

Aristotle's Criticism of the Platonic Forms as Causes in *De Generatione et Corruptione* II 9. A Reading Based on Philoponus' Exegesis*

MELINA G. MOUZALA / *Patras* /

In *De Generatione et Corruptione* II 9 Aristotle treats of the four causes of things generable and perishable and expounds his own doctrine of the efficient cause. He especially focuses on the confirmation of his theory of the necessity of the efficient cause. Within the frame of this theory he grasps the opportunity to set out his criticism, on the one hand of those who ignored the efficient cause, and on the other hand, those who wrongly attributed the efficient cause to other kinds of causality. My reading of this chapter is

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based on Philoponus' exegesis which contributes significantly, not only to the clarification of Aristotle's thinking but also to the manifestation of the arguments articulated in defence of the Platonic theory of Forms, which came under attack by Aristotle.

1. The method for the investigation of the four causes

Aristotle begins this chapter with an instruction on the method we have to follow in our investigation in order to discover, concerning all generation alike, how many principles there are of it and what they are. He states that we shall in this way be able more easily to study particular cases, namely, when we have first obtained a grasp of the things which are universal.¹ We can see here a reversal of the typical and proper method of natural science and more generally of scientific knowledge, introduced by Aristotle² at least in the *Physics* I 1, the *Posterior Analytics* I 2, and the *Metaphysics* VII 3. In the *Physics* I 1, Aristotle suggests that the natural course is to proceed from what is clearer and more knowable to us, to what is more knowable and clear by nature; for the two are not the same. Hence, we must start thus with things which are less clear by nature, but clearer to us, and move on to things which are by nature clearer and more knowable. In the *Posterior Analytics* I 2, Aristotle clarifies the distinction between what is prior and more knowable in relation to us and what is prior and more knowable by nature and explains that what is most universal is furthest away, and the particulars are nearest. In the *Metaphysics* he also describes the same course as the highly recommended method for the attainment of knowledge, for learning (*mathēsis*) proceeds for all in this way.³

However, it seems that here this method of proceeding from the universal to the particular does not focus on the ontological content of the terms universal and particular. Rather, it has a pure epistemological and logical value and stems only from the self-evident assumption that what is valid in the whole realm of things generable and perishable, is also valid for each particular which belongs to this realm. Philoponus justifies and explains Aristotle's methodological instruction by saying that from the principles of comings to be in general we shall also know the principles of particular comings to be, because there are as many principles of particular comings to be as there are principles of comings to be in general.⁴ Joachim in his commentary follows an interpretation which shows that here the relationship between the terms *katholou* and *kath' hekasta* corresponds to that between the genus and its species: "It remains for us to determine

¹ Arist. *GC* 335a25–28; transl. Williams (1982; repr. 2002: 52).

² Arist. *Ph.* 184a10–21; *APo.* 71b33–72a5; *Metaph.* 1029b3–12.

³ I mostly follow the translation by Charlton (1970) and Barnes (1994). For this matter see also Mouzala (2012: 35–38).

⁴ Philop. 281.9–11. In all references to the text of Philoponus' *Commentary* I follow the translation by Kupreva (2005).

the *number* and the *nature* of the 'originative sources of all coming-to-be alike', i.e. of γένεσις considered as the universal of which the γενέσεις of the various types of γενητά are specific forms... This is the right procedure: for it is a principle of method that 'a grasp of the true theory of any universal facilitates the understanding of its specific forms'...⁵ Joachim's interpretation is compatible with Philoponus' exegesis, since the latter uses the terms *katholou* and *kata meros geneiseis*, which proves that in this case he construes *katholou* as a whole or as a genus and *kath' hekasta* as parts or as specific cases of it.⁶

Aristotle begins his presentation of the four causes of all things generable and perishable with the statement that the principles of things generable and perishable are as many in number as those of things eternal, and 'the same in kind'. For matter is posited in both as a subject, and form too is considered to be present in the former as well as in the latter.⁷ The celestial bodies in this passage are referred to as eternal and primary beings. Although being eternal, they are perceptible and in movement; it is for this reason that they require all the four principles or causes; the material, the formal, the efficient and the final. In their case the principles or causes are the same numerically and generically as the principles and causes of things generable and perishable, i.e. the principles of sublunary bodies are equal in number and identical in kind to those of celestial bodies.⁸

The material cause is also present in the sphere of the celestial bodies. But the latter are contrasted with the generable and perishable things and are superior ontologically to them because they are eternally actual substances and the sources of life and change in the sublunary sphere; this is due to the fact that they have a different and superior matter which is not subject to generation and destruction⁹. Philoponus points out that in generable things matter is considered as that which is potentially, as it is in potentiality each of the contraries, whereas in the case of things eternal it is not considered as that which is potentially, but is always in actuality endowed with form¹⁰. In addition, there is a difference between the celestial and the sublunary bodies in terms of the formal cause. Philoponus states that the matter of the celestial bodies does not sometimes acquire form and sometimes become deprived of it, because there, form is eternal and is always dispo-

⁵ Joachim (1922: 247).

⁶ Cf. also Philop. 281.7–8; in this passage he uses also the term *archai katholou* (principles in general).

⁷ See Philop. 281.11–14; Williams (1982; repr. 2002: 180) notes that Aristotle uses the word *principles* instead of the word *causes* and he adds that the word translated 'kind' is the word for genus, rather than species.

⁸ Cf. Williams (1982; repr. 2002: 180–181).

⁹ The celestial bodies qua perceptible and moving, involve matter as well as form; but their matter is called *Aethēr* and is itself ungenerated, indestructible and exempt from increase and alteration, i.e. eternal; see Arist. *Cael.* 269a4–270b26; esp. 269b14–18: "...we may infer with confidence that there is something beyond the bodies that are about us on this earth, different and separate from them; and that the superior glory of its nature is proportionate to its distance from this world of ours" transl. Stocks & Wallis (1922).

¹⁰ Philop. 281.14–17; cf. 283.7–10. Since the only change to which the celestial bodies are liable is locomotion, the matter of the celestial bodies is appropriate only for locomotion, so it is in potentiality only with regard to locomotion (*hulē topikē*); see Arist. *Metaph.* 1042b5–6; 1069b24–26 and Ps.-Alex. *In Metaph.* 673.27–32; 688.22–27.

sed in the same way, not having a contrary, while here it is subject to coming to be and passing away, because contrariety is held to be in it, i.e. because it always has a contrary, which is privation.¹¹

2. The necessity of the efficient cause

Aristotle, in passage 335a30–32, refers to the efficient cause as the third principle which must also exist, for the other two are not adequate for making things come to be any more than in the case of the primary beings.¹² Philoponus notes that the efficient cause in things generable and perishable is the cause of coming to be, whereas in things eternal, it is the efficient cause not of coming to be but of being and permanence.¹³ It is obvious that Aristotle in this passage stresses the fact that the two principles, the material and formal cause, are not sufficient for making things come to be, because from now on he wants to use this statement as a starting point for the presentation of his theory about the necessity of the efficient cause. So the emphasis in this passage is not on the kind of change that these two principles are insufficient to cause, but on the fact that any change has to fulfill the requirement of a third absolutely necessary presupposition, of the third principle, i.e. of the efficient cause.

Philoponus raises the question as to why here Aristotle apparently says that the two principles are not sufficient, but what is coming to be needs also an efficient cause, since he himself said elsewhere that when matter is suitable for receiving form, there is no need of any third party which would bind form to it, but it receives it of its own nature and spontaneously (*autophuōs kai automatōs*).¹⁴ Philoponus himself contributes to the solution of the apparent contradiction, by replying to this that the fact that matter has become suitable is owed not to matter itself, but to the efficient cause. He further points out that it is for this reason that there is the need of efficient cause, for making the matter suitable to work upon, and he offers an example: “For in this way the sculptor is said to bring about the form, namely by removing from matter that which impedes the form, not by imposing the form from outside. And the matter receives the suitability and acquires

¹¹ Philop. 281.18–20.

¹² Transl. Williams (1982; repr. 2002: 52).

¹³ Philop. 281.20–22. So, primary beings need also an efficient cause, albeit not for coming to be but for being and persistence; see Philop. 284.9–11.

¹⁴ Philop. 283.27–284.2; Philoponus probably refers to what is said in Aristotle’s *Metaph.* Z 9, 1034a9–26 and Θ 8, 1049b4–10; cf. Kupreeva (2005: 141, n. 278). See also Ps.-Alex. *In Metaph.* 500.37–501.10 and 521.7–8.

the form at the same time".¹⁵ Kupreeva¹⁶ notes that Philoponus' words, "for making the matter suitable to work upon", suggest "that working on matter is distinct from making matter suitable to work on (although both may be functions of efficient cause)", but the example given by Philoponus "seems to fuse these two functions, or at least to be making a transition from one to another continuous without gaps". I believe that there are two different functions of the efficient cause, but that there is not a time difference between them. As soon as the efficient cause removes from matter that which impedes the reception of form, it at once imposes the form. This is due also to the fact that the efficient cause does not impose the form from without. So, the efficient cause implements two different functions which do not have a distance or gap in time between them, because the form is imposed by the efficient cause timelessly. This is why the transition from one to another seems to be continuous, as Kupreeva notes. In fact only the removal of the impediment by the efficient cause can be measured by the time and it is a change in the proper sense.¹⁷

In passage 335a32–b6, Aristotle describes the ontological status of the matter, i.e. of the underlying substrate of things generable and perishable. Matter is the being in potentiality, which can sometimes be and at other times not be, so is capable of both being and not being this particular form. This also explains why the efficient cause is necessary in order for a change to be realized. The efficient cause acts properly so as to make the matter suitable for receiving this particular form.

¹⁵ Philop. 284.2–7. In chapter H 6 of his *Metaphysics*, Aristotle examines how can we justify the unity of the definition; since a definition is a unity because what it is a definition of is a unity, as Bostock notes, the problem of the unity of definition is reduced to the problem of the unity of the definiendum; the unity of substance, i.e. the unity of matter and form, according to Aristotle, provides a solution to the problem of the unity of the definition and to the much wider problem of the unity of predication; see Bostock (1994: 279, 288–289). In passage *Metaph.* 1045a30–33, Aristotle raises the following rhetorical question: "What, then, causes this-that which was potentially to be actually-except, in the case of things which are generated, the agent?" (transl. Ross, The Internet Classics Archive). In this phrase it is clear that Aristotle considers the efficient cause as the cause which makes what is potential, i.e. matter, receive the form and become actual. In the second phrase of the same passage Aristotle uses an example which implies another cause of the union of matter and form: "For there is no other cause of the potential sphere's becoming actually a sphere, but this was the essence of either" (transl. Ross, The Internet Classics Archive). This statement means that matter and form have by nature the capacity to be one because it is the essence of either, i.e. the essence of matter on the one hand and the essence of form on the other, to become one and to coexist in a unity. For the different readings of this passage see Mouzala (2008: 86–95). So, in *Metaph.* 1045a30–33 we can see both the causes referred to by Philoponus, i.e. the efficient cause as well as the innate capacity of matter to receive the form, as causes of the transition from the potential to the actual. In a previous work I have maintained that in *Metaph.* H 6 when Aristotle refers to the sensible particulars, i.e. to the things which are generated, he justifies the unity of the potential and the actual being by the efficient cause. But when he refers to matter and form as principles which are not subject to generation, destruction and alteration, he justifies their unity by invoking the essence of matter and form, which reflects the inner timeless and unalterable nature of either (see esp. Mouzala 2008:93).

¹⁶ Kupreeva (2005: 141, n. 279).

¹⁷ The function according to which the efficient cause imposes the form upon matter is not measured by the time, so it is not a change in the proper sense. The point that neither matter nor form come to be or come to the existence or have *genesis* is made in *Metaph.* Z 8, 1033a24–b19; see also Ps.-Alex. In *Metaph.* 494.26–495.23; 496.9–11.

In the rest of the chapter Aristotle divides all preceding theories into two groups: i) theories which tried to explain generation and corruption by the formal cause ii) theories which tried to explain generation and corruption by the material cause or the instrumental causes.¹⁸ Aristotle sets out his arguments against both types of theory and correspondingly proves the inadequacy of both the material and the formal cause for the explanation of all natural changes. The emphasis he gives to the need for the investigation and identification of the efficient cause is due to the fact that all recognized the material and the formal, but as to the efficient cause, every philosopher dreamed of it, but no one articulated it.¹⁹ Aristotle reproaches the other philosophers for adducing no proper notion of the efficient cause. According to Philoponus, in passage 335b7–8 he alludes to both Anaxagoras and Plato; for Anaxagoras, having declared the Intellect to be the efficient cause, makes no use of it in his account of the coming to be of things, and Plato, too, mentioned the efficient cause in the *Timaeus* but in the *Phaedo* attached the efficient cause to the Forms²⁰. Joachim²¹ believes that there does not seem to be any evidence to determine to what theories, besides that of 'Socrates in the *Phaedo*', Aristotle is here referring.

3. Criticism of the theories which adduced no proper notion of the efficient cause

Socrates' treatment of Anaxagoras' theory about *Nous* as a cause of generation and destruction constitutes an apparently parenthetical discussion within the frame of the autobiographical digression in the *Phaedo*. This discussion interferes between Socrates' criticism of previous attempts by other philosophers to provide explanations of generation and destruction and his decision to set out a second sailing in quest of the real cause. Although I do not agree with Lennox that there is a radical discontinuity between the Anaxagorean excursus and the rest of the exploration of the cause of generation and destruction, I do agree with him that this intrusion is intentional and completely self-conscious, while at the same time there is no obvious shift in the motivation.²² The question has not been changed within the passage where Anaxagoras' theory is discussed. Nevertheless, Plato offers through Socrates' mouth another type of explanation of the efficient cause, which is teleological in nature. As Fine notes, *Nous* ordering all things is

¹⁸ Cf. Joachim (1922: 248).

¹⁹ Arist. *GC* 335b7–8; see also Philop. 281.23–25.

²⁰ Philop. 285.10–14; it is obvious that Philoponus refers to the Demiurge; see Pl. *Ti.* 27d–29b; Philop. *In Phys.* 241.27–30; Theophr. apud Simpl. *In Phys.* 26.7–13; Alex. apud Simpl. *In Phys.* 26.13–18. See also Pl. *Phd.* 100c–101d.

²¹ Joachim (1922: 249).

²² Cf. Lennox (1985: 197–200).

an efficient cause, while its ordering all things *for the best* is the teleological constituent of that cause²³. But it seems indisputable that Anaxagoras' theory proposes Nous as the efficient cause of every ordering and arrangement in the *cosmos*.

If Philoponus' suggestion that Aristotle here alludes also to Anaxagoras is correct, one could ask why Aristotle reproaches Anaxagoras for adducing no proper notion of the efficient cause. Philoponus explains twice²⁴ the answer to that question; but he would be expected to have explained it from Aristotle's perspective. In the first passage he states that Plato after reproaching others for adducing no notion of the efficient cause he commended Anaxagoras for saying that the intellect is efficient cause, although not even he used it in the coming to be of things generable. In the second passage Philoponus justifies in the same way Aristotle's criticism of Anaxagoras' theory. Anaxagoras, he says, having declared the Intellect to be the efficient cause, makes no use of it in his account of the coming to be of things. In this way it seems that Philoponus attributes to Aristotle's criticism of Anaxagoras' theory, the same reasons as those of Plato's criticism of it. In fact, in his comment on passage 335b7–8, Philoponus summarizes very briefly Plato's account of Anaxagoras' theory in the *Phaedo*, but without even giving the specific aim or the specific meaning of Plato's criticism of it.²⁵ So we can reach the conclusion that Philoponus' suggestion that Aristotle's criticism here is directed also against Anaxagoras cannot be confirmed by internal textual evidence. But even if we sustain this claim, it is disputable whether Aristotle and Plato criticized Anaxagoras for the same reasons.²⁶

²³ Fine (2003: 373).

²⁴ Philop. 281.27–29; 285.10–12; cf. Damasc. *In Phd.* 412.1–4; Damascius, in his comment on the *Phaedo* 97b8–98c2, also notes that Plato's criticism of Anaxagoras' view is due to the fact that, though he had a glimpse of the efficient cause, did not make use of it; he explains that in his account of the facts, according to Plato's view, he puts forth the irrational, i.e. indefinite causes, which will take opposite directions by what appears to be a sudden change of mind. Westerink (2009: p. 221, note on Damascius 412.3–4) clarifies that this change of mind is not attributed to Anaxagoras but to the irrational causes (*alogistous aitia*s) which take opposite directions, i.e. to the lower causes subject to contrary impulses; Westerink also invites us to confer with the above passage Damascius 414.2–3, where the commentator states that the contributory causes (*sunaitia*) tend in opposite directions and subserve contrary opinions, like a blind man. So, according to Damascius' exegesis, the point of Plato's criticism of Anaxagoras is that he fuses a proper said efficient cause, as it is Nous, which is a true cause, with the contributory causes, which are irrational and indefinite causes.

²⁵ Socrates states, similarly to what Philoponus says, that Anaxagoras made no use of intelligence and did not assign any real causes for the ordering of things. But the crucial point of Plato's criticism of Anaxagoras which is not mentioned by Philoponus is that his explanation of the natural coming to be and perishing is strictly mechanical and does not lay emphasis on the teleological dimension of the causal explanation, which according to Socrates is absolutely necessary even if the cause is originally an efficient cause; see *Phaedo* 97b–99d. We can find more explicit remarks on the connection between the efficient and final cause in this passage of the *Phaedo* in the ancient exegetical tradition; Damascius (*In Phd.* 413.1–6; 415.1–2; 416.7–8) states that Socrates links the efficient cause, when this is considered as the intelligence, directly with the final cause, and cannot view intelligence apart from finality. In fact Anaxagoras is blamed by Socrates, as Annas (1982: 315) correctly notes, for ignoring goodness in his cosmological explanations, although the desired teleology is not the kind of narrow teleology which explains only natural processes, but human action as well as natural phenomena. For a discussion whether Plato's explanation of human action in the *Phaedo* is included in the causal explanation provided by the Forms see Taylor (1969: 46–47).

²⁶ We must take into consideration that Anaxagoras rules out the possibility of coming to be or passing away and explains apparent generation and destruction through mixture and separation or dissociation (DK 59 B 17).

4. Criticism of the Platonic theory of the Forms as Causes

Aristotle criticizes Plato as a representative of those philosophers who rendered the Form as efficient cause. In passage 335b9–10 he states: “Some thought that the nature of the Forms is an adequate cause for coming to be. And this is the view of Socrates in the *Phaedo*”.²⁷ He then gives us a very useful explanation of what Socrates says in passage 99d–101d of the *Phaedo*.²⁸ It is not true that Aristotle is here just paraphrasing the *Phaedo* as Joachim asserts.²⁹ In fact, Aristotle construes generation and destruction in terms of attaining and losing participation in the Forms, and this is a considerable contribution to our understanding of the Platonic passage. In this way he implies what Damascius explicitly says in his Commentary on the *Phaedo*, namely that Form is present in the particulars, but only by participation, and that there is communion, but only in the sense that sensible particulars communicate in Forms, not both in a third reality, and they communicate only in the way of participation.³⁰ However, it is precisely on this interpretation that Aristotle focuses his criticism of Plato’s theory of Forms as causes.

In *De Generatione et Corruptione* II 9, there is an implicit and an explicit criticism of the Platonic Forms as causes. In fact these two aspects of Aristotle’s criticism are substantially interrelated. Aristotle’s explicit criticism is expounded in passage 335b18–24, but his implicit criticism of the Platonic Forms as efficient causes is relevant to this interpretation of the Platonic explanation of coming to be and perishing, offered by Aristotle in passage 335b12–16. What we can infer from this passage and from 335b 9–10, is that Aristotle focuses his criticism of Plato’s account of the causes in the *Phaedo* on the nature of the

But he introduces the Intellect as the efficient cause of the original rotation, i.e. the rotary motion imparted by Nous, which causes the separation of the ingredients in the mixture (DK 59 B 12, B 13). Nous is the first principle of motion, and consequently it would be plausible to think that Aristotle criticizes Anaxagoras for being unable to give the proximate efficient cause of things that come to be, although he recognizes that Anaxagoras’ Intellect, unlike the Platonic Ideas, is actuality; see Arist. *Metaph.* Λ 6, 1072a4–6. According to Philoponus, Aristotle criticizes Plato for the same reason, i.e. for being unable to give the proximate efficient cause of generable and perishable things; Philop. 285.19–20. Aristotle attaches great importance to the proximate efficient cause. In the *Metaphysics* Λ 5, 1071a33–b2 he refers to the principles and causes and elements of all substances (οὐσίαι); he mentions as causes of substances, which are common to all things, matter, form, privation and the moving or the efficient cause. Ps.-Alexander, in his comment on the passage *Metaph.* Λ 5, 1071a35–36, interprets the “first cause in respect of complete reality” (τὸ πρῶτον ἐντελεχείῃ; transl. Ross: The Internet Classics Archive) as the first proximate efficient cause. He seems to evaluate it as the primary cause in comparison with that which is further away (πορρώτερον); see Ps.-Alex. *In Metaph.* 685.11–14.

²⁷ Transl. Williams (1982; repr. 2002). See also Philop. 281.25–26.

²⁸ Aristotle says: “And this is the view of Socrates in the *Phaedo*. He, after blaming everyone else for saying nothing to the point, adopts the hypothesis that, of things that are, some are forms and some partake of the forms, and that everything is said to be in virtue of the form, to come to be in virtue of receiving a share of it and to perish in virtue of losing it; so if this is true, the forms, he thinks, are necessarily the causes of both generation and corruption”, transl. Williams (1982; repr. 2002).

²⁹ Joachim (1922: 249).

³⁰ See Damasc., *In Phd.* 418.5–6. Philoponus (285.26–286.1) supports this interpretation. According to him, Aristotle says that each thing has its being in accordance with Forms, and the fact of its having come to be in accordance with its participation of them, just as its perishing is in accordance with its loss of them.

Platonic Forms, which prevents them from being an adequate cause for coming to be and perishing. It is because of their nature that they are not sufficient for production. Against Plato's claim that Form by its presence produces that which participates in it and is endowed with Form, while loss of participation causes it to perish, Aristotle could raise the objection that in this way, Form does not act like a real efficient cause, so it does not prove to be such. As pointed out by G. Fine, by assigning the preeminent role to participation of the sensible things in Forms, Plato leads us to reach the conclusion that Forms are not themselves strictly speaking the *aitiai* (causes), but are only constituents of these *aitiai* since they are only the salient factors in change.³¹

I think the point of Aristotle's implicit criticism of the Platonic Forms as causes in this chapter is the following; since generation and corruption of the sensibles depends on the participation of the Forms and loss of participation and the presence of the Forms in the sensibles or the communion of the latter with the Forms are realized only by way of participation, we can reach the conclusion that Forms are not at all active during this procedure. In consequence they are not at all active causes, namely efficient causes, because from the Aristotelian perspective this kind of cause must not only be actually existing, but also actually operating or acting³². Rather, coming to be and perishing of the particulars is an effect of their participation and loss of participation in the Forms. According to what is stated in *De Generatione et Corruptione* I 7, 324a24–b14, the term *to kinoun* (the mover) and the corresponding term *to poioun* (the producer) have a double significance and application. They apply to that which contains the originative source of the movement, i.e. the first in the series of causes of a movement, and also to "that which is last" (*to eschaton*) in the series of causes; namely to the cause next to the body which is being moved and to that which is coming to be. The mover in the sense of *eschaton* ("that which is last"), while moving and acting upon a subject, is always moved by that which it moves or is always altered by that on which it acts.³³ So the proximate efficient cause in

³¹ Fine (2003: 385): "Participating in a form is a state of affairs that includes a form as a constituent; coming to participate in a form is an event that includes a form as a constituent. But it is such states of affairs and events that are the *aitiai*, not forms all by themselves."

³² Cf. Berti (2000: 194). According to what is said in the *Physics* 194b29–32, the efficient cause is something which initiates the process of the change or its cessation when the process is completed... or more generally the prime, conscious or unconscious, agent that produces the effect and starts the material on its way to the product, changing it from what it was to what it is to be (transl. Wicksteed & Cornford: 1957). Simplicius, in his comment on this passage of Aristotle's *Physics*, states that the efficient cause is the producer which is called by Aristotle, "that from which (*othen*) change and its cessation initiated"; see *Simpl. In Phys.* 315.9–10 (transl. my own).

³³ Cf. Joachim (1922: 153). Aristotle repeatedly states that the cause of motion must be in contact with what it moves; see *Arist. Ph.* 202a6–9; 258a18–21; 266b28–267a20; *GC* 322b21–25; 323a20–34; cf. Sorabji (1988: 220). Since the mover (*to kinoun*) is not only actually this thing here (*energeia tode ti*) but also potentially something else (*dynamai allo*), while the mover is in contact with the moved, that which exists in potentiality within the mover, must be acted on by that which exists in actuality within the moved; see also Mouzala (2003: 123–127, 153). As Berti (2000: 186) correctly stresses, the word which designates the efficient cause, the word ποιητικόν (as well as the parallel word κινήτικόν), has the specific suffix -τικόν, which indicates the capacity to do something. Berti points out that the Aristotelian terms ἐνεργεῖν and ἐνεργεῖν denote that the active capacity of the efficient cause is actually in exercise; the use of those terms by Aristotle seems to indicate not only that the ontological condition of the efficient cause is an actuality, i.e. a fully accomplished condition, but also that this is accompa-

Aristotle's causal theory is that which by directly acting upon a subject brings about its motion, change, generation or destruction. Consequently, as Philoponus correctly notes, from Aristotle's perspective Plato turned out to be unable to give the proximate efficient cause of things that come to be, but has had recourse to the Ideas.³⁴

In passage 1071b14–17 of book *Lambda* of his *Metaphysics*, Aristotle also criticizes the Platonic Forms as insufficient to be efficient causes. Aristotle formulates his criticism of the Platonic Forms as follows: “Nothing, then, is gained even if we suppose eternal substances, as the believers in the Forms do, unless there is to be in them some principle which can cause change; nay, even this is not enough, nor is another substance besides the Forms enough; for if it does not *act*, there will be no movement”.³⁵ Aristotle insists in this passage that the Platonic Forms, although being eternal themselves, are not adequate and sufficient to explain why eternal beings and eternal movement of the heaven exist as they are. According to him it would be useless to sup-*pose*, i.e. to make to underlie, eternal substances as the Platonists do, since the Forms do not contain any principle which can cause change. Furthermore, it would also be useless to suppose another substance besides the Forms, if this is not actually acting, i.e. if it does not have any activity.³⁶ Pseudo-Alexander verifies in his *Commentary* that the believers of the Forms declared that the Forms are immovable and not at all acting.³⁷ Berti correctly stresses that even if Plato considered the Forms as efficient causes Aristotle denied this character to them, because they are not acting, i.e. because they have no activity; he also notes that from the point of view of the Aristotelian ontological distinction between potentiality and actuality the Platonic Forms would be actualities, but they must not be considered as efficient causes, because they lack activity.³⁸

nied by a true activity. For the difference in meaning between the terms *kinētikon* and *kinoun* see *Ph.* 202a16–17; Mouzala (2003: 158, n. 291).

³⁴ Philop. 285.19–21.

³⁵ For the translation see Berti (2000: 188).

³⁶ Cf. Berti (2000: 188).

³⁷ See Ps.-Alex. *In Metaph.* 688.27–689.1 (esp. 688.35–38). Cf. Arist. *Metaph.* A 7, 988b1–4, where Aristotle states that for the Platonists the Forms are causes of immobility and of being at rest rather than of movement; also in *Metaph.* A 9, 991a8–11 he states that they cause neither movement nor any change.

³⁸ Berti (2000: 189) reaches the conclusion that the cause of the eternal movement of the heaven which is considered as a proper said efficient cause must be not only actuality, but also activity. But, in my view, there is a need to emphasize that in the case of the prime unmoved mover, this activity is in no way a kind of motion in the Aristotelian sense; Simplicius in his *Commentary* on the *Physics* states (*In Phys.* 317.14–17): “Being the principle of change in the strict sense means being an unchanged changer, so that the efficient cause in the strictest sense of things that come-to-be would be that which is unchanged, eternal and always remaining enduringly the same. Such is august intellect”, transl. Fleet (1997). Also, according to Simplicius’ testimony (*In Phys.* 317.27–28), Alexander cleverly remarks: “...the efficient cause in the strict sense must be separate and distinct”, transl. Fleet (1997). Since the efficient cause in the strict sense is separate (*chōriston*), i.e. completely immaterial, is not subject to any kind of change or movement. This is ensured because it does not cause movement in a natural way, i.e. by approaching what comes-to-be and passes away directly, but only through everlasting intermediaries; see Simpl. *In Phys.* 317.20–23 (transl. Fleet 1997).

Aristotle's explicit criticism of the Platonic Forms as causes is formulated in passage 335b18–24 and consists of the following two arguments:³⁹ a) If the Forms are causes, why they do not always generate things continuously rather than sometimes doing so and sometimes not, since both the Forms and the things which partake in them are always there? (transl. Williams). b) Furthermore, in some cases we observe something else being the cause: it is the doctor who induces health and the knowledgeable man knowledge, despite the existence of both health itself and knowledge and those who partake in it; and it is the same in all the other cases where something is performed in virtue of a capacity (transl. Williams). The first argument can be summarized as follows: “the Forms and the Participants always are but γένεσις is intermittent”.⁴⁰ In the second argument Aristotle refers to the field of the products of art and obviously implies that we must draw an analogy between the products of art and the products of nature. In the case of the products of art we actually see that there is always the need for a third cause; for example, besides Forms, such as health and knowledge, and the things which partake in them, e.g. people, there is always the need for a third sort of cause, exemplified by doctors and professors who act as efficient causes. Similarly in the case of the products of nature there is the need for a cause other than the Forms, which can act as a real, i.e. a proximate, efficient cause. It is obvious that the sort of capacity to which Aristotle refers in 335b23–24 is a technical skill,⁴¹ as the word *prattomenōn* (GC 335b 24) indicates, but in the realm of nature there is an analogous capacity which Philoponus has explained in detail in his comment on passage 335a31. In the realm of nature the fact that matter has become suitable for receiving the form is owed to the efficient cause, and it is for this reason that there is always the need of the efficient cause, for making the matter suitable to work upon.⁴²

G. Fine presents the articulation of Aristotle's argument and places emphasis on the premise that Forms are the sole *aitiai* of coming and ceasing to be. She states that although there is nothing in the text to indicate the attribute “sole”, if it is not supplied the Aristotelian argument collapses.⁴³ I agree that the premise which holds that Forms are

³⁹ Joachim (1922: 249) recognizes two arguments, whereas Williams (1982; repr. 2002: 183) summarizes what Aristotle says in one argument.

⁴⁰ Joachim (1922: 249). Cherniss (1944: 380) remarks that, according to Aristotle, while the theory of Ideas cannot explain the intermittence of generation and destruction, it is equally incapable of accounting for the perpetuity of movement and process which for him constitutes the eternity of the world, because for the change that is without beginning or end there must be a cause which not only *can* or *does* act but of which actuality is the essence. So, as Cherniss correctly notes, Aristotle evaluates even the account of the materialists as more scientific than Plato's theory of Ideas, since they recognize that movement is required for the achievement of generation and that “the cause of generation is a motive agent even though they mistakenly ascribe this motive power to matter itself”; see Arist. GC 335b24–31.

⁴¹ Cf. Williams (1982; repr. 2002: 184).

⁴² See again Philop. 283.27–284.7.

⁴³ Fine (2003: 361, and n. 20). J.M. Watson (1909: 58) remarks that it might be retorted to Aristotle by the Platonists that their master had never said the Ideas could supply an ἀρχή (κινήσεως) γενέσεως, since in all Plato's later writings, at all events, the efficient cause is soul, mind, creator; cf. Annas (1982: 312). But Watson asserts that as against the *Phaedo*, where the Ideas are made the sole efficient causes, Aristotle's argument is valid.

the sole *aitiai*, is crucial and at least reflects what Plato says in passage 100d of the *Phaedo* about the communion or participation in Forms as the safest answer to the problem of the causes of generation and destruction.⁴⁴ According to Fine⁴⁵, Aristotle's argument in *De Generatione et Corruptione* II 9 assumes, as the relative argument of *Metaphysics* I 9 (991b3–9) does not, that the existence of Forms for Plato is both a necessary and a sufficient condition for change. Furthermore, Fine adds that if Forms are the sole *aitiai* of change, they are efficient causes, since for Aristotle the existence of efficient causes is a necessary condition for change. But according to this interpretation, it is disputable whether Aristotle believes that Plato agrees with this assumption. Fine claims that, "Aristotle's suggestion is not that Plato mistakenly furnished Forms as efficient causes; it is rather that Plato ignored efficient causes in his accounts of change, i.e. did not see that the existence of efficient causes is a necessary condition for change".⁴⁶

On the contrary, J. Annas has claimed that in both passages, *Metaphysics* I 9 (991b3–9) and *De Generatione et Corruptione* II 9 (335b7–16 and 18–24), Aristotle is saying that in the *Phaedo* Forms are put forward by Plato to be what are in Aristotle's terms "efficient causes", sources of change or movement. But she evaluates Aristotle's criticism negatively, with the justification that Forms are not intended by Plato to have the role of Aristotelian efficient causes in the first place.⁴⁷ She notes that Aristotle has often been berated for a misunderstanding of Plato's theory of Forms as causes in the *Phaedo*.⁴⁸ In my opinion, we must take into consideration that Plato puts forward the Forms as causes of coming to be and perishing, because the initial question which is expressed in passage 95e–96a of the *Phaedo*, has not been changed when Socrates begins his second sailing. The subject of the investigation remains the same when the theory of Forms is presented as a hypothesis which offers the solution to the original problem.⁴⁹ In my view, this means that the Platonic Forms are intended to be what are in Aristotle's terms *efficient causes*. But they are not *the* Aristotelian efficient causes, because they are not active. According to

⁴⁴ Plato means the safest among others which are all rejected as unsafe or at least less safe. So the uniqueness of this answer is indisputable; cf. also *Phd.* 101c.

⁴⁵ Fine (2003: 361–362).

⁴⁶ Fine (2003: 362).

⁴⁷ Annas (1982: 311, 323). Cherniss (1944: 451–452 and n. 397) believes that, "in spite of what some modern interpreters have maintained, the ideas themselves are never made productive agents either as »animate beings« or as »active forces« of any kind". Hackforth (1972: 145) notes that it is not clear whether Aristotle in *GC* is imputing to 'Socrates in the *Phaedo*' an explanation of what he himself calls γένεσις ἀπλῆ, i.e. the coming to be of a substance, or of what he calls τῆς γένεσις, i.e. the coming to be of an attribute. According to him the instances in 335b21–22, health and science, are for Aristotle τινὲς γενέσεις κατὰ τέχνην, but in passage 335b13–15 he seems to refer to the coming to be of substances. I agree that in the second passage Aristotle refers to substances because in 335b13 he uses the word *hekaston*. In any case Hackforth thinks that there is no dispute about what his criticism is; the Forms cannot play the part of 'efficient' or 'moving' causes.

⁴⁸ See Annas (1982: 312, and n. 3); Vlastos (1973: 88–89).

⁴⁹ Cf. Annas (1982: 318); she stresses that Plato sees himself as concerned throughout with a single topic: *aitia* or explanation; she also adds (Annas 1982: 324) that there are no indications at all that Socrates is aware of changing the subject.

the Aristotelian view of the efficient cause, the agent of change is active in producing the change exactly for as long as the patient is passive in suffering it and the former transfers its form with regard to a characteristic to the latter.⁵⁰

The whole frame of the Platonic causes is totally different from that of the Aristotelian causes. Nevertheless, since Socrates in the *Phaedo* seeks to find the causes of generation and destruction, it is plausible to say that even from the Aristotelian point of view he furnishes the Forms as efficient causes. In *Metaphysics* I 6, 988a8–10, Aristotle states that Plato used only two Aristotelian causes, the formal and the material. I agree with Annas that there is only an apparent contradiction between this passage and the other two, namely *Metaphysics* I 9, 991b3–9 and *De Generatione et Corruptione* II 9, 335b9–16, where Aristotle asserts that the Platonic causes are meant to be efficient causes.⁵¹ In *De Generatione et Corruptione*, Aristotle reproaches Plato for thinking that the nature of the Forms is an adequate cause for coming to be. It is also obvious from Philoponus' explanation⁵² that Aristotle in fact blames Plato for furnishing as efficient causes what from the Aristotelian point of view are formal causes. But we must not forget that Plato's intention is to display the causes of generation and destruction.

The crucial difference between Plato and Aristotle is that the former does not have in mind the Aristotelian fourfold scheme of explanations or causes when he presents his theory of Forms. Conversely, Aristotle has his own theory of causes as a starting point for his criticism, which of course stems not only from Plato's but also from all the predecessors' theories on causation. Consequently, Aristotle believes, as Annas correctly notes,⁵³ that Plato is confusedly treating together very different kinds of explanation, which according to him are mutually irreducible. Moreover, although Aristotle believes that efficient, formal and final *aitiai* can come together since they are concurrent,⁵⁴ he also

⁵⁰ Cf. Annas (1982: 319–320).

⁵¹ Annas (1982: 312). Watson (1909: 59–60) notes that from the Platonic dialogues themselves does not result the impression that Plato recognizes only two causes, the formal and the material. He remarks that in the statement at least of *universal* efficient cause, no one could be more emphatic than Plato; he mentions *Sophist*, *Timaeus*, *Philebus*, *Laws* as being in this respect alike. He adds that similarly, as to final cause, one should take into consideration the description of the Ideas as Archetypes (*παραδείγματα*) and of the Idea of the Good in the *Republic* as not merely highest efficient but also final cause of the universe; see also *Phd.* 99c; *Phlb.* 20d, 28d–29a. Watson (1909: 61–62) remarks that Aristotle does not wholly deny Plato's recognition of final and efficient causes. As to the former, according to Watson, Aristotle says that in a sense it was postulated by Plato, only not qua final; the Aristotelian account of the Platonic final cause, according to this interpretation, is that Plato identifies it with the formal cause, and it is only an 'accident' of the formal cause that it happens at the same time to be good; so the Ideas are *κατὰ συμβεβηκός* final causes (cf. Cherniss 1944: 381). Watson notes that as to the efficient cause, Plato wished indeed to make his Ideas efficient powers, but seeing that they do not fulfill his own criteria, Aristotle denies to Plato's system the recognition of any efficient cause. He points out that according to Aristotle (*Metaph.* A 7, 988a34–b1) even Plato's formal cause is not quite the same as his own. He also assumes that Aristotle refuses to recognize Plato's 'maker and father of the universe' as any scientific explanation.

⁵² See again Philop. 281.25–31.

⁵³ Annas (1982: 325).

⁵⁴ See Arist. *Ph.* II 7; see also Annas (1982: 321, and n. 31). Watson (1909: 59) remarks that, "it is not doubt surprising to find that notwithstanding his attack on Plato, Aristotle himself reduces his four causes to two, and on the principle of always finding the 'ultimate ground' should trace back the efficient cause to the formal. But

believes in principle that the question why something is as it is, i.e. the question *dia ti*, which is the same as in Plato,⁵⁵ can be answered in four different ways, not reducible to one another and all indispensable in terms of a total and complete explanation of each thing. I disagree with Annas' view that Socrates is going some way to distinguishing, in Aristotle's terms, between formal and final explanation, by offering Forms as a second best to offering teleological explanation.⁵⁶ I do not mean by this that Plato confuses these two kinds of explanation; but rather that by offering Forms as the radical solution to the problem of the causes of generation and destruction, he chooses to furnish a type of causality which conflates and condenses all three kinds of the requested explanation, the efficient, the final, and the formal. The only cause which is not sought is the material, which predominates in the explanations provided by the materialistic and mechanical accounts of other philosophers, as described by Socrates in his autobiography.

Vlastos has rejected the idea that the Forms constitute a final cause and has claimed that in the *Phaedo*, as in the *Timaeus*, the teleological function is a task which pertains exclusively to mind (*Nous*) or soul.⁵⁷ Was then the discussion of Anaxagoras' theory and Socrates' criticism of it a teleological parenthesis which reached its end as soon as Socrates started to narrate his second sailing? Lennox⁵⁸ believes that neither is the Anaxagorean excursus without significance to the rest of the dialogue, nor does the *deuteros plous* imply, hidden away, some sort of teleological explanations, since *Nous*, which is an ordering cause and chooses a certain order because it is best, is absent from the treatment of the safe and simple explanation. The latter position explains something's coming to be and perishing by participation in the Form and loss of it. Damascius, whom we can take as representative of the way in which the Neoplatonic tradition approaches this problem,

though the efficient cause of a house to Aristotle is *ultimately* the form of the house in the mind of the builder, still he does not absorb the efficient cause in the formal; he recognizes the efficiency of the art of building or of the builder".

⁵⁵ See Pl. *Phd.* 96a–b.

⁵⁶ Annas (1982: 324).

⁵⁷ Vlastos (1973: 87–88). Ross (1924, vol. I: 176–177), in his comment on Arist. *Metaph.* 988a9, remarks that Aristotle ignores various suggestions of an efficient cause in Plato – the self-moving soul of *Phdr.* 245c–d, *Lg.* 891–899, the demiurge of *Sph.* 265b–d and of *Ti.* 28c ff., the αἰτία τῆς μίξεως of *Phlb.* 23d, 26e–27b, and various suggestions of a final cause – the ultimate good or οὐδὲ χάριν of *Phlb.* 20d, 53e, the object of the creator's purpose in *Ti.* 29d ff., and in *Lg.* 903c. According to Ross, he doubtless thinks Plato's treatment of these causes inadequate, but that does not justify him in speaking as if Plato had ignored them entirely. In his comment on Arist. *Metaph.* 988b11–14, Ross (1924, vol. I: 179) adds that Aristotle ignores the distinctly teleological view which Plato expresses in some dialogues. H. Cherniss (1944: 451) notes that the criticism of Anaxagoras in the *Phaedo* (97c–99d) implies that Plato even then believed soul to be the true cause of all motion, and the fact that he calls the method there used a δεύτερος πλοῦς ἐπὶ τὴν τῆς αἰτίας ζήτησιν indicates that he already had in mind the account of causality given in the *Timaeus*; he adds that, "at any rate, whether or not Plato when he wrote the *Phaedo* had clearly integrated the causality of the ideas and that of the soul, the two are certainly not incongruous and were never considered by him to be other than complementary factors in the full account". I believe Cherniss' view is very important for a coherent understanding of the Platonic theory of causality, since not only does it ascribe a kind of final causality to the Forms in the *Phaedo*, but it also sets out to combine the accounts of the final causality in the *Phaedo* with those in the *Timaeus*.

⁵⁸ Lennox (1985: 201–202).

has shown that once exemplary causes are posited in the *Phaedo*, the efficient cause is somehow comprehended in them, since things here below are what they are by participation in the prototypes, and so is the final cause.⁵⁹ Following Damascius, I believe that the close connection of the Platonic Forms with the final cause is enclosed in their paradigmatic causal dimension. As prototypes they represent the truest and perfect version of each sensible and consequently they explain why participation in them and imitation of them brings about each thing's being. Also being is equal to the best for each thing, and further being as it is, is equal to the best for each thing. So, D. Sedley is absolutely correct when he states that teleological causation, "is, in short, a special application of the formal causation to which Socrates turns in his famous 'Second Voyage' (*Phd.* 99c–102a), with its 'safe' causal story that it is the F which causes F things to be F".⁶⁰

Vlastos has pointed out that in the Platonic theory of Forms, causation seems to be connected with participation or communion in Forms rather than with Forms themselves. From this point of view, the real cause of coming to be and perishing is participation and loss of participation in the Form and not the Form itself; although Vlastos underlines that Plato uses the same vocabulary which he would have also used if he were speaking of the relation of a cause to its effect.⁶¹ Annas reaches the conclusion that Plato's theory is not only non-teleological, but is also not a causal explanation, because what is being explained, is why a thing has a quality F. According to Annas, the Form explains this with no reference to any particular processes or events of things' coming or ceasing to be F. Instead of talking about cases of coming-to-be and ceasing-to-be, Plato is talking "about the possession of qualities by things, with no reference to their causal history". Annas notes that Plato continues to use the language of coming-to-be, but although in passage 101c3–7 we are told that Forms explain not only things' being, but also their becoming, they do not offer this kind of explanation. She states that what they explain is the possession of a quality, not the causal history of how that quality came to be possessed.⁶² To this argument, G. Fine adds another; since coming and ceasing to participate in a Form involves more than the Form itself, the conclusion that Forms are the sole *aitiai* of coming and ceasing to be does not follow.⁶³

The counter-argument to the previous ones would be that Plato uses and presents participation in Forms and loss of participation as cause of generation and destruction, in order to emphasize that particulars come to be only in so far as they communicate in Forms, and not vice-versa. So there is communion between particulars and Forms, but only by participation of the former in the latter. This also means that Plato's intention is to show, on the one hand that the particulars must be oriented towards Forms if

⁵⁹ Damasc. *In Phd.* 417.1–2.

⁶⁰ Sedley (1998: 126–127).

⁶¹ Vlastos (1973: 87 and n. 33; 90).

⁶² Annas (1982: 318).

⁶³ Fine (2003: 361).

they are going to come into being, and on the other, that Forms must be considered by us as not active at all if we are going to preserve them in their pure ontological status of Forms. D. Sedley refers to the “transmission theory of causation” and describes different applications of it. He first explains by providing examples how, according to this theory, the agent transmits a property to the act or his character to his behaviour or a state or disposition to other persons. He then makes a very useful comment in which he stresses that we must be careful because, “to insist too strongly on transmission as a distinct stage in the causal process threatens to dilute the immediacy and transparency of the cause-effect relation”. Furthermore, he adds that this is the reason why Plato does not include in the irreducible kernel of a causal statement the process by which the cause acts.⁶⁴ This interpretation explains why the mode of transmission of the F-ness is no more important to the causal account of the relation between a Form F and the particulars, since what matters is to understand that the central ontological feature of Forms is that they lack activity and motion; henceforth presence of the Forms in the particulars or communion of the latter in the former can only be realized by participation. Nevertheless, in my view, it is obvious that Aristotle lays emphasis on this stage of the direct transmission of a property from the agent to the patient. The former is active in producing the change for as long as the patient is subject to its activity and passive in suffering the change.⁶⁵ Therefore, he believes that no change or motion can be explained without acceptance of the operation of this principle, which initiates the process of change and its cessation and constitutes what in Aristotelian terms is called, “the proximate efficient cause”.

We have referred to the first Aristotelian argument, formulated in passage 335b18–20, which disputes that Forms are causes, because they do not generate things continuously, while both the Forms and the things which partake in them are always there. I believe that a Platonist could claim that this argument is invalid, because while Forms are always there, the things which partake in them are not always there, since they are sensibles. In addition to this counter-argument, from the Platonic standpoint, the question as to whether the Forms are the sole *aitiai* of coming and ceasing to be, could be easily reversed so that instead it becomes whether the Aristotelian efficient causes are the sole and sufficient *aitiai* of generation and destruction or are co-causes, i.e. contributory causes (*sun-aitia*). In my view, with regard to the second Aristotelian argument, formulated in passage 335b20–24, a Platonist could raise the objection that the doctor, although somehow necessary, is not a sufficient efficient cause, because he cannot be in the position to induce health, unless health comes into existence by participation in the Form of health. The doctor’s activity within the frame of the Platonic theory of Forms, considered as causal theory, would be construed as a contributory cause. This could be verified in

⁶⁴ Sedley (1998: 123–124). According to this interpretation, how a quality was transmitted, “is no more important to a causal account than it was at *Phaedo* 100d3–e3 to establish whether it is by sharing, presence or whatever that the Beautiful comes to make things beautiful” (Sedley 1998: 124).

⁶⁵ See Arist. *Ph.* 202a3–9; 251b1–5; Annas (1982: 319–320).

the case of a doctor who is mistaken with regard to the treatment of a disease, when he erroneously advises medicines or a course of therapy of an ill situation. According to this view, only participation in the Form of health can guarantee the health of a particular sensible, in this case of a human being. This means that the only safe causal explanation, the only proper said efficient cause, is participation in the Form.⁶⁶

5. Philoponus on the defence of the Platonic theory of the Forms as Causes

Apart from these two objections which according to my reading could be raised by the Platonists, Philoponus in his comment on passage 335b9–16 presents what some thinkers say in defence of Plato, by invoking the notion of *creative Forms* (*dēmiourgika eidē*). According to Philoponus' testimony,⁶⁷ some say in defence of Plato that Plato stated that *creative Forms* are efficient causes, by participation in which things coming to be come to be and by the loss of which they perish. Philoponus adds that if Plato posits *creative Forms*, it is clear that he himself regards these as the efficient cause of the forms that are in generable things; he justifies this opinion by asserting that, in his view, the one who says 'creative causes' immediately leads into the concept of efficient causes. He then offers the following interpretation of Aristotle's criticism of the Platonic Forms as causes: "someone might perhaps say that Aristotle reproaches Plato for this very reason, namely, that he says that Forms themselves produce, assigning no causal rôle to the Maker who looks at the Forms and in accordance with likeness to them produces things here". We can understand that the crucial point of this defence of Plato, which certainly is of Neoplatonic origin, is that it distinguishes between three kinds of forms: a) the separate and proper or strictly said Forms b) the *creative Forms*, and c) the forms that are in generable things. Only the *creative Forms*, i.e. the *creative Ideas* or the *creative reasons* (*dēmiourgikoi logoi*), are acknowledged as efficient causes; these are inherent in the Demiurge, understood as divine Intellect. We can see that this approach of the Platonic causal theory speaks of *creative causes* instead of *efficient* causes. This interpretation also recognizes the creative role of the Demiurge, which "consists in eternal contemplation of its inherent creative ideas, *dēmiourgikoi logoi*".⁶⁸

At the level of the demiurgic and divine Intellect, the creation of the material world is the product of the creative Intellect's reflection on itself; the divine Intellect eternally contemplates itself because the creative Ideas (*dēmiourgikoi logoi*) are immanent in

⁶⁶ See again Pl. *Phd.* 100c–101d. Ross (1951: 29–30) notes that the criticism which Socrates had passed on current accounts of causality in the *Phaedo* was that the cause named was not coextensive with the effect; according to the causal theory presented by Socrates in the same dialogue, formal causes alone are coextensive with their effects.

⁶⁷ Philop. 286.1–10.

⁶⁸ See Kupreeva (2005: 141, n. 290).

it, and in this way divine causality is construed as a self-sufficient self-consciousness.⁶⁹ Asclepius, in his *Commentary* on Aristotle's *Metaphysics*,⁷⁰ explains that the Demiurge creates by contemplating the creative ideas, i.e. the creative reasons (*dēmiourgikoi logoi*), which are immanent in him. He also explains nature's creativity in an analogous way, while drawing a further analogy between the way that the Demiurge creates and the doctor cures, i.e. creates health. As the Demiurge, i.e. the divine Intellect, contemplates the creative reasons or ideas (*dēmiourgikoi logoi*) which are immanent in it, so the doctor induces health by contemplating the *logous* (reasons) of health which reside in its soul.

This interpretation contributes in two ways to the solution of the problem which emerges when the Platonic Forms are considered as efficient causes without having an activity. Firstly, it recognizes the creative role of the Demiurge which is the proper said efficient cause, since it has actuality and activity. Secondly, it accepts two different ontological levels of Forms, the Forms which are separate and from without and the Forms which are immanent and can be immediately used as *paradeigmata*. In this way the need for direct influence of the transcendent Forms on the sensible and generable forms and the immediate relation between them is avoided since, as Kupreeva notes, the *dēmiourgikoi logoi* "act as efficient causes of sensible things, which participate in them".⁷¹ In fact, if we wish to be precise, it is better to say that the role of the efficient cause is assigned to the *dēmiourgikoi logoi*, the creative reasons or ideas, which do not *act* in the literal meaning of the word, but operate as efficient causes insofar as they are used as paradigms (*paradeigmata*). The sensible things participate in them and in this way come to be or loose participation in them and in this way cease to be. We can assume that the *dēmiourgikoi logoi* are contributory efficient causes since they are complementary to the Demiurge's creative activity, which is the primary and proper said efficient cause.⁷² But the deficiency of this interpretation is that it duplicates the paradigmatic causes since, according to Plato, the transcendent Forms are the original prototypes, i.e. the primary paradigmatic causes.⁷³

Philoponus explains that the crucial point of Aristotle's criticism of the Platonic Forms as causes in passage 335b18–24, is centered on the demand of a reference to the Demiurge. According to his reading, it is most probable that Aristotle reproaches Plato for this very reason, namely because he does not assign any causal role to the Demiurge and in parallel claims that Forms themselves produce. Philoponus' explanation at this point seems to construe Aristotle's criticism of the Platonic Forms as causes in the *Phae-*

⁶⁹ See Verrycken (1990: 209–210).

⁷⁰ Ascl. *In Metaph.* 88.2–10.

⁷¹ See Kupreeva (2005: 141, n. 290).

⁷² Following this interpretative line we can draw a parallel between the Platonic Demiurge and the Aristotelian prime unmoved mover since both are separate and distinct causes, i.e. efficient causes in the strict sense. See again Alex. apud Simpl. *In Phys.* 317.27–28 (note 38 above).

⁷³ See again Pl. *Phd.* 100c–101d and Philop. *In Phys.* 5.7–16.

do from the Platonic view of causality, as presented in the *Timaeus*, where the Demiurge looks at the Forms and in accordance with likeness to them produces things here.⁷⁴ In his comment on passage 335b7, Philoponus⁷⁵ gives a different explanation, because here he says that Aristotle's criticism is that Plato turned out to be unable to give the proximate efficient cause of things that come to be, but has had recourse to the Ideas. It is important to note on which point of Aristotle's criticism one places the emphasis, in order to understand if the explanation of this criticism is in a way that is consistent with the Aristotelian point of view or influenced by the Platonic and Neoplatonic perspective. If the emphasis is on the Maker or the Demiurge who looks at the Forms and in accordance with likeness to them produces things here, then it is obvious that the explanation of Aristotle's criticism is influenced by the Platonic and Neoplatonic view of the Forms considered as *paradeigmata*. Within this frame of thought the Maker or the Demiurge, divine or human craftsman, first looks at the Forms which are immanent in his Intellect, and then acts and creates and produces whatever produces.⁷⁶ If the emphasis is on the point that Plato fails to give the proximate efficient cause, then this explanation of Aristotle's criticism is consistent with what Aristotle says in book *Lambda* (1071b14–17) of his *Metaphysics*. Consequently, it shows that what is most important from the Aristotelian point of view is that the Platonic Forms are deficient in actuality and activity, so they cannot be efficient causes, i.e. they cannot be the causal answers or explanations to the question as to why things come to be and perish.

In addition, it is obvious that Philoponus, by using the phrase “and for that reason” (286.10), which refers to what was said previously in passage 286,7–10, explains also the arguments which articulate Aristotle's criticism of the Platonic Forms as causes under the Platonic point of view, i.e. by putting emphasis on the contemplation of the Forms by the intellect of the human person, either the doctor or the knowledgeable, who acts as efficient cause. Nevertheless, the way in which Philoponus paraphrases the Aristotelian arguments makes clear that what Aristotle says, is that the Forms or the rational principles of health and knowledge on the one hand, and the things receptive of health and knowledge on the other, are insufficient to explain why change occurs. There is still the need for some other efficient cause to act, because neither are the Forms sufficient in themselves to produce change, since they do not act, nor are their receptives sufficient to be subject to change by themselves, since they are passive. The proof of this need for a third principle which will be efficient by acting, is the fact that change is always intermittent. So Aristotle postulates the activity of the efficient cause.

⁷⁴ Pl. *Ti.* 27d–29d.

⁷⁵ Philop. 285.19–21.

⁷⁶ On the difference between the Platonic and the Aristotelian conception of *paradeigma* see Simpl. *In Phys.* 310.23–24 and 314.15–19; Alex. apud Simpl. *In Phys.* 310.25–311.37.

6. Criticism of the theories which explained generation and destruction by the material cause or the instrumental causes

In passage 335b24–35, Aristotle also reproaches those who tried to explain generation and destruction by the material cause, i.e. as effects of the movement originating in the matter.⁷⁷ Although he recognizes that to assign to the matter the causal role in the process of generation and destruction of things would be more in accordance with the study of nature⁷⁸ than considering the Forms as efficient causes, he points out that this is also incorrect. The reason why this account is more in accordance with the study of nature is that the factor which alters a thing, or changes its shape, is more truly the cause of generation. Also, we are more generally accustomed to describe as the producer or the efficient cause, both in the case of things which occur in nature and of those which result from skill, that thing which has to do with affections and movement, since we call “efficient cause” the starting point of movement.⁷⁹ In this respect, those who explain generation and destruction by the material cause deserve more approval than those who make the immobile Forms efficient causes. But they deserve criticism insofar as they did not name anything else as the cause of movement in matter; which proves that they were unaware of the fact that matter does not have movement from itself.⁸⁰ The same point about matter being incapable of having movement from itself has also been stressed by Philoponus in his explanation of the Aristotelian passage 335a30–32.⁸¹ Philoponus highlights that matter obviously does not have the principle of producing and moving, but rather of being moved and being acted upon by another.⁸² Aristotle clarifies in passage 335b29–32 that it is the property of matter to be acted upon and to be moved, whereas causing move-

⁷⁷ Joachim (1922: 248). Joachim supposes that Aristotle alludes to the theories of the Atomists, the Pythagoreans, and Empedocles.

⁷⁸ I follow the translation of Philop. 282.6–7 by Kupreeva, because I think it fits better with Aristotle’s word “φυσικώτερον” (335b25) than Williams’ translation (1982; repr. 2002: 53): “what he said would be more scientific than that just described”; cf. also the translation of Philop. 286.28–287.2 by Kupreeva.

⁷⁹ Partly I follow the translation by Williams (1982; repr. 2002: 53) and partly the translation of the passage Philop. 282.5–7 by Kupreeva. Philoponus explains the argument of those who posited the matter as efficient cause by saying that their claim is that it produces because of its being changed (*trepomenēn poiein*); and he adds that those who posited indivisible principles, i.e. atoms, were also of this view; see Philop. 282.2–4. T. Irwin (1988: 96) maintains that Aristotle’s doctrine of four causes does not describe four objectively different causes, but only four ways to describe the cause, and three of these ways are mere abbreviations of the fourth way. We are acquainted with the common Aristotelian assumption about the concurrence between the efficient, the formal and the final cause. Irwin stresses another aspect of the Aristotelian theory of causes, namely the relation of the efficient cause with the material on the one hand, and on the other with the formal cause: “But if Aristotle cannot defend his claim as it stands, that the formal and material causes are different types of causes from the efficient cause, he can still reasonably argue that they are different types of efficient cause, differing from each other, though not from all types of efficient cause.”

⁸⁰ See Philop. 282.7–10 and 287.2–3.

⁸¹ See Philop. 283.27–284.7.

⁸² See Philop. 282.10–11.

ment and acting belongs to another capacity, something which is obvious both in the case of things which come to be through skill and things which come to be through nature.⁸³

In passage 335b34–35, Aristotle reproaches those who explain generation and destruction by the material cause, by noting that they leave aside what is more strictly the cause, i.e. the essence and the form. We can reach the conclusion that in this way Aristotle aims to show that the formal cause is of no less importance than the others and in any case cannot be omitted. In my opinion, in this way he may also have wished to avoid creating the impression that by criticizing Plato's view of Forms as efficient causes, he intended to eliminate the causal value or the causal role of the formal cause. Philoponus⁸⁴ proceeds by reading and presenting this argument in three alternative ways, which show the affinities of the formal cause on the one hand with the efficient, and on the other with the final cause. He offers three possible interpretations of this passage, one of which is attributed by him to Alexander: a) Either Aristotle reproaches them for leaving aside form as well as the efficient cause b) or he is calling efficient cause form and shape, as Alexander says, because that which is producing produces while being in actuality, and that which is in actuality is such in accordance with form and shape; for each thing has its being in accordance with form, c) Philoponus believes it is more plausible to say that Aristotle is referring to the final cause, which they destroy by making material cause responsible for coming to be. According to Philoponus, in this way they assume that neither intellect nor nature preconceives the end, but that the things that come to be do so incidentally. At this point, we can note that while Alexander's interpretation is oriented towards the Aristotelian thesis of the concurrence between the efficient and the formal cause, Philoponus follows a line of reasoning which could be characterized as "Platonic", since it is based on the assumption that is not only intellect but also nature which preconceives the end. Such an approach is incompatible with the Aristotelian view, where as testified by Alexander, nature is an irrational power which does not work by choice or by any reason within it.⁸⁵

In passage 336a1–6, Aristotle formulates a further argument against those who posited matter as the cause of generation, stating that the capacities or the powers they attribute to the bodies, in virtue of which they make things come to be, are too instrumental causes of generation, and so in this way they eliminate the formal cause.⁸⁶ According to Philoponus,⁸⁷ when Aristotle says, "the cause in accordance with form", he clearly means "form" here as efficient cause. Philoponus states that he aligns himself with those who agree that each of the things that come to be by nature has these powers as underlying the moving cause. But he also calls for a distinction between that which, using these as

⁸³ Transl. Williams (1982; repr. 2002: 53).

⁸⁴ Philop. 287.8–15.

⁸⁵ See again Simpl. *In Phys.* 310.23–24 and 314.15–19; Alex. apud Simpl. *In Phys.* 310.25–311.37.

⁸⁶ In general outline I follow the translation by Williams (1982; repr. 2002: 53). Philoponus testifies that according to Alexander those around Parmenides have been of this view; Philop. 287.25–26.

⁸⁷ Philop. 287.20–25.

an instrument, is the real, i.e. the strictly said, cause of coming to be and passing away, and these powers which operate only as instrumental causes. So, according to Philoponus, Aristotle in this way underlines again the need for the recognition of the crucial role which the efficient cause plays in any account of generation and change in the realm of nature.

In conclusion, Aristotle in *De Generatione et Corruptione* II 9 intends to establish the need for an investigation of the efficient cause. In order to show the necessity of this investigation he points out that a complete causal account of a natural or technical change must definitely include not only the material and the formal cause, the latter being in concurrence with the final cause, but also the efficient cause. He also stresses that the efficient cause must not be confused with the formal cause and the material cause, so he divides his criticism in two categories: a) against those who believed that the nature of Forms is a sufficient efficient cause of all things which come to be and perish; those were the Platonists b) against those who tried to explain the generation and destruction of things by the material cause or the instrumental causes. Aristotle shows that the reason for the failure of all these theories to trace the real causes of coming to be, was the absence or lack of a clear recognition of the efficient cause.

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MELINA G. MOUZALA
/ Patras /

Aristotle’s Criticism of the Platonic Forms as Causes in *De Generatione et Corruptione* II 9. A Reading Based on Philoponus’ Exegesis

In the *De Generatione et Corruptione* II 9, Aristotle aims to achieve the confirmation of his theory of the necessity of the efficient cause. In this chapter he sets out his criticism on the one hand of those who wrongly attributed the efficient cause to other kinds of causality and on the other, of those who ignored the efficient cause. More specifically Aristotle divides all preceding theories which attempted to explain generation and corruption into two groups: i) those which offered an explanation by using the formal cause ii) those which provided an explanation by using the material or the instrumental causes. According to Philoponus, when Aristotle reproaches the other philosophers for adducing no proper notion of the efficient cause he alludes to both Anaxagoras and Plato. Regarding Anaxagoras, in our view this cannot be confirmed by internal textual evidence. In terms of Plato, in this chapter we trace an explicit and an implicit criticism of the Platonic Forms as causes. Aristotle’s implicit criticism is that the Forms are not at all active causes. We can understand better the grounds for this criticism if we also consider his relevant arguments in Book Lambda of his *Metaphysics*. His explicit criticism, articulated in two arguments, is formulated in *GC* 335b18–24. We examine the different lines of its interpretation in the secondary literature, but primarily we focus on Philoponus’ exegesis, which contributes significantly, not only to the clarification of Aristotle’s think-

ing, but also to the manifestation of the arguments articulated in defence of the Platonic theory of the Forms. In this paper, through the analysis of Philoponus' exegesis we set out to prove that Aristotle's criticism of the Platonic causes can be construed from the perspective of either Aristotelian theory or the Platonic and Neoplatonic influence. Finally, based on Philoponus' exegesis, we examine Aristotle's criticism of those who posited matter or instrumental causes as efficient causes.

KEY WORDS

Aristotle, Plato, *De Generatione et Corruptione*, *Phaedo*, criticism, Forms, causes, efficient cause

