

FROM CAUSES TO FORMS:
THE *PHAEDO* AND THE FOUNDATIONS OF PLATONIC METAPHYSICS

by

Willie Costello

A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy
Graduate Department of Philosophy
University of Toronto

© Copyright 2015 by Willie Costello

Introduction

Platonic metaphysics is distinguished by its recognition of “Forms” – entities which, unlike ordinary perceptible objects, are imperceptible, eternal, unchanging, uniform, and transcendent. Plato also believed Forms were causes. Why?

Philosophers since Aristotle have challenged this claim, arguing that Forms cannot be causes in any legitimate sense, and that their alleged causal role can be performed by other things.¹ Correspondingly, philosophers interested in elucidating Platonic metaphysics have tended to downplay the Forms’ alleged causal status,² and instead emphasize their status as objects of knowledge, or linguistic referents, or evaluative standards.³

This dissertation opposes this tendency. I show that there *is* a legitimate sense in which Forms are causes, and that this sort of causality is *fundamental* to what Forms are. I contend that, alongside the other arguments for Forms, there is also a *causal* argument, which shows all the Forms’ canonical features to derive from their status as causes (and in many cases explaining these features better than any other argument has been able). Thus, in answering the question of why Plato believed Forms were causes, we will discover a new explanation of why Plato believed in Forms full stop, and of what Forms, fundamentally, are.



And indeed, we should welcome a new account of what led Plato to believe in Forms. This is because, in many ways, the closest thing there is to a standard account falls short.

The standard story since Aristotle has been as follows: Plato, like Socrates, thought there was such a thing as knowledge. Yet Plato also, and unlike Socrates, thought sensible things were ever in flux, such that there could be no knowledge of them. Therefore, for Plato,

¹For Aristotle’s original arguments, see *On Generation and Corruption* II.9 335b7–24 and *Metaphysics* A.9 991a8–b9, discussed more in §5.4.2. For a contemporary parallel, see Vlastos (1969), discussed more below.

²For instance, of the five Academic arguments for Forms presented in the *Peri Ideōn* (cf. *Metaphysics* A.9 990b8–17 and Fine (1993)), none concerns the Forms’ role as causes. Likewise of the ten arguments for Forms more recently catalogued by Patterson (2009).

³Cf., for the epistemological argument, Taylor (2008) and Fine (1978); for the semantic argument, Crivelli (2008) and Bostock (1986); for the moral argument, Rist (2012); and for the interrelationship between these arguments, Cherniss (1936).

knowledge must be of unchanging, intelligible things, separate from the sensible world. Thus, whereas Socrates believed in immanent universals or definitions as the objects of knowledge, Plato came to believe in Forms.⁴

The standard story is partially right, no doubt. Yet there are at least three reasons we should hope it is not the whole story.

In essence, the standard story imputes to Plato the following inference:

1. There is knowledge
 2. There can be no knowledge of sensible things
- ∴ There are Forms

As the first mark against it, the standard story's argument would seem inadequate, in that the argument's two premisses entail only some of the Forms' canonical features. It makes sense that the objects of knowledge would be eternal and unchanging, given the absolute infallibility of knowledge; and it makes sense that its objects would be imperceptible, given that there can be no knowledge of sensible things. Yet why should these objects be self-predicative or separate, as Forms are said to be? There seems no good reason. Strength, for instance, is the object of the gymnastic expert's knowledge; yet in order to be such it need not itself "be strong" (whatever that might mean). Similarly, even if we grant that there can be no knowledge of sensible things, that does not mean that there cannot be knowledge of intelligible things which are somehow "in" sensibles, and cognized through a process of induction or abstraction. Thus, as the argument stands, it undergenerates the features characteristic of Forms: its premisses entail only that there are imperceptible, eternal, unchanging entities, and not the purported conclusion that there are (self-predicative and separate) Forms. Which is not to say that Plato never argues invalidly; he surely does. But we are looking for an explanation of what led Plato to believe in *Forms*, and this ought to provide at least an ostensible basis for all their distinctive features. Yet the standard story fails to do even that.

Secondly, the standard story's argument would seem unsatisfying, in that its second premiss is one which none but the most hard-line Heraclitean would accept.⁵ Which is, again, not to say that Plato is never unsound (or Heraclitean) in his reasoning; he surely is. The point is that the standard story, in attempting to account for Plato's radical metaphysical doctrine of Forms, does so only by ascribing to him an even more radical metaphysical doctrine about

⁴The original versions of this story in Aristotle appear at *Metaphysics* A.6 987a29–b14 and M.4 1078b12–32; for some modern retellings, see Dancy (2004, 11–18), Fine (1993, 44–65), Vlastos (1991, 91–98), Crombie (1962, 31–72), Ross (1953, 228–230), and Ross (1924, xlv–xlviii).

⁵Indeed, it is doubtful whether Plato even accepted it, that is, the extreme form of Heracliteanism necessary to license his separation of the objects of knowledge; cf. Irwin (1977) and Fine (1993, 54–57).

sensible things. In this regard, the standard story is an *obscurum per obscurius*,⁶ and we should hope for better from a proper explanation of what led Plato to believe in Forms.⁷

Lastly, though the standard story purports to show how Plato's belief in Forms developed out of Socrates' search for definitions, this connection is not borne out by its underlying argument. The premiss which Plato ultimately inherits from Socrates is simply the claim that there is knowledge. Yet Socrates was neither the first nor the only figure in antiquity to defend this claim,⁸ and the rest of the argument is insensitive to the particular sort of entity which Socrates took (or rather, which Plato took Socrates to take) the objects of knowledge to be. That is, on the standard story, the fact that Socrates thought the objects of knowledge to be specifically definitions or universals is inconsequential to Plato's eventual belief in Forms – despite the standard story's aspirations to the contrary. Yet all the evidence from the dialogues suggests a line of continuity from Socratic definitions to Platonic Forms. A good explanation of what led Plato to believe in Forms will, we should expect, trace this line out more clearly.⁹



Hence the need for a new story.¹⁰ What we want is a story which can account for all the Forms' features, while still grounding them in relatively uncontroversial premisses, and which at the same time elucidates their Socratic provenance.¹¹ And we can find such a story, I believe, by shifting our focus from the Forms' epistemological role as the objects of knowledge to their

⁶Or, at best, an *obscurum per obscurius* by fiat, as at *Metaphysics* A.6 987a32, where Aristotle accounts for Plato's Heracliteanism by noting simply that he was exposed to this view "in his youth" (ἐκ νέου).

⁷A similar objection might be raised against the first premiss, at least by those who are at all sceptically inclined. In addition, even if the first premiss is granted, the argument faces the general accusation that it is drawing metaphysical conclusions from epistemological premisses. But both these complaints strike me as more modern than ancient in flavour; for Plato, the existence of knowledge would have been as uncontroversial an assumption as any, and epistemological considerations often guide his metaphysical beliefs.

⁸Indeed, he seems to have spent a lot of time inveighing *against* others' claims to knowledge, and disavowing his own.

⁹A related oddity in the standard story is that the form of Heracliteanism which Plato clearly does accept (see n. 5 above) – roughly, the compresence of opposites in sensible things – is a form of Heracliteanism which the Socrates of the "early" dialogues would also accept. (For instance, in the *Hippias Major* Socrates shows that paradigmatically beautiful things (such as girls and gold) are also ugly; and in the *Laches* Socrates shows that paradigmatically courageous properties (such as standing firm in battle and endurance) are sometimes not courageous.) Thus it is unclear how the standard story can claim that Plato but not Socrates accepted its argument's second premiss.

¹⁰To be clear, I do not intend any of the preceding remarks to suggest that the standard story is false. Epistemological arguments for the existence of Forms pervade the dialogues, and often carry the greatest conviction (cf. *Republic* V 476e–480a and *Timaeus* 51c–52b, for instance). My point is just that the epistemological argument cannot be the whole story – that other considerations must be brought in if we wish to account for Plato's belief in Forms in its entirety.

¹¹To clarify, by "Socratic provenance" I do not mean their origins in the actual beliefs of the historical Socrates, but rather their origins in what Plato took to be Socrates' beliefs, i.e., their origins in the beliefs of the Socrates of the "early" dialogues.

metaphysical role as causes.¹²

Here, in brief, is how I think this new story should go: Plato inherited from Socrates (and from others before him, as we will see) the idea that there are causes of a certain sort – as I will call them, “ultimate universal causes”.¹³ Plato then, on his own, thought through the implications of there being such causes, and inferred that ultimate universal causes are imperceptible, eternal, unchanging, self-predicative, and separate. That is, for Plato, to believe in ultimate universal causes is to believe in Forms.¹⁴ In short, I impute to Plato the following inference:

1. There are ultimate universal causes
- ∴ There are Forms

This is what I call the “causal argument” for Forms.

Much must be said before this story will seem persuasive. I must, for instance, clarify how the few features which characterize ultimate universal causes suffice to entail the full panoply of features which characterize the Forms. I must explain why the idea that there are ultimate universal causes is a reasonable premiss to start from. I must show precisely how this idea relates to the metaphysical underpinnings of Socrates’ thought. And I must proffer some evidence that Plato actually argued in this way in his work.

These tasks will be shouldered by the main text of this dissertation; I present a summary of my claims at the end of this introduction. First, I wish to address a more urgent question facing the proposed causal argument: If the preceding story about what led Plato to believe in Forms truly is so compelling, why hasn’t anyone else thought to tell it before?¹⁵

¹²I am hardly the first to suggest a shift to a metaphysical argument for Forms. Yet the prominent versions of this argument ground Plato’s belief in Forms simply in an underlying commitment to “realism” or “antinominalism” (cf. White (1976) for the former position, and Penner (1987) and Gerson (2013) for the latter). I agree that Plato held such a commitment, and that it was indeed pivotal to his thought, but I do not believe that this commitment alone is sufficient to account for all the metaphysical peculiarities of Forms. Even if we grant, following Terry Penner, that “since the Forms are the first abstract objects to appear on the scene of Western philosophy at all, it would not have occurred to Plato that it would be necessary to argue against any species of anti-metaphysician other than a nominalist” (Penner (1987, x–xi)), we still ought to be able to explain why Plato ended up believing in the particular form of antinominalism that he did. This dissertation is an attempt to put more meat on these antinominalist bones, by cashing out Plato’s general commitment to antinominalism in terms of a specific commitment to the reality of a certain sort of cause. In this regard, my position is very close to the argument put forth by R. E. Allen in Allen (1970, 120–125); yet I move beyond Allen by developing a detailed theory of what a cause is for Plato, which I then use to derive the other features of the Forms.

¹³This idea is not obscure; as we will see in more detail further on, it is just the idea that there is one and the same thing by which all the many *F* things are *F*, for a number of different property values ‘*F*’.

¹⁴Taken *de re*, of course. Taken *de dicto*, ‘ultimate universal causes’ are a minimal conception of ‘Forms’, specifying only some of the Forms’ features (e.g., that they are universals, and that they are causes) and remaining silent about all the rest, such that it is perfectly possible to believe there are ultimate universal causes without believing that there are Forms (and even while believing that there are not Forms).

¹⁵In fact, some have; R. E. Allen, for instance (see n. 12 above), as well as Paul Natorp (though with much



As I see it, the reason this story has thus far been neglected is because the Forms' status as causes has thus far been pervasively misunderstood. No one doubts that Plato himself thought the Forms to be causes; but from as early on as Aristotle, readers of Plato have struggled to identify the sort of cause he could be thinking of, such that the Forms would be a likely candidate. And if it is not even understood what sort of cause the Forms are, then all the less will it be thought that the Forms might just be a fuller specification of such a cause.

Thus, I begin by defining what a cause is for Plato – or rather, a cause in the sense in which Forms are supposed to be causes. The *locus classicus* in this regard is the *Phaedo*, and specifically, Socrates' final argument for the immortality of the soul at 96–107 (hereafter the “Aitia Argument”). This argument consists in a search for “the cause” (ἡ αἰτία, 95e9), and midway through identifies the Forms as such a cause (100c4–7). Thus, if we can clarify the sense of ‘cause’ in play here, this should reveal the sort of cause we are after.

Various interpretations of the Aitia Argument's concept of ‘cause’ have been put forth over the years. The first major turning point in contemporary scholarship was Gregory Vlastos's article ‘Reasons and Causes in the *Phaedo*’.¹⁶ Before Vlastos, all that seemed clear was that the Aitia Argument was not talking about causes in any familiar sense. Certainly, it is not after the efficient cause, or that whose motion brings about some effect; the Forms simply do not have the capacity to act on ordinary things in this way. Yet neither does the Aitia Argument seem to be looking exclusively for any of the other three causes in Aristotle's canonical quartet – the material, the formal, or the final cause.¹⁷ If anything, the argument appears to jumble these various causes together and use them interchangeably, as if they were all one.¹⁸

Vlastos dispelled this air of confusion.¹⁹ On his interpretation, the sort of cause which the Aitia Argument is after, and which the Forms are meant to be, is not any of the causes we are accustomed to speaking about, but something else entirely. It is, in his words, the

different emphasis), in his classic 1921 treatise, translated and reprinted in Natorp (2004). However, my interpretation of the Platonic conception of causation differs substantially from both these authors'. Jon Moline presents a substantially similar account to mine, in Moline (1981, 79–118), though he emphasizes instead the Forms' status as “powers” (*dunameis*). Yet whereas Moline presents the Forms' causal provenance as merely implicit in Plato's thinking, I show it to be explicit in the argument of the *Phaedo*. Thus, while Moline and I agree that there is a causal argument for Forms, I go beyond Moline in establishing that Plato made conscious use of this argument in his philosophizing.

¹⁶Vlastos (1969).

¹⁷Further away still is the Aitia Argument's concept of cause from contemporary philosophical understandings of causation; cf. the range of views canvassed in Schaffer (2014).

¹⁸Crombie (1963, 169) is a good representative of the state of scholarship pre-Vlastos: “There is no doubt that the use of the notion of *aitia* in [the Aitia Argument] is very crude, and that quite different topics are jumbled together... It would be possible to say therefore that this section of the *Phaedo* is simply a nest of confusion.”

¹⁹Though in articulating his position he was careful to acknowledge his debt to others, especially Shorey (1933); cf. Vlastos (1969, 291 n. 2 and 292 nn. 4 and 5).

“logical” cause, or that which specifies the logical conditions which one must satisfy in order to instantiate some given property.²⁰ As such, in response to the question ‘Why is x F ?’, the logical cause specifies not who or what *made* it F , but rather what about x *makes* it F . For example, the logical cause of a square drawn in the sand is not Socrates (who drew it) nor the staff (with which we drew it) but rather the fact that the figure in the sand has four equal sides and four equal angles. This is what makes it a square rather than any other shape.²¹

Vlastos’s article has received much criticism since its publication, but the essence of his view is still endorsed today. At the heart of his interpretation is the idea that the Aitia Argument’s focus is not so much on what we mean by a “cause” but rather on something closer to what we would call an “explanation” or a “definition” – the necessary and sufficient conditions for the property in question. This idea is still found in much of the recent scholarship on the Aitia Argument, even in interpretations which otherwise conflict.²² And yet, for all its plausibility, this idea is severely flawed.

One problem is that, if explanations are all the Aitia Argument is after, it is hard to see why such explanations should be reified as Forms. That is, the Forms’ status as logical causes does not explain their weighty ontological status – the fact that they are clearly intended, not as mere conceptual definitions, but as objective, mind-independent entities. We may think to excuse this fallacious inference as a point of Platonic prejudice,²³ but that will not do if we wish to view the Forms’ causal status as fundamental to what they are, as I do here.

This first problem affects only an approach like mine. A second problem, however, is a problem for all – or at least, for any interpretation concerned to account fully for the way in which causes are supposed to function in the Aitia Argument. Here is why: The Aitia Argument investigates “the cause” in order to prove the immortality of the soul. This proof works by situating the soul, which is the cause of life in the body, within a general theory of causation. As we discover, one part of the general theory endorsed by the argument is the following principle:

NOT OPPOSITELY QUALIFIED

a cause of F -ness cannot itself be un- F , for any pair of opposites ‘ F ’ and ‘un- F ’

Therefore, the soul, as a cause of life, cannot itself be dead. Therefore, the soul is deathless, or immortal.

²⁰For Vlastos, this means they are not rightly called “causes” at all, but rather “reasons”, since he believes the word ‘cause’ should be (and is, in English) reserved for efficient causes. I am not convinced that the term should be (or is) thus restricted, and will not do so here.

²¹Cf. Vlastos (1969, 305).

²²See, for example, Bailey (2014), Ebrey (2014), Politis (2010), Sharma (2009), and Denyer (2007); refer to n. 8 on p. 18 for more detailed references.

²³As does Vlastos (1969, 306–307).

The problem is that, if all the Aitia Argument means by a ‘cause’ is an explanation, there would be little reason to accept the above principle. Indeed, the principle barely makes sense; what, for instance, could it mean to say that the explanation of hotness cannot itself be cold? Explanations are not sufficiently thing-like to license this principle. Yet, without this principle, the Aitia Argument’s proof falls apart.

Thus, although Vlastos was right to suggest that the Aitia Argument seeks a particular and not immediately obvious sort of cause, he and others like him are wrong to suggest that it seeks logical causes or explanations. A different analysis is needed.

The best alternative in this regard is still to be found in David Sedley’s pivotal article ‘Platonic Causes’.²⁴ Relating the Aitia Argument’s use of ‘αἰτία’ to the term’s more basic adjectival meaning, Sedley characterizes the cause of something as the “thing responsible for” it, which might be anything from a physical stuff to a soul or a Form.²⁵ That is, a Platonic cause, according to Sedley, is categorically neutral, just so long as it is a real entity of some sort. In other words, for Sedley, a cause is no mere explanation but a thing – which, as we just saw, is precisely the kind of analysis we are after.

However, Sedley must still account for the Aitia Argument’s general principle that a cause of (or “thing responsible for”) *F*-ness cannot itself be un-*F*. Sedley attempts such an explanation, and highlights the ubiquity of the principle throughout the Platonic corpus, but openly admits in the end to being perplexed.²⁶ Instead, as a second-best alternative, he offers an explanation of its positive counterpart, the principle that a cause of *F*-ness must itself be *F*, or that “like causes like”. This principle, says Sedley, is explained by Plato’s adherence to the “transmission theory of causation”,²⁷ according to which the thing responsible for something’s *F*-ness must itself be *F* because it must have some *F*-ness to transmit to its effect. For example, the thing responsible for something’s hotness must itself be hot because it must have some heat to transmit to its effect, as a fireplace transmits its heat to my hands. However, though this way of thinking makes good sense in cases of heating and cooling and perhaps some other properties, it is hard to see how it could be a plausible general theory of causation – even just for the properties at issue in the Aitia Argument. Are we really to believe that the thing responsible for something’s bigness is some superlatively big thing, which transmits some of its bigness to its effect? Or that the thing responsible for something’s oddness is some supremely odd thing, so odd that it has oddness to spare?

²⁴Sedley (1998).

²⁵Sedley (1998, 115).

²⁶Sedley (1998, 119): “I am very far from pretending to understand what is going on in these and similar passages. But I am confident that the pattern of reasoning I have documented is far too deep-seated in Plato’s thought to be explained away either as humorous or as his idiosyncratic way of expressing some harmless truth.”

²⁷Sedley (1998, 123–124).

Therefore, though I agree the “like causes like” principle is germane to this discussion, I do not think it, or anything else in the Aitia Argument, is to be explained by the transmission theory of causation. What we need, rather, is a different conception of causation – one which holds on to the idea that a cause is a real entity, but does not view a cause as transmitting something of its own to its effect. This is where my analysis comes in.



To begin with, a diagnosis: As I see it, efforts to elucidate the Aitia Argument’s concept of ‘cause’ have been thwarted by the assumption, held by nearly all interpreters, that Plato is in this argument introducing a *new sort* of cause, distinct from how everyone had been conceiving of causation before him.²⁸ Perhaps this is the “logical” cause, or the “paradigmatic” cause, or some nascent version of the formal cause – whatever it is, the assumption is always that it represents a radical break from the “physical” causes of Plato’s predecessors. Yet this assumption has obscured an alternative reading of the argument’s dialectic: one which sees Plato as in fact adopting an existing model of causation and simply applying it more rigorously and extending it to new cases – that is, an interpretation which sees Plato as refining a familiar sort of cause, rather than proposing a wholly new one. This, I contend, is how we should read the text.

What, then, is the sort of cause at issue? As I see it, Plato thought that whenever an ordinary thing comes to manifest some property, this is because there is some other thing which has been added to it, as an ingredient is added to a mixture. Thus, the cause of something’s *F*-ness is that other thing, which has been added to it, such that it is now *F*. This is what I call an “ingredient cause”.²⁹

The notion of an ingredient cause should not seem foreign. Explanations like ‘this coffee is creamy because milk has been added to it’ and ‘this coffee is sweet because sugar has been added to it’ still strike us as perfectly natural. To Plato, ingredient causation would have been even more familiar. It is, for instance, the conception of causation at work in Anaxagoras, according to whom everything we see is a mixture of elemental quasi-stuffs, and macroscopic changes in the mixtures are caused by microscopic changes in the preponderance of certain quasi-stuffs over others. It is also the conception of causation employed by the Hippocratic

²⁸Often this assumption is betrayed already in the titles of secondary scholarship; cf. Sharma (2009) (‘Socrates’ New *Aitia*: Causal and Metaphysical Explanations in Plato’s *Phaedo*), or Bolton (1998) (‘Plato’s Discovery of Metaphysics: The New *Methodos* of the *Phaedo*’).

²⁹Note that, in this regard, my interpretation is a synthesis of Vlastos’s and Sedley’s. With Vlastos, I agree that the ‘cause’ of *x*’s *F*-ness specifies what about *x* makes it *F*. Yet I disagree that Plato ever thought of this as a matter of specifying *conditions* necessary and sufficient for instantiating *F*-ness; this is an all-too-modern way of thinking. Conversely, with Sedley, I agree that a cause is a *real entity*. But more specifically, it is an entity along the lines of an ingredient.

medical writers, according to whom bodies have present in them various “powers”, and observable changes in the body are brought about by adding more of a certain power and thus offsetting the prior balance.³⁰

Now, for those familiar with the text of the Aitia Argument, it may seem incredible to suggest that Plato is working with the same model of causation as his predecessors, given that Socrates in the dialogue explicitly distances himself from these predecessors, including Anaxagoras by name. Yet my claim is not that Plato saw nothing wrong with the causal theorizing of his predecessors. My claim is merely that he held on to the same causal model, according to which the cause of something’s *F*-ness is that which has been added to it, such that it is now *F*. This is what is common to Plato and his predecessors, and it still leaves plenty of room for Plato to contest the particular things that Anaxagoras and others thought to identify as such causes. For example, whereas his predecessors thought that a person becomes bigger by the addition (or ingestion) of *food*, Plato insists that it is by the addition of (or its participation in) the *Form of Bigness*.³¹ In this way, while the specific things that Plato and his predecessors picked out as causes were different, the sort of cause they were seeking was the same.³²

Yet even for those unfamiliar with the Aitia Argument, it may seem incredible to suggest that Plato believed *all* properties are to be accounted for by an ingredient cause.³³ Could Plato truly have thought that a person is musical by the presence of some musical ingredient in her? That a group will become odd in number when the ingredient oddness is added to it? That a horse appears small because of smallness as an added ingredient in it? To which my response is: Yes, Plato could truly have thought that. But not because he was a lousy philosopher. After all, Plato was correct to think there must be *something* accounting for any property an ordinary thing manifests.³⁴ And he was correct to think that properties like beauty, bigness,

³⁰For more on the parallel between Plato and Anaxagoras, cf. Brentlinger (1972), Furley (1976), and Furley (2002); and on the parallel to the Hippocratic writers, cf. von Staden (1998) and Moline (1981, Chapter 4). I discuss these historical precedents further in §1.3.3.

³¹It may seem surprising, or even preposterous, that I have here assimilated participation in Forms to a process of addition. Yet this is precisely what we find Plato doing in the *Phaedo*, as I highlight in §1.3.2.

³²Admittedly, Socrates does show concern for a different sort of cause at *Phaedo* 97c–99c, in his commendation of teleological explanations, or explanations in terms of what is best. Yet the relation between this stretch of text and the rest of the Aitia Argument is a vexed issue (on which cf. Kanayama (2000), Wiggins (1986), and Bedu-Addo (1979)). For what it’s worth, I see 97c–99d as more of an interlude, and detachable from the rest of the argument’s causal theorizing. I say more about the relationship between ingredient and teleological causes in §1.5.

³³As we will see, I do not actually claim that Plato intended his analysis to apply to everything we would classify as a property, but only to what we would class as accidental properties (and in fact, only a subset of these, limited to properties which are opposites). Yet for Plato to extend his analysis even this far seems counterintuitive, as the following examples show.

³⁴Cf. the popular Presocratic tenet (in Parmenides, Empedocles, and others) that nothing comes to be from nothing, or what is not.

and life will not be explained by some corporeal ingredient in them.³⁵ What Plato concluded from this was that there must be other, incorporeal ingredients out there. Granted, we might find it more intuitive to conclude that these properties must be accounted for by an entirely different sort of cause (a formal cause, say). That is no indication that Plato would have found it equally intuitive. Indeed, given the ubiquity of the ingredient causal model in his time, it is only natural that Plato would have thought to extend the model further, rather than renouncing it for something completely new.³⁶

Most significantly, however, by seeing Plato as seeking out the ingredient cause, we can actually make sense of the peculiar causal theorizing that we find in the *Phaedo*. Furthermore, once we flesh out the notion of an ingredient cause, we will see that a direct line can be drawn from ingredient causes to Forms, with Forms as fuller specifications of such causes. And this, at last, will allow us to spell out the aforementioned causal argument for Forms.



This is enough by way of introduction. Here is the plan for the chapters to follow.

In Chapter 1, “The theory of causation in the *Phaedo*”, I set out my account of the ingredient cause. I orient the discussion around the Aitia Argument’s three famous causal principles, and demonstrate that my definition of the ingredient cause accounts for them all – including the principle which so eluded Vlastos and Sedley, that a cause of *F*-ness cannot itself be un-*F*. In addition, I elaborate on the use of this causal model in Anaxagoras and the Hippocratic writers, and show how ingredient causation can be seen to prefigure other, more familiar kinds of causation.

In Chapter 2, “The theory of predication in the *Phaedo*”, I explore the Aitia Argument’s related discussion of how causation is mirrored in language. Insofar as the *Phaedo* is thought to present a theory of predication, it is typically assumed to offer an unsophisticated and flawed theory. I, however, believe that this is because the literature has overlooked two key features of the text: first, that Plato systematically distinguishes between cases in which the “name”

³⁵Cf. Socrates’ refutation of Hippias’ claim that the cause of beauty is gold at *Hippias Major* 289d–291c.

³⁶I am not the first to suggest that Plato earnestly viewed all properties as ingredients; cf., for example, Denyer (1983) and Brentlinger (1972, 66–69). Interestingly, Wittgenstein also seems to have understood Plato in this way; in *Remarks on the Foundations of Mathematics*, we find: “...(compare Plato’s conception of properties as ingredients of a thing)” (Wittgenstein (1983, §71)). The same thought is recorded in Alice Ambrose’s lecture notes from 1932–1933: “Plato’s talk of looking for the essence of things was very like talk of looking for the *ingredients* in a mixture, as though qualities were ingredients of things” (Ambrose (1979, §31)). Wittgenstein elaborates on this idea in *The Blue Book*, though without mentioning Plato by name: “The idea of a general concept being a common property of its particular instances connects up with other primitive, too simple, ideas of the structure of language. It is comparable to the idea that *properties* are *ingredients* of the things which have the properties; e.g. that beauty is an ingredient of all beautiful things as alcohol is of beer and wine, and that we therefore could have pure beauty, unadulterated by anything that is beautiful” (Wittgenstein (1958, 17)). (I owe my discovery of these passages to Schulte (2013).)

(ὄνομα) of *F*-ness, and those in which an “eponym” (ἐπωνυμία) of *F*-ness, is rightly applied to *x*; and second, that Plato explicitly indicates that when the name of *F*-ness is rightly applied to *x*, the definition of *F*-ness is true of *x*, and when an eponym of *F*-ness is rightly applied to *x*, the definition is not true of it. These two observations will allow us to show that the *Phaedo* in fact contains a sophisticated theory of predication, based on a well-founded distinction between derivative and nonderivative predication – a theory which, moreover, illuminates the later semantic innovations of the *Parmenides*, the *Sophist*, and Aristotle’s *Categories*.

These initial chapters thus lay the theoretical foundations for the causal argument for Forms I wish ultimately to defend. I set out this argument starting in Chapter 3, “The hypothesis of ultimate universal causes”, which examines the Aitia Argument’s identification of Forms as causes in the broader context of the *Phaedo*. I begin by clarifying the sort of (ingredient) cause that Forms are supposed to be – they are what I call “ultimate universal causes”. I then argue that the identification of Forms as ultimate universal causes should be read as a *constitutive* claim – Forms are identified as such causes because that, for Plato, is fundamentally what Forms are. I defend this interpretation on three fronts: First, I present evidence from the “early” dialogues which suggests that the conceptual precursors of the Forms are none other than ultimate universal causes; this will show why it makes sense to understand Forms as ultimate universal causes *at all*. Following this, I discuss further evidence from within the Aitia Argument and defend my interpretation against potential textual objections; this will show why the argument’s Forms *can* be understood as ultimate universal causes. Finally, I look at some of the *Phaedo*’s other arguments and demonstrate that they, too, start from the hypothesis that there are Forms, and that in each of these arguments the hypothesis must be understood as the claim that there are ultimate universal causes. This will show that the Aitia Argument’s Forms are *meant* to be understood as ultimate universal causes. Furthermore, as a result of this investigation, we will see how three of the Forms’ canonical features – imperceptibility, eternity, and unchangingness – are a consequence of their being ultimate universal causes.

The final two chapters tackle the Forms’ other, more contentious features, and demonstrate how the causal argument illuminates these, too. Chapter 4 examines the feature of “Self-Predication”, according to which each Form of *F*-ness “is *F*”. This, I show, is a direct consequence of the causal framework developed in the preceding chapters. According to the theory of predication defended in Chapter 2, something is a cause of *F*-ness only if *F*-ness is truly predicated of it. Thus, *any* cause of *F*-ness is *F*. Furthermore, our theory of predication tells us, more specifically, that something is a cause of *F*-ness only if the definition of *F*-ness is true of it. Therefore, since (according to Chapter 3) every Form of *F*-ness is a cause of *F*-ness, every Form of *F*-ness “is *F*”, and “is *F*” in that the definition of *F*-ness is true of it. This chapter

lays out the details of this interpretation, demonstrates its superiority over the alternatives, and challenges the assumptions in the literature which might seem to present barriers to it.

Chapter 5 then examines the feature of “Separation”, according to which Forms are not “in” their participants. This feature would at first seem to run afoul of the Forms’ being ingredient causes, which, recall, make other things *F* by being *added to* them. That is, it would seem on my account that all causes are in the things they affect, or immanent. Yet the *Phaedo* is clearly committed to the existence of both separate Forms “themselves by themselves” and immanent Forms “in us”, and clearly recognizes both to be causes. This chapter explains how this could be so. Drawing on evidence from earlier in the dialogue, I demonstrate that the *Phaedo* adopts a conception of separation according to which for something to be separate (i.e., itself by itself) is for it to be unqualifiedly what it is. A separate soul is soul pure and simple, untainted by the body’s nature and desires; the separate Form of Beauty is beauty pure and simple, unqualified by any physical or perceptible factors. An immanent soul, in contrast, is a soul controlled and constricted by the body’s habits, interests, and values; an immanent Form of Beauty, similarly, is beauty limited and restricted by its corporeal manifestation. In this regard, separate Forms can be seen as analogous to what contemporary philosophers classify as maximally determinable properties (e.g., being shaped), and immanent Forms analogous to their determinates (e.g., being triangular, or being scalene). This parallel then helps spell out an interpretation according to which separate Forms can be seen as veritably “added to” their participants, and thereby causes. At the same time, this interpretation will illuminate certain problems with the causal argument for separate Forms – problems which correspond to the actual problems raised against separate Forms in later texts.

Thus, what we will have before us in the end is an argument which grounds Plato’s recognition of Forms (that is, entities which are imperceptible, eternal, unchanging, self-predicative, and separate) in a more basic belief, inherited from Socrates and others before him, in a certain sort of cause (namely, ultimate universal ingredient causes) – an argument which, moreover, corresponds to the actual moves we find Plato making in the *Phaedo*, and which illuminates the theoretical refinements we find Plato making later on.

*

I will close with some brief methodological remarks.

I presuppose a conventional stylometric ordering of the dialogues, which places the *Phaedo*, our focus, around the middle of the Platonic corpus, roughly contemporaneous with the *Republic* and the *Symposium*, after the *Meno* and other definitional dialogues, and before the *Parmenides* and the *Sophist*.³⁷ However, all I conclude from this ordering is that the theoriz-

³⁷The evidence for this ordering is exhaustively examined in Brandwood (1990); for a briefer presentation of

ing which occurs in earlier dialogues is available for reflection and development in later ones. I do not presuppose any of the common associations between this ordering and the supposed “development” of Platonic metaphysics; indeed, much of what I will have to say will directly challenge this orthodoxy, showing there to be a high degree of theoretical continuity across the dialogues and a progressive refinement of the same basic metaphysical commitments.

As far as possible, I have tried to be sensitive to the polyphonic texture of the Platonic corpus. I do not assume that the words of any speaker in the dialogues can be taken verbatim as representative of Plato’s own thoughts. Yet I do not believe that we as readers are thereby totally cut off from Plato’s thoughts, either. The careful reader of the dialogues, like the careful reader of any text, can see the author through his words. I will at times throughout this dissertation directly quote Socrates or other characters as indication of Plato’s view; however, even though I may fail to indicate it, this is always an informed decision, based on my overall reading of the surrounding text.

Except where otherwise noted, all translations from the Greek are my own. I am, however, indebted to the many fine translations of others, in particular, for the *Phaedo*, those of G. M. A. Grube in Cooper and Hutchinson (1997), Alex Long and David Sedley in Sedley and Long (2010), and David Gallop in Gallop (1975).

his main conclusions, cf. Brandwood (1992).

Bibliography

- Ackrill, J. L., 1957. 'Plato and the Copula: *Sophist* 251–259.' *The Journal of Hellenic Studies* 77(1): 1–6.
- Ademollo, F., 2013. 'Plato's Conception of the Forms: Some Remarks.' In R. Chiaradonna and G. Galluzzo (eds.) 'Universals in Ancient Philosophy,' 41–85. Scuola Normale Superiore.
- Allen, R. E., 1960. 'Participation and Predication in Plato's Middle Dialogues.' *The Philosophical Review* 69(2): 147–164.
- Allen, R. E., 1970. *Plato's Euthyphro and the Earlier Theory of Forms*. Routledge & Kegan Paul Ltd.
- Allen, R. E., 1983. *Plato's Parmenides*. University of Minnesota Press.
- Ambrose, A. (ed.) 1979. *Wittgenstein's Lectures: Cambridge, 1932–1933: From the Notes of Alice Ambrose and Margaret Macdonald*. The University of Chicago Press.
- Annas, J., 1982. 'Aristotle on Inefficient Causes.' *The Philosophical Quarterly* 32(129): 311–326.
- Apolloni, D., 2011. *The Self-Predication Assumption in Plato*. Lexington Books.
- Armstrong, D. M., 1983. *What is a Law of Nature?* Cambridge University Press.
- Armstrong, D. M., 1993. 'The Identification Problem and The Inference Problem.' *Philosophy and Phenomenological Research* 53(2): 421–422.
- Armstrong, D. M., 1997. *A World of States of Affairs*. Cambridge University Press.
- Bailey, D. T. J., 2005. 'Logic and Music in Plato's *Phaedo*.' *Phronesis* 50(2): 95–115.
- Bailey, D. T. J., 2009. 'The Third Man Argument.' *Philosophy Compass* 4(4): 666–681.
- Bailey, D. T. J., 2014. 'Platonic Causes Revisited.' *Journal of the History of Philosophy* 52(1): 15–32.

- Beaney, M., 2012. 'Analysis.' In E. N. Zalta (ed.) 'The Stanford Encyclopedia of Philosophy,' The Metaphysics Research Lab, summer 2012 edn. <http://plato.stanford.edu/archives/win2012/entries/analysis/>.
- Bedu-Addo, J. T., 1979. 'On the Alleged Abandonment of the Good in the *Phaedo*.' *Apeiron: A Journal for Ancient Philosophy and Science* 13(2): 104–114.
- Bestor, T. W., 1978. 'Common Properties and Eponymy in Plato.' *The Philosophical Quarterly* 28(112): 189–207.
- Bestor, T. W., 1980a. 'Plato's Semantics and Plato's *Cratylus*.' *Phronesis* 25(3): 306–330.
- Bestor, T. W., 1980b. 'Plato's Semantics and Plato's *Parmenides*.' *Phronesis* 25(1): 38–75.
- Bluck, R. S., 1955. *Plato's Phaedo*. Routledge.
- Bogen, J., 1992. 'Change and Contrariety in Aristotle.' *Phronesis* 37(1): 1–21.
- Bolton, R., 1998. 'Plato's Discovery of Metaphysics: The New *Methodos* of the *Phaedo*.' In J. Gentzler (ed.) 'Method in Ancient Philosophy,' 91–111. Clarendon Press.
- Bostock, D., 1986. *Plato's Phaedo*. Clarendon Press.
- Brandwood, L., 1990. *The chronology of Plato's dialogues*. Cambridge University Press.
- Brandwood, L., 1992. 'Stylometry and chronology.' In R. Kraut (ed.) 'The Cambridge Companion to Plato,' 90–120. Cambridge University Press.
- Brentlinger, J., 1972. 'Incomplete Predicates and the Two-World Theory of the *Phaedo*.' *Phronesis* 17(1): 61–79.
- Brown, L., 1994. 'The verb 'to be' in Greek philosophy: some remarks.' In S. Everson (ed.) 'Language,' *Companions to Ancient Thought*, vol. 3, 212–236. Cambridge: Cambridge University Press.
- Brown, L., 1999. 'Being in the *Sophist*: A Syntactical Enquiry.' In G. Fine (ed.) 'Plato 1: Metaphysics and Epistemology,' 455–478. Oxford University Press.
- Burge, E. L., 1971. 'The Ideas as *Aitai* in the *Phaedo*.' *Phronesis* 16(1): 1–13.
- Burnyeat, M., 2000. 'Plato on Why Mathematics is Good for the Soul.' In T. Smiley (ed.) 'Mathematics and Necessity,' 1–81. Oxford University Press.

- Caston, V., 1999. 'Something and Nothing: The Stoics on Concepts and Universals.' *Oxford Studies in Ancient Philosophy* 17: 145–213.
- Cherniss, H., 1936. 'The Philosophical Economy of the Theory of Ideas.' *The American Journal of Philology* 57(4): 445–456.
- Cherniss, H., 1954. 'A Much Misread Passage of the *Timaeus* (*Timaeus* 49c7–50b5).' *American Journal of Philology* 75: 113–130.
- Cherniss, H., 1957. 'The Relation of the *Timaeus* to Plato's Later Dialogues.' *The American Journal of Philology* 78(3): 225–266.
- Code, A., 1986. 'Aristotle: Essence and Accident.' In R. E. Grandy and R. Warner (eds.) 'Philosophical Grounds of Rationality: Intentions, Categories, Ends,' 411–439. Clarendon Press.
- Cooper, J. M. and Hutchinson, D. S., 1997. *Plato: Complete Works*. Hackett Publishing Company.
- Crane, T., 2008. 'Causation and Determinable Properties: On the Efficacy of Colour, Shape, and Size.' In J. Hohwy and J. Kallestrup (eds.) 'Being Reduced: New Essays on Reduction, Explanation, and Causation,' 176–193. Oxford University Press.
- Cresswell, M. J., 1971. 'Plato's Theory of Causality: *Phaedo* 95–106.' *Australasian Journal of Philosophy* 49(3): 244–249.
- Crivelli, P., 2008. 'Plato's Philosophy of Language.' In G. Fine (ed.) 'The Oxford Handbook of Plato,' 217–242. Oxford University Press.
- Crombie, I. M., 1962. *An Examination of Plato's Doctrines*, vol. I. Plato on Man and Society. Routledge.
- Crombie, I. M., 1963. *An Examination of Plato's Doctrines*, vol. II. Plato on Knowledge and Reality. Routledge.
- Dancy, R. M., 1991. *Two Studies in the Early Academy*. State University of New York Press.
- Dancy, R. M., 2004. *Plato's Introduction of Forms*. Cambridge University Press.
- Denyer, N., 1983. 'Plato's Theory of Stuffs.' *Philosophy* 58(225): 315–327.
- Denyer, N., 2007. 'The *Phaedo*'s Final Argument.' In D. Scott (ed.) '*Maieusis*: Essays in Ancient Philosophy in Honour of Myles Burnyeat,' vol. 87–96. Oxford University Press.

- Devereux, D. T., 1994. 'Separation and Immanence in Plato's Theory of Forms.' *Oxford Studies in Ancient Philosophy* 12: 63–90.
- Diller, H., 1952. 'Hippokratische Medizin und Attische Philosophie.' *Hermes* 80(4): 385–409.
- Dretske, F., 1977. 'Laws of Nature.' *Philosophy of Science* 44(2): 248–268.
- Ebert, T., 2001. 'Sokrates Über Seinen Umgang mit Hypotheseis (*Phaidon* 100a): Ein Problem und ein Vorschlag zur Lösung.' *Hermes* 129(4): 467–473.
- Ebert, T., 2004. *Platon: Phaidon*. Vandenhoeck & Ruprecht.
- Ebrey, D., 2014. 'Making Room for Matter: Material Causes in the *Phaedo* and the *Physics*.' *Apeiron: A Journal for Ancient Philosophy and Science* 47(2): 245–265.
- Fine, G., 1978. 'Knowledge and Belief in *Republic V*.' *Archiv für Geschichte der Philosophie* 60(2): 121–139.
- Fine, G., 1987. 'Forms as Causes: Plato and Aristotle.' In 'Mathematics and Metaphysics in Aristotle/Mathematik und Metaphysik bei Aristoteles,' 69–112. Haupt.
- Fine, G., 1993. *On Ideas: Aristotle's Criticism of Plato's Theory of Forms*. Clarendon Press.
- Fine, G., 1999/1986. 'Immanence.' In 'Plato on Knowledge and Forms: Selected Essays,' 301–325. Oxford University Press.
- Frede, D., 1978. 'The Final Proof of the Immortality of the Soul in Plato's *Phaedo* 102a–107a.' *Phronesis* 23(1): 27–41.
- Frede, D., 1999. *Platons Phaidon: Der Traum von der Unsterblichkeit der Seele*. Wissenschaftliche Buchgesellschaft.
- Frede, M., 1967. *Prädikation und Existenzaussage: Platons Gebrauch von '... ist ...' und '... ist nicht ...' im Sophistes*. Vandenhoeck & Ruprecht.
- Frede, M., 1980. 'The Original Notion of Cause.' In M. Schofield, M. Burnyeat, and J. Barnes (eds.) 'Doubt and Dogmatism: Studies in Hellenistic Epistemology,' 217–249. Clarendon Press.
- Frede, M., 1992. 'Plato's *Sophist* on false statements.' In R. Kraut (ed.) 'The Cambridge Companion to Plato,' 397–424. Cambridge University Press.
- Funkhouser, E., 2006. 'The Determinable-Determinate Relation.' *Noûs* 40(3): 548–569.

- Furley, D., 1976. 'Anaxagoras in Response to Parmenides.' In J. King-Farlow and R. A. Shiner (eds.) 'New Essays in Plato and the Pre-Socratics,' Canadian Journal of Philosophy Supplementary Volume 2, 61–85. Canadian Association for Publishing in Philosophy.
- Furley, D., 2002. 'Anaxagoras, Plato, and the Naming of Parts.' In V. Caston and D. Graham (eds.) 'Presocratic Philosophy: Essays in Honour of A. P. D. Mourelatos,' 119–126. Ashgate.
- Gallop, D., 1975. *Plato: Phaedo*. Clarendon Press.
- Gentzler, J., 1991. "συμφωνεῖν" in Plato's *Phaedo*. *Phronesis* 36(3): 265–276.
- Gerson, L. P., 2013. *From Plato to Platonism*. Cornell University Press.
- Gill, M. L., 2012. *Philosophos: Plato's Missing Dialogue*. Oxford University Press.
- Gill, M. L. and Ryan, P., 1996. *Plato: Parmenides*. Hackett Publishing Company.
- Gillett, C. and Rives, B., 2005. 'The Non-Existence of Determinables: Or, a World of Absolute Determinates as Default Hypothesis.' *Noûs* 39(3): 483–504.
- Grube, G. M. A., 2002. *Plato: Five Dialogues: Euthyphro, Apology, Crito, Meno, Phaedo*. Hackett Publishing Company, 2nd edn.
- Hackforth, R., 1955. *Plato's Phaedo*. Cambridge University Press.
- Hankinson, R. J., 1998. *Cause and Explanation in Ancient Greek Thought*. Clarendon Press.
- Harte, V., 2008. 'Plato's Metaphysics.' In G. Fine (ed.) 'The Oxford Handbook of Plato,' 191–216. Oxford University Press.
- Haynes, R. P., 1964. 'The Form Equality, as a Set of Equals: *Phaedo* 74 b–c.' *Phronesis* 9(1): 17–26.
- Heidel, W. A., 1906. 'Qualitative Change in Pre-Socratic Philosophy.' *Archiv für Geschichte der Philosophie* 19: 333–379.
- Heinaman, R., 1989. 'Self-Predication in Plato's Middle Dialogues.' *Phronesis* 34(1): 56–79.
- Henry, D., 2013. 'Optimality and Teleology in Aristotle's Natural Science.' *Oxford Studies in Ancient Philosophy* 45: 225–264.
- Hunt, D. P., 1997. 'How (Not) to Exempt Platonic Forms From *Parmenides*' Third Man.' *Phronesis* 42(1): 1–20.

- Irwin, T. H., 1977. 'Plato's Heracleiteanism.' *The Philosophical Quarterly* 27(106): 1–13.
- Jackson, H., 1882. 'Plato's Later Theory of Ideas: II: The *Parmenides*.' *Journal of Philology* 11: 287–331.
- Johnson, W. E., 1921. *Logic*. Cambridge University Press.
- Kanayama, Y., 2000. 'The Methodology of the Second Voyage and the Proof of the Soul's Indestructibility in Plato's *Phaedo*.' *Oxford Studies in Ancient Philosophy* 18: 41–100.
- Kelsey, S., 2000. 'Recollection in the *Phaedo*.' *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 16: 91–121.
- Kelsey, S., 2004. 'Causation in the *Phaedo*.' *Pacific Philosophical Quarterly* 85: 21–43.
- Keyt, D., 1969. 'Plato's Paradox that The Immutable is Unknowable.' *The Philosophical Quarterly* 19(74): 1–14.
- Lewis, D., 1973. 'Causation.' *The Journal of Philosophy* 70(17): 556–567.
- Lloyd, A. C., 1976. 'The Principle that the Cause is Greater than Its Effect.' *Phronesis* 21(2): 146–156.
- Mackie, J. L., 1965. 'Causes and Conditions.' *American Philosophical Quarterly* 12: 245–265.
- Makin, S., 1990–1991. 'An Ancient Principle about Causation.' *Proceedings of the Aristotelian Society* 91: 135–152.
- Malcolm, J., 1991. *Plato on the Self-Predication of Forms: Early and Middle Dialogues*. Clarendon Press.
- Mann, W.-R., 2000. *The Discovery of Things*. Princeton University Press.
- McCabe, M. M., 1994. *Plato's Individuals*. Princeton University Press.
- Meinwald, C. C., 1991. *Plato's Parmenides*. Oxford University Press.
- Meinwald, C. C., 1992. 'Good-bye to the Third Man.' In R. Kraut (ed.) 'The Cambridge Companion to Plato,' 365–396. Cambridge University Press.
- Menn, S., 2002. 'Plato and the Method of Analysis.' *Phronesis* 47(3): 193–223.
- Menn, S., 2010. 'On Socrates' First Objections to the Physicists (*Phaedo* 95e8–97b7).' *Oxford Studies in Ancient Philosophy* 38: 37–68.

- Miller, H. W., 1952. 'Dynamis and Physis in *On Ancient Medicine*.' *Transactions and Proceedings of the American Philological Association* 83: 184–197.
- Miller, H. W., 1959. 'The Concept of *Dynamis* in *De victu*.' *Transactions and Proceedings of the American Philological Association* 90: 147–164.
- Moline, J., 1981. *Plato's Theory of Understanding*. The University of Wisconsin Press.
- Morrow, G. R. and Dillon, J. M., 1987. *Proclus' Commentary on Plato's Parmenides*. Princeton University Press.
- Natorp, P., 2004. *Plato's Theory of Ideas: An Introduction to Idealism*. Academia Verlag.
- Nehamas, A., 1973. 'Predication and Forms of Opposites in the *Phaedo*.' *The Review of Metaphysics* 26(3): 461–491.
- Nehamas, A., 1979. 'Self-Predication and Plato's Theory of Forms.' *American Philosophical Quarterly* 16(2): 93–103.
- Nozick, R., 1997. 'Socratic Puzzles.' In 'Socratic Puzzles,' 145–155. Harvard University Press.
- O'Brien, D., 1967. 'The Last Argument of Plato's *Phaedo*. I.' *The Classical Quarterly* 17(2): 198–231.
- Owen, G. E. L., 1953. 'The Place of the *Timaeus* in Plato's Dialogues.' *The Classical Quarterly* 3(1/2): 79–95.
- Owen, G. E. L., 1968. 'Dialectic and Eristic in the Treatment of Forms.' In G. E. L. Owen (ed.) 'Aristotle on Dialectic: The *Topics*,' Clarendon Press.
- Owen, G. E. L., 1971. 'Plato on Not-Being.' In G. Vlastos (ed.) 'Plato: A Collection of Critical Essays,' vol. I: Metaphysics and Epistemology, 223–267. Anchor Books.
- Owen, G. E. L., 1986. 'The Platonism of Aristotle.' In 'Logic, Science, and Dialectic: Collected Papers in Greek Philosophy,' 200–220. Duckworth.
- Pagès, J., 2002. 'The Dretske-Tooley-Armstrong Theory of Natural Laws and The Inference Problem.' *International Studies in the Philosophy of Science* 16(3): 227–243.
- Pakaluk, M., 2010. 'The Ultimate Final Argument.' *The Review of Metaphysics* 251: 643–677.
- Patterson, R., 1985. *Image and Reality in Plato's Metaphysics*. Hackett Publishing Company.

- Patterson, R., 2009. 'Plato: Arguments for Forms.' In R. L. Poidevin, P. Simons, A. McGonigal, and R. P. Cameron (eds.) 'The Routledge Companion to Metaphysics,' 18–28. Routledge.
- Peck, A. L., 1931. 'Anaxagoras: Predication as a Problem in Physics: I.' *The Classical Quarterly* 25(1): 27–37.
- Penner, T., 1987. *The Ascent from Nominalism: Some Existence Arguments in Plato's Middle Dialogues*. D. Reidel.
- Peterson, S., 1973. 'A Reasonable Self-Predication Premise for the Third Man Argument.' *The Philosophical Review* 82(4): 451–470.
- Peterson, S., 2000. 'The Language Game in Plato's *Parmenides*.' *Ancient Philosophy* 20: 19–51.
- Politis, V., 2010. 'Explanation and Essence in Plato's *Phaedo*.' In D. Charles (ed.) 'Definition in Greek Philosophy,' 62–114. Oxford University Press.
- Prauss, G., 1968. 'Ding und Eigenschaft bei Platon und Aristoteles.' *Kant-Studien* 59(1): 98–117.
- Prior, A. N., 1949. 'I.—Determinables, Determinates, and Determinants.' *Mind* 58(229): 1–20.
- Rickless, S. C., 2007. *Plato's Forms in Transition: A Reading of the Parmenides*. Cambridge University Press.
- Rieber, S. D., 2002. 'Causation as Property Acquisition.' *Philosophical Studies* 109: 53–74.
- Rist, J. M., 2012. *Plato's Moral Realism: The Discovery of the Presuppositions of Ethics*. Catholic University of America Press.
- Robinson, R., 1953. *Plato's Earlier Dialectic*. Clarendon Press, second edn.
- Ross, W. D., 1924. *Aristotle's Metaphysics: a revised text*, vol. I. Clarendon Press.
- Ross, W. D., 1953. *Plato's Theory of Ideas*. Clarendon Press, 2nd edn.
- Rowe, C., 1993. 'Explanation in *Phaedo* 99c6–102a8.' *Oxford Studies in Ancient Philosophy* 11: 49–69.
- Rowe, C., 1996. 'A Reply to van Eck.' *Oxford Studies in Ancient Philosophy* 14: 227–240.
- Santas, G., 1983. 'The Form of the Good in Plato's *Republic*.' In J. P. Anton and A. Preus (eds.) 'Essays in Ancient Greek Philosophy,' vol. ii, 232–263. State University of New York Press.

- Sayre, K. M., 1996. *Parmenides' Lesson: Translation and Explication of Plato's Parmenides*. University of Notre Dame Press.
- Schaffer, J., 2014. 'The Metaphysics of Causation.' In E. N. Zalta (ed.) 'The Stanford Encyclopedia of Philosophy,' The Metaphysics Research Lab, summer 2014 edn. <http://plato.stanford.edu/archives/sum2014/entries/causation-metaphysics/>.
- Schofield, M., 1996. 'Likeness and Likenesses in the *Parmenides*.' In C. Gill and M. M. McCabe (eds.) 'Form and argument in late Plato,' 61–89. Clarendon Press.
- Schulte, J., 2013. 'Wittgenstein's Debt to Plato.' In L. Perissinotto and B. R. Cámara (eds.) 'Wittgenstein and Plato: Connections, Comparisons and Contrasts,' 1–24. Palgrave Macmillan.
- Searle, J., 1949. 'Determinables and the Notion of Resemblance.' *Proceedings of the Aristotelian Society, Supplementary Volumes* 33: 141–158.
- Sedley, D., 1998. 'Platonic Causes.' *Phronesis* 43(2): 114–132.
- Sedley, D., 2006. 'Form–Particular Resemblance in Plato *Phaedo*.' *Proceedings of the Aristotelian Society* 106: 311–327.
- Sedley, D., 2007. 'Equal Sticks and Stones.' In D. Scott (ed.) '*Maieusis*: Essays in Ancient Philosophy in Honour of Myles Burnyeat,' 68–86. Oxford University Press.
- Sedley, D., 2012. 'Plato's Theory of Change at *Phaedo* 70–71.' In R. Patterson, V. Karasmanis, and A. Hermann (eds.) 'Presocratics and Plato: Festschrift at Delphi in Honor of Charles Kahn,' 147–163. Parmenides Publishing.
- Sedley, D., 2013. 'Plato and the One-over-Many Principle.' In R. Chiaradonna and G. Galluzzo (eds.) 'Universals in Ancient Philosophy,' 114–137. Scuola Normale Superiore.
- Sedley, D. and Long, A., 2010. *Plato: Meno and Phaedo*. Cambridge University Press.
- Sellars, W., 1955. 'Vlastos and 'The Third Man'.' *The Philosophical Review* 64(3): 405–437.
- Sharma, R., 2005. 'What is Aristotle's 'Third Man' Argument Against the Forms?' *Oxford Studies in Ancient Philosophy* 28: 123–160.
- Sharma, R., 2007. 'The Anatomy of an Illusion: On Plato's Purported Commitment to Self-Predication.' *Apeiron: A Journal for Ancient Philosophy and Science* 40(2): 159–198.

- Sharma, R., 2009. 'Socrates' New *Aitia*: Causal and Metaphysical Explanations in Plato's *Phaedo*.' *Oxford Studies in Ancient Philosophy* 36: 137–177.
- Sharvy, R., 1986. 'Plato's Causal Logic and the Third Man Argument.' *Noûs* 20(4): 507–530.
- Shorey, P., 1924. 'The Origin of the Syllogism.' *Classical Philology* 19(1): 1–19.
- Shorey, P., 1933. 'The Origin of the Syllogism Again.' *Classical Philology* 28(3): 199–204.
- Silverman, A., 2002. *The Dialectic of Essence: A Study of Plato's Metaphysics*. Princeton University Press.
- Smith, J. A., 1917. 'General Relative Clauses in Greek.' *The Classical Review* 31(3/4): 69–71.
- Strang, C., 1963. 'Plato and the Third Man.' *Proceedings of the Aristotelian Society, Supplementary Volumes* 37: 147–164.
- Taylor, C. C. W., 2008. 'Plato's Epistemology.' In G. Fine (ed.) 'The Oxford Handbook of Plato,' 165–190. Oxford University Press.
- Teloh, H., 1975. 'Self-Predication or Anaxagorean Causation in Plato.' *Apeiron: A Journal for Ancient Philosophy and Science* 9(2): 15–23.
- Tooley, M., 1977. 'The Nature of Laws.' *Canadian Journal of Philosophy* 7(4): 667–698.
- Turnbull, R. G., 1989. 'The Third Man Argument and the Text of the *Parmenides*.' In J. P. Anton and A. Preus (eds.) 'Essays in Ancient Greek Philosophy,' vol. iii: Plato, 203–225. State University of New York Press.
- Turnbull, R. G., 1998. *The Parmenides and Plato's Late Philosophy: Translation of and commentary on the Parmenides with interpretative chapters on the Timaeus, the Theaetetus, the Sophist, and the Philebus*. University of Toronto Press.
- van Eck, J., 1994. 'Σκοπεῖν ἐν λόγοις: On *Phaedo* 99d–103c.' *Ancient Philosophy* 14(1): 21–40.
- van Fraassen, B. C., 1989. *Laws and Symmetry*. Oxford University Press.
- Vlastos, G., 1954. 'The Third Man Argument in the *Parmenides*.' *The Philosophical Review* 63(3): 319–349.
- Vlastos, G., 1969. 'Reasons and Causes in the *Phaedo*.' *The Philosophical Review* 78(3): 291–325.
- Vlastos, G., 1973. 'The "Two-Level Paradoxes" in Aristotle.' In 'Platonic Studies,' 323–334. Princeton University Press.

- Vlastos, G., 1974. 'A Note on "Pauline Predications" in Plato.' *Phronesis* 19(2): 95–101.
- Vlastos, G., 1991. *Socrates: Ironist and Moral Philosopher*. Cornell University Press.
- von Staden, H., 1998. 'Dynamis: The Hippocratics and Plato.' In K. J. Boudouris (ed.) 'Philosophy and Medicine,' vol. II, 262–279. International Center for Greek Philosophy and Culture.
- West, M. L., 1992. *Ancient Greek Music*. Clarendon Press.
- White, F. C., 1981. *Plato's Theory of Particulars*. Arno Press.
- White, F. C., 1984. 'The scope of knowledge in *Republic V*.' *Australasian Journal of Philosophy* 62(4): 339–354.
- White, N. P., 1976. *Plato on Knowledge and Reality*. Hackett Publishing Company.
- White, N. P., 1987. 'Forms and Sensibles: *Phaedo* 74b–c.' *Philosophical Topics* 15(2): 197–214.
- Wiggins, D., 1986. 'Teleology and the Good in Plato's *Phaedo*.' *Oxford Studies in Ancient Philosophy* 4: 1–18.
- Wittgenstein, L., 1958. *The Blue and Brown Books*. Harper & Row.
- Wittgenstein, L., 1983. *Remarks on the Foundations of Mathematics*. MIT Press.
- Yablo, S., 1992. 'Mental Causation.' *The Philosophical Review* 101(2): 245–280.