A RELIABILIST INTERPRETATION OF
SOCRATES’ AUTOBIOGRAPHY

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ABSTRACT. This paper aims to offer a novel interpretation of Socrates' autobiography in the Phaedo 96-102 by using reliabilist epistemology as a heuristic guide to spell out the complex dynamics of the intellectual development of Socrates of the Phaedo. Surprisingly, scholars have mostly focused on the outcomes of Socrates's scientific investigations, but they neglected the dynamics of the discovery process. The reason why Socrates rejected many earlier scientific ideas and the way in which he discovered new theories as much significant and noteworthy as those theories. I argue that Socrates' discovery and implementation of new methods of inquiry meet the epistemic standards of reliablistism that emphasize the reliability of processes involved in belief-formation. I show that Socrates criticized the physicists' materialistic-mechanistic approach to explain coming-to-be, perishing, and being because of its unreliability. The paper concludes that (a) the concept of reliability is used as a guide to theory choice in Socrates' autobiography (b) the positive feature of Socrates' second sailing is its reliability and (c) reliability is the motive behind Socrates' choice of certain belief-forming processes, namely a priori reasoning, the method of hypothesis, and the theory of Forms, in the search of the cause of coming-to-be, perishing, and being.

KEYWORDS: reliabilism, Phaedo, Socrates' autobiography, deuterous plous.

Introduction

Scholars generally agree that Plato, in the autobiography section of the Phaedo, intends for criticizing the Presocratic materialistic-mechanistic method of investigation and establishing Platonism's scientific superiority over the Presocratic natural science. However, the peculiarities of Plato's method of investigation and the reason for its superiority remain a subject of debate. In this paper, I oppose the prevalent claim that Socrates criticizes the physicists in the Phaedo because they do not look for the true causes of coming to be, perishing, and being. Instead, I suggest that if we assume that reliability is the standard for theory choice, we can avoid the
confusion over why Socrates rejected the method of natural science and why he was disappointed with Anaxagoras.

First, I argue that Socrates primarily condemns the physicists’ use of unreliable belief-forming processes, which are primarily based on sense-perception. Second, I show that Socrates’ search for a good and binding force is a part of the story, but Socrates’ methodological concerns that shape the search for a teleological cause alone cannot give us the full picture of his conception of the correct cognitive belief-forming processes. Instead, I offer an interpretation of the epistemological and methodological concerns laid out in the autobiography by using reliabilist epistemology as a heuristic device. I argue that the gradual process of Socrates’ discovery of a new method in his second sailing adhere closely to the standards of reliabilist epistemology, by showing that the motive principle of Socrates is to discover reliable belief-forming processes that produce higher ratio of true beliefs than its alternatives in the context of coming to be, perishing, and being.

My main reason for choosing the reliabilist approach is its emphasis on the genetic history of a justified belief, according to which the justifiedness of the belief $P$ depends on the reliability of every cognitive process involved in the forming of that belief $P$, so reliabilist epistemology stresses the role of historical relations in the process of justification and theory choice. Our understanding of Socrates’ autobiography, which recreates his intellectual life from a historical and personal perspective no matter whether it is fictional or nonfictional, can benefit from the historical/genetic feature of reliabilism. I especially underline this feature because the autobiography historically depicted why Socrates criticized the empirical method of natural science and how he had come to form a scientific method of his own. I conclude that Socrates’ second sailing is truth-conducive because it begins with a reliable belief-forming process, a priori reasoning, and moves from there to form new first and second-order cognitive processes.

This paper has four sections. Section 1 develops the basic conceptual framework for reliabilist epistemology. Section 2 deals with the methodological implications of Socrates’ criticism of the Presocratic natural science, to reveal the driving motive force behind Socrates’ dismissal of natural science. In Section 3, I examine Socrates’ remarks on Anaxagoras’ philosophy and spell out the root cause of Socrates’ second sailing. Section 4 explains the meaning of the second sailing in terms of reliabilism and analyses the method of hypothesis and the theory of Forms with respect to the reliabilist approach. The paper concludes that Socrates rejected the method of natural science because of its unreliability and dismissed the teleological explanations because they are not available at that time for Socrates to achieve the intended result. The upshot of my reading is that it offers a way out of a problem
pertaining to the method of the second sailing by showing that it is second to none in terms of the cognitive reliability of the processes.

The reader should bear in mind the following limitations of the current paper. First, I do not aim to substantiate that a reliabilist approach to the epistemology of the *Phaedo* is the correct reading in comparison with other externalist or internalist approaches to epistemic justification. This paper is concerned with neither how Plato advances a critique of other theories of knowledge nor whether Plato is an externalist or internalist; its goal is to explore Socrates' autobiography and propose a fresh angle on the issue. Second, I do not claim that the *Phaedo* is the most suitable dialogue that can benefit from an analysis based on reliabilist epistemology. Some other dialogues, such as the *Meno* and the *Theaetetus*, may be better candidates for analytically examining Plato's theory of knowledge. The examination of Plato's conception of epistemic justification, if he has any, is another topic. In this study, I try to reveal that the reliabilist conceptual framework offers a rewarding and reasonable heuristic device to interpret Socrates' autobiography in the *Phaedo*, without committing myself to any position concerning Plato's theory of justification. Third, I argue that Socrates' autobiography offers a theory choice technique that is in line with the reliabilist standards. It is plausible to conceive that Plato considers reliabilism as a good decision-making technique to decide between alternative scientific methods, for example between a materialistic-mechanistic and teleological conceptions, while he is not committed to the reliabilist approach to justification.

**Goldman's Reliabilism**

This section examines the basic principles of reliabilism that come to bear on my interpretation of Socrates' autobiography in the *Phaedo.* The standard analysis of propositional knowledge (knowledge-that) is dubbed as ‘S knows that p’ if and only if (1) S believes p, (2) p is true, and (3) S is justified in believing p. An intense debate has been revolving around the nature of justification, which has escalated after Edmund Gettier's 1963 paper "Is Justified True Belief Knowledge?" debunking the standard analysis of knowledge. Reliabilism is another externalist (the view that justification of a belief consists of factors external to an epistemic subject's internal

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1 Whether Socrates autobiography is authentic, non-authentic or semi-authentic is not significant for my purposes. I aim to offer a reliabilist reading of the intellectual development of Plato's dramatic character Socrates to expound Plato's epistemological views in the autobiography section of the *Phaedo.*

2 Ichikawa and Steup (2018), section 1 par.1.
state of affairs) response to the Gettier-type examples, and ‘the central idea of reliabilism is that what makes a belief epistemically justified is the cognitive reliability of the causal process via which it was produced’.3

The account of reliabilism employed in this study is mostly taken from Alvin Goldman’s influential paper “What is Justified Belief?” published in 1979 and its later modifications. Below are some basic principles of reliabilism:

1) The Reliability Principle. Reliabilism turns its attention to the causal processes of belief formation and their characteristics. ‘Faulty processes of belief formation, such as confused reasoning, wishful thinking, reliance on emotional attachment, mere hunch of guesswork, and hasty generalization’, have something in common: these processes ‘share the feature of unreliability’.4 In contrast, the common property of the processes that generally produce true beliefs is reliability. The reliable belief-forming processes, such as ‘remembering’, ‘good reasoning’, and ‘introspection’, tend to ‘produce beliefs that are true rather than false’.5 Thus, a reliable belief-forming process should maximize justified true beliefs and the justificational status of the belief \( P \) is determined by the reliability of the processes that caused \( P \).

2) The Principle of Comparative Reliability. There are degrees of reliability. For instance, seeing up close is more reliable than seeing from a distance. Although both processes may produce true beliefs, the latter is more prone to error while the former confers justifiedness more often, hence more reliable. One reliable process might produce more true beliefs than another reliable process, and the one that produces a higher proportion of true beliefs is epistemically preferable. For Goldman, ‘perfect reliability isn’t required’, hence reliability is assessed in relation to a comparative view of the truth-conduciveness of belief-forming processes.6

3) The Metaepistemic Principle. Goldman makes two distinctions. The one is between native psychological processes (such as deductive reasoning, perception, and memory) and methods (all processes which are ‘not part of native cognitive equipment’).7 The other is between first-order and second-order processes: the latter types produce ‘new methods’ or are involved in ‘method acquisition’ (i.e. retrieving a method stored in our memory) and ‘method selection’ (i.e. choosing a method among those that are retrieved).8 The appropriateness of a second-order

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3 BonJour (2002), 244.
4 Goldman (1979), 9.
5 Goldman (1979), 10.
7 Goldman (2015), 142.
8 Goldman (1986), 94.
process is directly connected with its reliability but a very high ratio of producing reliable first-order processes is not necessary.⁹

4) **The Principle of Historicity.** A good theory of justification should be historically reliable, so all of the first and second-order processes used in justification should be reliable.¹⁰ In reliabilism ‘justificational status of a belief depend on its prior history’.¹¹ In this sense, ‘process reliabilism is a backward-looking theory, not a forward-looking one’ since a belief’s justification status depends on its ‘provenance’ rather than ‘its subsequent effects’.¹² That is, the success of the belief \( p \) in producing further true beliefs does not have any impact on \( p \)'s justificational-status.

5) The base-clause principle of reliabilism is: if \( S \)'s believing \( p \) at \( t \) results from a reliable cognitive belief-forming process (or set of processes), then \( S \)'s belief in \( p \) at \( t \) is justified.¹³

In the rest of this paper, I will occasionally refer to the five points mentioned above to expound my reading of the *Phaedo* from the reliabilist perspective.¹⁴ I assume that the reader is familiar with the overall epistemological theme of the *Phaedo* and its main arguments, but if necessary, I will refer to some key elements of the dialogue’s epistemology. I begin by analysing the *Phaedo* 96-101, to show that Socrates’ autobiography includes three consecutive phases, and each shift presents new challenges to Socrates: (1) Socrates’ study of natural science, (2) Socrates’ study Anaxagoras, and (3) Socrates’ second sailing. My fundamental aim is to compare (1) and (2) with (3) from the reliabilist perspective of theory choice mechanisms. I show that (1) and (2) do not meet the required epistemic standards of reliabilism: (1) the physicists use unreliable belief-forming processes and (2) the teleological

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⁹ Goldman (1986), 53 argues that ‘the second-order processes need only acquire processes that are more reliable than previous ones used in the same contexts’.

¹⁰ Goldman (2015), 142 underlines that ‘use of a reliable method does not automatically or invariably confer justifiedness on an output belief, because a perfectly reliable method might have been acquired in a defective – e.g., haphazard though lucky – fashion’.

¹¹ Goldman (1979), 14. If the epistemic agent \( S \) arrives at the justified belief \( P \) at \( t \), from a set of beliefs \( B \) that he/she has at \( t \), the justificational status of \( P \) depends on the justifiedness of the entire set of \( B \).


¹³ Goldman and Beddor (2016), section 1.1 par. 5.

¹⁴ To my knowledge, no one has aimed to interpret any dialogue of Plato from a reliabilist perspective. Armstrong (1973), 159 observes passingly that Plato considers reliability analysis in the *Meno* 97b where Socrates compares true judgment with knowledge.
method is not achievable while (3) involves reliable belief-forming processes, hence it is truth-conducive.\textsuperscript{15}

The Unreliability of Natural Science

In his autobiography, Socrates recounts how he had tried to find an answer to the question relating to the \textit{aitia}/\textit{aition} of coming to be, perishing, and being.\textsuperscript{16} Socrates’ story starts with the description of his study of natural science: In his youth, Socrates was eager for ‘inquiry about nature’ (\textit{περὶ φύσεως ἱστορίαν}) because it seemed ‘wonderful’ (\textit{ὑπερήφανος}) to him ‘to know the \textit{aitiai} of each thing, why each thing comes to be, why it perishes and why it is’ (εἰδέναι τὰς \textit{αἰτίας} ἑκάστου, διὰ τί γίγνεται ἕκαστον καὶ διὰ τί ἀπόλλυται καὶ διὰ τί ἔστι).\textsuperscript{17} The typical characteristic of this kind of inquiry is that the Presocratic physicists referred to the materialistic-mechanistic conceptions to explain coming to be and perishing.\textsuperscript{18}

\textsuperscript{15} Similarly, Wiggins (1986), 8-9 discerns five distinct phases in Socrates’ intellectual development, even though we disagree about the structure and content of some phases. Phase A (96c6-d6, 96d8-97b3): Socrates has some ‘unconsidered’ beliefs about natural phenomena. Phase B (96bff.): Socrates studies natural science to know the cause of coming-to-be and perishing but he fails and unlearns the things he thought he knew. Phase C (97b8bff.): Socrates searches for teleological explanations, ‘initiated by the discovery of Anaxagoras’ book’. Phase D (98b7-99d1): Socrates fails to learn or discover teleological explanations and realizes the distinction between real and pseudo causes. Phase E (99d4bff.): Socrates begins his second journey in the search of teleological explanations through ‘conceptions \textit{[logoi]’}. I disagree most with the description of Phase C. Socrates, as I argue in section 3, was interested in Anaxagoras’ book not only because it appeared to offer teleological explanations but also because of its systematic structure. Concerning Phase E, I show in section 4 that second sailing has peculiarities with regard to approach that it takes to discover the cause of coming to be and perishing.

\textsuperscript{16} I will either leave \textit{aitia} and \textit{aition} as untranslated or render them freely, such as ‘reason’, ‘explanation’ or ‘cause’. For my purposes, I need not to be precise, as nothing I argue hangs on what \textit{aitia}/\textit{aition} means. Vlastos (1969), 314-316 claims that \textit{aitia} has both a logical and metaphysical function. For Sedley (1998), 115-116, τὸ \textit{αἴτιον} is the thing responsible for \textit{X}, which has logical or quasi-logical relation to the effect. Annas (1982), 313-314 suggests that forms as \textit{aitia} are explanations, though Plato’s original puzzlement is about causal explanation; Frede (1980), 223 argues that Plato consciously uses \textit{aition} for referring to cause and is an entity, while he refers to \textit{aitia} as an account of \textit{aition}, hence \textit{aitia} is the reason or the explanation.

\textsuperscript{17} All translations are mine, unless otherwise indicated.

\textsuperscript{18} See Hankinson (2008), 436-437; Rowe (1993), 230-231. For the sake of my argument, I accept this generalization. As Sedley (2008), 2 points out the Presocratic philosophers did
Now, a reliabilist reading of Socrates’ criticism of natural science can be schematized as follows:

(P1) Sense-perception is unreliable.
(P2) That which is unreliable does not produce any truth.
(C1) Sense-perception is not truth-conducive.
(P3) Natural science relies on sense-perception.
(C2) Natural science is not truth-conducive.

Concerning explanations in terms of material causes and empirical observation, Socrates questions the credibility of sensible objects and the nature of data that sense-perception provides. Earlier in the *Phaedo*, Socrates says that bodily senses do not produce anything ‘accurate or clear’ (μὴ ἄκριβεῖς...μηδὲ σαφεῖς); hence they do not offer humans any ‘truth’ (ἀλήθειάν). The truth of things, for Socrates, can be discovered via the knowledge of intelligible Forms, and one can gain knowledge of Forms by using the reason as most purely and free from the bodily effects as possible. Since natural science relies heavily on the data that comes from sense-perception, which is unreliable, natural science cannot be truth-conducive in terms of the Reliability Principle. In contrast, as we will see presently, Socrates discovers a truth-conducive solution to the question of the causes of coming to be and perishing in terms of *a priori* reasoning and the intelligible Forms. In line with the counsel of the Reliabilist Principle, Socrates dismissed natural science because it used unreliable belief-forming processes that caused false beliefs.

After studying natural science for some time, Socrates finally came to believe that he has ‘no natural ability’ (ἀφυὴς, *Phd*. 96c2) for this kind of inquiry. He says:

I will give you enough proof for [my natural inability]: I say this because concerning the things that I had known clearly even before, as I and others believed at least, then I was very much blinded by this kind of inquiry, so I also unlearned the things that I

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not only use materialistic or empirical explanations. However, throughout his narrative, Socrates is adamant that the physicists do only talk about material causes. Socrates will discuss and criticize some of the theories at the *Phaedo* 96b2-c1. Throughout his autobiography, Socrates refers to the cosmologies of Anaximenes, Anaxagoras and Democritus (Gregory, 2016, 148-150).

9 Phd. 65a9-b7. See Gallop (1975), 91.
20 See Phd. 65d1-66a8.
thought I knew before, about many other things as well as because of what a human grows (Phd. 96c2–7).\textsuperscript{21}

In light of this, let us assume that natural science uses the cognitive process \( O \) to form beliefs. For instance, we may say that Socrates' belief about coming to be two is false because natural science’s belief-forming process \( O \) is unreliable (see Phd. 96e1–2). If one uses the method of natural science, he or she will find that dividing one unit into two and adding one unit to another both cause the coming to be of two (see Phd. 96e8–97b3).\textsuperscript{22} The general implication is clear for Socrates: since the use of the physicists’ method leads to contradictory outcomes, it cannot be truth-conducive.\textsuperscript{23}

Moreover, no one I am aware of assumes that the physicists have tried to give an explanation of coming to be of two, so it is unlikely that Plato criticizes the physicists because they confuse the physical arithmetical operations with the conceptual ones. Plato must have been using the arithmetical example for explanatory purposes so that he can show how explanations based on sense-perception result in difficulties. Moreover, Socrates does not seem to have conceptual arithmetical operations in mind at all because he would have been making a huge mistake: \( 1 + 1 \) does not equal \( 1 \div 2 \), then it will not be the case that both addition and division causes the same result. So, Socrates must have been talking about a physical operation.\textsuperscript{24} If we put one apple to a basket which already has one apple in it, we will have two apples in the basket. In a similar vein, if we divide an apple by half, we will have two halves of an apple. In both cases, both physical operations, addition and division, cause coming to be of two units. With this example, Plato shows how the application of the method of natural science, empirical observation, results in

\textsuperscript{21} τεκμήριον δέ σοι ἐρῶ ἱκανόν· ἐγὼ γὰρ ἃ καὶ πρότερον σαφῶς ἠπιστάμην, ὥς γε ἐμαυτῷ καὶ τοῖς ἄλλοις ἐδόκουν, τότε ὑπὸ ταύτης τῆς σκέψεως οὕτω σφόδρα ἐτυφλώθην, ὥστε ἀπέμαθον καὶ ταῦτα ἃ πρὸ τοῦ ᾤμην εἰδέναι, περὶ ἄλλων τε πολλῶν καὶ διὰ τί ἀνύφροςς ταύταις.

\textsuperscript{22} Gallop (1975), 174. Flores (2020), pp. 7–8 argues that Socrates of the Phaedo rejected physics, the material causality, and turned to logic by introducing Forms as immaterial causes to explain coming to be and perishing. Mathematical examples serve this purpose very well.

\textsuperscript{23} Whilst presenting his theory of true causes, Socrates argues that ‘x’s opposite must not cause anything to be F’, so, for Socrates, the cause of becoming 2 is not addition or division, but twoness (Sedley 1998, 120–121).

\textsuperscript{24} Stough (1976), 13–14 points that even if coming to be two is construed as a conceptual (arithmetical) operation, the anomaly of the operation (both addition and division explains coming to be two) would not disappear. The problem is that the physical operation cannot be assimilated to the conceptual operation without causing an anomaly.
a false belief about coming to be of the number two, which is a conceptual arithmetical operation. The coming to be of two, thus, must be explained in terms of a method that is based on concepts rather than physical objects. The reliance on sense-perception is the reason natural science is not truth-conducive, so Socrates should find another method for studying the nature.²⁵ The positive outcome of Socrates' study of natural science is that he does no longer believe that he knows that it is ‘because of $A, B$. Socrates has come to realize that he did not know ‘why $X$ comes to be, perishes, and is $F$’, he finds the philosophical reason to search for new explanations.²⁶

Now, the primary problem, for Socrates, is not that natural science does not give an adequate explanation, it goes deeper than that.²⁷ The only thing that would account for this novel insight is the understanding of the failure in the method of natural science. Socrates dismissed the method of the physicists not because they failed in recognizing what constituted an adequate explanation, but because their method led to intellectual blindness. If Socrates’ dismissal of the method of natural science were about inadequacy, it would be difficult to explain why Socrates has unlearned the things that he thought he knew before, such as the belief that humans grow because of eating and drinking (See Phd. 96c7-8).²⁸ Want of adequate explanation cannot account for such a drastic change in Socrates’ cognitive state.

Besides, only after finishing his study of Anaxagoras’ philosophy, which depicts a distinct period of his intellectual life, Socrates protests that the physicists did not distinguish between ‘the real cause’ ($τὸ \αἵτιον \τῷ \ὄντι$) and ‘that without which the cause would never be a cause’ ($ἐκεῖνο \ἄνευ \ὁ \τὸ \αἵτιον \οὐ \ἄν \ποτ’ \ἐίη \αἵτιον$), to reiterate terminologically, between sufficient and necessary causes.²⁹ Socrates is dissatisfied with explanations that do not allude to the real aitión. Since the physicists did not discern the real αἵτιον, they could not even agree among themselves and explain the same phenomenon in diverse ways, albeit incorrectly.³⁰ Chronologically, Socrates studied the materialistic-mechanistic explanations of natural sci-

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²⁵ Gallop (1975), 171-172.
²⁶ Folores (2020), 9 observes that Socrates’ aporia helped him to develop his intellectual capacity.
²⁸ In this sense, the method of natural science, sense-perception, is an ‘undercutting’ epistemic defeater, that is, perceptual faculties will always give direct evidence against my beliefs. Every time I try to gain knowledge via sense-perception (the defeater), I will be defeated. See Pritchard (2018), 3069-3070; Kotzen (2019), 214.
³⁰ Robin (1926), XLVIII.
ence and his initial dissatisfaction resulted from the unreliable belief-forming processes used by natural science. At that point, there is no mention of the distinction between the real αἴτιον and the other αἴτιον, which will come forth only after Socrates has finished his studies in Anaxagoras’ philosophy. Therefore, Socrates’ initial dissatisfaction with natural science does not stem from its failure to recognize the real cause of coming to be and perishing because neither did Socrates know that kind of cause at that time.

**Anaxagoras’ (Non)-Teleological Causation**

Once Socrates has realized that natural science could not give the answers he was looking for and that his earlier convictions about coming to be and perishing were false, he decides to adopt a different approach. Socrates says:

I can no longer persuade myself that I know because of what it comes to be one, nor, in a word, because of what any other thing comes to be, perishes, or is following this manner of investigation, but I jumbled together a different manner of my own, and I endorse that one in no way (Phd. 97b3-7).

Unfortunately, this new way of investigation Socrates endorses does not seem ideal either, as throwing together an approach ‘at random’ (εἰκῇ) does not provide something systematic and technical. Scholars have not examined the meaning of εἰκῇ in much detail although we can understand the methodological rigour of Socrates’ new approach by briefly surveying Plato’s use of εἰκῇ in other dialogues. In several places, Plato uses εἰκῇ to refer to a lack of design, precision, and rationality. In the *Protagoras* 326c9-d1, doing something εἰκῇ is compared with doing it according to ‘model’ (παράδειγμα). In the *Sophist* 225c1, εἰκῇ is connected with that which is done ‘non-technically’ (ἄτέχνως). In the *Philebus* 28d7, εἰκῇ is used together with ‘irrational’ (ἄλογος) when talking about the generation of the world order. Finally, what Aristotle says in the *Metaphysics* 985b15-18 is also interestingly relevant for the context of the *Phaedo*. Aristotle calls Anaxagoras a sober person because Anaxagoras considers nous ‘as the cause of the cosmos and its order’, and compares him with his predecessors, who speak εἰκῇ. In light of the meaning of εἰκῇ, it can be inferred that Socrates’ new approach is something incomplete and uncomprehensive, lacking accuracy and precision. Socrates’ confused jumble failed to produce positive results that would satisfy his philosophical needs, so he began studying

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31 See Archer-Hind (1883), 129.
Anaxagoras' philosophy. In an axiological scale, Socrates' new approach is somewhere above of natural science and below of what he hopes to find in Anaxagoras. Therefore, Socrates favoured his confused jumble over natural science, but in the hope of finding a systematic and more reliable method he turned to Anaxagoras.

However, having read Anaxagoras' book to find an answer for the problem of coming to be and perishing, Socrates stated that:

But then, my friend, I was carried away from my wonderful hope, because I, going on reading, saw a man who neither made use of his mind nor ascribed any causes to it regarding the ordering of the things, but who declared the causes as air, aether, water and many other strangenesses (Phd. 98b7-c2).

For Socrates, Anaxagoras was no different than the physicists as he assigned all the causal roles to material elements but none to nous. Socrates expected from Anaxagoras to achieve two things: (1) making true judgements about natural phenomena (e.g., the earth is round), (2) showing why it is better for something to be that particular way (e.g., explain why the earth should be round) and explaining 'the cause that necessitated it' (Phd. 97e1-2). Nous has the potential to explain all natural phenomena, so Socrates hoped to discover an αἴτιον that is universal, systematic, and teleologic. That cause, nous, should be αἴτιον for each X's coming to be, perishing, and being and αἴτια in terms of nous should explain why it is the case that X comes to be, perishes and exists in the way (see Phd. 98a6-b3).

Although the second sailing is inferior to a first sailing, this does not grant permission to consider the second sailing as a confused jumble.
epistemological terminology, we can call an explanation, *αἴτια*, in terms of *nous* the justifier, that which justifies a belief.\footnote{Here, I am speaking loosely because it is controversial whether Plato thinks that knowledge is justified true belief or something else. See Fine 2021, 65-68. The structure Socrates has in mind must be something like this: it is true that *P* (the earth is at the center), *S* believes that *P*, *S* is justified in believing this because it is properly and sufficiently grounded in terms of what is best.}

Nevertheless, Socrates could not find in Anaxagoras what he was looking for. From the perspective of reliabilism, Anaxagoras’ was using unreliable belief-forming processes, like the physicists. By giving an example, Socrates tries to explain why he was disappointed with the Anaxagorean way of explanation. Socrates’ expectations from Anaxagoras to explain his current condition, sitting in the cell, can be formulated as follows in terms of the base-clause principle of reliabilism:

If *S*’s belief *P* that ‘Socrates is sitting in the cell because of *X*’ results from the reliable cognitive belief-forming process ‘explaining in terms of what is best’, *S*’s belief in *P* is justified.

Socrates was expecting from Anaxagoras to explain why it was better for Socrates to sit in the cell than escaping from it (see *Phd.* 99a2-4). Anaxagoras, however, did not give such an account. Instead, if Anaxagoras were to say something about Socrates’ current situation, he would have referred to material causes.\footnote{See Sedley (1998), 125.} What Anaxagoras would have said can be formulated as follows:

*S*’s belief *P* that ‘Socrates is sitting in the cell because of *Y*’ results from the unreliable belief-forming process ‘materialistic-mechanistic explanation’, *S*’s belief that *P* is not justified.

Socrates thinks that the *αἴτιον* *Y* he would have found if Anaxagoras were to give one would be based physical *αἴτια*, such as Socrates was sitting in the cell because of his bones and sinews (see *Phd.* 98c5-7). For Socrates, thus, Anaxagoras was no different than the physicists as he resorted to an unreliable belief-forming processes and could not live up to his promise. Anaxagoras failed answer why Socrates thought that it is better to stay at prison instead of running away and why the Athenians thought that it was better to condemn Socrates. As a result of this failure, Socrates feels compelled to search for a better explanation, which I will discuss next.
Socrates narrates his philosophical journey to recount his experiences concerning the cause of coming to be and perishing because knowing this cause would help him show that the soul is immortal (See *Phd*. 95e-96a). Empirical observation of phenomena cannot assist him in his search of arguments in favour of the immortality of the soul, hence the second sailing was the only way out, which is based on *a priori* reasoning. Such reasoning can be regarded a belief-forming process, which is preferable over empirical observation in relevant research settings, such as the search for the cause of coming to be and perishing. For instance, an epistemic subject can rightfully reject the physical measurement of angles to prove that the sum of internal angles of a triangle is 180° because of the unreliability of the method used. Similarly, Socrates can rationally prefer *a priori* reasoning over sense-perception because the latter is unreliable, as Socrates investigation of the physicist demonstrates. Socrates therefore began his second sailing, ‘in search of the cause (99c9–d1), based on the method of hypothesis, and this leads him towards a theory of Forms as causes (99d4–102a1).’

The interpretation of second sailing (δεύτερος πλοῦς) has been a hot topic for both ancient and modern scholars. In this section, I aim to offer a new angle for interpreting the second sailing from the perspective of reliabilist epistemology. I argue that Socrates’ second sailing offers a new belief-forming process which is more reliable than the alternatives in the relevant contexts. Socrates’ autobiography is arranged chronologically, and his study of Anaxagoras comes between Socrates’ discovery of his confused jumble and the commencement of his second sailing. We know that he has been practicing his method for some time once he heard someone reading Anaxagoras’ book. In addition, his second sailing involves the method of hypothesis and the theory of Forms, to which Socrates did not refer earlier in his autobiography. Socrates launched his second sailing after he had finished studying Anaxagoras’ philosophy (whether he continued to search teleological causes/explanations in his second sailing is another question). Socrates, having failed to find an answer following his own method, attracted to Anaxagoras’ philosophy because of its systematic approach to explaining coming to be and perishing, besides his hope to find an account in terms of what is best.

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41 Frede (2011), 144.
42 Müller (2017), 349-350
43 Socrates said ‘But, on one certain day, I heard someone reading from a book by Anaxagoras’ (*Phd*. 97b8-9). Rowe (1993), 234 maintains that the phrase ‘Ἀλλ’ ἀκούσας’ suggests a turn of events: at some time in the past, Socrates stopped practicing his method to find answers in Anaxagoras.
After finishing the story about his studies of Anaxagoras’ philosophy, Socrates says:

Now I would become most gladly the student of anybody who has that sort of cause in any way whatsoever. Since I was deprived of it and wasn’t able either to discover it myself or to learn it from somebody else, do you wish me to exhibit to you, Cebes, how I’ve undertaken my second sailing for the inquiry of the cause (Phd. 99c8-d2).  

Disagreements about this passage stem from a lack of consensus whether Socrates abandons the search of the teleological aitia (the teleological reading) or he make a fresh start in his search of that kind of aitia in the second sailing (the non-teleological reading). In order to address the questions relating to the interpretation of the Socrates’ philosophical goal in terms of the reliabilist approach, we need to begin with explaining the meaning of δεύτερος πλοῦς. In doing so, I will try to offer a middle ground for the disagreements about the goal of the second sailing.

Martinelli Tempesta (2003) conducted a comprehensive analysis on the meaning of δεύτερος πλοῦς by reviewing ancient literature and reported that δεύτερος πλοῦς must be understood, (a) as the use of rowing in navigation in case the wind fails; it is therefore slower and more tiring navigation to which we must turn as a last resort in the absence of a better alternative, (b) δεύτερος πλοῦς is regarded as an alternative route, long and difficult, which nevertheless reaches its aim. No matter whether one embraces (a) or (b), the proverb is always used to denote a second-best. The second sailing is always a fall-back solution, which is used in the absence of a better one; even when the second-best is an expedient chronologically ‘second’ to a previous action, which proved to be a failure, it is still something that the subject considers axiologically inferior.

There is a serious debate around the interpretation of the relationship between the second sailing and the first sailing. Some believe that Socrates’ second sailing is considered second because it lacks ‘the unconditioned supremacy of the Good’

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44 ἐγὼ μὲν οὖν τῆς τοιαύτης αἰτίας ἐπὶ ποτὲ ἔχει μαθητὴς ὅτου οὖν ἦδηστ’ ἃν γενόμην· ἐπειδὴ δὲ ταύτης ἐστερήθην καὶ οὖτ’ αὐτός ἔφεσθε οὔτε παρ’ ἄλλου μαθεῖν οἷς τε ἐγενόμην, τὸν δεύτερον πλοῦν ἐπὶ τῆς τῆς αἰτίας ζήτησιν ἢ πεπράγματεμαι βούλει σοι, ἔφη, ἐπίδειξιν ποιήσωμεν, ὦ Κέβης;

45 For a recent survey of the disagreements see Vazquez (2020), 85-88. See Sedley (1989), 381-383 for a teleological interpretation of the Phaedo myth about the soul’s afterlife and the geography of universe.

46 Martinelli Tempesta (2003), 92-93. According to Schol. in Phd. 99c and Schol. in Plt. 300c, the proverb δεύτερος πλοῦς means a ’safer (ἀσφαλής’) course. Burnet (1911), 108 claims that the second sailing refers to ‘a less adventurous course’. Cf. Martinelli Tempesta (2003), 99-100.

47 Martinelli Tempesta (2003), 108.
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outlined in the Republic VI. In a similar vein, others defend that the second sailing is the method of hypothesis, which is the second-best because of its tentativeness and the absence of the unhypothetical principle, the Good. Other scholars understand the second sailing as the theory of Forms by arguing that theory is second-best in comparison with teleological explanations, of which Socrates was denied. Some acknowledge that Socrates’ second sailing is the second-best method of knowing Forms because we can only grasp Forms indirectly through concepts or the representations of intelligibles. Thus, the method of the second sailing is inferior to a method that may allow us to know Forms directly. Lastly, scholars also defend that the method of the second sailing is contrasted with the method of learning and discovering the teleological aitia rather than that aitia itself. That is, Socrates compares the scientific methods through which we can learn and discover in general.

Each of these views has relative strengths and weaknesses, so it has been proved difficult to produce a solution that would satisfy every party of this debate. This dispute is so complex and intricate partly because scholars have generally ignored Plato’s metaepistemic and methodological concerns in the second sailing so a reliabilist approach to the second sailing can help us settle this debate. In what follows, I show that Plato’s tactic to discover an answer to the aitia-question can be better understood in terms of reliabilist epistemology. Especially from the perspective of the Principle of Comparative Reliability, the belief-forming processes Plato offers do not need to be perfect; reliable processes that produce more true beliefs than their competitors would be sufficient. In terms of the Principle of Historicity, I show that all belief-forming processes used in the second sailing are reliable. Regarding the Metaepistemic Principle, I argue that the method of hypothesis and the theory of Forms both constitute the second sailing, the former as a second-order process and the latter as a first-order process. With regards to Reliability Principle, I show that the belief-forming processes of the second sailing is chosen because of their reliability.

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49 See Murphy (1936), 46.
50 Rose (1966), 466-467; Hackforth (1955), 137; Dorter (1976), 173; Sedley (1998), 126-127.
51 See (Bluck) 1957, 24-25; Robin (1926), XLIX. Adopting the teleological reading, Pakaluk (2010), 656-660 argues that Socrates indirectly appeals to the operation of mind in the natural world, so he talks about a second voyage, which takes a less dangerous and “a roundabout route to the same location”. Iwata (2021) argues that Socrates’ second sailing is a more laborious analytical process to discover the teleological cause, the Form of Good, via intellectual Forms instead of searching that cause via observation of celestial bodies via sense.
52 See Ross (1982), 24.
Socrates’ Answer to Aitia-Question

In this section, I show that the purpose of Socrates’ second sailing is to maximize true beliefs about the aition/aitia of coming to be and perishing rather than discovering a perfectly reliable theory of explanation. As I have already claimed, Socrates’ fear of becoming intellectually blind drove him to look for a new technique in lieu of the method of natural science and he had practiced this new approach, which Socrates randomly jumbled. Next, Socrates examined the philosophy of Anaxagoras, yet he could not find the kind of explanation he was looking for. Anaxagoras too appealed only to the materialistic-mechanical explanations instead of giving teleological explanations. Now, Socrates has to decide: he either goes back the jumbled approach or adhere to new method. Socrates chooses the latter path, the second sailing.

Once more, the reader comes across a blindness metaphor. To explain why he embarked on the second sailing, Socrates said that ‘I was worried that I might become completely blinded in my soul, looking at the things with my eyes and attempting to grasp them with each of my senses’ (Phd. 99e1-4). At that moment, Socrates has not yet suffered from blindness, but he worried that he might become completely blinded, as the optative (of secondary sequence) τυφλωθείην suggests. Socrates could neither discover or learn teleological explanations nor go back the method of investigation that uses sense-perception. In the Phaedo 99d4-e1, Socrates said that he was afraid of becoming blind due to looking at the sun during the solar eclipse, and he suggested ‘looking at the image of it [the sun] in water or something of the sort’ (ἐν ὑδάτι ἢ τινι τοιούτῳ σκοπώνται τὴν εἰκόνα αὐτοῦ) to escape this dangerous and undesired effect, namely becoming completely blinded. Therefore, he declared his decision that ‘I must take refuge in logoi to search for the truth of things in them’ (Phd. 99e4-100a1). For Socrates, studying things in logoi is better than studying them in erga. Although both types of study are in a sense studying things ‘in images’, Socrates emphasizes the untenable relationship between logoi and erga, as both being images, and undermines the comparison by claiming that the solar eclipse analogy and the idea of ‘looking at images’ are in a way misleading. Putting aside the difficulties regarding this concept of images, studying in logoi is better than the alternative, studying in erga.

53 [...] ἔδεισα μὴ παντάπασι τὴν ψυχὴν τυφλωθείην βλέπων πρὸς τὰ πράγματα τοῖς ὄμμασι καὶ ἕκαστη τῶν αἰσθήσεων ἐπιχειρῶν ἀπετεθαί αὐτῶν.

54 ἔδοξε δὴ μοι χρῆμα εἰς τοὺς λόγους καταφυγόντα ἐν ἑκείνοις σκοπεῖν τῶν ὄντων τὴν ἀλήθειαν.

56 Phd. 99e6-100a3. For Socrates’ note of caution regarding his comparison of logoi and erga, see Burnet (1911), 109; Gallop (1975), 178; Bostock (1986), 159-161, Sallis (1996), 43.
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What exactly studying in *logoi* means is however unclear. Fortunately, a precise translation of *logoi* is not relevant to my argument, I can leave untranslated. What is significant here is that *logoi* are compared with *erga*, physical objects, hence *logoi* are non-physical and logical objects and are used in the method of hypothesis as premises. In this respect, Socrates aims to present a new method that replaces the empiricism of Presocratics with ‘a fundamentally a priori approach to philosophy’.

Studying things in *logoi* and studying them in *erga* stands for two different approaches by which we inquire. This meaning is conveyed by ἐν [τοῖς] λόγοις and ἐν [τοῖς] ἔργοις, where ἐν is used as a dative of means or manner: studying by *logoi* and by *erga* respectively. As a method of research, studying by *logoi* is a non-observational/theoretical method while studying by *erga* alludes to empirical observation.

As mentioned in section 1, cognitive processes are divided into two: first-order processes (that which are used to produce beliefs) and second-order processes (that which are used to produce belief-forming methods). Moreover, there are two kinds of processes in the process of justification: ‘native psychological processes (e.g., deductive reasoning and perception)’ and ‘acquired methods (e.g., statistical method)’. The autobiography section, which is the history of Socrates’ discovery of an explanation of coming to be and perishing, completed successfully with the second sailing, which has three components: *a priori* reasoning (a native psychological process), the method of hypothesis (a second-order process), and the theory of Forms (an acquired method).

As I argued in Section 3, the method of Socrates’ second sailing must offer a systematic approach of investigation in contrast with his jumbled approach. Otherwise, we would need to make an uncharitable reading that Socrates was able to prove that the soul is immortal and imperishable owing to unorganized and unsystematic epistemic notions, such as lucky guesses or coincidences, so there must be theory choice mechanism for selecting, applying, and generating new models. I suggest that the method of hypothesis is such a reliable second-order belief-forming process is to produce new methods, retrieve old methods or choose from the retrieved methods.

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56 Some claimed that *logoi* are concepts, which are derived from Forms, through which knowledge is acquired (Archer-Hind 1883, 135-136). Others rendered *logoi* as definitions, more precisely Socratic definitions answering the question “what is X?” (Bluck 1955, 111-113 & 198-200). Again, *logoi* are translated as theories since this translation covers Socrates’ broad use of *logoi*, such as propositions, statements, and even in some cases definitions and arguments (Rose 1966, 470). Lastly, *logoi* are taken to mean ‘propositions’ in the sense that they are ‘premises of theories’ (Ferber 2021, 7).

57 Sedley (2021), 47.
If our aim is to decide between competing theories, we can use the method of hypothesis as an algorithm for theory choice. The simple procedure is described at *Phaedo* 100a3-7 as follows: (a) hypothesize \( X \), (b) put that which is in harmony with \( X \) as true and that which is not as false. Socrates later adds another item to the procedure at 101d3-5: (c) do not examine the original hypothesis \( X \) itself without examining its consequences. In this respect, (a), (b) and (c) are the rules that allows us to find a solution to a particular problem. Here the problem is about the cause of coming to be, perishing, and being.

To hypothesize something is ‘deliberately’ choosing rather than accepting something intuitively or at random.\(^{58}\) Socrates’ reason for choosing the Form-Aitia Hypothesis, \( X \) is \( F \) because of the Form of \( F \), as a starting point must result from the explanatory power of this hypothesis.\(^{59}\) There must at least be one other alternative theory, as Socrates implies that he chooses that which he deems to be the better to answer a specific question by saying that ‘on every occasion, I hypothesize a *logos*, whichever one I judge to be the strongest’ (*Phd*. 100a3-4).\(^{60}\) Although Socrates does not tell us what the alternatives are, it is plausible to think that Socrates have examined other hypotheses to compute an answer but failed. In general, thus, the method of hypothesis provided Socrates the true algorithm or the set of rules and has enabled him to generate a reasonable and standardized answer, the theory of Forms, to explain coming to be, perishing, and being.

Finally, the theory of Forms shows its worth by supplying the necessary epistemic and ontological tools to justify that the soul is immortal although the status of the proof has long been debated. The simple fact that both of his interlocutors agreed does not seem to be sufficient from the perspective of objective epistemic standards since persuading someone is a strong reason for justification.\(^{61}\) In consideration of the dialogue’s internal dynamics and how the exchange between Socrates and his interlocutors shaped the development of Socrates’ argument, the final agreement gives us reason to think that Socrates believes that his method is truth-conducive since he has grounded the belief that the soul is immortal.\(^{62}\) However, Plato does not take it for granted that the theory of Forms in its current form is the

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\(^{58}\) Robinson (1953), 109

\(^{59}\) Socrates’ initial hypothesis can either be [1] Form-Hypothesis (Forms exist) or [2] Form-Cause Hypothesis (X is F because of the Form of F). I favour [2]. See Gallop (1975), 179-182; Bedu-Addo (1979), 115; Bailey (2005), 107. Cf. Benson (2015), 155. For the most plausible schematization of the argument for the causal power of Forms see Bailey (2005), 107-108.

\(^{60}\) ὑποθέμενος ἑκάστοτε λόγον ἃν ἄν κρίνω ἐρρωμενέστατον εἶναι.

\(^{61}\) See Sedley (2018), 211-212; Frede (1978), 36 for the content of interlocutors’ agreement and its connection with the earlier proofs of the immortality of the soul.

best method of explanation.\textsuperscript{63} Indeed, for Plato there is a need to examine whether the theory of Forms is true as Socrates says that ‘when you needed to give a \textit{logos} of that itself [the original hypothesis], you would give it in like manner, again assuming another hypothesis whichever of the highest ones would seem best until you reached something sufficient’ (\textit{Phd. 101d5-e1}).\textsuperscript{64} This comment, together with Socrates’ admiration of teleological explanations, implies that the theory of Forms is comparatively reliable at that moment and in the relevant contexts.

\section*{Conclusion}

This paper has argued that reliabilism is a fruitful heuristic guide to explaining the autobiography section of the \textit{Phaedo}. I suggest that Socrates of the \textit{Phaedo} implements reliabilist epistemology as a theory choice mechanism. The entire process that leads to the final proof of the immortality of the soul meets the standards of process reliabilism and the phases of the discovery process that Socrates had gone through points in the direction of a reliabilist mindset. My main goal was to assess how a reliabilist approach may account for the underlying epistemic dynamics that steer Socrates’ intellectual journey for discovering the \textit{aitia} of coming to be, perishing, and being. The fact that Plato depicts Socrates’ intellectual journey leading to the proof of the immortality of the soul in autobiographical form tallies with the historical/genetic nature of reliabilism. The chronological character of the autobiography enables the reader to see how the justifiedness of Socrates’ final belief, that the soul is immortal, depends on its prior history. The reader can also look at each phase of the autobiography and sees how Socrates discarded unreliable belief-forming processes and adopted only reliable ones.

To conclude, the investigation of the autobiography section has shown that the reliability of belief-forming processes, for Socrates, is a key factor in deciding whether a belief is justified. First, both the method of hypothesis and the theory of Forms are reliable belief-forming processes, and hence they are preferable over the method of natural science, which is not truth-conducive. Second, Socrates failed to form any belief whatsoever in terms of teleology, although he may have vision and imagination to give a teleological account of the universe. Third, although the teleological explanations are the most complete, Socrates was not able to neither discover nor learn such explanations. Socrates, therefore, turns to the theory of

\textsuperscript{63} See Trabattoni (2016), 42-43.

\textsuperscript{64} The theory of Forms refers to two kinds of causes, safe and clever causes. It does not matter whether we prefer the safe cause (\textit{Phd. 100d1-e3}) or the clever cause (105b5-c7) to explain coming to be and perishing, both can explain causality albeit in different ways. See Sedley (1998), 119-120; Sedley (2021), 56-57.
Forms, yet he advises that the theory should be kept open until reaching the maximum possible epistemic status for humans (Phd. 10747-b1).

Let me draw an analogy between teleological explanations and weather forecasts. Clairvoyance would be the perfect ability to predict meteorological event, but clairvoyance is unscientific, and predictions based on clairvoyance are not reliable. Therefore, one must use weather satellites to detect weather and climate events. If clairvoyance were a real ability, it would have predicted any weather event perfectly because of its power to see the future event. However, no human can really have the ability, so no explanation based on clairvoyance is neither reliable nor truth-conducive. Likewise, no one can produce teleological explanations for Socrates although the ability to explain natural phenomena teleologically is theoretically possible unlike clairvoyance. At any rate, Socrates could not find a perfect belief-forming process, but he was left with a reliable one. In terms of reliabilism, Socrates did not need perfect reliability to prefer a belief-forming process, so he was epistemically justified in choosing the theory of Forms. This theory would remain the best option until someone comes up with a more reliable one, which is more truth-conducive than the theory of Forms. In this sense, without any explicit reference to a teleological principle, namely the form of the Good, the most suitable avenue to knowledge followed in the Phaedo seems to be reliabilism since highly reliable processes, for reliabilism, can confer justification and accepted as truth-conducive notwithstanding the want of epistemic perfection.

REFERENCES


65 BonJour (1980), 62-65 develops the clairvoyance problem to show that reliabilism allows a clairvoyant to have justified beliefs, but such beliefs cannot be considered justified. I am here ignoring this problem since Socrates failed to discover teleological explanations, so he has no ability at that moment. Socrates will offer a teleological explanation of the generation of the whole universe in the Timeaus.
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