to be by the agency of the demiurge acting on necessity, then we must think that there are two causes, the intelligent and the necessary, and study them by starting from intelligent cause. Though somewhat vague, I suggest, nonetheless, that this represents Timaeus' most straightforward reasoning about the issue. What more we might glean about this reasoning will have to come, of course, from an analysis of the coming to be of the universe and what it means for the conception of the causes. I will keep this analysis as brief as possible.

I think it is best to start the discussion from what is arguably the central claim of Timaeus' cosmology—the universe is the most beautiful of the things that come to be (29a5). This superlative status is the product of the fact that the universe is modeled on the eternal, unchanging, intelligible forms (28a6-b1 and 29a2-b1). Accordingly, the cause of this cosmic beauty must be intelligent so that it can grasp the relevant intelligible forms.

In a significant sense, there is no comparable justification for the existence of necessary cause. Necessity is a mere given. What Timaeus does enact, however, is a particular notion of necessity which, for the purposes of our discussion, works out in two ways. On the one hand, necessity is unintelligent and therefore cannot on its own produce anything beautiful. Rather, outside the influence of intellect, it brews only ugly disorder (46e5-6). On the other hand, as a consequence of this impotence, necessary cause is demoted from its place of honor as what one might call "the master cause," a status given to it by the preponderance of physicists against whom Timaeus is reacting (46d1-2). It is installed instead in its lesser role as an auxiliary (*sunaitia*) or servant (*upēretēs*, or the verb, *upēreteō*: 46c7 and 68e4) cause.

We should in turn wonder, however, how Timaeus justifies this conception, or put another way, how he justifies the implicit claim that intelligence, rather than necessity, is the master cause. In the absence of any directly stated support on Timaeus' part, we might come to

his assistance by noting two things. First, the demiurge, the personification of intelligent cause,[79] is superior to necessity to the extent that he is capable of wise persuasion (48a4-5).[80] In fact, it is through such sage swaying that intellect asserts its superiority and consequently effects necessity's servitude. Second, at least in the context of the body and soul of the universe, intelligence is sovereign because it is created before the body, and being the body's elder, it is accordingly its master (34c4-35a1).

What this helps us to notice is that Timaeus is in fact a little more specific than I initially gave him credit for being. If we take a closer look at the two passages in which Timaeus prescribes an order of investigation, we will see that in both cases he starts from the notion of master and servant causes. At the 46c7 passage, he begins by identifying necessity as a servant cause just as he does at 68e1, and both carry with them, of course, reference to intelligent master cause. Accordingly, we might recast the summary proposition above as follows: if the universe has come to be through the cooperation and instantiation of master and servant causes, then we should begin our causal investigation from master cause. In one sense, this is the end of the road—i.e. I do not think Timaeus has anything more specific to say about the order of investigation. On the other hand, I see two promising, though of course, speculative avenues to answering the further question now before us: why begin from master cause?

The first avenue is perhaps obvious. At least in the ideal context of creation, there is never a case in which intelligence is not privileged over all else. The universe itself is an intelligent living thing because intelligence is better than unintelligence; the intelligent demiurge

[79] Others who also contend that the demiurge is intellect personified include: Morrow (1950): 151; Vlastos (1975): 26; Strange (1999): 402 n. 12, 403, and 407; and Karasmanis (2005): 170.

[80] For a thorough account of intellect's persuasion of necessity, see Morrow (1950) and Strange (1999).

subjugates necessity; the soul, the symbol of intelligence, is meant to rule the body, the symbol of the necessary, and in our case it is also meant to rule mortal soul; intelligence even wins out over the possibility of the longer healthier mortal life, a possibility foregone by the gods for the sake of the shorter, more painful though better life of reason (75a7-c3). Accordingly, it should be perfectly acceptable to think that Timaeus would extend this priority into the context of causal investigation, and if my account is correct, he has expressed this priority by suggesting that we begin from intelligent cause.

Second, this privileging of intelligence is representative of the desires and, most importantly, the thought processes of the divine demiurge. This should grab our attention because of its connection to our earlier discussion of health. Recall that the well-being of our intellects is dependent on what we feed them, so to speak, and what we feed them are motions. The proper motive victuals for the intellectual side of our immortal souls are the unwandering revolutions of the god that is the universe, revolutions that amount to his thoughts. Thus, again by extension, feasting on the demiurge's cogitations should be equally conducive to our intellectual health though we should still wonder how it is that his cogitations or activities can be described as starting from intelligent cause.

The most pronounced and relevant example of this kind of thought process, I suggest, concerns the order in which the demiurge creates the soul and body of the universe, the former being aligned with intelligent cause and the latter with necessity as mentioned above. As we have already seen, the demiurge creates the soul first and then the body because by doing so he effects the appropriate master/servant relationship between the two. Thus, when we begin from intelligent cause, we are mimicking the demiurge's own thoughtful progress, a progress carried out in the instantiation of both intelligent and necessary cause in the living universe, and in doing

so, we are nourishing our intellects and thereby, in a certain respect, accomplishing our educational goals.

**2.5 The Educational Structure of Timaeus' Tripartite Speech**

Having worked out both the connection between education and causal investigation as well as the order in which we are to proceed through this investigation, I now want to show how this sequence doubles as the structure for Timaeus' entire account, and by "structure" I mean to indicate, in particular, the order of presentation. Thus, my greatest claim here is that Timaeus arranges his speech as he does in imitation of the causal progress through his educational program.

It will be important first, however, to offer a general picture of Timaeus' presentation. I will be most concerned with its tripartite structure, a division unanimously agreed upon[81] by contemporary scholars and an interpretation ultimately to be attributed to Cornford.[82] Though not the first to recognize these divisions,[83] he is, I think, the first commentator to truly foster them, and he is to the extent that the three part interpretation makes up the overall structure of his commentary on the *Timaeus*. In subsequent years, Brisson has followed suit, reiterating the tripartite view in the introduction to his translation,[84] and Zeyl, more recently, has done the

[81] For a near exception see Brague (1985): 60-1, who recognizes three divisions though only two actual parts. I discuss his interpretation below.

[82] Compare Runia (1986): 298, who also attributes the origination of this interpretation to Cornford.

[83] Certainly both Archer-Hind (1888): 164-5 and 254, and Taylor (1928): 297 and 492, recognize the three parts.

[84] Brisson (2001): 66-69.

same.[85] In the end, the combination of these three works accounts for or even just amounts to the general agreement we find today.[86]

I take it that these commentators base their interpretations on Timaeus' explicit reflection on the structure of his speech. On two occasions, Timaeus alerts us to how he conceives of his composition, and these alerts can be taken to indicate a comprehensive structure arranged in three parts. The first instance of this self-commentary marks the division between the first two sections of Timaeus' account and is itself made at the outset of the second. His reflections are as follows:

> Now in all but a brief part of the discourse I have just completed I have presented what has been crafted by intellect. But I need to match this account by providing a comparable one concerning the things that have come about by necessity. (47e3-5: Tr. Zeyl)

Timaeus characterizes each part, as we can see, with respect to effects. These effects are, in turn, distinguished by both their source and the manner in which they have been produced by that source. Accordingly, the first part of Timaeus' account is a presentation of the things crafted (*dedēmiourgemena*) by intellect and the second of things that have been generated, and perhaps even in the sense of birthed (*gignomena*), by necessity. Consequently, it should be no surprise

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[85] Zeyl (2000) is more recently followed by the less well cited translation by Kalkavage (2001) who organizes his introductory essay according to the three part interpretation.

[86] For others who also adhere to the three part interpretation, see Morrow (1950); Vlastos (1975), in particular: 66; O'Brien (1984): 107; Strange (1999); and Zuckert (2011): 338.

that contemporary commentators describe these parts with titles like, "The Works of Reason" and "What Comes about of Necessity,"[87] or the more abstract, "The Effects of Necessity".[88]

In addition to identifying the subjects of each section, Timaeus' further reflections indicate that the second part is not a straightforward continuation of the first part but instead a new beginning (*archēn authis…palin arkteon ap' archēs*: 48b2-3; *authis archē*: 48e2). By this, Timaues means simply, it seems, that the second segment of discourse requires a more elaborate ontology than the first, and he responds, accordingly, by adding to the initial section's two-entity ontology of being and becoming, a third entity—"the wandering cause" or, as Timaeus later calls it, *chōra* (52a8 and 52d3), a particularly tricky word that might be translated as "space" or "place" though really neither translation is ideal.

The second instance of Timaeus' reflection takes us into more blatantly causal territory. It acts as a transition that marks the division between the second and third sections of Timaeus' discourse and is as follows.

> And so all these things were taken in hand, their natures being determined then by necessity in the way we've described, by the craftsman of the most perfect and excellent among things that come to be, at the time when he brought forth that self-sufficient, most perfect god. Although he did makes use of the relevant servant causes, it was he himself who gave their fair design to all that comes to be. That is why we must distinguish two forms of cause, the divine and the necessary. On the one hand, the divine, for which we

[87] Cornford (1937): 33 and 159.

[88] Zeyl (2000): liv. Also, see Brisson (2001): 66-8, who mimics Cornford (1937), and Vlastos (2005), 28, who designates the first part of Timaeus' speech as "Triumphs of Pure Teleology" while uniting the final two divisions under the rubric, "Compromises of Teleology with Necessity."

> must search in all things if we are to gain a life of happiness to the extent that our nature allows, and on the other hand, the necessary, for which we must search for the sake of the divine. Our reason is that without the necessary, those other objects, about which we are serious, cannot on their own be discerned, and hence cannot be comprehended or partaken of in any other way.
>
> We have now sorted out the different kinds of causes, which lie ready for us like lumber for carpenters. From them we are to weave together the remainder of our account. So let us briefly return to our starting point and quickly proceed to the same place from which we arrived at our present position. Let us try to put a final head on our account, one that fits in with our previous discussion. (68e1-69b2: Tr. Zeyl with modifications)

Timaeus includes here both subjects from his previous self-reflection—intellect personified in the divine demiurge and his servant necessity—and connects each of them to the causes which they represent—intelligent and necessary cause respectively. Further, Timaeus speaks as if all that he has gone through up to this point has been in the service of sifting out these two causes. Thus, matching the causes to the prior two divisions of Timaeus' discourse, it should be reasonable to conclude that the upshot of "The Works of Reason" is intelligent cause and that of "The Effects of Necessity" necessary cause.

What we also see is that intelligent and necessary cause are to be collected together to constitute the third part of the presentation. One important thing to note here, however, is the shift in emphasis from the construction of the cosmos to the construction of Timaeus' own account. The causes are now not only the kinds of things that can be used to build a universe and its contents but also the kinds of things that can be used to build an exposition. As a result of

Timaeus' stress in this instance on the latter, it may seem strange that commentators give the final part the title, "The Cooperation of Intellect and Necessity,"[89] insofar as the title seems to ignore account construction altogether, pointing instead to a situation in which the two world-producing entities collaborate for the first time and in contrast to the "isolated" activity found in each of the previous parts of Timaeus' presentation.[90] I do not disagree, of course, that Timaeus portrays both intellect and necessity at work on the main project of the final section, the construction of human beings. I only mean to point out that if commentators are drawing on Timaeus' self-reflection when they create their descriptions of each part, the way the third section is described by them seems to be missing something important and should be recast more literally as, "The Account Constructed from Intelligent and Necessary Causes."

In any case, just like the second part, the outset of the final part is also associated by Timaeus with another beginning. What is different, however, is that this final division requires a return to the actual beginning, so to speak, namely the beginning of the creation story that has been intimated at various points throughout Timaeus' presentation (30a3-6; 47e3-48a5; and

[89] A title consistently used by Cornford (1937): 279; Brisson (2001): 68; and Zeyl (2000): lxxvii.

[90] By putting "isolated" in scare quotes, I mean to draw our attention to the fact that each of the first two parts employs both intellectual and necessary cause and not just intellect, in the case of the first, or just necessary, in the second. The fact that commentators ignore the ubiquity of the two when titling the parts should not be a strike against them, however (see Guthrie (1978): 320, who critically calls attention to the fact that intellect is still active in the second part.). Commentators are merely mirroring Timaeus' self-commentary.

52d2-c3).[91] This return is to be contrasted with the entirely fresh ontological start made at the outset of the second section.

The fact that Timaeus offers no third ontology has lead commentators like Brague to deny that there is a third part to the discourse at all, his fundamental claim being that the parts are established according to the ontology that supports them—two ontologies means two divisions.[92] I think Brague would be hard pressed, however, to show that Timaeus himself conceives of the divisions this way. Regardless, Brague's critique should lead us to recognize that the tripartite interpretation, at its best, relies on Timaeus' awareness of his "causal project"—two parts intended to sift out two causes that will then act as the constituents of the third and final part of the account.

If I am correct in my characterization of this causal project, it would seem, consequently, that Timaeus is not thinking of a linear progress through the divisions:

Part 1 → Part 2 → Part 3

Rather, his reflections indicate something more like the following:

Part 1<br>→ Part 3<br>Part 2

In fact, we might even press on the language used by Timaeus in his first self-commentary. I am thinking in particular of the word, *parathesthai*, which can be taken to indicate setting one thing beside another.[93] Thus, when Timaeus tells us that he must set beside his account of the things

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[91] Compare Zeyl (2000): 62 n. 81.

[92] Brague (1985): 60-1.

[93] Liddel, Scott, James, McKenzie (1996): "*paratithēmi*."

made by intellect an account of those things which have come to be by necessity, we should take his suggestion quite literally.

Subsequently, we are left to think about two things: a) the relationship between part 1 and part 2 and b) the relationship between parts 1 and 2, taken as a kind of unit, and part 3. In fact, commentary on Timaeus' progress through the divisions, whether it is based on the causal context or not, naturally falls into these two categories and briefly going over this commentary should give us some added perspective on our ultimate concern—the order of presentation.

The interpretations of Taylor and Strange focus on the order of the first two parts alone. Taylor explains this order "scientifically" and more precisely in terms of the method he finds in Plato's *Phaedo*.[94] The method stipulates that one start from assumptions and then draw out the consequences that follow from these assumptions. Only when one has fleshed out all such consequences should he then move on to consider the assumptions themselves. Thus, in the first part, Timaeus starts by assuming the elements and shows how the world is constructed from them. Following, in the second part, he analyzes the elements he previously assumed.[95]

Strange's approach, like Taylor's, is also scientific but rather than appealing to Plato, as we saw above, he appeals instead to Aristotle. To reiterate, according to Aristotle, an investigator ought to discuss final cause (what I have been referring to as intelligent cause) before necessary cause, and he ought to do so because the former is logically prior to the latter. So given that Strange reads the first part of Timaeus' speech in terms of the operations of final

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[94] Taylor (1928): 298.

[95] Additionally, one might consult Ashbaugh (1988) whose views, though I think obscure, bear similarity to Taylor (1928) in that she also accounts for the chronology in terms of hypotheses or assumptions. See, in particular, Chapter 3.

cause and the second part in terms of the necessary, he concludes that the one precedes the other as a matter of science or logical priority.[96]

The interpretations of Turbayne and Naddaf, by contrast, both address the order of presentation by focusing on the concluding section as something that follows from the first two. Turbayne, who understands Timaeus' primary concern to be medicine, sees in the first two parts a paradigm—the universe—upon which Timaeus will model the constitution of the human being and in turn gain the required ground for his discussion of disease and therapy.[97] Moreover, drawing on his reading of the *Republic*, Turbayne sees in this paradigmatic approach an underlying pedagogical technique that works to illuminate its subject matter—man—by metaphor. Just like the *Republic*'s enlightening metaphor that man is a city, we see in the *Timaeus* the notion that man is a universe.[98] Thus, in sum, the first two parts set up an instructive metaphor meant to guide the medical discussion of the third part.

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[96] Strange (1999): 406 n. 19. Also see Karasmanis (2005): 180, who suggests that in the order of scientific presentation, general principles like those of intelligence seen in the first part of Timaeus' speech, precede the natural research of the second and third parts because they supply the means by which natural research is conducted.

[97] Turbayne (1976): 126.

[98] Op. Cit.: 128. Outside of the order of presentation, what I think is noteworthy about Turbayne's views is his passing suggestion that Timaeus' speech is something like a medical textbook (128 and 139 n. 7). Generally speaking, I think there must be something to this textbook notion. Notice how many times Timaeus gives us a name for something. As we can see from O'brien (1984): 147-9, in the short stretch of text from 58d-68b alone, Timaeus offers upwards of fifty terms and certainly offers more outside of

Naddaf,[99] on the other hand, claims that, in the *Timaeus*, Plato is following the *peri phusēos* tradition of natural science, a tradition defined in large part by accounts that begin from the birth of the universe (cosmogony), then move on to the birth of man (anthropogony), and finally finish up with the birth of society (politogony). Accordingly, Timaeus' order of presentation progresses as it does because he offers the first two moments of the traditional *peri phusēos* account: the coming to be of the universe, taken up by the premier parts of Timaeus' speech, and the coming to be of man undertaken in the final section. In the end, however, Naddaf suggests that, rather than being a mere matter of tradition or convention, those working within the *peri phuseōs* tradition begin from the birth of the universe because they are interested in knowledge, and knowledge of the universe is required before one can truly move on to knowledge of man. Thus, what we see in Timaeus' order of presentation is an order of dependency or priority and an emphatically epistemological one.

First, I do not think the position I am about to espouse is at odds with any of the interpretations just presented nor do I think that any of them are at odds with one another. What I will say, however, is that each of the above, taken on its own, is incomplete. Not one of these commentators has addressed both a) the relationship between the first two parts and b) the relationship between the premier parts and the concluding section (though I certainly do not deny that any one of their positions might be modified or even mixed with the others). Thus, by contrast, I aim to offer a complete account and will do so by appealing to the educational context. Additionally, each of these commentators, with the possible exception of Turbayne,

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this small bit of his account, and this constant presentation of terminology leads me to think of Timaeus' speech as a sort of proto-encyclopedia.

[99] Naddaf (1997): 36.

draws his explanation of the order of presentation from a source outside the *Timaeus*, and while there may be nothing inherently wrong with this approach, I think it would be preferable if we could find an explanation within the dialogue itself.

Starting with the first two parts, I suggest that the order of presentation mimics the order of causal investigation. After we have paired intelligent cause with "The Works of Reason" and necessary cause with "The Effects of Necessity" and further connected these pairings with Timaeus' prescribed order of progress through the causes, it should be reasonable to conclude that Timaeus starts from "The Works of Reason" because he is following the proper procedure for causal inquiry. I need to make two clarifications, however. First, by "proper," I mean to indicate instrumentality. The procedure is the proper one because only by following it can the aspiring philosopher reach the height of philosophy which is the goal of education. Second, the words I have been translating as "investigate" connote pursuit or search. Accordingly, I suggest that the first two parts mimic the philosophy student's progress toward the completion of this search—the discovery of the causes.

Regarding the relationship between the premier parts and the concluding section, I claim that our educational progress toward this discovery starts from the universe outside of us, from everything that is not human, not mortal. This is where we find the causes. We do not find them in ourselves. The philosopher does not start by inquiring into his own mortal being, and I say this based on a combination of two things.

First, as Critias himself points out beforehand and Timaeus reiterates right before the closing of the dialogue (90e1-3), the expository task is to begin from the generation of the universe and end with the nature of human beings, and Timaeus' order of presentation certainly reflects this. The first two divisions, on the whole, canvass the generation of the body and soul

of the universe and the final division, the generation of humans or more generally mortals. Second, as we have already seen, sections one and two are traversed for the sake of exposing the causes which, in turn, will be applied in the third section. Thus, combining these two points, I conclude that we study the universe first, and therefore the two parts are presented first, because the universe is where we find the explanatory materials that will subsequently be applied to ourselves.

I might also claim, however, that we start from the universe because this is where the demiurge himself intended us to begin. Recall that he produced the sun to shine on the heavenly revolutions so that we would be able to see these revolutions and learn number from them. Timaeus reiterates the point though with one important addition. He makes such cosmic observations and the numbers we find in them the first stage in the short history of the discovery which extends from number to philosophy. Thus, starting from the universe may very well mean starting from the observation of the heavens, and we should respect this point of departure most because it is the one the demiurge himself has established.

Lastly, I note the correlation to the progress of discovery described in the law concerning *phronēsis*. The law suggests that we investigate first divine beings and then make our way to human affairs, and we might see echoes of this in Timaeus' account to the extent that universe itself is a god. Thus, starting from the universe also means starting from the divine. Again, not only is such a sequence part and parcel to education. It is also a sequence sanctioned by the goddess Athena, and one equally sanctioned, it would seem, by the demiurge in Timaeus' account.

**2.6 Conclusion: The Implicit Stages of Timaeus' Educational Program**

In this chapter, I have discussed Timaeus' most explicit remarks on education. As we have seen, education is, first and foremost, geared toward the production of philosophers and is, in a significant sense, medical. The goal is health, and I might also reiterate that Timaeus uses this goal to harmonize the educational programs exhibited in both Socrates' and Solon's accounts. Moreover, for Timaeus, education is an exercise in causal investigation, and the progress through this investigation, as we have also seen, reaches into the very structure of Timaeus' speech.

By contrast, to conclude this chapter, I offer what is largely implicit in Timaeus' account. More specifically, I outline what I take to be the implied stages of Timaeus' educational program, stages that will be the focus of Chapters 3 and 4. I divide these stages into two groups, one marking pre-philosophical stages and the other philosophical stages. In order to understand the progress through these stages, however, it will help if we first briefly recast human beings and the universe in Timaeus' more specific quasi-physical terms.

Humans have an immortal soul and two types of mortal soul, one spirited and one appetitive. The immortal soul is composed of two circular revolutions, the revolution of the same which apprehends unchanging, intelligible things, and the revolution of the different which apprehends changing, sensible things. Further, the universe, although not possessing mortal soul, is also a living thing and has an immortal soul similar to our own in the sense that it too has a revolution of the same that apprehends the unchanging and one of the different that apprehends the changing.

When the divine children of the demiurge first take our immortal souls and install them into human bodies, both the revolutions of the same and different are distorted and deformed.

They lose their circular shape and, as we will see, also their speed, direction, size, and position. As a result, the revolution of the different is rendered incapable of reporting accurately on the sensible world. Intellect, on the other hand, is stripped not only of its contemplative ability, I take it, but also of its sovereignty. These tragic losses suffered by our immortal souls act as the motivation or justification for our education. The stages follow accordingly.

The first of the pre-philosophical stages involves the return of the true character of the revolution of the different and with it the return of correct sense-perceptions. I include it to the extent that it acts as a significant starting point, and more precisely, because it suggests that the real healing work of education is to be performed on intellect.

The second pre-philosophical stage involves the acceptance of the existence of intellect whether it be in us, in the universal soul, or perhaps even in the creative entity that organizes the universe. I recognize this as an important moment in our education mostly because Timaeus seems to be at some pains to paint a motivating portrait of an unsavory character who does not believe in intellect, a character who, in some sense, is punished for his failure to believe and, accordingly, a character we should not be. In the language of the present chapter, this unattractive individual is unhealthy and acts accordingly as the emblem of the uneducated. Thus, choosing education is not first choosing to heal intellect but first believing in reason enough to pursue its treatment.

The final pre-philosophical stage is, in a sense, the most explicitly stated in the text though it is a potentially thorny one for my dual classification of the stages. In this phase of education, simply put, one investigates "the harmonies and revolutions of the universe" (47b7 and 90d3-4). I claim that this stage is thorny because, as with many transitions, it is difficult to decide where one thing ends and another begins and especially in light of my suggestion that our

education is ongoing. Thus, I suggest that we separate the search and its fruits from what we do with the fruits of this search, and I assert accordingly that the final pre-philosophical stage involves only the search and its fruits—the observation and collection of astronomical data, so to speak.

The first philosophical stage, consequently, involves what we do with the data we have collected or in other words the mathematical calculations we make concerning it, and this spells simultaneously the convalescence of intellect. As Timaeus states more specifically, this healing amounts to "following" (90d1) or "imitating" (47c2) the heavenly revolution of intelligence. By contrast, the second philosophical stage involves following the revolution of intelligence in ourselves which means, in essence, mastering our mortal souls and body.

I also include in my presentation of the philosophical stages the most important upshot of philosophy for our purposes, the philosopher-warrior, an individual who marks the culmination of the narrative that starts with Socrates' request for a story about a war and thus also the conclusion of my discussion of education in the *Timaeus*.

# 3. The Pre-philosophical Stages: Embodiment and the Existence and Convalescence of Intellect

**3.1 Introduction**

**3.2 Becoming *Emphrōn*: Our Initial Recovery from the Crisis of Embodiment**

*3.2.1 The Spatio-Motive Character of Immortal Soul: The Revolutions of Intellect and Sense*

*3.2.2 The Troublesome Body in Brief and the Emphronic Immortal Soul*

*3.2.3 Final Thoughts on Emphrōn: Its Translation and What It Represents*

**3.3 The Existence of Intellect and the Possibility of Education: A Short Digression from the Literal Interpretation**

**3.4 "Harmonies and Revolutions" Part 1: Preparing the Way for Healing the Speed and Shape of Intellect**

**3.5 Conclusion: The Transition to the Philosophical—The Spatial Characteristics of the Healthy Immortal Soul and the Literal Interpretation**

**3.1 Introduction**

In the previous chapter, I argued in essence for two things. First, I argued that Timaeus lays out an educational program. Demonstrating the presence of such a program in his speech was part of the further support for my contention that Socrates requests an encomium with an educational component. The additional requirement of this demonstration, stemming in part from Critias' claim to harmonize the accounts of Socrates and Solon, was that Timaeus' program should also show signs of this harmonization, and what we saw was Timaeus incorporating all the educationally relevant aspects of each into a medical context in which the epitome of health is the philosopher. Second, regarding my interest in structure, I argued that Timaeus uses the paideutic context to organize his tripartite speech. These parts I construed, on the one hand, in terms of cause—aligning the first with the study of intelligent cause, the second with the necessary, and the third with a combination of the two—and, on the other, in terms of the study of the divine universe, which takes up the first two parts, and the study of mortal living things found in the concluding section. The progress through these three divisions, as I claimed, mimics the development of the philosopher in both the causal sense where the philosopher begins his studies from intelligent cause and in the theistic sense where he starts from the divine.

In addition to these more explicitly stated educational aspects, I see the progress toward the creation of philosophers as a series of implied stages that build on one another. In the present chapter, I focus on what I call, "the pre-philosophical stages," and there are three such stages. The first can be divided into two phases: the initial state of embodiment, what most think of in

terms of the condition of the human infant,[100] and the state of maturity[101] that follows, which I will be describing with the term "*emphrōn*." In both its phases, this stage is illuminating because of what it tells us generally about the shape of Timaeus' educational program. In short, it tells us that education aims at intellectual repair. The second stage involves the acceptance of or belief in the existence of intellect, whether it be our own, that of the universe, or even the existence of a creative intellect like the demiurge. I include this stage in the progression, first of all, because Timaeus appears to be at some pains to show us a picture of someone who does not believe in intellect and is punished for it, a picture that serves as a warning and accordingly, it seems, as a motivation for becoming educated in the specific intellect-centered way Timaeus suggests. I also include it because of the implication the existence of intellect has not only for Timaeus' own educational program, but also for the very possibility of education itself. Without intellect and more precisely individual intellects, we would not be responsible agents and such agency acts as the cornerstone of education. The final pre-philosophical stage is the most explicitly stated and emphasized by Timaeus. It involves the study of "the harmonies and revolutions of the universe," something that many feel free to describe as "astronomy"[102] though something I qualify in the context of the pre-philosophical stages as "observational astronomy."

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[100] Cornford (1937): 147 and 149 n. 3; Tracy (1969): 124; Sedley (1999): 317; Zeyl (2000): 30 n. 42; and Carone (2007): 102.

[101] Compare Taylor (1928): 272, who equates this state with one's *akmē*, something I do not mean to indicate with my use of the word "maturity."

[102] Just to name a few: Dicks (1970): Chapter 5; Vlastos (1975): Chapter 2; Carone (1997); and Johansen (2004): Chapter 8.

Accordingly, at this stage we are merely gathering astronomical data that we will then analyze mathematically in our transition to philosophy.

Beyond my general interest in education and Timaeus' order of presentation, one thing I also mean to draw attention to in this chapter is how markedly physical or quasi-physical the progress through these implied stages is. I say "quasi-physical" because while intellect is not at all bodily for Timaeus (it is not made of the elements), it is nonetheless spatial, and in making this claim, I am committing to what is typically referred to as "the literal interpretation" of Timaeus' notion of the soul, a reading as old as Aristotle.[103] The literal interpretation takes seriously the idea that the soul, in particular the immortal soul, has a proper size and shape as well as a proper place and motion. Part of what will be tested in this chapter, however, is the legitimacy and usefulness of this literal construal, and this testing will take place in the context of the claim that the pre-philosophical work of education is most immediately aimed at correcting the disfigured spatial characteristics of intellect which are incurred at incarnation. Accordingly, I begin with an assessment of the damage and what is responsible for it in the interest of further pinpointing what spatial characteristics education will be acting on and acting to correct.

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[103] See *De Anima*: 1.3 406b26-407b11. For more recent interpretations, see Sedley (1997): 329-30 (a later reiteration of his position—Sedley (1999): 317-18); Johansen (2000): 90-1; Sorabji (2003): 154; and Lautner (2005): 236. For the non-literal interpretation see, Cherniss (1944): 184; and Lee (1976): 85 with n. 28. I address the non-literal interpretation in the conclusion below.

### 3.2 Becoming *Emphrōn*: Our Initial Recovery from the Crisis of Embodiment

In what follows, I will be responding primarily to one passage, and though long, I think it is absolutely essential to start by presenting it in its entirety. I will return to focus on particular parts of this principle passage when I commence the discussion of body below.

> And they went to invest this body—into and out of which things were to flow—with the revolutions of the immortal soul. These revolutions, now bound within a mighty river, neither mastered that river nor were mastered by it, but tossed it violently and were violently tossed by it. Consequently the living thing as a whole did indeed move, but it would proceed in a disorderly, random, and irrational way that involved all six of the motions. It would go forward and backward, then back and forth to the right and left, and upward and downward, wandering every which way in these six directions. For mighty as the nourishment-bearing billow was in its ebb and flow, mightier still was the turbulence produced by the disturbances caused by the things that struck against the living things. Such disturbances would occur when the body encountered and collided with external fire or for that matter with a hard lump of earth or with the flow of gliding waters, or when it was caught up by a surge of air-driven winds. The motions produced by all these encounters would then be conducted through the body to the soul, and strike against it. That is no doubt why these motions as a group came afterward to be called "sensations," as they are still called today. Moreover, it was just then, at that very instant, that they produced a very long and intense commotion. They cooperated amidst the continually flowing channel to stir and violently shake the revolutions of the soul. They completely bound that of the Same by flowing against it in the opposite direction, and held it fast just as it was beginning to go its way. And they further shook the

revolution of the Different right through, with the result that they twisted every which way the three intervals of the double and the three of the triple, as well as the middle terms of the rations of 3/2, 4/3, and 9/8 that connect them. These agitations did not undo them, however, because they cannot be completely undone except by the one who had bound them together. They mutilated and disfigured the circles in every possible way so that the circles barely held together and though they remained in motion, they moved without rhyme or reason, sometimes in the opposite direction, sometimes sideways, and sometimes upside down—like a man upside down, head propped against the ground and holding his feet up against something. In that position his right side will present itself both to him and to those looking at him as left, and his left side as right. It is this very thing—and others like it—that had such a dramatic effect upon the revolutions. Whenever they encounter something outside them characterizable as same or different, they will speak of it as "the same as" something, or as "different from" something else when the truth is just the opposite, so proving themselves to be misled and unintelligent. Also, at this stage souls do not have a ruling revolution taking the lead. And so when certain sensations come in from outside and attack them, they sweep the soul's entire vessel along with them. It is then that they, however much in control they seem to be, are actually under their control. All these disturbances are no doubt the reason why even today and not only at the beginning, whenever a soul is bound within a mortal body, it at first lacks intelligence. But as the stream that brings growth and nourishment diminishes and the revolutions regain their composure, resume their proper courses, and establish themselves more and more with the passage of time, the revolutions are set straight, to conform to the configuration each of the circles takes in its natural course. They then

> correctly identify what is the same and what is different, and render *emphrōn* the person who possesses them. And if this state be reinforced by the right program of educational training, he'll turn out perfectly whole and healthy, and will have escaped the greatest disease. (43a4-44c2: tr. Zeyl with modifications)

First, recall that, in the previous chapter, we saw Timaeus claiming that the goal of education is health and that the achievement of this goal also amounts to the successful avoidance of the gravest malady. In the passage above, we see not only the context for this claim but we see more specifically that the state of being *emphrōn* is exactly where education begins. Accordingly, understanding this state of affairs is of the utmost importance. Second, notice that I have not translated *emphrōn*. I have not because, for my purposes, the translation of the word is at least partly what is at stake, some translating it as, "intelligent"[104] or "thoughtful,"[105] others as, "sensible"[106] or "sane."[107] What I have translated is the immediately surrounding context of the word though this is additionally at issue, some reading it as "render *emphrōn*,"[108] like the above, and others as "put in the way to become *emphrōn*,"[109] and here we see two points of view. On the one hand, there are those who suggest that the state of being *emphrōn*, in some sense, has been achieved when the physiological busyness of our younger years subsides, and it makes no difference in this regard if translators bill *emphrōn* differently as "intelligent," "sensible," or

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[104] Bury (1929) and Zeyl (2000).

[105] Kalkavage (2001). Also, see Tracy (1969): 124.

[106] Brisson (2001): "sensé."

[107] Taylor (1928).

[108] Bury (1929) and Zeyl (2000).

[109] Archer-Hind (1888); Cornford (1937); and Kalkavage (2001).

"sane." The overarching point is that some state of affairs has been realized, and *emphrōn* describes this state of affairs. On the other hand, there are those who think that the condition Timaeus is describing is merely a stage on the way to becoming *emphrōn* and not itself an instance of being such.

The short passage that each is working with is the same (i.e. the two positions do not appear to be the product of dueling manuscripts): *emphrona ton echonta autas gignomenon apotelousin* (44b7). The first group, as we have seen, translates the passage, generally speaking, as "they render the thing possessing them *emphrona*," and what we might think is that this translation has ignored *gignomenon* altogether. The second group, on the other hand, while certainly attending to the *gignomenon*, seizes solely on the futurity of becoming, rendering the passage, again generally speaking, as "they set the thing possessing them on the road to becoming *emphrona*." I do not see, however, any grammatical reason to privilege this construal of becoming over the equally plausible sense the word has as a completed change of state.[110] Thus, when the first group seems to ignore *gignomenon* they may instead simply be drawing on its sense of completed change and absorbing this sense into *apotelousin* as in "they render the change of state to *emphrona* in the thing possessing them."

Ultimately, the position I develop is something of a compromise between these two ways of navigating *gignomenon*, a compromise that amounts to positing two ways of understanding what it means to be *emphrōn*.[111] While I assert that the starting point for our education is or can

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[110] See Cornford (1937): 24-5, for a succinct discussion of these two senses of becoming.

[111] Compare Taylor (1928): 272-3, who can also be taken to offer a compromise. He suggests that our initial state of *emphrōn* indicates sanity while the later emphronic state achieved by education indicates wisdom.

be properly described as *emphrōn*, in line with the first group, I also realize, in line with the second, that there is additional work that must be done to achieve the yet to be completed emphronic state of affairs education can be taken to promise. In order to adequately comprehend either of these takes on the matter, however, I think we first have to understand the "crisis" of embodiment that precedes the initial recovery being *emphrōn* represents, and understanding this crisis requires that we generate answers to the following two questions: what is immortal soul such that embodiment is a problem for it, and what is body such that embodiment is a problem for immortal soul? I begin with the former.

*3.2.1 The Spatio-Motive Character of Immortal Soul: The Revolutions of Intellect and Sense*

The immortal soul is a composite of eight disparate entities which, ideally, rotate in circles.[112] We should not think, however, that these entities are singular like planets whose motion through space merely traces out a circular shape. Rather, the components of immortal soul are circular rings that rotate in circles because, again ideally, they are circles (36b8-d7).[113] These psychic rings, as indicated above, are nonetheless non-physical. For Timaeus, physicality entails visibility and tangibility and such attributes are products of the presence of fire and earth (31b4-6). The soul, to the contrary, is, almost by definition, something invisible and intangible (46d5-7) being composed of intermediate forms of being, same, and different (35a1-6).[114] At the

[112] For an early criticism of Plato's views on the circular motion of soul, see Aristotle *De Anima* 406b26 ff. For an explication of this criticism, see Claghorn (1954): 108-11.

[113] Compare Lee (1976) who offers a similar analysis not only on this point but also on much of what follows.

[114] See Cornford (1937): 59-60, for a brief commentary on the obscure passage (35a1-6) in which the materials of the soul are discussed.

same time, the soul does not appear to be entirely incorporeal either, at least not by our modern, post-Cartesian lights.[115] The soul has a markedly spatial character, and as I think we see in the principle passage presented at the outset, the immortal psyche is in fact a sort of spatial network composed of two parts. The revolution of the Same, or what I will be referring to primarily as, "the revolution of intellect,"[116] is composed of one ring which in turn encompasses the seven rings of the revolution of the different, or as I prefer, "the revolutions of sense."

As far as our revolution of intellect is concerned, and going on what we know about the universe's immortal soul, we can say that at its best (or in line with our medical narrative, at its healthiest) intellect is a ring moving in the same way and in the same place (*tēi kata tauta kai en tautōi periagomenēi*: 36c2; and *en tautōi kata tauta*: 40a8). Motion in the same way, I take it, indicates that the revolution of intellect has a single speed and direction. Motion in the same place, on the other hand, describes, of course, the soul's position, but it also describes its shape and even its size.

Starting from motion in the same way, it should be reasonable to suggest that the revolution of intellect moves at a single speed—one revolution per day. I say this because, for Timaeus, the passing of one day is explained in terms of one revolution of the entire universe, and this motion is connected to that of intellect (39b2). Moreover, intellect turns in a single direction (36c6), and as Timaeus indicates, its direction is to the right, from east to west.

Things are much more complex, I think, when it comes to motion in the same place. With regard to position, the intellect of the universe does not move with respect to latitude or

[115] For a concise discussion of the incorporeality of the immortal soul, see D. Miller (1997): 182-3.

[116] I also refer to the revolution of the Same as "the revolution of intelligence," "the intellectual circuits," and in some cases merely as "intellect."

longitude[117] though simply because there is no space outside of the universe into which it could move. This absolutely stationary state does not apply to all intellectual beings, however. Consider, for instance, the heavenly gods that inhabit the universe's revolution of intelligence. While the motion of their intellects is described as motion in the same place, they nonetheless also have forward motion (40b). At least in an accidental sense, their intellects traverse latitude and longitude though I think without changing position within their own bodies in any way. If we look to our principle passage above, however, it appears that by contrast intellect in mortals may change positions within the head. As Timaeus indicates, it is not just the body that is moved but rather the entire living thing (*to…holon kineisthai zōon*: 43a7-b1), and I see this as a case in which the revolution of intellect changes its position because of Timaeus' further suggestion, later in the speech, that a living thing, as a whole, is a composite of body and soul (87e5-6).[118] Thus, in addition to body, it appears that the revolutions of soul, including that of intellect, are also moved in each of the six directions—forward, backward, right, left, upward, and downward (43b2-5). The soul's change in position is further reinforced by what Timaeus has to say at 47c3-4 where he speaks of our "wandering" (*peplanēmenas*) revolutions. Just as the "wanderers," the sun and the six other orbiting planets (38c5-6), are thought to wander because of the fact that they move through the heavens (the revolutions inhabited by the planets certainly do not wander),[119] we should also think that the revolutions of immortal soul wander to some degree through our heads.

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[117] I borrow the "latitude and longitude" language from Skemp (1947): 57.

[118] Compare Tracy (1976): 98, who makes a similar assertion.

[119] See Cornford (1937): 114.

Changes in position also seem to be closely tied to the soul's shape and perhaps even its size to the extent that motion in the same place can also be construed as motion "within the same limits."[120] Thus, technically speaking, the stationary revolution of a square will not qualify as motion in the same place on account of the fact that its extremities do not maintain a "solid of rotation" but rather trace out a jagged orbit the peaks and valleys of which do not at all comport with the actual shape of the square.[121] Thus, when the circular shape of our intellectual revolution is distorted, we should also think that like the square it has deviated from its position. Additionally, size seems relevant here not only for the simple reason that Timaeus suggests our immortal souls have a size (88a7-8) but also because shrinking or growing seems to be a change of position. I am thinking here of the way a ring in a ripple might be said to expand. So that when intellect increases in size do to frequent use, in some looser way, we should also consider it to be changing position.

Moving away from specific data about soul into more general comments made about motion itself, one might further describe revolution in the same place by appealing to Timaeus' general "law" of motion. The law states that rest (*stasis*) can only come about in a state of uniformity (*omalotēs*) (57e1-3). It should seem curious then that the revolution of intellect is also often referred to as uniform (*omoios*) (36d; 39b7; 39d6; 40b2; and 42c4-5) and thus by extension should be considered to be at rest. What we might conclude from this, however, is not that uniformity means something different when applied to intellect. Instead, I suggest that we understand rest to mean the absence of motion from place to place. Thus, rather than describing the ideal revolution of intellect in terms of the maintenance of position, as above, we should

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[120] Lee (1976): 74

[121] Op. Cit.: 75.

simply say that it is at rest or even better yet stationary (which I think amounts to a better translation of *stasis* in this case).[122]

I think it would be inappropriate, however, to use this law of motion also to explain the mere revolving of intellect because in the context of the law, intellect, possessed of uniformity, is not really moving at all. This has interesting consequences for self-motion, something that is of interest to the extent that the beating taken by immortal soul upon embodiment appears to interfere with the soul's claim to the title of self-moving thing (37b5).[123] What I mean is that calling intellect a self-mover might suggest a situation in which intellect is both the mover and moved, and the problem is, in short, that mover and moved simply do not make sense in the absence of motion, an absence of motion dictated by the characterization of motion given in the general law. Motion is motion from place to place, and as long as intellect is not moving from place to place but is instead stationary, mover and moved do not apply.

In any case, what does explain intellect's circling, I claim, is the demiurge. As Timaeus indicates, the demiurge sets intellect spinning, and apparently intellect will continue to spin for all time (34a3-4). On the other hand, as we see in our principle passage, mortal intellect ceases its circling at least for some stretch of time following the introduction of the immortal soul into the body. At the prodding of Timaeus' use of words like "bind" (*epedeō*) to describe the stoppage, however, I assume that the motion of mortal intellect is not something that needs to be restarted after the departure of what is binding or blocking it. Rather, the un-revolving intellect of the newborn is like a stationary car with the accelerator engaged and with the front fender of

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[122] See Lidell, Scott, Jones, and McKenzie (1996) who offer "stationariness" as a definition of *stasis*.

[123] See Cornford (1937): 149 n. 3, for the suggestion that self-motion is at stake.

the car pushing squarely on an obstructing barrier that if removed would release the car into forward motion. The consequences of this for being *emphrōn* will become clear below.

At this point, I do not want to give the impression that I have done away with Timaeus' claim that the soul is a self-moving thing,[124] however. But before I can move on to discuss the soul's self-motion in more detail, I need first to discuss briefly the revolutions of sense.

As already indicated, the revolutions of sense are seven circular revolving rings contained within and connected to the revolution of intellect (36c3-4). Because the two are connected, the revolutions of sense are moved in the direction that intellect moves. Nevertheless, the revolutions of sense, as Timaeus notes, move in addition not only in a direction opposite to that of intellect—to the left from west to east—but they also move more slowly. This slower speed is presented by Timaeus in contrast to intellect's ability to complete a full rotation in one day. For instance, the revolution of sense inhabited by the moon takes a month to complete and that of the sun an entire year. Accordingly, the speeds of each revolution of sense vary not only with respect to intellect but also with respect to one another (36d2-7).

In contrast to his description of intellect, Timaeus does not openly attribute motion in the same way and in the same place to the revolutions of sense and regardless of the fact that each of the revolutions maintains its own speed, direction, position, shape, and size.[125] On the other hand, it appears that, even though these revolutions are not intellect, Timaeus considers the revolutions of sense to be intelligent or *phronimos*, and he does at least by implication when he both refers comparatively to the revolution of intellect as "the wisest of the circular revolutions"

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[124] See Cornford (1937): 148 n. 1, for the similar assertion that the soul in its own right is a self-mover.

[125] See Op. Cit.: 114, for the idea that the sensory circuits themselves are in fact as unwandering as the revolution of intellect.

(39c2) and then follows this claim immediately with a "list" of sense revolutions which proceeds from fastest to slowest, the fastest below intellect being the moon and the next fastest being the sun, though Venus and Mercury move at the same speed as the sun and perhaps, accordingly, are equally as *phronimos* (more on this below).

In order to further explain the motion of the revolutions of sense, I suggest that just like with intellect, we appeal again to the demiurge who, as Timaeus suggests, is the one who sets these revolutions in motion (34a2-3; 36c2-3; and 36d4-5), and, as indicated above, I think this must apply equally to our own souls. Recall, however, that the revolutions of sense are moved by intellect, a control underscored by Timaeus in his claim that intellect rules over the revolutions of sense (36c7-d1). Further, its ruling is associated with the fact that the revolution of intellect is not divided (36d1-2). Intellect is one thing and accordingly rules like a monarch over the masses denoted by the seven divisions of the revolution of sense, and this scenario facilitates our return to the discussion of self-motion insofar as we can clearly see here the presence of the mover and moved.

According to Timaeus, motion takes place in a state of non-uniformity between mover and moved, and this non-uniformity is further spelled out in terms of inequality, or in the Greek, *anisotēs* (57e3-58a1). *Isotēs*, the root word negated in *anisotēs*, while certainly possessed of a quantitative sense, also carries with it a strong political connotation.[126] And although these specific words are not used, nonetheless, we see their political color at work in Timaeus' comments on the relationship between the universe's body and soul. For Timaeus, the former is to be ruled by the latter and for no other reason than it just seems obvious to him that the body, being younger, should be ruled by its elder, the soul. He cannot in the case of the soul alone,

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[126] See Lidell, Scott, Jones, and McKenzie (1996): "*isotēs*."

however, appeal to the inequality between young and old, and I take it that he cannot because there is no real sense in which the revolution of intellect is "born" before the seven revolutions it should, as a result, govern. Rather, Timaeus appeals instead to quantity, asserting that the revolution of intellect is one entity and the revolution of sense seven. Further, he elaborates on this inequality with reference to the fact that the revolution of intellect is wiser than the revolutions of sense, and the connection between ruling and this superlative, ranking language is reiterated and reinforced in our own case where because intellect is best (*beltiston*), it, at the very least, ought to rule (*hegemonein*) (70b8-c1). Thus, if we are to think, like Timaeus, that the immortal soul considered in itself is a self-moving thing, we should assert that it is such a thing to the extent that the revolution of intellect rules over the revolutions of sense and further that it does because in one way or another the inequality between them supports self-motion.

It is important to add that self-motion most certainly refers also to a relationship between immortal soul and the body it inhabits, and I say this on account of what Timaeus claims about plants. Plants lack the ability to move their bodies from place to place because of the fact that they lack immortal soul (77b6-c5). Thus, self-motion from the psycho-somatic and mortal point of view describes a complex relationship between the revolutions of intellect in the head, the circulatory system, the marrow, and, at least implicitly, what is most commonly referred to as "spirited soul," one of the two parts of mortal soul.[127]

Now I have gone into so much detail about the constitution and motive capacities of immortal soul because, as I suggested at the outset of this discussion, knowing about such things

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[127] Explaining the body at rest, which means ultimately explaining what uniformity between immortal soul and body amounts to, is a complicated and perhaps even an intractable matter that I do not think I need to consider here. For a concise attempt at addressing the issue, see D. Miller (1997): 183-4.

should help us to determine what our initial state of *emphrōn* entails. More precisely, as we will soon see, something happens when the growth of our body slows down that effects a kind of natural healing of immortal soul, and it is this natural healing that Timaeus claims results in being *emphrōn*. So what I have been hoping to chisel out thus far is an array of potential candidates for this healing. For instance, should we say that being *emphrōn* means that intellect has recovered its speed though not its size? Or that the revolutions of sense have recovered their circular shape but not their positions? Or, more generally speaking, that being *emphrōn* means that the immortal soul has achieved self-motion? Moreover, being able to answer these kinds of questions should also help us to know with some degree of precision what aspects of our immortal souls education is meant to correct. After all, recall that education starts from this *emphrōn* state. So as I move on to discuss body, I am also moving on to give, as far as possible, an account of the aspects of soul mangled by embodiment as well as an account of the lingering psychic casualties that, I assert, persist after our initial recovery, the latter representing the spatial elements upon which education will act.

### *3.2.2 The Troublesome Body in Brief and the Emphronic Immortal Soul*

In contrast to what we can say about soul that is relevant to understanding what it means to be *emphrōn*, I think there is really only one relevant thing to say about body. At its most fundamental, the mortal body is an entrance and an exit, something that receives inputs and returns outputs (42a4; 43a5-6; and 43b5-6). These inputs and outputs are those associated with nourishment and sensations and are, at least initially, the things that cause the most problems for immortal soul. They cause problems because, on the most general level, nourishment and sensations just like immortal soul are also spatial and motive. Before adding any more detail, however, let's make a return trip to a section from our principle passage above.

And they went to invest this body—into and out of which things were to flow—with the revolutions of the immortal soul. These revolutions, now bound within a mighty river, neither ruled over that river nor were ruled by it, but tossed it violently and were violently tossed by it…For great as the nourishment-bearing flood was in its ebb and flow, greater still was the turbulence produced by the disturbances caused by the things that struck against their bodies. Such disturbances would occur when the body encountered and collided with external fire (i.e. fire other than the body's own) or for that matter with a hard lump of earth or with the flow of gliding waters, or when it was caught up by a surge of air-driven winds. The motions produced by all these encounters would then be conducted through the body to the soul, and strike against it…It was just then, at that very instant, that they produced a very long and intense commotion. They cooperated within the continually flowing channel to stir and violently shake the revolutions of the soul. They completely bound that of the Same [the revolution of intellect] by flowing against it in the opposite direction, and held it back in its ruling and going. And they further shook the revolution of the Different [the revolutions of sense] right through, with the result that they twisted every which way the three intervals of the double and the three of the triple, as well as the middle terms of the rations of 3/2, 4/3, and 9/8 that connect them. These agitations did not undo them, however, because they cannot be completely undone except by the one who had bound them together. They mutilated and disfigured the circles in every possible way so that the circles barely held together and though they remained in motion, they moved without rhyme or reason, sometimes in the opposite direction, sometimes sideways, and sometimes upside down—like a man upside down, head propped against the ground and holding his feet up against something. In that position

> his right side will present itself both to him and to those looking at him as left, and his left side as right. It is this very thing—and others like it—that had such a dramatic effect upon the revolutions. Whenever they encounter something outside them characterizable as same or different, they will speak of it as "the same as" something, or as "different from" something else when the truth is just the opposite, so proving themselves to be misled and unintelligent. Also at this time, not one revolution among them is ruling or taking the lead.

Timaeus describes our nourishment as if it were a strong river which rushes through the channels of the body and which not only rattles the body itself but crashes into the immortal soul. And while this violent flood of food is certainly at odds with all our psychic revolutions, what is emphasized by Timaeus when it comes to the distortion of these revolutions is sense-perception. Timaeus has nothing to say specifically about the revolution of intellect apart from mention of the fact that the violent bombardment intellect experiences brings it to a halt, or more specifically holds it back in its "ruling and going" (*archousan kai iousan*), and this near silence about intellect acts as the driving force behind my interpretation of our initial state of *emphrōn*.

First, notice that Timaeus is appealing to the various rings of the revolution of sense when he speaks of the circles in the plural maintaining their circling. It seems apparent that he is referring only to the multiple revolutions of sense because, as we just saw, intellect's circling has been entirely frozen.[128] So are we to think that what we have here is a healing narrative solely applicable to the revolutions of sense? It is certainly tempting to think so.

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[128] *Pace* Reydams-Schils (1997): 263, who claims that "the two revolutions of Same [intellect] and Other [sense]" are "still…running."

Consider the chain of “they-s” and “them-s” in the above passage. Timaeus is talking about the circling of the revolutions of sense and continues: “they cannot be completely undone”; “they remain in motion”; “It is this very thing…that had such a dramatic effect on the revolutions”; “they encounter something outside of them”; and “not one revolution among them is ruling or taking the lead.” Intellect, it appears, is nowhere to be found. On the other hand, it may be suggested that Timaeus restarts the chain of they-s and them-s when he refers to what “had such a dramatic effect upon the revolutions.” By bringing in language like “the revolutions” as well as the accompanying general claim about them, it is as if Timaeus has now returned to talking about the whole immortal psyche, both sense and intellect. So when he states shortly thereafter that “not one revolution among them is ruling or taking the lead,” we should perhaps resist the thought that one of the sensory revolutions will eventually take the lead and begin reporting accurately on the external world. Rather, we should think instead that intellect is not ruling and moreover that its ruling is at stake here.

What Timaeus says immediately following, however, should make this intellect-inclusive reading strange. He claims that “they encounter something outside of them” and that “they…speak of it [.]” If intellect is neither ruling nor moving, it would be odd to include it in this particularly active context of encountering and declaring. In fact, if we take the immortal soul of the universe as a guide, what appears to be integral to making declarations at all is the actual revolving of the soul (37b3-c3). So again, if intellect is not moving, it cannot be making any declarations.

A further reason to entertain the idea that Timaeaus is thinking only of the sensory circuits is the emphasis he places on the sensible world: “the external fire…the hard lump of earth…the flow of gliding waters…the surge of air-driven winds.” In short, these are the objects

apprehended by the revolutions of sense. And appealing once more to the universe for guidance, it seems that these revolutions are not only the proper bards of the sensible world, but also do a fine job of reporting on what they find there without the help of the revolution of intellect. On their own, spinning straight (*orthos*), they produce firm and true beliefs (37b6-8). Therefore, part of lacking a leader means not lacking the rule of intellect, but rather it seems lacking any "straight" revolution.

Timaeus continues: "and so when certain sensations come in from the outside and attack them, they sweep the soul's entire vessel along with them. It is then that they, though appearing to rule, are actually ruled." Here we might suggest again that when Timaeus claims that the sensations attack "them," he is still referring to the revolutions of sense as he also is when he refers to "they." In other words, just because sensations sweep the soul's entire vessel along with them, we should perhaps not think, as a result, that all of a sudden Timaeus means to turn our attention to the revolution of intellect. At the same time, this seems to me to be a more reasonable place to assert that Timaeus is restarting the chain of they-s and them-s, and in speaking of "the soul's entire vessel," he is now speaking of both intellect and sense.[129] If we follow this through, however, I think we will run into trouble. Consider what Timaeus says next:

> All these disturbances are no doubt the reason why even today and not only at the beginning, whenever a soul is bound within a mortal body, it is at first unintelligent. But as the stream that brings growth and nourishment diminishes and the revolutions [both intellect and sense] regain their composure, resume their proper courses, and establish themselves more and more with the passage of time, the revolutions are set straight,

[129] Compare Cornford (1937): 149 n. 4, who takes the whole vessel to refer to both the revolutions of the immortal soul and the body.

> conforming to the configuration each of the circles takes in its natural course. They then correctly identify what is the same and what is different, and render *emphrōn* the person who possesses them. And if this state be reinforced by the right program of educational training, he'll turn out perfectly whole and healthy and will have escaped the greatest disease.

What I am in the midst of developing is the claim that education, at least in its pre-philosophical phase, aims to repair our broken intellects. Accordingly, the reason I am reluctant to include intellect in the recovery of the revolutions described above is that doing so runs the risk of leaving education with no work to do. If intellect heals naturally upon the cessation of the rapid rate of our physical development, what need would there be for learning anything?

I am not merely operating under the pressure of my own argument here, however. There are certainly prominent reasons to think that intellect has not been fully healed in this initial state of being *emphrōn*. Consider what Timaeus has to say about astronomy. He suggests that we study the unwandering, heavenly circling of intellect for the sake of correcting our own flawed intellectual revolutions (47b5-c4 and 90c6-d7). If our noetic revolutions have already been healed naturally, however, what need would there be for correcting them? What need would there be for astronomy?

My main point here is that we should be cautious when ascribing recovery to intellect at this early stage. Nonetheless, I am also hesitant to think that only the revolutions of sense have recovered, that in this first case of being *emphrōn* our intellects are still utterly in shambles, and I am hesitant for the following reasons.

First of all, sensations in conjunction with the flood of food have an immediate impact on the revolution of intellect. Timaeus explicitly says so himself:

> That is no doubt why these motions as a group came afterward to be called "sensations," as they are still called today. Moreover, it was just then, at that very instant, that they [sensations] produced a very long and intense commotion. They cooperated with the continually flowing channel to stir and violently shake the revolutions of the soul. They completely bound that of the Same [the revolution of intellect] by flowing against it in the opposite direction…

What we see here is that sensations are the true culprit of the cessation of intellect's circling. It does not appear, however, that they are culpable because of anything about sensations *per se*. Rather, the problem seems to be caused by their presence in the veins and thus in the midst of the torrential stream of nourishment that rushes through the body. In infancy especially, the aggressive rate of growth is a primary factor in this disruption in the sense that growing at such a pace means that there is much more food in the veins at all times (81b4-5). In other words, there is more food entering the body than leaving it and a great force is created by this voluminous presence causing sensations to act equally forcefully on the revolutions of immortal soul and more specifically in this case on the revolution of intellect. And, as we saw above, when the amount of food in the veins is reduced on account of the equally reduced rate of growth, one becomes *emphrōn*. Thus, to the extent that being *emphrōn* is a result of the cessation of the violent flood of sensations and food that binds intellect in the first place, it should be reasonable to think that, when the flood subsides, intellect could, at the very least, begin turning again (recall the car analogy above).

I am also hesitant to the extent that I trust the judgment of commentators who will undoubtedly be skeptical about the claim implicit in the suggestion that only the sensory revolutions have been healed, namely the claim that the external, sensible world can be reported

accurately without the assistance of intellect. I think it is important first, however, to emphasize what I am not addressing here. The issue does not concern the mere possibility of sense-perception. In our principle passage above, we see that the revolutions of sense do not stop reporting on the external world just because intellect is indisposed.[130] Rather, they continue to announce what strikes them. What they fail to do is make correct announcements. Thus, I am presently concerned with the ability of the revolutions of sense to offer a veridical picture of the sensible realm without the aid of intellect. Second, what I am grappling with here is the relationship between the rational and sensitive capacities of immortal soul alone. Alternatively, much of the literature on sense-perception in the *Timaeus* focuses on the relationship between mortal soul and "rational soul," rational soul being an appellation that blends both of our immortal revolutions, in some sense, indiscriminately.[131] By contrast, I ignore mortal soul, and I do because Timaeus himself does not appear to have it in mind. The further contrast is that rather than thinking in the more vague terms of the rational soul, I mean instead to understand the relationship between its components and pinpoint the role of each in sense-perception. Accordingly, in speaking of skeptical commentators, I am thinking in particular of those like Johansen who claim that the circuits of sense go amiss because they lack the "regulating influence" of the revolution of intellect.[132]

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[130] See Timaeus' similar assertion about sense-perception's continued operation in bouts of madness at 86c2-3.

[131] For appeals to rational soul, see Brisson (1999): 160 and 162; Silverman (1990): 151; and Ganson (2005): 9.

[132] Johansen (2004): 144.

For the sake of assessing Johansen's claim and the implications it has for being *emphrōn*, I return to the suggestion made above concerning the independence of the sensory revolutions. For Timaeus, the foundation of veridical sense-perception consists in the material out of which the revolutions of sense are made, the proportionate structure of these revolutions, and their circular motion, and what we see in the story of our embodiment are the literal consequences of damage to the latter two components. The intervals and the bonding ratios of particular circuits are utterly deformed (though not changed—they are merely twisted) and the disparate circles move in a direction opposite to that which is proper as well as being upside down while doing so (43e3-4). The result of these deformities are not just merely incorrect judgments, however. Instead of just getting things wrong, the opposite and upside down revolutions report the world in an equally opposite fashion, the analogue of which is someone standing on his head claiming incorrectly that things on his left are on his right (43e4-8). Accordingly, the problem is more precisely that the revolutions of sense make pronouncements that are the exact opposite of what is the case, and it appears that they do because they are literally upside down and running in the reverse direction of that which is proper. So if the natural recuperation of the sensory revolutions entails that, upon healing, they are right-side up and rotating in the appropriate direction, why would Johansen go further to claim that their recuperation also involves the return of the regulation of intellect?

When speaking of the immortal soul of the universe earlier in his speech, Timaeus' assertions about the composition and motions of the revolutions are accompanied by the claim that the sensory circuits report their findings to intellect and/or vice versa, and Johansen assumes that this communication assists in the process of sense-perception.[133] I think, however, that the

[133] Op. Cit.: 172

passage is too vague to support this contention. There is nothing precise enough in Timaeus' claim about the intercourse between the two to suggest what the purpose, result, or content of this psychic sharing is. The only thing Timaeus says is that the affections are communicated to the whole soul (*legei kinoumenē dia pasēs eautēs*: 37a6-7).

More generally speaking, if we decide, contra the implications of Johansen's account, that only the revolutions of sense are healed in our initial emphronic state, we may also be coming face to face with the consequences of denying that sense-perception requires concepts. Take Brisson, for instance, who asserts that the "rational part of the soul" must be involved in human sensing (as opposed to the a-rational sense-perception we find in plants) because knowledge of the Forms must be involved. For Brisson, sense-perception is holistic, including not just the affections (*pathēmata*) received from the external world but also the final delineation of these affections by concepts such as "red" or "hot," names he maintains are derived from *anamnesis* or recollection, "an activity that allows thinking and naming to take place."[134] As already indicated, what is unclear about appeals like Brisson's to "the rational part of the soul" is whether or not he intends to designate merely the revolution of intellect, or just sense, or both. While I seriously doubt that he means to isolate the sensory capacities of immortal soul, it seems to me that one holding to the imperative involvement of concepts in sense-perception might reasonably claim, at least in part, that the revolutions of sense are in fact capable of the

[134] Brisson (1999): 162: sense-perception indicates "the process as a whole." Contrast Brisson's process account with Silverman (1990) who offers an affection exclusive account claiming that sense-perception, properly construed, involves only mortal soul. In other words, whatever further psychic processing our sensations undergo after reception by mortal soul should not be included in the activity of sense-perception *per se*.

conceptual without the aid of intellect. Consider the positions of Proclus and more recently Cornford who suggest that the materials of which the immortal soul is made allow it to interact with both Being and Becoming, what we might call, "the like knows like doctrine."[135] Now certainly not only intellect but also the sensory revolutions are made of such materials. So if concepts have an exclusive connection to Being or the Forms and access to concepts is an imperative of sense-perception, we should think that the revolutions of sense are equally as capable as intellect in accessing concepts and simply in virtue of the materials of which they are made. Given their "rational" capacity, we might also think that the sensory circuits are a candidate for acting as the agent of intelligence that serves as the terminus of our sensations, *to phronimon* (64b3-6), as Lautner believes,[136] and there are certainly reasons to think he is on the right track. Recall that, at least by implication, the heavenly revolutions of sense inhabited by the Sun and the other "wanderers" are *phronimos* or intelligent. Further, what makes psychic revolutions (specifically the rings rather than the planets or stars attached to the rings) intelligent

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[135] Proclus: 298, and Cornford (1937): 94.

[136] Lautner (2005): 244. For an extended discussion of the nature of *to phronimon*, see O'Brien (1984): 140 and 140 n. 33, who claims that it is the "seat of consciousness" (for a similar assertion see, Burnyeat (1976): 49) as well as "a part or function of the mortal soul" (O'Brien (1997) is a later echo of these claims). For a contrasting take, see Brisson (1997): 313-15, who disagrees with both of O'Brien's contentions, problematizing his claim about *to phronimon* being the seat of consciousness and further claiming that *to phronimon* should be equated with rational soul. Lautner continues the conversation with the suggestion that *to phronimon* may describe the revolutions of sense. For the most recent extension of the discussion, see Carpenter (2010) who incorporates elements of both O'Brien's and Brisson's accounts.

in the first place is the simple fact that they move unfalteringly in the same spot, and this is something that should technically apply not only to intellect's coursing but to the sense orbits as well. Additionally, and this is in some sense more speculative, identifying the revolutions of sense with *to phronimon* would be especially helpful in the case that our initial state of being *emphron* may entail, on the one hand, the total absence of intellect's involvement though on the other the presence of accurate sense-perception. In fact, it would work out quite nicely if the demiurge, knowing the effects of the tumultuousness of embodiment on the revolutions of intellect (and he and his progeny certainly are able to see into the future in this way), engineered some safeguard in the revolutions of sense that would enable us to report accurately enough that we could make it to astronomy and thus start work on healing our intellects. And what I am trying to suggest with the like knows like doctrine is that such a safeguard could be present, in part, in the very make-up of the revolutions of sense.

At this point, however, we should wonder about the degree of independence I have just allotted to the sensory circuits. In fact, the following question immediately comes to mind: if the revolutions of sense are so capable on their own, what need is there in the bigger picture for intellect at all? In my assessment, we have arrived at this question mostly because of our construal of the like knows like doctrine. In more precise terms than the above, the immortal soul is capable of "knowing" both the realm of Being and Becoming because it is an intermediate form of the two which in turn amounts to being like the two, and in the present case this intermediate form is a product specifically of the materials out of which the immortal soul is made. Taking the like knows like doctrine in this material way, however, risks the uselessness of intellect. In this case, there seems to be nothing it can do that the revolutions of sense cannot also do. Accordingly, I suggest thinking instead in terms of the indivisible and divisible. The

undivided intellectual revolution knows indivisible Being, and the revolution of sense which the god divided into seven disparate circuits knows divisible Becoming. And fusing this construal with the spirit of Johansen's regulating intellect, we get something like the following picture which I think should be preferred.

First, let me make it clear that the crisis of embodiment does not affect the materials out of which immortal soul is made. What is at stake, broadly speaking, is motion. Recall that intellect has been frozen and is not moving at all and the revolutions of sense are rotating upside down and in the reverse direction from what is proper. Thus, on the one hand, being *emphrōn* means that the revolutions of sense must be right-side up, untwisted, and moving in the proper direction. On the other hand, intellect must be moving too. I am reluctant, however, to claim that intellect's motion transmits concepts relevant to sense-perception. Again, for Timaeus, the revolutions of sense when spinning straight report the divisible world of Becoming correctly by themselves. Thus, I conclude that the regulating motion of intellect, at this stage, acts like nothing more than a coordinating entity that herds the revolvings of the sensory circuits. In sum, being *emphrōn* spells, at the very least, the return of the self-moving soul in which the mere motion of intellect controls the motions of the revolutions of sense, and with this return comes accurate sense-perception.

Additional reasons for settling on this characterization include, first, the fact that Timaeus himself aligns self-motion with being *emphrōn* when he implicitly connects self-moving things with causes of an emphronic nature (*ton de nou and epistēmēs erastēn anagkē tas tēs emphronos phuseōs aitias prōtas metadiōkein, hosai de hup' allōn men kinoumnenōn hetera d' ex anagkēs kinountōn gignontai, deuteras*: 46d7-e2).[137] Second, granting intellect even this minor amount of

[137] See Cornford (1937): 162, for the idea that self-moving soul is to be linked with intelligent cause.

control helps us to avoid the awkward conclusion we were flirting with above—i.e. one of the sensory revolutions has taken the lead when faithful sense-perception finds its footing in us. Instead, intellect has established its rule but only in the mundane way it rules in every self-moving thing. In other words, this is not at all the kind of ruling Timaeus means to indicate when he speaks of intellectual rule as indicative of the philosopher.

I also add that both the revolutions of sense and intellect appear to have settled down as the word *galēnē* indicates (*hai periphorai lambanomai galēnēs*: 44b2-3). At its most literal, the word suggests a calm sea at rest, and I take this as an indication that our immortal soul is no longer moving from place to place. Instead, it is standing still and accordingly is already unwandering in some sense.

In the end, having completed the chiseling project mentioned above, I suggest that the spatial characteristics of immortal soul in this initial state of *emphrōn* are as follows. The revolutions of sense have healed enough to report the external world correctly though some additional healing of their speed is perhaps to come. Intellect, on the other hand, has regained motion in the proper direction. What remains to be healed are its speed and shape.

*3.2.3 Final Thoughts on Emphrōn: Its Translation and What It Represents*

Let's return momentarily to our other motivating concerns—the translation of the word *emphrōn* and the state of affairs it is meant to describe. Recall the suggestion that my own position is a compromise between two possible interpretations stemming from the accompanying word *gignomenon* in the following passage: *emphrona ton echonta autas gignomenon apotelousin*. On the one hand, we could think Timaeus is suggesting that our initial recovery from the trauma of incarnation represents a completed change of state to being *emphrōn*, and in a significant sense, I have been assuming this interpretation throughout most of the above. On the

other hand, *gignomenon* also carries with it a sense of futurity, and it is also possible that our initial recuperation is just a stage on the way to later becoming *emphrōn*.

The compromise I am suggesting involves recognizing the senses in which both interpretations are correct, and the upshot of the compromise is a better understanding, I hope, of how we should translate the word in the context of the *Timaeus*. The sense in which the first interpretation is correct draws on Timaeus' claim that self-moving cause is emphronic, and as I have just argued, in the context of our initial convalescence, self-motion has been achieved. What this means is that rotating intellect is managing the motions of the revolutions of sense, as Timaeus indicates when he describes the soul of the universe as self-moving, and the completed change to this state can, accordingly, be described as *emphrōn*. The sense in which the second interpretation is correct exploits the fact that the universe itself is said to be *emphrōn*. Insofar as one of the aspiring philosopher's goals is to mold his own intellect after the universal soul and further that this molding has not taken place in our initial and natural recovery from embodiment, it should be reasonable to suggest that being emphronic like the universe is something yet to come.

In both cases, I think the translation "intelligent" is to be preferred as long as we keep in mind what intelligence means at each phase in the progression. By emphasizing this developmental point, I intend primarily to counteract the implication that the work of education has already been accomplished naturally. Lastly, as may already be apparent from the previous chapter, I suggest that we steer clear of translations like "sane." There is no sufficient indication that madness is at issue. Again, mortal soul is a major player in madness, and Timaeus does not invoke it as a character in the story of our embodiment.

**3.3 The Existence of Intellect and the Possibility of Education: A Short Digression from the Quasi-Physical, Literal Account**

Having established that education begins from being *emphrōn* which means from properly functioning revolutions of sense and a merely rotating intellect, we can now move on to what I consider to be education's first stage—the acceptance of or belief in the existence of intellect, not only in ourselves, I imagine, but also in the universe and perhaps even in the creator of the universe.

Above all, I include this stage because Timaeus himself seems at some pains to present and dismantle a picture of an unsavory character that does not believe in intellect, and moreover, someone Timaeus suggests we should not be, someone who is even punished (denied happiness) precisely because of his failure to believe and who I think, accordingly, acts as a motivation to enlist in the precise intellect-centered educational program espoused by Timaeus. For lack of a better name, let's call this unsavory character, "the materialist." The materialist makes appearances over the course of the argument for intellect as cause (46c7-e6), in the brief argument for the forms (51d3-e6), and in the concluding remarks on the punitive significance of the variety of reincarnations (91d6-e1). In each case, it is important to notice that Timaeus criticizes specifically the materialist's beliefs (*dochazetai de hupo tōn pleistōn*: 46d1; *phainetai tisi*: 51d6; and *hēgoumenōn*: 91d8, respectively).

The materialist first appears as someone who fails to distinguish between cause (*aitia*), which Timaeus aligns with intellect, and auxiliary cause (*sunaitia* or *summetaitia*) which is connected to sensible entities like the elements. In fact, the materialist has a kind of tunnel vision for the latter and fails to believe that there is any cause above and beyond those that can be sensed. Because he does, however, he also fails to explain the beauty of the universe.

Generally speaking, his explanatory failure is enough for Timaeus' refutation of him, the upshot of interest being contained in the following claim: if the universe is beautiful, intellect exists and if for no other reason than the universe's beauty requires it. It cannot be made beautiful by sensible auxiliary causes alone nor, I take it, by a creator only possessed of sense-perception.[138] There has to be something more.

The materialist next appears in Timaeus' argument for the existence of the Forms which, in short, says that the Forms' existence can be established if it can also be shown that understanding, the product of the revolution of intellect, and true opinion, the product of the revolutions of sense, are actually distinct entities. The materialist does not seem to recognize a difference between the two products and, accordingly, is implicated in the belief that only true opinion exists and consequently in the belief that there is no other faculty above and beyond sense-perception.

Timaeus refutes this view by comparing the different origins and characters of understanding and true opinion.[139] Concerning their origins, understanding is produced via intellect through teaching, while true opinion comes from persuasion. Concerning their characters, understanding is unaffected by persuasion, always in the company of a true account, and rare among men. True opinion, to the contrary, not only comes from persuasion, but can be

[138] Compare Broadie (2012): 27-38, and her fascination with the thought that the demiurge might have used a sensible rather than an intellectual model for the universe. What I see on the margins of her discussion is the puzzling picture of a godly version of the materialist.

[139] For a few general overviews of Platonic epistemology, see Cornford (1957), White (1976), and Fine (2003).

changed by it as well. Moreover, true opinion is always without an account and is possessed by all men. Thus, the consequence of interest to us—because the two are different, intellect exists.

Holding sense-exclusive views is, according to Timaeus, grounds for punishment, and again the materialist, or more precisely in this instance, the *meteōrologikos* is the prime example. Because the *meteōrologikos* believes that sight offers the most solid proof or exhibition of the meteorological subject matter he studies, he is reincarnated as a bird rather than being returned to his original psychic condition and home in his kindred star which is what would have happened if he had instead appealed to his intellect. He is not even really wicked, however, which I assume means he did not physically harm others nor do anything similar. Again, his only failure, which is still a big failure, is his evil sense-exclusive point of view.

In the end, the materialist's position seems to be something as problematic as the body and in some senses even much more problematic. In fact, the materialist looks to be a distracting representative of an alternative intellectual movement luring souls away from the proper path. And, for Timaeus, this allure is most succinctly captured in the sense-exclusive point of view, a point of view as capable as the body and mortal soul of keeping immortal souls from tending to or searching for intellect on any level.

This kind of general call to believe in intellect, however, appears to be only part of the story. If we follow Broadie, what we should see in addition is the more precise belief, whether implied or otherwise, in intellects that exist individually at every level of the spectrum and most relevantly in each mortal living thing. In fact, as far as Broadie is concerned, the idea of intellects that are not only quantitatively distinct from one another but also quantitatively distinct from the cosmic intellect is one of Plato's greatest innovations in the field of cosmology.[140]

[140] Broadie (2012): 94-5 and 99. Also see 20-1.

More precisely, it is so important because it ushers in the notion of cosmically free moral agents responsible for their own behavior, and as we saw above, agents that can be turned into birds for failing to believe the right thing.[141]

This notion of morally responsible intellects is brought to bear on the very possibility of education itself by commentators like Jaeger and Scolnicov. For Jaeger, the famous myth of Er found in *Republic* Book X is a prime example. Among other things, the myth presents a picture of reincarnation in which the souls of the deceased are able to choose the nature of their next lives, and in this free choice, Jaeger sees the fundamental ground and possibility of education. Further, it seems that this notion of moral responsibility is one that Plato's predecessors had not taken seriously given their commitment to the idea that the gods are responsible, at least in part, for the wickedness in human lives. This conception of the gods, however, is one that, according to Jaeger, Plato intends to correct with his emphasis on choice of life in the myth of Er.[142]

Transferring this spirit to the *Timaeus* would mean, I take it, asserting that humans are capable of escaping wickedness because being morally responsible also means being, in some sense, left alone by the gods. Certainly, the gods of the *Timaeus* are morally aloof (*anaitios*: 42d4) from the affairs of humans, and accordingly it should be a certainty that escaping wickedness—which is just a negative way of stating the goal of education—is a possibility. Scolnicov also sees the issue more or less in terms of the same kind of escape though, for him, the wickedness we are escaping more precisely is the indeterminacy of the corporeal, of necessity.[143] Our freedom from the corporeal, and thus the foundation of our agency and

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[141] Op. Cit.: 101-104.

[142] Jaeger (1943): 368-70.

[143] Scolnicov (1997): 370.

education, is the possibility of persuading the corporeal to participate in the determinacy of the intelligible, something that amounts more pointedly to an escape from injustice and an escape to true justice through the educational healing of the revolution of intellect. And though, technically, we are capable of achieving such things, Scolnicov lacks confidence in the fact that we will.[144]

I am certainly sympathetic to Scolnicov's pessimism here. In fact, at times Timaeus himself seems pessimistic or at least humble in the face of our formidable healing project and even to the point of seeming ambivalent about our freedom to complete or even get started on such a project. In one sense, when we fail to heal our intellects, it would appear that our diseased bodies and our equally "diseased" cities are to blame (86a7-b9). As Carone emphasizes, however, Timaeus is not relieving us of responsibility here but rather pointing to a kind of shared responsibility. While it is true that the city, our caretaker, is to be blamed "more" than those under its care,[145] we are nevertheless still responsible for our escape from wickedness, a responsibility cashed out in terms of the imperative engagement of intellectual pursuits.[146]

Thus, in sum, we might think that Timaeus is motivating a belief in the existence of intellect and that he does so in three ways. First, Timaeus attempts to persuade us of intellect's existence through arguments, and his defense of the existence of the forms as well as the argument for the two kinds of causes are instances of this attempt. Secondly, these arguments appear to be aimed at an unsavory character, the materialist, who as we see in the specific case of the *meteōrologikos*, will be punished for his failure to believe. Moreover, the materialist's

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[144] Op. Cit.: 374.

[145] Carone (2005): 60.

[146] *Pace* Gill (2000): 59, who operates under the assumption that Timaeus is relieving us of responsibility.

punishment acts, in some sense, as a further "argument" meant to lead to a belief—believe in intellect and be rewarded, fail to believe, and be punished. Finally, it seems that the moral context of such punishment includes a more precise belief in the individuality of intellect, an individuality that provides the freedom and responsibility that mark the very possibility of education itself. Therefore, at the deepest level, it is not so much our belief in intellect that produces the possibility of rigorous engagement in Timaeus' educational program but rather Timaeus' own belief in or mere positing of the existence of individual and thus free and morally responsible intellects. After all, it appears that if intellect is not free to do as it wills, there can be no true education.

### 3.4 "Harmonies and Revolutions" Part 1: Preparing the Way for Healing the Speed and Shape of Intellect

In contrast to the implicitly stated nature of the second stage, we have the final pre-philosophical stage which is a component of the most explicitly stated (though not so explicitly articulated) of all the educational stages—the investigation of the harmonies and revolutions of the universe. More precisely, the final pre-philosophical stage acts as the first half of a two part investigation of these harmonies and revolutions, the second half marking the premier philosophical stage.

In the first half of this investigation and thus in the final pre-philosophical stage, we are, in essence, merely observing the heavens and collecting astronomical data, and I posit such an observation and collection phase for two reasons. On the one hand, I am working backwards from how I conceive of the first philosophical stage. In short, the initial philosophical stage involves a sort of mathematical synthesizing in which one makes calculations about the entire set of relevant astronomical data. In other words, the project is not to become an expert merely on

the phases of the moon or the strange retrograde motions of the planets. The object is rather to address the entirety of celestial motions, and in order to do this, I assume that all the pieces must, in some sense, first be in place. I am not sure that this means, however, that each of us must go through the process of collecting all these pieces from scratch, so to speak. If we were meant to do so, the data collection phase would take at least thirty years given Saturn's somewhat lengthy orbit. In any event, whether we discover the data for ourselves or simply collect it from our predecessors (and I do not think we can decide between the two), the point is that we must first have all of it in place in order to make the kinds of calculations Timaeus requires us to make.

On the other hand, in positing a data collection stage I am following the work of Dicks and Vlastos. In short, both interpreters see a division in Plato between observational and mathematical astronomy.[147] In particular, they suggest, as I have just done, that the products of observation are the prerequisites to the more rigorous pursuit of mathematical calculations concerning these products, or as Vlastos puts it—the "purely empirical astronomer" has only "learned what it is necessary to learn before astronomy" without having actually "learned astronomy" which again is a mathematical pursuit.[148] Thus, in discussing this final pre-philosophical stage, I mean to draw out exactly what we are getting from our observations so that I can, in turn, talk in detail in the next chapter about the further mathematical synthesis that constitutes the first philosophical stage.

In particular, then, we will want to know what Timaeus means when he speaks of harmonies and revolutions, and I single out these two items on account of the following passage.

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[147] Dicks (1970): 108, and Vlastos (1980): 8, 12, and 14.

[148] Vlastos (1980): 10.

> Now there is but one way to care for anything, and that is to provide for it the nourishment and the motions that are proper to it. And the motions that have an affinity to the divine part within us are the intellections and revolutions of the universe. These, surely, are the ones that each of us should follow. We should correct the revolutions in our heads that were thrown off course around the time of our birth, by coming to learn the harmonies and revolutions of the universe, and so make thought like the object of thought, as it was in its original condition. (90c6-d5: tr. Zeyl with modifications)

Now I suggest that the above is actually indicative of the first philosophical stage, which involves learning or, more specifically, actually adopting in one's own intellect the spatial characteristics found in the heavenly revolution of intelligence. Nonetheless, what I am claiming about the final pre-philosophical stage is that it involves collecting together some amount of information on universal harmonies and revolutions because ultimately the learning that effects the healing of our intellects is a matter of mathematically synthesizing all such data. So what are these harmonies and revolutions, and what sort of information are we supposed to collect about them?

Starting from harmonies, I think it is important to note first that Timaeus considers the universe itself to be harmonious (36e6-37a1) though this, it seems, can mean two things. First, harmony can refer to the extremely complex and arcane way the soul of the universe itself fits together, an organization described by Timaeus in terms of proportions.

> And he [the demiurge] took the three mixtures and mixed them together to make a uniform mixture, forcing the Different, which was hard to mix, into conformity with the Same. Now when he had mixed these two together with Being, and from the three had made a single mixture, he divided the whole mixture again into as many parts as his task

> required, each part remaining a mixture of the Same, the Different, and of Being. This is how he began the division: First he took one portion away from the whole, and then he took another, twice as large, followed by a third, one and a half times as large as the second and three times as large as the first. The fourth portion he took was twice as large as the second, the fifth three times as large as the third, the sixth eight times as large as the first, and the seventh twenty-seven times that of the first.
>
> After this he went on to fill the double and triple intervals by cutting off still more portions from the mixture and placing these between them, in such a way that in each interval there were two middle terms, one exceeding the first extreme by the same fraction of the extremes by which it was exceeded by the second, and the other exceeding the first extreme by a number equal to that by which it was exceeded by the second. These connections produced intervals of 3/2, 4/3, and 9/8 within the previous intervals. He then proceeded to fill all the 4/3 intervals with the 9/8 interval, leaving a small portion over every time. The terms of this interval of the portion left over made a numerical ratio of 256/243. And so it was that the mixture, from which he had cut off these portions, was eventually completely used up. (35a6-36b6: tr. Zeyl)

In short, the portions the demiurge "takes away" or "cuts off" are to be thought of as musical notes and the intervals between them as indicative of where these notes fall on the staff, as it were.[149] The relevant psychic harmonies, in turn, are to be construed accordingly. I do not, however, pursue this angle on the harmony of the world soul further because it does not seem to me that there are any astronomical observations that could put us in touch with this kind of information. Moreover, to the extent that our own souls retain the kind of proportions expressed

[149] See Cornford (1937): 66-72, and Handschin (1950). Also, see Plutarch, 1027b ff.

above even in the face of the distortions caused by our embodiment (43d3-7), there is really nothing that learning such proportions would do to fix our immortal souls and thus no reason at this point to study them.[150]

The second sense, then, in which we might think the universe is harmonious, and accordingly the one I take up, is derived ultimately from what Timaeus tells us explicitly about harmony (80a3-b8). In short, harmony is a mixture of high and low tones. Further, the highness and lowness of the tones is a product of their speed though these individual speeds are not the only velocities to consider. In addition, the tones themselves are moving through space and just as if one group of them, specifically the slower tones, were chasing the faster ones and in the end overtaking them (*katalambanousi katalambanontes*: 80b1-2). In fact, this "overtaking" is, in essence, what produces harmony.

Not surprisingly, we see an analogous thing happening with the universe itself though, in particular, with regard to its revolutions, and it seems that a parallel sort of overtaking is afoot. Consider the following passage.

> Indeed, because of the movement of the Same [the heavenly revolution of intelligence], the planets that go around most quickly appeared to be overtaken by those going more slowly, even though in fact they were overtaking them (*tē dē tautou phorai ta tachista periionta hupo tōn braduteron iontōn ephaineto katalambanonta katalambanesthai*). (39a4-5: tr. Zeyl)

All the same factors are present. There are fast and slow speeds, and the slower speeds are overtaking the faster ones just as we saw in the case above. The further assumption, of course, is

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[150] Compare Cornford (1937): 66, who asserts to the contrary that "the World-Soul must contain the harmonious order which individual souls ought to learn and reproduce in themselves."

that the various motions of the orbiting planets and even the universe itself are generating sounds and moreover that these sounds reflect the speeds which produce them. This assumption, however, is contained, I suggest, in the very claim that the universe is itself harmonious. In any event, in the end it appears that collecting data about the harmonies of the universe is essentially the same thing as collecting data about the speeds of the celestial revolutions.

The further thing to note about these speeds is their association with what Timaeus calls, "the numbers of time," and each orbiting planet as well as the revolving universe itself represents one of these numbers (38c5-6). In fact, observing these celestial motions is how we discover number in the first place, learning initially from the heavenly revolution of intelligence (39b2-c1) and, if we follow Johansen, discovering in it the number "one" which is linked to a full day and night.[151] From here, we are meant to seek out the other numbers of time (which are multiples of one) represented in the seven orbiting planets, the month and the year being the most familiar and linked to the Moon and the Sun's circling respectively.

The numbers of time are not, however, the only numbers attached to the eight heavenly revolutions (the orbits of the seven planets plus the revolution of the universe itself: 39b2-4). Consider what Timaeus tells us about the divisions of the celestial orbits.

> He [the demiurge] made the movement of the Same revolve toward the right by the way of the side, and that of the Different toward the left by way of the diagonal, and he made the revolution of the Same, that is, the uniform, the dominant one in that he left this one alone undivided, while he divided the inner one six times, to make seven unequal circles. His divisions corresponded to the several double and triple intervals, of which there were three each. (36c5-d4: tr. Zeyl)

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[151] See Johansen (2004): 113 and 170. Also, see Vlastos (2005): 33.

The seven unequal circles correspond to the seven orbiting planets, and the intervals between them can be further connected with the following sequence of seven numbers: 1, 2, 3, 4, 8, 9, and 27. These seven numbers, it seems, are meant to represent the relationship between the radii of each of the orbits in the revolution of the different. Thus, if the Moon is the first orbiting planet from the earth, and the Sun the second, and Venus the third, and so on, the radius of the Moon's orbit would be 1, the Sun's would be twice as large as the Moon's, Venus' three times as large, etc.[152]

Now at the most general level, it appears that knowing the sizes of the orbits is important in the harmonic context because the sizes are correlated with speeds. Simply put, the larger the orbit the slower the speed and conversely the smaller the orbit the faster the speed (39a1-2). We should be cautious here, however. Timaeus indicates not only that the outermost, and therefore largest revolution—the revolution of the Same—is the fastest of all (39a4). In another vein, he also claims that Venus and Mercury move at a speed equal that of the Sun (38d1-3), the Sun, of course, inhabiting an orbit smaller than both of the former which should make us think that it would move at a speed faster rather than equal to them.[153]

In order to resolve these complications, I suggest that we first recognize the context of Timaeus' assertion about the connection between orbital size and speed. In particular, he is speaking of the revolution of the Different, and we should perhaps think that the connection is only appropriate in that domain. Further, within this domain, we should assume that speed not only applies to the raw velocity of a planet but also to the time it takes for a planet to complete one orbit around the earth. So, when Timaeus says that the Sun, Venus, and Mercury move at

[152] See Taylor (1928): 162, and Cornford (1937): 79.

[153] For an historical overview of dealing with these discrepancies, see Taylor (1928): 164-6.

the same velocity, we should think that he means they finish their orbits in the same amount of time.[154] Moreover, it seems that the connection between the size of an orbit and its speed applies within this context in a loose way. In short, when considering larger and smaller orbits and slow and fast speeds, we should think in terms of clusters—the Moon, being the smallest orbit, is faster than the larger cluster of circuits inhabited by the Sun, Venus, and Mercury, these three being, in turn, smaller and therefore faster than Jupiter and Saturn which occupy the largest orbits and are accordingly the slowest. Thus, all in all, we should understand Timaeus' claim about the connection between size and speed in a general way: i.e. the various sizes of the orbits found in the revolution of the Different correlate for the most part to various fast and slow speeds.

In addition to discovering these disparate numbers and speeds, it appears that we must also observe and record planetary positions. Timaeus, in essence, even offers us a list of the kinds of positions that should interest us when observing the divine planets:

> To describe the dancing movements of these gods, their juxtapositions and the back-circlings and advances of their circular courses on themselves; to tell which of the gods come into line with one another at their conjunctions and how many of them are in opposition, and in what order and at which times they pass in front of or behind one another, so that some are occluded from our view to reappear once again, thereby bringing terrors and portents of things to come to those who are unable to make the proper calculations [*logizesthai*]—to tell all this without the use of visible models would be labor spent in vain. (40c3-d3: tr. Zeyl with modifications)

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[154] See Vlastos (2005): 33.

Simply stated, we need to be able to identify for each planet both where it is at any point in its orbit and when it is there. Talking about these positions, however, is so complicated that we will need to have a model on hand, a model Cornford takes to be an "armillary sphere"—a study aid made of connected and movable round bands that represent each of the disparate celestial orbits.[155] Ultimately, however, the thing to notice is that this or that single orbit is not what should interest us. Rather, we must be mindful of the whole, and we should proceed with our astronomical research accordingly.

Thus, in sum, we have seen that two things are at issue in our initial investigation of the harmonies and revolutions of the universe and accordingly in the final pre-philosophical stage. First, in this stage, we must discover the numbers associated with each of the eight orbits. And while these numbers might be conceived in temporal terms like months or years or even in spatial terms as with the radii discussed above, what seems to be emphasized is speeds, and accordingly when collecting such data, we are really collecting data on speeds. Second, we must also gather data on the positions the planets occupy at each step throughout their orbits so that we can then compare or more specifically make calculations about their relative positions, calculations, however, that we will see in the next chapter eventually concern once again their speeds.

### 3.5 Conclusion: The Transition to the Philosophical—The Spatial Characteristics of the Healthy Immortal Soul and the Literal Interpretation

In this chapter, I have been mainly concerned with the presentation of a healing narrative told in terms of the spatial characteristics of immortal soul and one that emphasizes the healing of intellect. As we have seen, at our incarnation the motions and shapes of both the revolutions

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[155] Cornford (1937): 74-5.

of intellect and sense are seriously damaged. Once the initial tumult of embodiment subsides, however, the proper circular shapes of the sensory circuits are restored, and they also begin to move in the proper direction. The revolution of intellect, on the other hand, merely regains its east to west rotation. The speed and shape of its revolving remain damaged at this point though, as we will see, they are eventually corrected by the further mathematical work done on the data we have collected.

Now, apart from framing the healing narrative, presenting Timaeus' notion of the soul in this quasi-physical manner has also been a way of testing the literal interpretation, as I stated at the outset. In part, in this chapter, I meant to uncover just how detailed Timaeus actually is about the soul's spatial aspects, and showing his strong commitment to the notion of a soul with a size, shape, position, and speed should be enough to persuade us that we should take Timaeus at his word.[156] He is not speaking metaphorically.

This is not all that can be said for the literal interpretation, however. In the educational context, what we have seen in particular with regard to intellect is that if we do not characterize it in terms of its disparate spatial aspects, we will not be able to explain Timaeus' indication that intellect is healed twice. In other words, Timaeus seems to be suggesting that intellect has recuperated naturally in our initial emphronic condition, yet he also indicates that our intellectual revolutions will be healed later upon calculation of the relative speeds of the heavenly orbits. In the end what I am suggesting is that, in order to make sense of this double healing, we need to think of intellect as the kind of thing that can be healed twice, the kind of thing that is complex

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[156] Compare Sedley (1999): 317-8, whose strategy is similar. In defense of the literal interpretation, he merely points to the amount of textual instances in which Timaeus emphasizes the quasi-physical nature of the soul.

enough to have multiple aspects in need of correction, and this need is fulfilled most faithfully by the literal interpretation.

# 4. The Philosophical Stages: Following Intellect and the Production of the Philosopher-Warrior

## 4.1 Introduction

## 4.2 Philosophy as Following Heavenly Intellect

### *4.2.1 "Harmonies and Revolutions" Part 2: Learning, Calculating, and Imitating—The Correction of the Shape and Speed of Intellect*

### *4.2.2 Philosophy and Music: The Intellectual Observer and the Intellectual Listener*

## 4.3 Philosophy as Following Our Own Intellects

### *4.3.1 The Demiurge's Advice: What We Must Master and How*

### *4.3.2 Mastering Appetitive Soul via Advanced Control of the Body*

## 4.4 Conclusion: Philosophy and the Warrior

**4.1 Introduction**

In the previous chapter, I was concerned primarily to present an account of the pre-philosophical moments that anticipate the final healing of the spatial characteristics of intellect. In sum, I canvassed two phases in the course of this progress. First, there is the initial and natural convalescence of intellect which amounts to the return of its east to west rotation. As we saw, however, what remains to be healed are its shape and speed. Thus, second, as preparation for such healing, we work to collect a body of data which, in essence, pertains to the speeds of the heavenly revolutions, and in the present chapter I begin by showing that the calculation or contemplation of these speeds results in the final healing of intellect.

Before moving on to that task, however, it will be helpful to make a few preliminary points about Timaeus' intimation of philosophy. First, I speak of Timaeus' intimation of philosophy, rather than his conception of philosophy, because he does not offer any straightforward account of the philosophical enterprise. What we have in his speech instead are five instances of the word *philosophia* or its cognates (not counting the reference to the aspiring philosopher (*ton nou kai epistēmēs erastēn*) at 46d7).[157] Consequently, I derive my account from an analysis of Timaeus' usage of the terms though assuming all along Socrates' claim that Timaeus has reached "the height of philosophy" (20a4-5) and is accordingly a philosopher in his own right.

What is noteworthy about my approach is its contrast with the majority of commentary on the issue. The traditional strategy involves first formulating a conception of Socratic or

[157] I exclude from the current discussion the other four instances of the term and its cognates found in the prologue at 18a5; 19e5; 20a4; and 24d1. For a discussion of these instances, I refer the reader to Chapters 1 and 2: 20-2, 30-1, and 39-40.

Platonic philosophy and then using that conception as a foil for thinking about Timaean philosophy.[158] This strategy is certainly illuminating in some respects but risks begging the question insofar as, more often than not, it explores the issue at the expense of any prolonged attention to the text of the *Timaeus* itself.

Looking to the text then I suggest that philosophy is two things, and I suggest that it is because Timaeus appears to be using the term to describe two distinct types of intellectual exertion. First, philosophy involves following or imitating the heavenly revolution of intellect, an endeavor that amounts to the mathematical arm of astronomy. Here we calculate or contemplate the data we have collected on the disparate celestial speeds, comparing each to each, and through such contemplation effect the proper shape and speed in our intellects, establishing in ourselves a healthy emphronic state that resembles the spatial characteristics of the universal intellect. I suggest further that philosophy comprehends both the act of contemplation and the psychic state that is its product, so to speak. More precisely, given the connection I see between the contemplation and imitation of the universe, it appears that, as far as our intellects are concerned, contemplating heavenly velocity just is, in some sense, being this velocity as well as the shape this speed brings about. Thus, philosophy is at once identical with a pursuit like mathematical astronomy and a psychic state of affairs. Second, beyond such astronomical pursuits, philosophy means following the intellectual revolutions within ourselves. In contrast to the first sense of philosophy, however, following our own intellects is not a contemplative affair. Rather, it is to be identified with intellectual rule over or regulation of body and mortal soul, so similar to the first sense it does indicate a specific psychic state and namely one in which intellect is in charge. Thus, in sum, philosophy is the active and ongoing submission to both the

[158] See Howland (2007); Zuckert (2011); and Broadie (2012), in particular Chapter 5.

intellect of the universe itself, which involves the contemplation and imitation of the heavenly revolutions, and submission to our own intellects, which involves the presence of noetic dominion over our mortal components.

What should be most glaring about my account is the absence of any talk about the forms or dialectic. While I do see reasons to think that philosophy should be distinguished from activities connected entirely to sense-perception (e.g. the observation of the heavens and the collection of the relevant data), it does not seem to me that Timaeus uses *philosophia* to indicate the contemplation of the intelligible realm.[159] Instead, it appears that philosophy indicates two phases in the work done to establish the proper characteristics of our own intellects. And though this work most certainly puts us in a position to interact successfully with the forms, such interaction on our part is not at all emphasized by Timaeus nor labeled or in any way described as philosophy. In saying this, however, I do not mean to suggest that I am uninterested in the results of our philosophical work. To the contrary, in the present chapter I am certainly interested in at least one such consequence: the production of the philosopher-warrior who, by his mastery of philosophy, is capable of being appropriately fierce with his enemies (see p. 22 above).

Accordingly, I suggest thinking of the philosophical stages addressed in this chapter as a progress through phases of submission to intellect and the consequences of this submission. First, we follow the intellect of the universe, the result of such fidelity being our spatially sound intellects. Having corrected our revolutions of intelligence, we then proceed to pledge allegiance to our own intellectual revolutions by effecting noetic regulation of body and mortal soul.

[159] Compare Kalkavage (2001), 24: "philosophic education…aims not at transcendence of, but at assimilation to, the intelligent order of the visible heaven."

Subsequently, this complete intellectual authority gives rise to facility in battle and brings the narrative that began with Socrates' request full circle.

### 4.2 Philosophy as Following the Heavenly Intellect

As indicated, I take philosophy in its first sense to include both the activity of calculating celestial speeds and the psychic state of affairs (the proper shape and speed of our intellects) that accompanies this activity. Accordingly, I begin by highlighting the attention Timaeus gives to such calculation though I do so ultimately for the sake of connecting it to both the relevant psychic state of affairs and philosophy.

#### *4.2.1 "Harmonies and Revolutions" Part 2: Learning, Calculating, and Imitating—The Correction of the Shape and Speed of Intellect*

Let's consider first what Timaeus tells us about the demiurge's reasons for creating the shining sun.

> And so that there might be a conspicuous measure of the relative slowness and quickness [*pros allēla bradutēti kai tachei*] with which they move along their eight revolutions, the god [the demiurge] kindled a light in the orbit second from the earth, the light we now call the Sun. It would shine upon the whole heaven so that as far as possible all capable living things might share in number, learning [*mathonta*] it from the revolution of the Same and uniform. In this way and for these reasons night and day, the period of a single circling, the wisest one, came to be. A month has passed when the Moon has completed its own cycle and overtaken the Sun; a year when the Sun has completed its own cycle. As for the periods of the other bodies, all but a scattered few have failed to take note of them. Nobody has given them names or considered measuring their relation to each other with numbers [*oute pros allēla summetrountai skopountes arithmois*]. And so people are

> all but ignorant of the fact that time really is the wandering of these bodies [.] (39b2-7: tr. Zeyl with modifications)

It seems that the sun is "kindled" for two reasons. First and foremost, the sun is meant to illuminate the heavenly "wanderings" of time so that we might learn number from them. Second, and most importantly for our purposes, these numbers are meant to serve as the means for making measurements of the relative speeds of the eight heavenly revolutions. Thus, it would seem that the demiurge intends for us to be engaging in such measurement though the question, of course, should be, why?

Putting the answer aside for now, let's consider two further passages that exhibit Timaeus' emphasis on measurement and calculation. The first, as we saw in the previous chapter, enumerates the disparate relations between the orbiting planets that we should keep in mind, and I recall it here to refresh our memories.

> To describe the dancing movements of these gods, their juxtapositions and the back-circlings and advances of their circular courses on themselves; to tell which of the gods come into line with one another at their conjunctions and how many of them are in opposition, and at which times [*kata chronous*] they pass in front of or behind one another, so that some are occluded from our view to reappear once again, thereby bringing terrors and portents of things to come to those who are unable to make calculations [*logizesthai*]—to tell all this without the use of visible models would be labor spent in vain. (40c3-d3: tr. Zeyl with modifications)

The first thing to note is a concern with temporal matters. As Timaeus indicates, we should be cognizant of the "times" at which each of the planets passes in front or behind one another, and this, I take it, is another way of considering their relative speeds. In other words, knowing about

their speeds should give us some indication about when the various planets will meet or disappear and reappear. Further, we see a connection between knowing about these times or speeds and making calculations (*logizesthai*), and we do to the extent that those who lack such computational skills are likely to be riddled with fear when planets "disappear." The skilled astronomer, by contrast, can not only point out all the past moments at which such things have transpired, I assume, but also all the future moments, and again I suggest that he can because of his ability to make calculations about the speeds at which the planets move through the heavens.

Now I am stressing the ability to make calculations about celestial speeds because calculation, most specifically, is how we correct our intellectual revolutions, and what I have been trying to do thus far is set the stage for the claim that Timaeus connects calculations of the celestial speeds, in particular, not only to the healing of our intellects but also to philosophy. Consider the following passage.

> Let us conclude then our discussion of the accompanying auxiliary causes that gave our eyes the power which they now possess. We must next speak of that supremely beneficial function for which the god gave them to us. As my account has it, our sight has indeed proved to be a source of supreme benefit to us, in that none of our present statements about the universe could ever have been made if we had never seen any stars, sun, or heaven. As it is, however, our ability to see the periods of day and night, of months and years, of equinoxes and solstices, has led to the invention of number and has given us the idea of time and opened the path to inquiry into the nature of the universe. These pursuits, in turn, have given us philosophy [*philosophias*], a gift from the gods to the mortal race whose value neither has been nor ever will be surpassed. I'm quite prepared to declare this to be the supreme good our eyesight offers us. Why then should

> we exalt all the lesser good things, which a non-philosopher struck blind would lament and bewail in vain? Let us rather declare that the cause and purpose of this supreme good is this: the god invented sight and gave it to us so that we might observe the revolutions of intelligence [*tas…tou nou periodous*] in the heavens and apply [*chrēsaimetha*] them to the revolutions of our own thought [*dianoēseōs*]. For there is kinship between them, even though our revolutions are disturbed, whereas the universal revolutions are undisturbed. So once we have come to learn from them and to share in the ability to make correct calculations [*logismōn*] according to nature, by imitating the completely unstraying revolutions of the god, we might stabilize [*katastēsaimetha*] the straying revolutions within ourselves. (46e6-47c4: tr. Zeyl with modifications)

As we can see, just as the demiurge intended, sight puts us in touch with the celestial circlings and leads consequently to the discovery of number and time. These findings are further paired with the discovery of the investigation of the nature of the universe though, as indicated in Chapter 2 (pp. 58-9), I think we should refrain from trying to figure out what this investigation entails. The passage is just too vague here. In any event, what is apparent is that the upshot of these findings is philosophy.

Continuing with the passage, then, I agree with Cornford in thinking that philosophy is the referent of "this supreme good."[160] When Timaues goes on to describe the purpose of this supreme good in terms of the purpose of eyesight, however, I am moved to include in philosophy, not the observation of the heavenly revolutions of intelligence, but rather the application of these revolutions to our own. After all, observation of the celestial circuits is at least twice removed from philosophy to the extent that we start by observing the heavens; this, in

[160] Cornford (1937): 158 n. 2.

turn, yields number, the concept of time, etc.; and these in turn yield philosophy. Thus, I suggest that the application of the heavenly revolutions of intelligence to our own intellectual revolutions is philosophy. The question is, of course: what does such application entail?

If we follow the passage through, we see that after reminding us of the kinship between our own intellects and that of the universe, Timaeus answers our question. First, he suggests that we learn from (*ekmathontes*) the heavenly revolution of intelligence, and here it seems that we are meant to recall the demiurge's reasons for creating the Sun. The eternal god creates the Sun to shine on the universe so that we might, on the one hand, learn (*mathonta*) number and, in particular, learn it from "the revolution of the Same and uniform," the universal intellect, and on the other use number to measure the relative speeds of the celestial motions.

Second, in conjunction with this learning, we are meant to participate in calculations (*logismōn*) that are correct according to nature (*orthotētos kata phusin*). Leaving aside the intractable phrase, "correct according to nature," I suggest that this reference to calculation is an echo of what we saw above concerning the fear stricken individuals who are incapable of calculating (*logizesthai*). Thus, at the very least, it seems that we should have them in mind and in particular the computations they are unable to make, computations which again appear to concern celestial speeds.

Continuing further through the passage, I claim a connection between this learning and calculating and the imitation of the heavenly revolution of intelligence, and I do for two reasons. First, I am, at least in part, following Lee and Carone who suggest that learning about the universe's intellectual revolution amounts to taking it on in our own intellects.[161] In other words, learning about it just is successfully imitating it. Second, I posit a connection based on what we

[161] See Lee (1976): 82-3, and Carone (2005): 71.

find in a later passage which it should be uncontroversial to claim is itself parallel to the current passage we are addressing. It is as follows.

> Now there is but one way to care for anything, and that is to provide for it the nourishment and the motions that are proper to it. And the motions that have an affinity to the divine part within us are the intellections and revolutions of the universe. These, surely, are the ones that each of us should follow. We should correct the revolutions in our heads that were thrown off course around the time of our birth, by coming to learn [*katamanthanein*] the harmonies and revolutions of the universe, and so make thought like the object of thought [*tōi katanooumenōi to katanooun exomoiōsai*], as it was in its original condition. (90c6-d5: tr. Zeyl with modifications)

As specified in the previous chapter, learning the harmonies and revolutions of the universe means, in the main, learning about celestial speeds, and as we see such learning makes "thought like the object of thought," a likeness that should remind us of the imitation mentioned in the previous passage above. Accordingly, in order to fill out our understanding of what imitation of the heavenly revolution of intelligence involves, we might briefly address what the likeness between thought and the object of thought indicates.

To begin with, the object of thought is "that which is" (28a1-2) or "the unchanging form" (51e6-52a4) or, just generally speaking, Being, and we should keep in mind that the universe itself is, in short, an imitation of Being and specifically the eternal Living Thing. Now most pertinent to our current discussion is Timaeus' suggestion that the universe resembles the eternality of the Living Thing (37c6-d2), and the universe does to the extent that its own psychic revolutions move according to number (37d5-7), motions, which we have already seen, amount to time. So, taking the universe as our model, making thought like the object of thought should

involve enacting in our souls the same numbers we find in the heavenly revolutions, and this, I assert, is what we are doing when we make correct calculations about celestial speeds. We are engendering in ourselves immortal souls that move according to the numbers of time, and this is what it means to apply the heavenly revolutions to ourselves.

As Timaeus describes it further, souls to which the heavenly revolutions have been successfully applied are stable souls, souls that we have literally "brought down to a place" (*katastēsaimetha*: 47c4, see above). In the quasi-physical terms of the previous chapter, this means two things. First, just like the intellect of the universe, this stability indicates that our immortal souls are stationary or at rest. They do not move with respect to latitude or longitude though, as we should recall, this is something brought about in our initial emphronic condition. This is something everyone has. Thus, second, and something not everyone possesses, this stability also indicates an intellect with a circular shape, a shape exclusively present in the philosopher's intellect and achieved, I suggest, by correct calculation of celestial speeds. How calculating and thusly enacting these speeds produces this shape in our noetic revolutions is a bit obscure, however, and accordingly my account here will be somewhat speculative.

As Timaeus tells us later in the second part of the speech, the circular motion of the universe as a whole (*hē tou pantos periodos*: 58a4-5) encloses all things within its boundary and compresses them (*sphiggei panta*: 58a7). I emphasize that what is at work here is motion and more specifically the motion of the universe's intellect which is wrapped around the body of the universe (*he d' ek mesou pros ton esxaton ouranon pantē diaplakeisa kukloi te auton exōthen perikalupsasa*: 36e2-3). Further, I follow Bury in thinking that Timaeus is speaking here of the centripetal force exerted by the motion of the revolution of intellect.[162] By invoking this force,

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[162] Bury (1929): 142 n. 2.

however, I mean only to suggest that, once a certain speed of rotation is reached, some degree of compression happens. The additional stipulation and my main point is that when our own intellects achieve their proper speed, whatever imperfections might have been jutting out of them like teeth jutting out from a malleable, circular gear are ironed out or absorbed into the shape of a circle. The compressing speed of the revolution, so to speak, compresses itself, and the proper shape of intellect's revolving is achieved. Accordingly, it becomes perfectly circular just like the heavenly intellect.

Thus, in the end, I suggest that we think of philosophy in this initial sense in two ways. First, philosophy is the application of the heavenly revolutions of intellect to our own. In a significant sense, this simply means that the philosophical enterprise is identical with the imitation of the heavenly intellect though this imitation, as we have seen, ultimately amounts to measuring or calculating the celestial speeds with respect to one another. Second, such calculating and thus philosophy is synonymous with a psychic state of affairs in which intellect moves at the proper speed, in the proper direction, maintains a single position, and consequently has a circular shape.

*4.2.2 Philosophy and Music: The Intellectual Observer and the Intellectual Listener*

In order to reinforce the connection I have argued for in philosophy between the calculation of celestial speeds and the imitation of the heavenly intellect, I draw on the similarity Timaeus appears to see between philosophy and music.[163] I suggest that he sees a kinship between the two because three of his five references to philosophy occur alongside mention of

[163] For an overview of the relationship between philosophy and Plato's harmonic theory, see Barker (2007): 311-15.

music (46e6-47e2; 73a6-7; and 88c5). In this section, however, I only discus two of these references, saving the third for the discussion below.

The first explicit mention of music in the speech shadows Timaeus' account of philosophy as the greatest benefit of eyesight.

> These pursuits, in turn, have given us philosophy, a gift from the gods to the mortal race whose value neither has been nor ever will be surpassed. I'm quite prepared to declare this to be the supreme good our eyesight offers us. Why then should we exalt all the lesser good things, which a non-philosopher struck blind would lament and bewail in vain? Let us rather declare that the cause and purpose of this supreme good is this: the god invented sight and gave it to us so that we might observe the revolutions of intelligence in the heavens and apply them to the revolutions of our own intellect. For there is kinship between them, even though our revolutions are disturbed, whereas the universal revolutions are undisturbed. So once we have come to learn them and to share in the ability to make correct calculations according to nature, we should stabilize the straying revolutions within ourselves by imitating the completely unstraying revolutions of the god.
>
> Likewise the same account goes for sound and hearing—these too are the god's gifts, given for the same purpose and intended to achieve the same result. Speech was designed for this very purpose—it plays the greatest part in its achievement. And music too, insofar as it uses sound, is given for the sake of harmony, and so serves this purpose as well. And harmony, whose movements are akin to the revolution within our souls, is a gift of the Muses for those who make intelligent use it. Music is not for irrational pleasure, which is how people nowadays seem to make use of it, but rather is an ally in

> the fight to bring order to the revolution of the soul within us that has become unharmonized [*anarmoston*] and make it concordant [*sumphōnian*] with itself. (46e6-47e2: tr. Zeyl with modifications)

The first thing to note is that philosophy and music are intended by the gods to be used for the same purpose—the stabilization or correction of our corrupted intellectual revolutions. What distinguishes the two, however, appears to be not only the way in which each brings about this correction but also the way in which this correction is conceived. On the one hand, philosophy construes the problem in terms of wandering revolutions and the solution to the problem in terms of the imitation of the unwandering heavenly revolutions of intelligence. Music, on the other hand, construes the problem in terms of a lack of harmony in our revolutions and invokes the intellectual use of musical harmony accordingly. So having already seen how it is that imitation of the heavenly revolutions brings about the correction of our own revolutions, we should wonder in turn what studying musical harmony involves and how it also yields corrected intellects.

On the most general level, it appears that the study of music achieves the desired results, generally speaking, through the engagement of an intellectual exertion which amounts to the provision of motions for the soul. Take the following passage.

> The student of mathematics, or any other subject, who works very hard with thought [*dianoiai*] should also provide exercise for his body by taking part in gymnastics, while one who takes care to develop his body should in turn provide motions for his soul by applying himself to music and philosophy [*philosophia*]. (88c1-5: my translation)

Notice first that the student of mathematics is working hard specifically with his *dianoia* or thought. I point this out because Timaeus uses a similar word, *dianoēsis*, in the context of

philosophy to describe specifically what it is about intellect that we are correcting when we successfully imitate the heavenly revolution of intelligence (*tas en ouranōi katidontes tou nou periodous chrēsaimetha epi tas periphoras tas tēs par' hēmin dianoēseōs*: 47b7-8). Thus, when Timaeus suggests that the fitness enthusiast emulate the mathematician and apply himself to music and philosophy, we should recognize that this means providing his soul with the proper motions, and in particular providing these motions for his *dianoia*.

If we want to know further how music provides such motions, I suggest that we consider Timaeus' distinction in the first passage above between listening to music for pleasure and listening intellectually, a distinction that we later find out invokes calculation as a distinguishing factor of intellectual listening. Consider the following excerpt.

> We should also investigate all sounds, whether fast or slow—sounds that appear to us as high-pitched or low. Sometimes, when the motion they produce in us as they move toward us lacks conformity, these sounds are inharmonious; at other times, when the motion does have conformity, the sounds are harmonious. [What happens in the latter case is this.] The slower sounds catch up with the motions of the earlier and quicker sounds as these are already dying away and have come to a point of conformity with the motion produced by the slower sounds that travel later. In catching up with them, the slower sounds do not upset them, even though they introduce another motion. On the contrary, they graft onto the quicker movement, now dying away, the beginning of a slower one that conforms to it, and so they produce a single effect, a mixture of high and low. Hence the pleasure they bring to fools and the intellectual delight they afford—in imitation of divine harmony in mortal movement—to the intelligent. (80a3-b8: tr. Zeyl with modifications)

The important thing to recognize is the mathematical flavor of the above. As opposed to the fool, I assume that the intellectual listener is involved in the enterprise of calculating the relative speeds of multiple tones, and more specifically in identifying which rapid motions and slower motions come together to make this or that harmony. This kind of approach, it seems, amounts not only to the intelligent use of music but also to the finer details of intellectual exertion in the musical context.

Moreover, we should recognize a similar scenario in astronomy in the distinction between the *meteōrologikos*, who we met in the previous chapter, and what we might call, "the intellectual observer." The *meteōrologikos*' folly consists in his attachment to vision which he thinks provides "the most solid proofs" (*apodeixeis bebaiotatas*: 91e1) concerning heavenly matters. And much like the musical fool who uses sounds improperly for enjoyment alone, the *meteōrologikos* uses the sights he sees improperly as evidence. By contrast and similar to those who make intelligent use of music and in particular harmony, the intellectual observer makes proper use of astronomy and, in particular, as we have seen, philosophy. In other words, we should recognize in philosophy the same thing we see in the investigation of harmony though, in place of calculations about the things we hear, we have calculations about the things we see, and this is, as I have claimed, what Timaeus is indicating when he suggests that the greatest good, philosophy, involves making "correct calculations." While all the other products of vision—the discovery of number, time, and the investigation of nature—certainly lay the ground work for the philosophical enterprise, they are nonetheless things the *meteōrologikos* is most likely also abreast of. What he lacks, it seems, is the further coordinated and mathematical use of these products. This is his supreme failure. He neglects mathematics and by doing so neglects his intellect just like the musical fool.

**4.3 Philosophy as Following Our Own Intellects**

As stated at the outset, philosophy is not only an astronomical endeavor in which we yield to the heavenly revolution of intelligence. It is also, it appears, a more localized pursuit involving submission to the intellect in us. Timaeus presents this notion initially as follows.

> So, to prevent the swift destruction of our race by disease and to forestall its immediate, premature demise, they had the foresight to create the lower abdomen, as it's called, as a receptacle for storing excess food and drink. They wound the intestines round in coils to prevent nourishment from passing through so quickly that the body would of necessity require fresh nourishment just as quickly, thereby rendering it insatiable. Such gluttony would make our whole race incapable of philosophy and music [*aphilosophon kai amouson*], and disobedient to the most divine part within us. (72e6-73a8: tr. Zeyl with modifications)

Intestines long enough to store our food for a while, it seems, are a necessary condition of becoming philosophical and musical.[164] The further specification is that such length is required for the possibility of obedience to our most divine part, intellect. Accordingly, it seems that two things are at issue. First, having an insatiable appetite would undoubtedly take away from the time we might dedicate instead to astronomy and music and more specifically to the correction of our intellects, and here, I take it, that at least in part unphilosophical and unmusical refers to a mangled intellect that lacks the proper shape and motion and just like the one found in young humans, as we saw in the previous chapter (see pp. 104-5 above). At the same time, I suggest, that obedience to intellect should be aligned with being philosophical or philosophy and not

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[164] See also Aristotle, *Generation of Animals*: 1.4 717a25ff, who indicates that animals with straight intestines have a more insatiable appetite than those who, as Timaeus suggests, have coiled intestines.

necessarily with music, and I do in the main because of what Timaeus tells us elsewhere about the coming to be of birds and land animals.

> As for birds, as a kind they are the products of a transformation. They grow feathers instead of hair. They descended from innocent but simpleminded men, men who studied the heavenly bodies [*meteologikōn*] but in their naiveté believed that the most solid proofs concerning them could be based upon visual observation. Land animals in the wild, moreover, came from men who had no tincture of philosophy [*philosophia*] and who made no study of the heavens whatsoever, because they no longer made use of the revolutions in their heads but instead followed the lead of the parts of the soul that reside in the torso [*stēthē*]. (91d6-e6: tr. Zeyl with modifications)

Here once again I call our attention to the *meteōrologikos*. The *meteōrologikos* fails to take his astronomical pursuits further than what his eyes can tell him and is reincarnated as a bird accordingly. The man destined to be the wild land animal, however, not only fails to investigate the heavens, as Timaeus claims, but also neglects philosophical matters. Neglecting the latter in this instance appears to mean that instead of following the "revolutions in his head," he instead follows "those parts of the soul in his torso," i.e. spirited and appetitive soul (*en dē tois stēthesi kai tōi kaloumenōi thōraki to tēs psuchēs thnēton genos enedoun*: 69e3-4). So just like the unphilosophical humans with short intestines who were never created though who would have undoubtedly followed their appetitive soul, the man destined to be the wild land animal is equally unphilosophical and also becuause, in part at least, his obeys his appetites. Accordingly, it would seem that obedience to the revolutions in our heads is, to the contrary, a philosophical activity.

The regrettable thing about these passages is that they offer less detail than we might like about how intellectual sovereignty works. They are not, however, our only resource. Elsewhere in the speech, Timaeus offers two pictures of what rational dominion in mortals entails. First, we have Timaeus' rendering of the demiurge's advice to us before our embodiment where he outlines the intellectual regulation of our incarnated selves. Second, we have the vignette of the installment of mortal soul in human beings in which Timaeus presents a similar though more detailed picture of intellectual rule. Thus, the majority of my analysis of philosophy here will involve discussing these two pictures.

It is worth noting that while we might treat the latter picture as if it were an echo of the former as Taylor and Cornford seem to do,[165] it seems that we might also see differences significant enough to analyze as in the work of Johansen and Gordon.[166] I align myself with the first pair though without thinking that my claims are necessarily incompatible with the second. Accordingly, I concentrate on the similarities between the two passages and in particular the theme of subjugating the body.

*4.3.1 The Demiurge's Advice: What We Must Master and How*

Ultimately, I am interested to show that philosophy in the second sense is identical with a sophisticated sort of control over body, and the following passage gives us some indication of this.

> He [the demiurge] described to them the laws that had been foreordained…once the souls were of necessity implanted in bodies, and these bodies had things coming to them and leaving them, the first innate capacity they would of necessity come to have would be

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[165] Taylor (1928): 493, and Cornford (1937): 281 n.3.

[166] Johansen (2004): 146-9, and Gordon (2005): 257.

> sense-perception, which arises out of forceful disturbances. This they would all have. The second would be love, mingled with pleasure and pain; and they would come to have fear and anger as well, plus whatever goes with having these, as well as their natural opposites. And if they could master these, their lives would be just, whereas if they were mastered by them, they would be unjust. And if a person lived a good life throughout the due course of his time, he would at the end return to his dwelling place in his companion star, to live a life of happiness that agreed with his character. But if he failed in this, he would be born a second time, now as a woman. And if even then he still could not refrain from wickedness, he would be changed once again, this time into some wild animal that resembled the wicked character he had acquired. And he would have no rest from these toilsome transformations until, by means of the revolution of the same and uniform within him, he had tamed [*sunepispōmenos*] that accretion of fire, water, air, and earth, ruling [*kratēsas*] over its turbulent and irrational being with reason [*logōi*]. This would return him to his original condition of excellence. (41e2-42d2: tr. Zeyl with modifications)

I think that I should first point out that the context here is not entirely bodily as it might appear. There is some indication that mortal soul is also being referenced here. In fact, the first mention of mortal soul in the dialogue follows directly on the heels of the above. After explaining to us our task, the demiurge hands over our immortal souls to his progeny and reminds them of their responsibility to make not only our bodies but also "the human soul which remained to be built" (42d7-e1), namely mortal soul. Ultimately, I say this so we will not be tempted to think that

sensations or the emotions are the products merely of the comings and goings of the body.[167] Nonetheless, I suggest that the emphasis in the passage is certainly on the corporeal.

At any rate, it seems that there are as many as three things that the demiurge calls upon us to master in the passage above: 1) sensations ("forceful disturbances"), 2) emotions ("love, mingled with pleasure and pain…fear and anger…"), and 3) the body ("that accretion of fire, water, air, and earth"). The first two I include given the ambiguity of the clause, "if they could master these," which seems to require that we take into consideration control over both 1) and 2). Certainly, our sensations are things that need to be "ruled" or regulated. Recall from the previous chapter that the disfigurement of our intellects is in large part due to the harmful effects of unruly sensations. On the other hand, barring mental illness, these sensations are eventually regulated once and for all naturally in our initial condition of being *emphrōn* (see pp. 116-7 above). Thus, I suggest that, of the two, the emotions are the only items that truly require intellectual effort on our part to control.[168]

Concerning the third item, the body, we see not only that it is indeed something to be controlled but we also see what entity in particular is meant to control it and how. First, "the revolution of the same and similar in us," as should be expected, is the agent assigned to the task. Further, regarding the means to regulating it, the "accretion of fire, water, air, and earth" is to be "drawn along with" (*sunepispaō*, what I have translated above as "tamed") our intellectual

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[167] Compare Johansen (2004): 145-6, who claims, in essence, that the body is responsible for not only our sensations, but also our emotions and desires. I address this briefly below.

[168] Compare Zeyl (2000) whose translation shows agreement with my suggestion that our sensations are not at issue here: "…plus whatever goes with having these emotions…And if they could master these emotions…"

revolution, and an important thing to note is that Timaeus uses the same language to describe the authority that sensations have over us in our early years. The internal products of our juvenile sense-perception "draw along the whole vessel of the soul" and they do so by colliding with it (*hais d' an exōthen aisthēseis tines pheromenai kai prospesousai sunepispasōntai kai to tēs psuchēs hapan kutos*: 44a6). It is not clear here, however, that intellectual "drawing along" involves any kind of collision (though we will see that something like this is the case below) nor is it clear what else it may entail.

Further, assuming that intellect has exclusive rights to ruling, we might wonder what we are to do when it comes to regulating our emotions. Must we enact a separate mission and means to drawing feelings like fear and anger along with intellect? Or should we think instead that, given the emphasis on the corporeal, controlling the body is the mediating route to dominion over our emotions, that in achieving victory over the former we simultaneously win over the latter?

We should be equally curious about the role education plays in establishing intellectual authority, whether it be over body or the emotions. In the present instance, Timaeus appears to be at least somewhat cognizant of the issue insofar as the demiurge assigns his divine progeny the task of "steering" (*diakubernaō*) us to the best of their ability (42e2-3). It is unclear, however, what this divine guidance includes. Is there some god-given subject matter the study of which would result in allegiance to our own intellects? Or has our education in this regard been exhausted upon the demiurge's last word of advice in which case establishing intellectual authority is just a matter of successfully remembering and following instructions?[169]

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[169] For the indication that Plato's theory of recollection is at work here, see Hadot (1983): 120, and Zuckert (2011): 357 n. 20, who reiterates Hadot's point.

As far as subject matter is concerned, it should be tempting to think that just as studying astronomy results in the healing of our intellects, some other investigation could result in the initiation of intellectual rule. In fact, at least when it comes to control over the body, the majority of the second part of Timaeus' speech promises to be the perfect investigation for the task. It is indeed a study of the subjugation of Necessity by Intellect, a study we might reasonably think of as one concerned with the nature of the elements and their contribution to the overall order present in the universe. The major drawback of this suggestion, however, lies in the difficulty of deciding how investigating or, I dare say, knowing the nature of "fire, water, air, and earth" would effect the installment of rational command over body. The alternative proposal that Timaeus intends us to imitate the demiurge's wise persuasion of necessity is no better. After all, what would such imitation involve? Certainly, it cannot require ordering the elements within us by means of numbers and shapes (53b4-5). The fire, etc. in our bodies are borrowed from the already ordered elements of the universe's body (42e8-10), and in the final analysis, it is unclear what else the demiurge is doing that we might imitate.

Gymnastics might also be a tempting option when it comes to subject matters that could bring about the appropriate intellectual rule. When we exercise, we are exerting intellectual control over body to the extent that physical exertion is a case of self-motion and self-motion, in turn, is driven by intellect (89a1-3). The problem in this case, however, involves the awkwardness of thinking that proper attention to gymnastics alone could return us to "our original condition of excellence." As we saw above, the individual who focuses on his body is only doing half of what is required and therefore cannot be expected to have achieved to the greatest goal of all mortal existence (90d5-7).

Accordingly, I think we see that drawing the body along with intellect in the philosophical sense must be something distinct from the type of control we see in the demiurge's own suppression of necessity or even from the type of rational command we see in gymnastics. Accordingly, there appears to be no obvious study that will effect such intellectual control over ourselves and also no other apparent pursuits that the demiurge's divine progeny have put in place to help us. At this point, then, what I think we are left with is the suggestion that following our own intellects and thus practicing philosophy is something to be identified with a sheer act of will carried out in accordance with the demiurge's instructions. In order to see how this works out, however, I suggest that we draw from Timaeus' more detailed account of the installment of mortal soul in the human body.

*4.3.2 Mastering Appetitive Soul via Advanced Control of the Body*

Timaeus' account of mortal soul is, I suggest, not so much an account of its creation as it is an account of its installment in the body, the consequences of this installment, and indications for how to deal with these consequences. In other words, the emphasis does not fall on what mortal soul is: for instance, what it is made of or how it is structured or just generally speaking what its spatial characteristics are. At most, Timaeus might be taken to imply that mortal soul is "round and elongated" like an oval when he describes the shape of the marrow as such that holds it, but this is hardly conclusive. It seems that the only thing we can be certain of is that mortal soul is motive (89e3-5),[170] and I take it that we can be certain of so little because its spatial characteristics are ultimately unimportant. Knowing about them is not at all necessary for

[170] See Menn (1995): 53; Johansen (2004): 146; and Karfik (2005): 202, for the idea that the mortal soul moves rectilinearly.

asserting our intellectual dominion. What it appears is important is knowing the possible outputs of each part of the soul, where each part of the soul is, and why each part is where it is.

Timaeus begins his account from the outputs, and in particular he speaks of the unsavory ones.

> [H]aving taken the immortal origin of the soul, they proceeded next to encase it within a round mortal body [i.e., the head], and to give it the entire body as its vehicle. And within the body they built another kind of soul as well, the mortal kind, which contains within it those dreadful but necessary disturbances: pleasure, first of all, evil's most powerful lure; then pains, that make us run away from what is good; besides these, boldness also and fear, foolish counselors both; then also the spirit of anger hard to assuage, and hope easily led astray. These they fused with unreasoning sense-perception and all-venturing lust (*erōti*), and so as was necessary, they constructed the mortal type of soul. (69c5-d6: tr. Zeyl with modifications)

First, I think we should see in this list of outputs an echo of the demiurge's advice discussed above. Certainly, all the players are present—sensation, love (*eros*), pleasure and pain, fear and anger. In contrast to the above, however, each item here is explicitly connected to mortal soul.

Now, recall from Chapter 2 that there are two types of mortal soul: the spirited and the appetitive. Thus, there are two entities to take on the responsibility of processing the collage of pleasure, pain, fear, anger, etc. As Timaeus makes clear, the spirited soul is responsible for our emotional life and the pleasures and pains associated with it while the appetitive is responsible in a parallel sense for our bodily desires, most emphatically desires for food and drink. Accordingly, regulating the two should involve controlling our feelings and our appetites.

With regard to our emotional life, one such affection is stressed above all others—contentiousness (*philonikos*). It is highlighted not only for the potential problems it causes in the body—inflaming it and causing illness (88a3-6). But also, those who cultivate and give themselves over to contentiousness, as well as the desires of appetitive soul, are sealing their fate as four-footed beasts and worse (90b1-3). In fact, this act of submission seems to be precisely what it means to follow "the parts of soul in the torso." At our most mortal, then, we are contentious sensualists.

While I think that Timaeus certainly intends for us to refrain from being sensualists, I do not think, however, that he means for us to dispense with all antagonism. Remember that we are still in the midst of unpacking Socrates' indication that philosophy is ultimately what makes warriors appropriately fierce with their enemies. So the goal, I take it, is not to become pacifists. Rather, it is to use our contentiousness properly.[171] Thus, I suggest that intellectual command of spirited soul is, in the main, the successful direction of our hostility toward suitable objects.

Timaeus says as much himself. He indicates, however, that this hostility can be directed to two sources. On the one hand, we can be appropriately contentious with unjust human beings or nations, and in the context of the *Timaeus-Critias*, such a scenario is exemplified by Critias' tale of the Athenian fight with the aggressive military force of Atlantis, a fight I address later below. On the other hand, we are also right to combat injustice that might arise, surprisingly enough, inside ourselves. In this case, the culprit we are fighting is bodily desire and thusly appetitive soul.

[171] For the idea that mortal soul, generally speaking, is to be utilized for the good it can do rather than being something to suppress, see Johansen (2004), in particular Chapter 7, and Carone (2007).

When it comes to vanquishing appetitive soul, there is really only one course we can take. First, I should make clear that intellect is capable of interacting directly with spirited soul. This is a consequence of the fact that, apart from having the proper nature, spirited soul is installed within earshot of rational command in the chest and accordingly can easily hear its orders (70a2-4). Moreover, spirited soul is situated where it is because part of its task is to operate the heart and circulatory system when called to just action by intellect (70a7-c1). In such a scenario, it readies all the blood vessels so that through them "the sensitive parts in the body" (*pan hoson aisthētikon en tōi sōmati*: 70b6) can receive intellect's encouragements or threats, and in the present case, it is the appetitive soul that is to receive them.

How it receives them is a somewhat fantastic affair. The appetitive soul is situated in our gut close to the intestines frequented by the food we consume (70d7-e1). In principle, placing it this far from intellect is meant to create the peace and quiet necessary for contemplation of "what is beneficial for all" (70e5-71a3). The appetitive soul, however, cannot receive communications directly from intellect as the spirited soul can though it does not appear that the distance is at all the issue. Rather, appetitive soul simply does not have a nature that is capable of understanding or even caring about rational matters (71a3-5).

Given this irrational character, the gods contrive the liver, designing it to be a tool of intellectual control over appetitive soul (71a7-b1). To facilitate this control, they furnish the liver with certain characteristics that can be manipulated to threaten appetitive soul or encourage it as the case may be. The threats (*apeilēi*: 71b7), I take it, come into play as a response to unjust desires, as we saw above, and there appear to be two different ways of thinking about this response. As Timaeus describes it, we can, on the one hand, use the liver's mirror-like character to show images of frightening thoughts to appetitive soul (71b4-5). On the other hand, and what

appears to be the more threatening gesture, we can use the liver's bitterness to contract and contort the organ's parts—its "lobes, passages, and gates"—and consequently cause pains and nausea in the appetitive soul (71b8-c3).

One thing to note about this retributive process is that the appetitive soul remains our own. It is not as if we are causing pain in something outside ourselves, pain that we will not feel. Even more noteworthy is the amount of control over body such retribution entails. Timaeus is suggesting that the gods have set things up so that we have the power to contort organs inside our bodies, and this is, of course, truly amazing.

Thus, I think we can say in sum that following our own intellects and thus philosophy is identical with an uncanny degree of self-control, and here, I suggest, it is a specific kind of physiological control. So when the demiurge chooses to describe our intellectual mastery as a "drawing along" of the body, I think we should take this literally as Timaeus appears to do. Accordingly, philosophical authority over body, as opposed to the intellectual authority exhibited in gymnastics, for instance, involves, first, control over spirited or emotional soul which, as we have seen, involves the emphatic mastery of one emotion—contentiousness. Further, such control involves directing our contentiousness, and this direction amounts to power over the circulatory system. Having this power, in turn, allows intellect to exert its influence over appetitive soul not only by impressing alarming images on the liver, a physical feat of the highest order in its own right. But it also makes possible the contortion of the liver's parts which results in a kind of persuasive nausea, but one that we can assume acts as a remedy for the internal injustice that, in some sense, began the whole chain of events representative of the amazing physiological control of the philosopher.

Additionally, we can now see what the demiurge means when he suggests that mastery of the relevant items makes us just and failure to do so unjust. When we do not open up our physiology and descend upon the transgressions of appetitive soul, we are in effect allowing the injustices within us to go unchecked, and we should be considered unjust accordingly. As an act of omission, this amounts to a similar sense of the intellectual inactivity (*argias*) Timaeus explicitly intends us to avoid (92a1 and 89e6-7). Thus, the man destined to be the wild four-footed beast not only distorts his intellectual revolution when, in his inactivity, he neglects the study of the heavens. He also contributes to this distortion, it seems, when he fails to use "the revolution of the Same and similar" against his mortal soul and perhaps even by default is considered to be following the spirited and appetitive instead.

**4.4 Conclusion: Philosophy and the Warrior**

As seen in seen in the story told thus far about the installment of mortal soul, the context of philosophical control is very much the context of injustice. When intellect registers an unjust action, either from within or without, it moves through a sophisticated physiological means to combat it, a means that I have argued is, in some sense, identical with philosophy. Thus far, however, we have considered only actions against the culprit within—appetitive soul. We must now discuss the philosophical reaction to injustice from without.

Let me first briefly reiterate the impetus to this discussion. As we saw in Chapter 1, the day before the events of the *Timaeus* and *Critias* Socrates offers Timaeus and company an account of his ideal city. This account is not given without some expectation of repayment, however. Socrates asks that he be given, in return, a story about his ideal city at war though one that highlights the warriors' education and in particular that part of their education responsible for success in battle. This education, I argued, is that of the philosopher insofar as Socrates

thinks that it is the philosophical soul that allows the warrior to be appropriately harsh with his enemies. After some discussion and exhibition, Timaeus accepts the task of presenting the educational component, and ultimately, as we have seen, this amounts to presenting a description of the philosopher's soul and how it comes to be as it is. Accordingly, we must now consider what it is about his soul, in particular, that makes the Timaean philosopher a candidate for Socrates' ideal warrior.

First, I reiterate that what is operative in the philosophical context is a combination of physiological and psychic factors. When he is the victim of an unjust action or, I suppose, even the prospect of one hailing from an external enemy, the philosopher via intellect reports the occurrence to spirited soul. In expectation of dangers (*deinōn*) to come, spirited soul, in turn, "boils" (*zeō*) over, causing the heart to beat vigorously (*pēdēsis*) in its preparation of the bodily channels for the transmission of intellectual commands and threats (70c1 ff.). Moreover, this beating is tempered by the coolness and softness of the lungs surrounding the heart, organs placed there by the gods for the very purpose of maintaining the heart's and thus the spirited soul's service to intellect in times of the greatest passion (70c4-d6), in times, it appears, of battle.

In contrast to the case of internal injustice, it is not apparent here that the threats intellect deploys into the circulatory system are relevant in the event of war. There is no indication that such ultimatums are meant to check a potentially cowardly spirited or appetitive soul or that they somehow translate into violence against an external adversary. In the main, then, when intellect is in command, what we should say is that our contentiousness is properly directed and our bodies are ready to act in whatever way intellect dictates. Most importantly, however, we see a need for intellect to stay at the reins, and the gods have created us so that this is a possibility. Accordingly, for Timaeus, war is not an inspired affair to be pursued when we

are out of our minds (*aphrosunē*), as Timaeus suggests we are when divining in dreams (71e2-3). Rather, as we should expect, war is yet another instance in which we follow intellect and perhaps even the greatest test of our obedience thereto. Thus, the philosopher, in this case, the champion of allegiance to intellect is the prime candidate for war.

This is not the only thing that makes philosophers superior. It seems that philosopher-warriors are also supreme in the sense that they would never battle for the sake of increasing their property or wealth. In order to bring out this point, however, I think we should look at the best example of the opposite kind of combatants, the Atlantians, and here I turn again to the *Critias*.

> For many generations, so long as the inherited nature of the god remained strong in them, they were submissive to the laws and kindly disposed to their divine kindred. For their thoughts were true and in all ways great, and they showed gentleness joined with wisdom in dealing with the changes and chances of life and in their dealings with one another. Consequently, they thought scorn of everything save virtue and lightly esteemed their rich possessions, bearing with ease the burden, as it were, of the vast volume of their gold and other goods; and thus their wealth did not make them drunk with pride so that they lost control of themselves and went to ruin; rather, in their soberness of mind they clearly saw that all these good things are increased by general amity combined with virtue, whereas the eager pursuit and worship of these goods not only causes the goods themselves to diminish but makes virtue also to perish with them. As a result, then, of such reasoning and of the continuance of their divine nature all their wealth had grown to such a greatness as we previously described. But when the portion of divinity within them was now becoming faint and weak through being often blended with a large

> measure of mortality, whereas the human temper was becoming dominant, and being unable to bear the burden of their possessions, they began to behave in a disgraceful manner and became ugly to look upon, in the eyes of him who has the gift of sight; for they had lost the fairest of their goods from the most precious of their parts; but in the eyes of those who have no gift of perceiving what is the truly happy life, it was then above all that they appeared to be superlatively fair and blessed, filled as they were with lawless ambition and power. (*Crit*. 120e1-121b7; tr. Bury with modifications)

In essence, what we see here is the Atlantians' fall from philosophy, and I say this because of the parallels I see between the above and Timaeus' account. First, the Atlantians have true thoughts (*phronēmata althina*). For Timaeus, such thoughts (*alētheis phronēseis*) are, in part, the gateway to immortality and happiness and are equated by him with correct calculations concerning the heavenly revolutions, which, as we have seen, go hand in hand with philosophy (90b6 ff.). Further, the Atlantians are gentle with one another. They are not, at least initially, at all contentious or combative and accordingly are not following the mortal parts of the soul, in particular, the spirited part. Moreover, they are very much in control philosophically speaking, or as Critias describes it, they are not powerless (*akratores*) over themselves, over their desires. We, of course, see similar language in the demiurge's advice—we must master (*krateō*) our sensations, emotions, and body. The Atlantians behavior in this regard, it seems, is even the product of some reasoning (*logismos*). They think that the pursuit of material wealth not only destroys that wealth but also its pursuers. In fact, this line of thought in conjunction with the presence of their "divine nature," appears to be the very source of their riches.

This "best of both worlds" story, however, takes a turn for the worse as we should expect. The divine rule within the Atlantians starts to fade and their mortality and humanity takes over

(*epekrateō*). They then become ugly (to those capable of noticing, at least), having lost or even destroyed (*apollumi*) their own divinity. Moreover, they become greedy, thirsting for injustice and power (121b6-7) which, as we know from Critias' summary version of the story, eventually amounts to a thirst, in essence, for world domination. Thus, in sum, their fall from philosophy is a fall from divinity to humanity and ultimately to war.

In the end, the point seems to be about sustainability. Both the ancient Athenians and the Atlantians, in a significant sense, are philosophical initially due to a kind of divine afterglow. This is particularly apparent in the case of the Atlantians, and it seems that we can think that the first humans in Timaeus' account are philosophical in much the same sense. The question is, then, what changes them? If we take the Atlantians as our example, it would seem that the simple answer is—gold and silver or just generally speaking great wealth. By contrast, the ancient Athenians, just like Socrates' guardians, have nothing to do with gold or silver and live in modest homes and under humble circumstances (111e5 ff.), and it should be reasonable to think that if there had been no aggressors like the Atlantians to strike down nor unavoidable cataclysms to endure (recall from Chapter 1, pp. 24-5, the floods and conflagrations spoken of by the Egyptian priests), the ancient Athenians would have continued living philosophically in perpetuity. On the other hand, I doubt that anyone could maintain devotion to philosophy in an environment like that of Atlantis.

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