Critical Review

Philoponus and His Development: Four Recent Translations on Nature, Knowledge, and the Physical World


These four volumes constitute the most recent translations of Philoponus’ commentaries to appear in the Ancient Commentators on Aristotle series edited by Richard Sorabji. They also bring to completion the translation of Philoponus’ extant commentaries on Aristotle’s Posterior Analytics, Physics, and Book 1 of the Meteorology in the Ancient Commentators series, along with the majority of the texts of Philoponus edited in the Commentaria in Aristotelem Graeca. The exceptions are Philoponus’ commentaries on the Categories and Prior Analytics for which there are only currently limited plans (although a forthcoming joint volume of his commentary on Categories 1-5 along with his A Treatise on Whole and Parts is now planned for 2015).

Since first appearing in hardcover, they are also now available both in paperback and eBook versions (a very welcome development for the series as a whole). Each of the four volumes supplies useful information for Philoponus’ approach and interpretation of Aristotle. They shed light on the procedures and views of the Alexandrian school in the fifth and sixth centuries, since
several of Philoponus’ commentaries include notes from the lectures of his teacher Ammonius Hermiae. They all center on scientific themes. The commentary on *Posterior Analytics* 1.19-31 focuses on several issues surrounding the nature of universal statements either obtained through or used in scientific demonstrations; the two volumes devoted to Book 4 of Aristotle’s *Physics* examine issues arising from Aristotle’s treatment of place and the void; and the sections from Book 1 of Aristotle’s *Meteorology* analyze various meteorological and astronomical phenomena, such as the formation of comets, hail, the Milky Way, and various light formations in the upper atmosphere and beyond, along with Aristotle’s account of each.

The quality of both the translations and the notes of all four volumes is very high. One does notice some inconsistencies and uneven qualities comparing the four volumes together, however. One is the conspicuously different typesetting for one, the translation of Philoponus’ comments on *Physics* 4.6-9. As a result it contains rather significantly less material compared to the other three volumes. If the same formatting, spacing, and kerning practices had been followed as that of the others, this volume would likely have come in at under 100 pages. One wonders therefore why Huby’s translation of this material was not simply paired with Algra and Ophuijsen’s translation of *Physics* 4.1-5, as is often done with other volumes in the series. Not only would this would have partially offset the rather high prices of the series in hardcover, but it also would have allowed the significant introductory material of Algra and Ophuijsen’s edition to provide some much needed context for Huby’s volume. Further, it would have helped to bring the somewhat hodgepodge remains of both of these sections of Philoponus’ commentary on *Physics* 4 into some kind of a unity, since both contain material previously translated in the Ancient Commentators series as the *Corollaries on Place and Void*.

Other than this discrepancy, there are only minor differences in emphasis and focus in the supplementary material for the different volumes. All contain very helpful sets of indices and glossaries (though, again, as was to be expected, not always consistent in details). Some translators are more vigorous in their emendation of the text as it has come down to us. Some (Goldin and Martijn, Kupreeva) further provide very helpful correspondences noting where the text that Philoponus is commenting upon differs from Aristotle’s text as we have it today. In general, all of these editions are well copyedited. A few inevitable mistakes do however crop up.¹ But all make substantial and valuable scholarly contributions in their notes and translations of the texts.

¹ Many of these in particular affecting correspondence with page references to the CAG. Those errata that I noticed: (1) in Goldin and Martijn’s volume, on p. 15 “261.16” should have been
Among supplementary material provided in addition to the translations of Philoponus’ writing, Algra’s introduction to In Phys. 4.1-5 and Goldin and Martijn’s introduction to and notes on Posterior Analytics 1.19-31 are especially notable. Both make important contributions to the debate on Philoponus’ development. Koenraad Verrycken famously argued for Philoponus having undergone a significant change from an early, non-Christian Alexandrian, Neoplatonic metaphysical stance (labeled ‘Philoponus 1’ by Verrycken) to a significantly transformed anti-Aristotelian and anti-Proclan Christian stance (labeled ‘Philoponus 2’). While not addressing the entirety of Verrycken’s hypothesis, Algra in his introduction does argue that Verrycken’s idea that the more radically critical corollaries on place and void do not need to be conceived of as later additions to Philoponus’ more straightforwardly exegetical material in the Physics commentary since, even in the course of his comments outside the corollaries, Philoponus seems quite willing to critically analyze and occasionally even moderately advocate for his own preferred view on space and time against the views of Aristotle in Physics 4. On this point one might add that this would not be unusual for a ‘typical’ Alexandrian Neoplatonist like Philoponus. His teacher Ammonius displays a similar willingness to venture both moderate and significant criticisms of Aristotle and other predecessors in the course of introducing and explicating their ideas.

Occasionally, despite the copious notes and analysis in all four volumes, more frequent comparisons to other figures would have been helpful. Goldin and Martijn’s edition of the commentary on Posterior Analytics 1.19-31, for instance, would have been improved by a more substantive analysis to compare how Philoponus’ approach to the text differs from that of a Peripatetic like Alexander Aphrodisias. I also wished at times that Goldin and Martijn would more frequently have taken the opportunity to attempt to identify and differentiate between Philoponus’ own contributions and those of Ammonius. Such deficiencies and missed opportunities, however, are small in comparison to the contribution which Goldin and Martijn’s otherwise painstaking analysis and notes help to lay the foundation for future research on these and other topics.


\(^{216,16}\) while on p. 24 the page reference to the CAG should have been “222,1” and not “221,1”. Also, on p. 94, the CAG reference to “291,1” should have read “292,1”. (2) In Huby’s edition, “suppose” should have been “supposed” on p. 12. Finally, (3) in Kupreeva’s translation, on p. 64, the CAG page reference to “80,1” should be “81,1”.

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Finally, focusing as they do on scientific themes, both theoretical and applied, these four volumes also provide a useful window into how general and particular sciences were approached and received in fifth and sixth century CE Alexandria. Below, I return to the issue.

Turning now to the specific contents of each of the four volumes, I shall start with Goldin and Martijn’s edition of Philoponus’ commentary on Posterior Analytics 1.19-34. Important topics examined in these chapters include the precision of various sciences (ch. 27), the nature of scientific genera (ch. 28, 32), the problem as to whether an infinity of procedures or steps are acceptable when pursuing either definitions or scientific deductions (chs. 19-22), and the nature of the difference between scientific knowledge such as epistêmê and other forms of cognition such as doxa and nous. Goldin and Martijn, like Algra, find Verrycken’s account of Philoponus’ development to be overly drastic (see, for example, the discussion at pp. 2-6 of their introduction). In the course of the commentary Philoponus argues in favor of the Aristotelian idea that no demonstration or series of predications can proceed to infinity or else there will be no possibility for scientific knowledge or definitions (in An. Post. 216, 28-31; 220,21-224,2), that there can be no infinity of denials (229,1-5), and that predication of the other nine categories after substance (quality, quantity, etc.) also cannot extend forever (235,3-7).

Views such as these lead Philoponus to endorse Aristotle’s arguments in favor of certain simple, directly intuitable primary truths. In so doing, Philoponus comments on the role of nous in scientific demonstration and analyzes how it differs from other intellectual activities. This provides material for further discussion on Aristotle’s account of universals and the degree to which they can be reconciled with those of Plato. In an early commentary on the De Anima, as Goldin and Martijn note, Philoponus follows Ammonius in attributing to both Plato and Aristotle a view of forms as inseparable from Intellect, whether the God of Aristotle’s Metaphysics Λ or the ordering Demiurge of Plato’s Timaeus. But whereas this ‘early’ commentary shows close identification with Ammonius and his teachings, Goldin and Martijn find Philoponus’ views in the Posterior Analytics commentary to be much closer to his later treatise Against Proclus on the Eternity of the World, where Philoponus argues that Aristotle clearly and correctly identifies Plato as positing Forms as separate substances and not merely logoi within the Divine Mind.

Philoponus’ commentary on the Posterior Analytics, in Goldin and Martijn’s view, tends towards the later position. Commenting on chapter 22 of the first book, Philoponus notes that for Aristotle no accidents subsist in themselves, but must inhere in a substance. Philoponus contrasts this with “the argument concerning the Ideas” (ho peri tôn ideôn logos), which posit predicates like the
‘animal itself,’ the ‘beautiful itself,’ or the ‘equal itself’ as separate from and transcedent above their enmattered instances since, in Goldin’s rendering, “the beautiful and equal here are not precisely the beautiful and the equal, but are mixed with the ugly and the unequal, I mean, [they are mixed] with matter” (in Post. An. 242,3-5). Goldin and Martijn offer passages such as this as evidence that Philoponus has already moved on from his earlier phase of identifying Platonic Forms as inseparable from a divine intellect, and from a tendency of downplaying the differences between Plato and Aristotle.3

In response to Verrycken’s view that this passage represents a later revision of the Posterior Analytics commentary, and that the work is rather a product of a mixture of early and late period Philoponus, Goldin and Martijn argue that the primary reasons for believing this—the fact that Philoponus also appears to endorse an eternal cosmos, an early view of his later rejected in favor of temporal creation in the Against Proclus—is mitigated by the constancy of Philoponus’ endorsement of the placement of such logoi within the mind of a divine intellect. Presumably this equates with something like the view that the Posterior Analytics commentary represents a philosophical developmental stage ‘mid-stream’ in Philoponus’ career between the earlier views of the De Anima commentary and the views of later works like Against Proclus, but that it is one that does not require Verrycken’s idea that Philoponus went back and later ‘re-edited’ his Posterior Analytics commentary.4 Rather, some ideas appear to remain relatively constant, like the placement of simple objects of cognition within the mind of a divine intellect, while others, like the harmonization of Plato and Aristotle or the acceptance or rejection of an eternal cosmos, underwent gradual change throughout Philoponus’ thinking.

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3 For the record, Goldin’s characterization of Philoponus as “losing his train of thought” in his notes on this passage (p. 152, n. 25) seemed to me quite unjustified. Philoponus’ remarks are actually both quite appropriate to the context and illuminating, as well as notable for their relatively specific reference to discussions like that of the Form of Equality in Plato’s Phaedo, the detailed attention to which might be the result of what we know was his teacher Ammonius’ interest in the dialogues.

4 Indeed, one wonders how much interest Philoponus would had at any stage in his career to return to his classroom notes to edit them as Verrycken’s theory requires. Given the variety of Philoponus’ later writings, from the anti-Aristotelian and anti-Proclan polemics of his mid-thirties and forties, to his increasingly exclusive theological interests and concerns in later life, Philoponus rather seems like an individual very much animated and motivated by what strikes him as important at the time, and less likely to polish up earlier writings. Indeed, if this practice of re-editing earlier works was his tendency, then wouldn’t some passages from early commentaries like that on the De Anima have been prime candidates for reworking in light of his later beliefs?
Philoponus thus endorses a view of universals as the simple objects of cognition (nous), which also ensure that deductions, definitions, and other intellectually complex procedures retain a finite and hence epistemologically acceptable structure. Other puzzles discussed by Philoponus include whether each scientific genus has a single primary premise or whether a single entity can be the object of both opinion and scientific understanding. While noting that Aristotle seems committed to a single primary premise for each scientific genus, giving ‘the unit is indivisible’ as an example for arithmetic, Philoponus admits to being at a loss as to what such a similar primary premise might be for physics, medicine, or music (320,6-11). Finally, in his comments on An. Post. I.33-36, Philoponus defends Aristotle’s view that a single object may be conceptualized by both opinion and intellect, but according to different modes, and he attempts to extend and harmonize Aristotle’s views with those of Plato. The details of Philoponus’ account should be essential reading for those interested in Neoplatonic epistemology.

Philoponus’ alternating tendency to attempt to defend Aristotle’s views where he claims “all commentators have attacked Aristotle en masse” (291,10-12), as well as the barely contained glee that he displays when he hits upon an argument that he thinks overthrows an Aristotelian point (as, for instance, at 311,25-312,26), provide instructive examples of Philoponus’ methodology as a commentator. This tendency of active involvement with the text he is commenting on continues in his Physics and Meteorology commentaries. As mentioned above, the volumes by Keimpe Algra and Johannes van Ophuijsen as well as Inna Kupreeva translate those portions from Philoponus’ commentary on Book 4 of Aristotle’s Physics other than the so-called Corollaries on Space and Void. As Algra and van Ophuijsen argue in the introduction and notes to their volume, however, Philoponus’ tendency to criticize Aristotle as well as to advocate his preferred solution for conceiving space and the void, are not confined to the official ‘digressions’ of the corollaries, but pervade Philoponus’ treatment of Book 4 as a whole.

Turning now to Algra and van Ophuijsen’s edition of Philoponus’ commentary on the first five chapters of Physics 4, Algra’s introduction is to be consulted for his treatment of Philoponus’ development, specifically as it relates to his account of the physical world. Algra notes, for instance, that Philoponus appears to suggest at in Phys. 538,13-15 that the theory of place which he famously advocates in the so-called corollaries on place and void—the three dimensional view of place versus the substance-centered view of Aristotle—was already put forward by himself when a member of Ammonius’ classroom.5

5 “Introduction”, pp. 6-7.
This would therefore seem to indicate that Philoponus had a long-standing critical relation with Aristotle's writings. As noted above, this tendency seems quite in keeping with how Ammonius appears to have run his classroom, and therefore that Philoponus' attitude would have not been unusual for a member of the Alexandrian Platonic school. Indeed, it is hard to avoid comparison with the apparent practices of the Athenian school, which often strike one as having had a much more hierarchical and authoritarian structure between master and pupil. [One thinks, for instance, of Proclus' usual reticence to attribute his views to anything other than the teachings of Syrianus.] By contrast, the lively debates that seem to have taken place, at least occasionally, in the Alexandrian school seem to be reflected in the attitude that Ammonius adopts at times, for instance in his defense of Platonic 'dialectic' against Aristotelian logic in the preface to his commentary on Porphyry's *Isagoge*.\(^6\)

This is not to say that Philoponus' long-standing interrogation of some of Aristotle's ideas prevented him from examining and impartially attempting to defend Aristotle in the course of his commentaries on his works. This also seems to be a lesson Philoponus would have learned in the Alexandrian classroom. Indeed, the length to which Philoponus explores alternative ways to buttress and defend the Aristotelian view of place as a relation between substances is striking. He defends Aristotle from what he considers to be many misplaced criticisms of the theory. Here, Algra and van Ophuijsen's copious notes very helpfully explain both the context and the content of Philoponus' provisional defense and analysis of Aristotle. Algra notes that, as against the quite chilly responses that Philoponus received from the Athenian Neoplatonists, it is noteworthy how much later commentators in fact used and incorporated Philoponus' writings. To show exactly how this came about would constitute one fruitful line of future research. Simplicius, for instance, notwithstanding his professed hostility and disdain towards 'the Grammarian', nonetheless appears silently to have borrowed from Philoponus more frequently than he cared to note and acknowledge.

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\(^6\) It is, however, important to keep in mind that one other possible explanation for the apparent greater tendency to critique and challenge the texts being commented on and discussed in the Alexandrian school is the mere accident of history that it is largely commentaries on Aristotelian texts that came down to the Alexandrian authors, and Platonic texts to Athenian Platonists. Members of both schools might have felt a greater willingness to challenge and debate Aristotle's views, and pursue varying degrees of harmonization of them with Plato. With Plato's writings, the goal, in Athens and Alexandria, may have remained much more to explain and defend rather than raise criticisms and objections.
Topics covered by Philoponus in his commentary of the early chapters of *Physics* 4 include whether or not there is direction in space (502,25-503,4), the degree to which Aristotle’s investigations and results in the science can be syllogized (see, for example, 496,15ff and 505,17ff), and technical details such as what could be the relation between surface and place. But Philoponus also discusses matters of more general scientific and metaphysical interest. For instance at *in Phys.* 508,27-28, in a statement which it would be helpful to set off against previous Neoplatonic divisions of reality (like Proclus’ discussion of the delineation of being into *to ae* and *to genomenon* at *in Tim.* 227,6ff), Philoponus provides an interesting account of “the most general division of things” (*hê koinotatê tôn ontôn diairesis*), into “principles (*archai*) and things derived from principles (*ta ex archôn*).” Similarly, Philoponus’ comments on Zeno’s paradoxes, while clearly relevant to the present context, nevertheless shed light on topics beyond the puzzles concerning the nature of space. Many of these puzzles are illuminating in themselves, such as when a body that grows gets bigger, does ‘place’ grow along with it (cf. 510,10-21)?

This particular commentary also presents some interesting discussions of methodological issues as well as reports by Philoponus about his predecessors. Few are more surprising than Philoponus’ belief at *in Phys.* 521,15 that it was Aristotle himself who wrote down and was the main source for Plato’s unwritten doctrines. Since the claim is passed by without comment by Algra and van Ophuijsen, we may infer that they may not have found it so strange. In fact, perhaps Philoponus simply meant that, at least by the time of his writing, Aristotle’s testimony had become (and perhaps always was) the only evidence to go by for the existence of such views. Other interesting topics discussed by Philoponus include the possibility of several acceptable definitions for single things as well as attempts an exhaustive division of place at *in Phys.* 548,22.

Let me now turn to what might be considered the companion volume to Algra and van Ophuijsen, namely Pamela Huby’s translation of *Physics* 4.6-9. Like Algra and Ophuijsen’s own, Huby’s translation is presented without a substantial section previously translated, namely the so-called corollary on void. Taking both the excised material and the rest of Philoponus’ comments on *Phys.* 4.6-9, one notes that he is again interested both to explain Aristotle’s text as accurately as possible and to argue, more or less explicitly, how his preferred treatment of space as a three dimensional object sheds better light on the question of the nature and possible existence of the void.

In his discussion of the void, Philoponus spends a good deal of time addressing possible confusions as to how it might be best understood according to the theories of those who advocate its existence, as well as to what the real point of Aristotle’s criticisms often amount to, given the simplistic and occasionally
obviously absurd way in which Philoponus’ comments seem to suggest that the void was sometimes conceived in the ancient world. One misconception that seems especially to irk him is the failure of others to realize that the void might be interspersed within solid structures in the real world. On the way to discuss this and other points, Philoponus mentions a wide variety of interesting real-world examples, such as clypsedra, wineskins, leaden weights used by fishermen, and the physics of throwing stones. The frequency and inventiveness of his examples make for entertaining reading, and he gets much more mileage out of these examples and the analogies he draws with them per page than in the other commentaries reviewed here. Accordingly, this commentary is particularly useful for a survey of the sorts of scientific references that might be made in the classroom at the time. Similarly, Philoponus’ detailed criticisms of Aristotle at times are amusing and often convincing, such as his critique at 639,3ff of the Aristotelian idea that motion would be impossible if a void were starting:

One must ask those who say these things: when someone throws a stone by force, is it by pushing the air behind the stone like this that he forces the stone into an unnatural movement, or does the one who pushes give some kinetic power to the stone? If then he gives no power to the stone, but only by pushing the air he thus moves the stone, or the bowstring the arrow, what was the point of the hand touching the stone or the notch of the arrow the string? (in Phys. 641,12-19)

Finally, I should note that Huby’s translation, while quite crisp, is of the four translations the one that took the most time to become accustomed to, given its occasional tendency to read like clipped speech, probably due to the fact that she closely follows Philoponus’ Greek style.

Turning to Inna Kupreeva’s edition of On Meteorology 1.4-9,12, one finds a similar interest in specific physical processes and natural events on the part of Philoponus. At issue in these chapters are various atmospheric and astronomical phenomena, along with the commentary’s regular explanation, critique, or defense of Aristotle’s position against later natural scientists. Kupreeva’s introduction, notes, and text are all exemplary, and she lays out the position of the manuscript tradition of Philoponus’ commentary on Book 1 of the Meteorology, in addition to the lacuna between chapters 9 and 12, with remarkable clarity. Both Aristotle’s and Philoponus’ terminology of atmospheric conditions—including the ‘chasms’ and the ‘trenches’ used to describe aurora borealis in chapter 5, the difference between ‘squeezed’ meteors and ‘burning’ meteors in chapter 4, various theories regarding the nature of the Milky Way in
chapter 8, and the ‘goats’ and ‘torches’ that are presumably kinds of shooting stars or some other phenomena—are all very helpfully described. Philoponus discusses the views of his predecessors, including those of Ammonius and Damascius, in some detail, and Kupreeva supplements Philoponus’ text with extremely useful notes regarding what we know of their astronomical theories (as well as related Neoplatonic connections to the nature of the soul and eschatology—see for instance Philoponus’ discussion of Damascius’ more mythological views of astronomical bodies and the soul’s ascent and descent at in Meteor. 117,18ff). Kupreeva even provides cross-references to ancient Chinese and other non-Greek records in order better to explain Philoponus’ references to specific observations made both by himself and other ancient witnesses.

The richness and variety of Philoponus’ intellectual interests and abilities as a philosopher and commentator are all ably displayed in these four volumes. The editors and translators of each volume are to be thanked and commended for their service in making these translations available. Further, as is widely known, the Ancient Commentators on Aristotle series has since its inception been the product of a strong collaborative process, extending from Richard Sorabji’s oversight to the careful and meticulous review and editorial process each volume receives. Among these four volumes, several names recur of reviewers for the press, editorial assistants, and other contributors who have provided feedback and assistance, often on more than one volume. Just as many named and nameless individuals collaboratively contributed to ancient commentary tradition itself, it seems appropriate to close by noting the role of all those who contributed to the production of these four volumes. Their efforts deserve warm thanks.

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