Е-списание на Здружението на класични филолози "Антика"

UDC 1Аристотел UDC 1Платон UDC 801.73

REVIEWED: 10.11.2022; 08.11.2022

On the Use of σύστασις in Aristotle and Plato

Elena Džukeska

Institute of Classical Studies
Faculty of Philosophy
Ss. Cyril and Methodius University, Skopje
elena@fzf.ukim.edu.mk; elena.dzukeska@gmail.com

ABSTRACT

The arguments for making the conjecture $\pi\rho\alpha\gamma\mu\dot{\alpha}\tau\omega\nu$ ovo $\tau\alpha\sigma\nu$ on Aristotle's definition of tragedy were corroborated by Mihail D. Petruševski both by palaeographical analysis of the surviving manuscripts and copies of the *Poetics* and by comprehensive semantical and textual analysis of Aristotle's theory of poetry. He pointed out that in the *Poetics* the term $\kappa\dot{\alpha}\theta\alpha\rho\sigma\iota\zeta$ is mentioned only once more other than in the definition of tragedy. Whereas the term $\sigma\dot{\nu}\sigma\tau\alpha\sigma\iota\zeta$ and in particular the phrase $\sigma\dot{\nu}\sigma\tau\alpha\sigma\iota\zeta$ $\tau\omega\nu$ $\pi\rho\alpha\gamma\mu\dot{\alpha}\tau\omega\nu$ is mentioned many times, the 'composition of events (acts)' i.e. the plot being one of the main six elements of the tragedy.

The aim of this paper is to explore the overall use of the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ in Aristotle's works in comparison to its use in Plato's works in order to provide linguistic data for reevaluation of the arguments provided by Petruševski on one hand and to deepen our understanding of the evolution of the meaning of this term within the Greek language on the other.

Key words: σύστασις, πραγμάτων σύστασιν, Aristotle, Plato

Σωκοάτης: 'Αλλὰ τόδε γε οἶμαί σε φάναι ἄν, δεῖν πάντα **λόγον** ὥσπερ ζῷον συνεστάναι σῷμά τι ἔχοντα αὐτὸν αὑτοῦ, ὥστε μήτε ἀκέφαλον εἶναι μήτε ἄπουν, ἀλλὰ μέσα τε ἔχειν καὶ ἄκοα, πρέποντα ἀλλήλοις καὶ τῷ ὅλῳ γεγραμμένα.

Socrates: But I do think you will agree to this, that *every discourse must be organised*, *like a living being*, *with a body of its own*, as it were, so as not to be headless or footless, but to have a middle and members, *composed in fitting relation to each other and to the whole*.

Plato, Phaedrus 264c2-5

Σωκράτης: Τί δ' εὶ Σοφοκλεῖ αὖ προσελθὼν καὶ Εὐριπίδη τις λέγοι ὡς ἐπίσταται περὶ σμικροῦ πράγματος ῥήσεις παμμήκεις ποιεῖν καὶ περὶ μεγάλου πάνυ σμικράς, ὅταν τε βούληται οἰκτράς, καὶ τοὐναντίον αὖ φοβερὰς καὶ ἀπειλητικὰς ὅσα τ' ἄλλα τοιαῦτα, καὶ διδάσκων αὐτὰ τραγφδίας ποίησιν οἴεται παραδιδόναι;

Φαίδοος: Καὶ οὖτοι ἄν, ὧ Σώκοατες, οἶμαι καταγελῷεν εἴ τις οἴεται **τραγῳδίαν** ἄλλο τι εἶναι ἢ **τὴν τούτων σύστασιν** πρέπουσαν ἀλλήλοις τε καὶ **τῷ ὅλῷ συνισταμένην**.

Socrates: And what if someone should go to Sophocles or Euripides and should say that he knew how to make very long speeches about a small matter, and very short ones about a great affair, and pitiful utterances, if he wished, and again terrible and threatening ones, and all that sort of thing, and that he thought by imparting those things he could teach the art of writing tragedies?

Phaedrus: They also, I fancy, Socrates, would laugh at him, if he imagined that *tragedy* was anything else than the proper combination of these details in such a way that they *harmonize* with each other and with the whole *composition*.

Plato, Phaedrus 268c5-d5 1

Έστιν οὖν τραγφδία μίμησις πράξεως σπουδαίας καὶ τελείας μέγεθος ἐχούσης, ἡδυσμένφ λόγφ χωρὶς ἑκάστου τῶν εἰδῶν ἐν τοῖς μορίοις δρώντων καὶ οὐ δι' ἀπαγγελίας, δι' ἐλέου καὶ φόβου περαίνουσα τὴν τῶν τοιούτων πραγμάτων σύστασιν.

Tragedy, then, is an imitation of an action that is serious and complete, and of a certain magnitude, that, through people acting and by means of sweetened (refined) speech, separately for each of its kinds in its proper parts, and not through narration, completes with pity and fear *the composition* of events of this sort (i.e. events that evoke pity and fear).

Aristotle, *Poetics*, 1449b24-28 in Petruševski (1948) 14

One of the key arguments Mihail D. Petruševski elaborated in favour of the conjecture $\pi\rho\alpha\gamma\mu\dot{\alpha}\tau\omega\nu$ $\sigma\dot{\nu}\sigma\tau\alpha\sigma\iota\nu$ in Aristotle's definition of tragedy,² was the fact that this phrase occurs 6 times explicitly and is mentioned 18 times implicitly in the *Poetics*, whereas $\kappa\dot{\alpha}\theta\alpha\rho\sigma\iota\zeta$ is mentioned only once more other than in the definition of tragedy.³ This is not something unexpected because the 'composition of events (or acts)' according to Aristotle was one of the six key elements of tragedy and actually it was its most important one, its purpose. In addition to this Petruševski pointed out the relation between Aristotle's definition of tragedy and Plato's own definition

¹ English translation by Harold North Fowler.

² Explaining in detail the essence of the problem of the catharsis in Aristotle's definition of tragedy is beyond the scope of this article. For a detailed survey of the problem and the different opinions and solutions offered see Christodoulou (2022) and Angelovski (2022) in this issue of *Systasis*.

³ Petruševski (1948), 9-14; Petruševski (1954a), 230-232; Petruševski (1954b), 93.

as it is found in his dialogue *Phaedrus* (268c5-d5), in which the word $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ is also used to determine the essence of tragedy, but as a composition, combination of speeches ($\dot{\rho}\dot{\eta}\sigma \epsilon \iota \zeta$), not of events (acts) ($\pi \rho \dot{\alpha} \gamma \mu \alpha \tau \alpha$).⁴

In his articles Petruševski also discussed the meaning of the genitive plural forms $\pi\rho\alpha\gamma\mu\dot{\alpha}\tau\omega\nu$ and $\pi\alpha\theta\eta\mu\dot{\alpha}\tau\omega\nu$ in relation to the nouns $\sigma\dot{\nu}\sigma\tau\alpha\sigma\iota\zeta$ and $\kappa\dot{\alpha}\theta\alpha\rho\sigma\iota\zeta$. There is more than one possible interpretation of the genitive $\pi\alpha\theta\eta\mu\dot{\alpha}\tau\omega\nu$ with regards to $\kappa\dot{\alpha}\theta\alpha\rho\sigma\iota\zeta$, as subjective genitive, objective genitive, genitive of separation, which is odd bearing in mind the rule Aristotle himself postulated that proper definition should be free from ambiguity of meaning and its language should be clear (Arist. *Top.* VI 139b12-15).

For the purposes of the research presented in this article an analysis was made of the overall use of the term $\sigma\dot{v}\sigma\tau\alpha\sigma\iota\zeta$ in Aristotle's works in comparison to its use in Plato's works with regard to its frequency, the range of meanings and the typical contexts, constructions and phrases in which it occurs. The aim is to provide linguistic data that may serve as a background for reevaluation of the arguments offered by Petruševski on one hand and to deepen our understanding of the evolution of this term in the Greek language on the other hand.

The word $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ belongs to the category of nouns that are derived with the suffix $-\tau \iota -/-\sigma \iota -$ (<*-ti-) typically from verbal roots in the zero grade. These nouns are old formations, which can be traced back to the Proto-Indo-European. In Greek the earliest examples are found on the Mycenaean tablets already, however it is in the Attic prose, and in particular in the works of the philosophers, that these nouns became an important part of the scientific vocabulary. The suffix $-\tau \iota -/-\sigma \iota$ - denotes a verbal action and also an agent or an instrument, but in the scholarly language it became a productive tool for the formation of *nomina actionis* as opposed to *nomina rei actae*, cf. $\pi \rho \tilde{\alpha} \xi \iota \zeta$ 'doing', 'action' vs $\pi \rho \tilde{\alpha} \gamma \mu \alpha$ 'deed', 'act', 'matter', 'affair', 'thing' in relation to $\pi \rho \dot{\alpha} \tau \tau \omega$ 'pass over', 'experience', 'achieve', 'effect'. Nevertheless, depending on the semantics of the verbal root, a number of nouns in $-\tau \iota \zeta /-\sigma \iota \zeta$ are also used to denote a result of an action.

⁴ Petruševski (1954a), 233-234.

⁵ Petruševski (1954b), 86-87.

⁶ Chantraine (1933), 275-289; Buck – Petersen (1944), 574; Adrados (2005), 169; Schironi (2010), 340.

There are ca 95 occurrences of the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ in Aristotle's works and ca 30 in Plato's works.⁷

Almost half of the occurrences in Aristotle are found in his zoological studies, *Generation of animals, History of animals, Parts of animals and Movements of animals* and about a third in his physical treatises, *Meteorologica, On the Heavens* and *Physics*. The rest of the occurrences are found outside of the context of natural philosophy, in works such as *Categories, Poetics, Politics*. However, the most frequent use of $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ is limited to three works only: *Generation of animals* (26 occurrences), *Meteorologica* (22 occurrences) and *Poetics* (14 occurrences, the conjecture of Petruševski excluded).

As regards Plato, about two thirds of the occurrences are concentrated into just one work, *Timaeus*, a dialogue about the formation of the universe and its order and beauty. Majority of the rest of the occurrences are found in his dialogues that address political and ethical questions, the *Laws* and the *Republic*. Just few occurrences are found in *Philebus*, *Phaedrus* and *Symposium*.

The analysis reveals that both in Plato and in Aristotle's works $\sigma \acute{v}\sigma \tau \alpha \sigma \iota \zeta$ is at the same time used to denote the act of *combining*, *composing*, *arranging*, *setting up*, *forming* and the result of such an act, hence the meanings 'composition', 'arrangement', 'formation' and also 'structure', 'constitution', 'compound'. Accordingly, the noun $\sigma \acute{v}\sigma \tau \eta \mu \alpha$ is attested only few times in their works.

The verb $\sigma vvi\sigma \tau \eta \mu \iota$ on the other hand is often used as an alternative to the noun $\sigma \dot{v}\sigma \tau \alpha \sigma \iota \zeta$ or as an additional explanation. Other synonymous verbs are sometimes also used in the immediate context with the same function, cf.

Τῶν δὲ δὴ τεττάρων εν ὅλον ἔκαστον εἴληφεν ή τοῦ κόσμου σύστασις. ἐκ γὰρ πυρὸς παντὸς ὕδατός τε καὶ ἀέρος καὶ γῆς συνέστησεν αὐτὸν ὁ συνιστάς, μέρος οὐδὲν οὐδενὸς οὐδὲ δύναμιν ἔξωθεν ὑπολιπών,

"The formation of the world occupied each of the four in its entirety; the maker made it out of the totality of fire, water, air, and earth, leaving unused no part or property of any of them."8

(Pl. Ti. 32c5-8)

Τὸ δ' ἐναλλὰξ συνιστάναι καὶ διαλύειν οὐδὲν ἀλλοιότερον ποιεῖν ἐστὶν ἢ τὸ κατασκευάζειν αὐτὸν ἀΐδιον μέν ἀλλὰ μεταβάλλοντα τὴν μορφήν, ὥσπερ εἴ τις ἐκ παιδὸς ἄνδρα γινόμενον καὶ ἐξ ἀνδρὸς παῖδα ὁτὲ μὲν φθείρεσθαι ὁτὲ δ' εἶναι οἴοιτο· δῆλον γὰρ ὅτι καὶ εἰς ἄλληλα τῶν στοιχείων συνιόντων οὐχ η τυχοῦσα τάξις γίγνεται καὶ σύστασις, ἀλλ' ἡ αὐτή, ἄλλως τε καὶ κατὰ τοὺς τοῦτον τὸν λόγον εἰρηκότας, οἳ τῆς διαθέσεως ἑκατέρας αἰτιῶνται τὸ ἐναντίον. "Ωστ' εἰ τὸ ὅλον

⁷For the examination of the collections of Aristotle's and Plato's works I used the *TLG Digital Library*, the series *Oxford Classical Texts* and *Loeb Classical Library*, the indexes of Bonitz and Astius and *LSJ*, cf. Bonitz (1870), s.v.; Astius (1908), s.v. and *LSJ*, s.v. For the purposes of the analysis the works which are considered spurious or whose authenticity is disputed were not taken into consideration.

⁸ English translation by Robin Waterfield.

σῶμα συνεχὲς ὂν ὁτὲ μὲν οὕτως ὁτὲ δ' ἐκείνως διατίθεται καὶ διακεκόσμηται, ή δὲ τοῦ ὅλου σύστασίς ἐστι κόσμος καὶ οὐοανός, οὐκ ἂν ὁ κόσμος γίγνοιτο καὶ φθείροιτο, ἀλλ' αἱ διαθέσεις αὐτοῦ.

"Having it be alternately *composed* and dissolved is doing nothing other than establishing it as eternal but changing its shape, just as if one thought that a man coming to be from a boy or a boy from a man is at one time passing away and at another is in being. For it is clear that, whenever *the elements are coming together with each other*, it is not any random order and *composition that comes to be*, but rather the same one, especially according to those who state this account, since they assign to each of the two dispositions [of the elements] a contrary cause. So if the whole body, being continuous, is at one time *disposed and ordered* in this way and at another in that, and *the composition of the whole* is a cosmos, that is, a heaven, then the cosmos would not come to be and pass away, but its dispositions would."9

(Arist. *Cael.* 280a11-23)

The term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ is often accompanied by a modifier that can be a noun in genitive, an adjective or a prepositional phrase. The analysis shows that there are remarkable differences between Plato and Aristotle in this regard.

A noun in genitive modifies its meaning in a way that it denotes either the parts, the elements to which the act of composing refers, or the whole, which is the result of the act of composing and to which the composition refers. The use of another noun in genitive as a modifier with $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota c$ is more frequent in Plato's corpus than in Aristotle's. About half of the occurrences of $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota c$ in Plato occur with a noun in genitive and only about one third in Aristotle. As to the range of the nouns used as modifiers, only few nouns are used in genitive as modifiers with $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ both by Plato and Aristotle, cf. $\sigma \tilde{\omega} \mu \alpha$, $\zeta \tilde{\omega} o \nu$, $\pi \delta \lambda \iota \zeta$. The choice of these nouns is obviously closely related to the topic of the particular work, but, to a great extent, it is also a matter of argumentation and understanding of the particular subject. So, in Plato's Timaeus in the context of the explanation of the formation of the world, the term σύστασις refers to the world, soul, necessity, reason, bodies such as fire, human body, earth, water, air, elements, particles that enter, living creatures, the neighboring organ, diseases, cf. τοῦ κόσμου (Pl. Τί. 32c5-6), τῆς ψυχῆς (Pl. Τί. 36d8-9), ἀνάγκης τε καὶ νοῦ (Pl. Ti. 48a1-2), τούτων (σώματα i.e πῦρ, γῆ, ὕδωρ, ἀἡρ) (Pl. Ti. 54a4-5), τοῦ σώματος (Pl. Ti. 89a6), έκατέρου τῶν στοιχείων (Pl. Ti. 57c9), τῶν εἰσιόντων (Pl. Ti. 66c1-2), τοῦ γείτονος αὐτῶ (Pl. Τί. 72c1-2), τοῦ παντὸς ζώου (Pl. Τί. 81b5-6), νόσων, τῶν ζώων (Pl. *Ti*. 89b5). In *Phaedrus* in the context of the discussion on the art of rhetoric σύστασις refers to the speeches, cf. τούτων (ρήσεις παμμήκεις, πάνυ σμικράς) (Pl. *Phdr.* 268d4). In the other dialogues, σύστασις refers to the state, harmony, rhythm, the seasons of the year, arguments, cf. $\pi \delta \lambda \epsilon \omega v$ (Pl. Lg. 782a5), cf. $\dot{\alpha} \rho \mu o v (\alpha \zeta \tau \epsilon \kappa \alpha) \dot{\rho} v \theta \mu o \tilde{v}$

⁹English translation by C. D. C. Reeve.

(Pl. Smp. 187c6), τῶν ἁρμονιῶν (Pl. Lg. 812c1-2), τῶν ὡρῶν τοῦ ἐνιαυτοῦ (Pl. Smp. 188a1), λόγων (Pl. R. 457e2).

In Aristotle's works on zoology, as expected σύστασις refers to terms such as testicles, menses, body, embryos, living creatures, cartilage, liver, cf. τῶν ὄρχεων (Arist. GA 717a14-15), καταμηνίων (Arist. GA 727b 32; 729a22), τοῦ σώματος (Arist. GA 728b16; 751b3-4), κυημάτων (Arist. GA 750b10), τοῦ ζώου (Arist. GA 766a24-25), ζώων (Arist. GA 777b11, HA 552b15-16; PA 670a19), τοῦ οὐρανοῦ (Arist. MA 700a5), τοῦ χόνδρου (Arist. PA 655a37), τοῦ ήπατος (Arist. PA 677a19).

In Aristotle's works on natural phenomena, σύστασις refers to the whole, the living creatures, mountains, clouds, air, cf. τοῦ ὅλου (Arist. Cael. 280a21), τῶν ζώων (Arist. Cael. 288b16-17), τῶν ὀρῶν (Arist. Metr. 352b10), τοῦ νέφους (Arist. Metr. 377b5), τῶν νεφῶν (Arist. Metr. 369a16), τοῦ ἀέρος (Arist. Metr. 373a28-29).

In *Poetics* in accordance with the subject of study, $\sigma \acute{\nu} \sigma \tau \alpha \sigma \iota \zeta$ specifically refers to *the events* (*the acts*) and *the story*, cf. $\tau \tilde{\omega} \nu \pi \rho \alpha \gamma \mu \acute{\alpha} \tau \omega \nu$ (Arist. *Po.* 1450a15; 1450a32-33; 1450b22; 1453b2-3; 1454a13-14; 1454a33-34), $\tau o \tilde{\nu} \mu \acute{\nu} \theta o \nu$ (Arist. *Po.* 1452a18-19), whereas in *Politics* it refers to *the state*, cf. $\tau \tilde{\eta} \zeta \pi \acute{\alpha} \lambda \epsilon \omega \zeta$ (Arist. *Pol.* 1295b28; 1332a30).

A closer analysis of the semantics of the phrases with a noun in genitive shows that depending on the meaning of the noun modifier, the general meaning 'composition, as an act of composing' of the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ has evolved into other specific meanings, such as 'condensation' (of clouds) in *Meteorologica*, cf. Arist. *Metr.* 369a16; 'rising' (of states, as opposed to 'falling', $\varphi \theta o \rho \dot{\alpha}$)¹⁰ in *Laws*, cf. (Pl. *Lg.* 782a5) or 'restoring' (of body), cf. Pl. *Ti.* 89a5-6.

Various adjectives (or ordinal numbers or pronominal adjectives) are used to describe the different properties of $\sigma\dot{v}\sigma\tau\alpha\sigma\iota\varsigma$. They modify the noun addressing different aspects and are indicative of the manner in which *composition* was conceptualised. Adjectives are more frequently used as modifiers by Aristotle than Plato. About one fifth of the occurrences of $\sigma\dot{v}\sigma\tau\alpha\sigma\iota\varsigma$ found in Plato's corpus and about a quarter of the occurrences found in Aristotle's corpus are accompanied by an adjective modifier. About one sixth of the occurrences in Aristotle's corpus are accompanied by a pronominal adjective, whereas in Plato's corpus only few such examples are found. The range of the adjectives used by Aristotle and Plato is completely different and the choice is most commonly related to the subject of study treated in a particular work and to the manner in which *composition* was conceptualised.

Plato uses few descriptive adjectives to modify the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ as regards the properties such as: age, cf. $\nu \dot{\epsilon} \alpha$... $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ τοῦ $\pi \alpha \nu \tau \dot{\sigma} \zeta$ ζώου (Pl. Ti. 81b5-6), similarity (conformability), cf. ἡ τῶν εἰσιόντων σύστασις ... $\sigma \dot{\iota} \kappa \epsilon \dot{\iota} \alpha$ (Pl. Ti. 66c1-2), fullness, cf. ἡ τῶν ὡρῶν τοῦ ἐνιαυτοῦ σύστασις $\mu \epsilon \sigma \tau \dot{\eta}$ ἐστιν ἀμφοτέρων τούτων

¹⁰ 'Rising' as 'setting up', 'formation', synonymous with γένεσις, cf. also περὶ γενέσεως καὶ φθορᾶς (Pl. *Phd.* 95e9).

(Pl. *Smp.* 188a1-2), completeness, cf. $π\tilde{\alpha}\sigma\alpha$ ή τῆς ψυχῆς σύστασις (Pl. *Ti.* 36d8-9), quantity, cf. τὴν σύστασιν πᾶσαν διπλῆν (Pl. *Ti.* 36b7). He also uses adjectives that denote distribution, cf. $π\tilde{\alpha}\sigma\alpha$ γὰρ σύστασις νόσων (Pl. *Ti.* 89b4-5).

Aristotle on the other hand uses much wider range of descriptive adjectives, and especially adjectives that denote the matter the composition is made of or which it resembles and adjectives that denote various properties of matter. The first group of adjectives are typically compound adjectives with $-\varepsilon \iota \delta \eta c$ as a second member such as 'earth-like (earthy)', cf. ἔκ τινος συστάσεως **γεοειδοῦς** καὶ ὑγρᾶς (Arist. *GA* 731b13), γεωδεστέραν ... τὴν σύστασιν (Arist. PA 655b14-15), 'like leaven', cf. μαλακὴν ποιεῖ καὶ ζυμώδη τὴν τοῦ χόνδρου σύστασιν (Arist. PA 655a36-37), 'fleshy (flesh-like)', 'looking like blood', cf. ἀντὶ σαρκώδους καὶ αίματώδους συστάσεως (Arist. PA 677b28-29), 'fiery (like fire)', cf. $\pi v \rho \omega \delta \eta$ την σύστασιν (Arist. Metr. 344b18-19). The second group of adjectives modify the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ with respect to properties such as humidity, cf. ἔκ τινος συστάσεως γεοειδοῦς καὶ ὑγρᾶς (Ārist. GA 731b13), τινος ἄλλης ύγρᾶς συστάσεως (Arist. PA 654b30), cf. ξηράς συστάσεις (Arist. HA 519b19), hardness, cf. μαλακήν ποιεῖ καὶ ζυμώδη τὴν τοῦ χόνδρου σύστασιν (Arist. PA 655a36-37), **πυκνοτέρας** τῆς συστάσεως τῶν νεφῶν (Arist. Metr. 369a16), πυκνοτέραν καὶ ψυχροτέραν ... τὴν σύστασιν (Arist. Metr. 369a18-19), temperature, πυκνοτέραν καὶ ψυχροτέραν ... τὴν σύστασιν (Arist. Metr. 369a18-19), uniformity, ανώμαλος ή τοῦ νέφους ή σύστασις (Arist. Metr. 377b4-6), σύστασις όμοειδής (Arist. GA 762b19), speed, ή σύστασις ...ταχεῖα (Arist. Metr. 342b14), completness όλη ή σύστασις τοῦ ζώου (Arist. GA 766a24-25), τῆς όλης συστάσεως (Arist. Pol. 1328a23), size, cf. μικράς ... τὰς συστάσεις ... οὔπω γονίμους (Arist. Metr. 373a30-31), τὰς μεγάλας συστάσεις ... ζώων (Arist. GA 777b11), longitude, cf. ἐλάττους αί συστάσεις (Arist. Po. 1459b20-21), μακρὰν σύστασιν (Arist. Po. 1460a3), quantity $\pi \lambda \epsilon i o \nu \varsigma \gamma i \gamma \nu \epsilon \sigma \theta \alpha \iota \sigma \nu \sigma \tau \dot{\alpha} \sigma \epsilon \iota \varsigma$ (Arist. GA 772a21-22), $\delta \iota \pi \lambda \tilde{\eta} \nu \tau \epsilon \tau \dot{\eta} \nu \sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \nu$ (Arist. *Po.* 1453a31-32), longevity, cf. ἐφήμερος ... ἡ σύστασις (Arist. *Metr.* 347b21)

In addition to the aforementioned descriptive adjectives, Aristotle uses adjectives that modify the composition as natural, cf. κατὰ φυσικὴν σύστασιν (Arist. Cat. 9b17-18), spontaneous, cf. ἀπὸ συστάσεως αὐτομάτου (Arist. GA 761b26), healthy, cf. ἡ τοῦ ἡπατος σύστασις ὑγιεινή (Arist. PA 677a19), productive (fertile), μικρὰς ... τὰς συστάσεις ... οὕπω γονίμους (Arist. Metr. 373a30-31).

As to the ordinal numbers, they are used by both Plato and Aristotle either to denote the position and order of a particular composition in relation to other compositions or kinds of composition or to denote the classification of the composition in terms of time and hierarchy, cf. οὖσης συστάσεως μιᾶς πέμπτης (Pl. Ti. 55c4-5), δευτέρων δὴ συστάσεων (Pl. Ti. 82b8), ἐν τῆ πρώτη συστάσει (Arist. GA 744b28, 745b4), κατὰ τὴν πρώτην σύστασιν (Arist. GA 746b35; Arist. PA 665b9), δευτέρα δὲ σύστασις (Arist. PA 646a20).¹¹

¹¹ On the first and second formation in Aristotle see Leunissen 2018, 72.

The semantic analysis of phrases with an adjective as modifier shows that from the meanings 'composition, as a result of the act of composing', 'compound' of the term $\sigma \dot{v} \sigma \tau \alpha \sigma \iota \zeta$, the specific meanings 'substance', 'matter', 'material' have developed. Aristotle's extensive use of adjectives that denote matter or properties of matter is in close relation to this semantic shift. The use of these adjectives on the other hand can be also related to other specific meanings, such as 'condensation', cf. Arist. *Metr.* 369a16.

The use of different modifiers testifies to the various aspects of the semantics of the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$, both inherited and newly developed for the needs of the scientific language. Obviously to understand the complex as the opposite to the simple was important to both Plato and Aristotle. An additional evidence of how the *composition* (as an act or a result of an act) was conceptualized in their works is provided by the use of particular verbs with $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ as an object or subject.

Composition is matter. As a compound substance it can be collected, dissolved, and depending on its properties, it can be object or subject of various actions, cf.

ἀνάγκη δὲ καὶ τοῖς ἄλλοις ἀθροίζεσθαί τινα σύστασιν εἰς τὸν ὑστερικὸν τόπον.

"But in the others too it is necessary for some $\it composite to be collected$ in the uterine place." ¹²

(Arist. *GA* 738b6-7)

ποοσῆκε γὰο μᾶλλον ὅσω ποορώτερον ὁ τόπος τῆς γῆς καὶ ψυχρότερος, διὰ τὸ μήθ' οὕτω πλησίον εἶναι τῶν ἄστρων θερμῶν ὄντων μήτε τῶν ἀπὸ τῆς γῆς ἀνακλωμένων ἀκτίνων, αὶ κωλύουσι πλησίον τῆς γῆς συνίστασθαι, διακρίνουσαι τῆ θερμότητι τὰς συστάσεις ...

¹² English translation by C. D. C. Reeve.

"The farther the region from the earth and the lower its temperature the more readily should clouds form there: and its temperature should be low because it is not so very near to the heat of the stars nor to *the rays* reflected from the earth, *which by their heat break up cloud-formations* and *so prevent clouds gathering* near the earth ..."¹³

(Arist. Metr. 340a26-30)

Composition is like full container, that has form and content, that can be searched and parts of its content can be distinguished, discerned, cf.

Τιμιώτερον δὲ τὸ περιέχον καὶ τὸ πέρας ἢ τὸ περαινόμενον· τὸ μὲν γὰρ ἕλη, τὸ δ΄ οὐσία τῆς συστάσεως ἐστίν.

"And *what encompasses*, that is, *the limit*, is more estimable than *what is limited*. For the second is *matter*, but the first is *the substance of the composition*." ¹⁴

(Arist. Cael. 293b13-15)

καὶ ἐν μέν γε αὐτῆ τῆ συστάσει άρμονίας τε καὶ ρυθμοῦ οὐδὲν χαλεπὸν τὰ ἐρωτικὰ διαγιγνώσκειν, οὐδὲ ὁ διπλοῦς ἔρως ἐνταῦθά πω ἔστιν·

"And *in the simple constitution of harmony and rhythm* it is not at all hard *to diagnose the erotics*, for the double eros is not yet present there." ¹⁵

(Pl. Smp. 187c5-8)

Composition is construction process that has a beginning and completion. The result of this process therefore is or is like a building, a construction that has structure, structural elements, order, cf.

ἡμῖν δ', εἰπεῖν σὺν θεῷ, ἔξεστι, καθάπεο ἢ λιθολόγοις ἢ καί τινος ἑτέρας ἀρχομένοις συστάσεως, παραφορήσασθαι χύδην ἐξ ὧν ἐκλεξόμεθα τὰ πρόσφορα τῆ μελλούση γενήσεσθαι συστάσει, καὶ δὴ καὶ κατὰ σχολὴν ἐκλέξασθαι.

"But for us (if Heaven will) it is quite possible to do as *bricklayers* do, or *men starting on any other kind of construction*,—that is, to collect material piecemeal, from which we may select what is suitable for *the edifice we intend to build*, and, what is more, select it at our leisure." ¹⁶

(Pl. Lg. 858b2-6)

¹³ English translation by H. D. P. Lee.

¹⁴ English translation by C. D. C. Reeve.

¹⁵ English translation by Seth Benardete.

¹⁶ English translation by R. G. Bury.

οὐ γὰο ὁάδιον ἐν ὀλίγω χοόνω *λαμβάνειν τὴν τελείωσιν* τὰς μεγάλας συστάσεις οὔτε ζώων οὔτε τῶν ἄλλων ὡς εἰπεῖν οὐθενός.

"For it is not easy *for large compositions to reach their completion* in a short time, whether they are *animals* or (one might almost say) *anything* else whatsoever."

17

(Arist. *GA* 777b10-12)

Εἰς δὲ τὸν ἄνω τόπον καὶ τοὺς μαστοὺς συλλέγεται διὰ τὴν ἐξ ἀρχῆς **τάξιν** τῆς συστάσεως.

"It is in the upper part and the breasts that milk collects because of *the order of composition* from the starting-point."

18

(Arist. *GA* 776b3-5)

Living beings are compositions, therefore any composition is like a living being that comes to be, perishes, gives birth, grows, changes, ¹⁹ cf.

 $^{\circ}$ Ωδέ πως. χαλεπὸν μὲν κινηθῆναι πόλιν οὕτω συστᾶσαν· ἀλλ' ἐπεὶ γενομέν φ παντὶ φθορά ἐστιν, οὐδ' ή τοιαύτη σύστασις τὸν ἄπαντα μενεῖ χρόνον, ἀλλὰ λυθήσεται.

"Something like this: "It is difficult for *a city constituted* in this way *to change*. However, since *everything that comes-to-be* must decay, not even *one so constituted will last forever*. On the contrary, it, too, must *face dissolution*."²⁰

(Pl. R. 546a1-3)

ώς μὲν γὰο φυτὸν οὐκ ἔχει τὸ θῆλυ καὶ τὸ ἄροεν καὶ οὐ γεννᾳ εἰς ἕτερον, ώς δὲ ζῷον οὐ φέρει ἐξ αὑτοῦ καρπὸν ὥσπερ τὰ φυτά, ἀλλὰ συνίσταται καὶ γεννᾶται ἔκ τινος συστάσεως γεοειδοῦς καὶ ὑγρᾶς.

"For as *plant* they do not have the female and the male, and do not generate in another, while as *animals* they do not bear fruit out of themselves as plants do, but *are composed and come to be from a certain earthy and wet material.*" ²¹

(Arist. *GA* 731b10-13)

Καὶ τοῦτό γε ὁμοίως ἔχει τοῖς ἐκ τῶν ῷῶν, πλὴν ἐκεῖνα μὲν καταναλίσκει πᾶν, ἐν δὲ τοῖς σκωληκοτοκουμένοις ὅταν **αὐξηθῆ ἐκ τῆς** ἐν τῷ κάτω μορίῳ συστάσεως τὸ ἄνω μόριον, οὕτως ἐκ τῆς ὑπολοίπου διαρθροῦται τὸ κάτωθεν.

"And this proceeds in a similar way in those that come from eggs, except that these use up all of it, whereas in the larvae-producers, when the upper part *has grown from what is composed in the lower part*, the lower part gets articulated from what is left over."²²

¹⁷ English translation by C. D. C. Reeve.

¹⁸ Ibid.

¹⁹ On "organic" composition in Plato and Aristotle, see Sicking (1963) and De Vries (1969) 211.

²⁰ English translation by C. D. C. Reeve.

²¹ English translation by C. D. C. Reeve.

²² Ibid.

(Arist. *GA* 763a12-16)

The analysis of the use of the term $\sigma \dot{v} \sigma \tau \alpha \sigma \iota \zeta$ in the works of Plato and Aristotle testifies to the important role of the notion of composition as an act of composing or a process of formation and as a result of such an act or outcome of such process. Although probably older, this compound became significant term only in Plato's and Aristotle's corpora. The frequent use of the word in Plato's *Timaeus* and Aristotle's *Generation of Animals, Meteorologica* and *Poetics* is in relation to the subject of study of these particular works: the formation of the world as a composition of elements, the formation of living beings as complex organisms, the formation of different natural phenomena, such as compositions of clouds, the formation of tragic story, as a composition of events.

The semantics of the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ is closely related to compound verb $\sigma v \dot{\nu} \iota \sigma \tau \eta \mu \iota$, hence the regular use of the verb in alternation to the action noun. The almost complete absence of the word $\sigma \dot{\nu} \sigma \tau \eta \mu \alpha$ from the works of Plato and Aristotle on the other hand indicates that unlike other nomina action is in $-\tau \iota \zeta / -\sigma \iota \zeta$, the noun $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ was used to express verbal action, and at the same time the result of such an action.

Aside from the general meanings 'composition', 'arrangement', 'formation', 'structure', 'constitution', 'compound' more specific meanings of the term $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ were developed in the course of time. Some of these meanings, such as 'standing close in combat' were developed early and are attested in other authors, outside of the context of philosophy, cf. $\dot{\epsilon} \nu \tau \tilde{\eta} \sigma \nu \sigma \tau \dot{\alpha} \sigma \iota \mu \alpha \chi \dot{\sigma} \mu \epsilon \nu \nu \nu$ (Hdt. 6.117). It is important to observe that this meaning is also attested in Plato's Laws, cf.

Έστι γοῦν πάντων πολεμικώτατον ἡ σώματος ὀξύτης πάντως, ἡ μὲν ἀπὸ τῶν ποδῶν, ἡ δὲ καὶ ἀπὸ τῶν χειοῶν· φυγεῖν μὲν καὶ ἑλεῖν ἡ τῶν ποδῶν, ἡ δ' ἐν ταῖς συμπλοκαῖς μάχη καὶ σύστασις ἰσχύος καὶ ῥώμης δεομένη.

"Most important of all things for war is, no doubt, general activity of the body, of hands as well as feet—activity of foot for flight and pursuit, and of hand for *the stand-up fighting at close quarters* which calls for sturdiness and strength."²³

(Pl. Lg. 832e7-833a2)

Other specific meanings such as 'substance', 'matter', 'material', 'condensation', 'rising', 'restoring' were either developed for the first time by Plato or Aristotle or became common for the first time in their scientific and philosophical studies. The input of Aristotle in this regard seems far more detailed.

Differences in the use of nouns, pronouns and adjectives as modifiers of the term $\sigma\acute{v}\sigma\tau\alpha\sigma\iota\zeta$ are in close relation to the differences in Plato's and Aristotle's style on one hand, and to the important semantic shifts that occurred on the other hand. As is the case with many other scientific terms, Aristotle added new semantic values to this compound and upgraded significantly its use in comparison to Plato.

²³ English translation by R. G. Bury.

However, the continuity in the conceptualization of the *composition*, as it is evident in the works of Plato and Aristotle and which goes back to the earlier philosophical schools is remarkable. The metaphors: living being is a composite structure and work of art (tragedy or other) is a living being are of greatest importance for both Plato and Aristotle and they play central role in their writings on poetry.

In the context of the general use of the term $\sigma \dot{v} \sigma \tau \alpha \sigma \iota \zeta$ in Aristotle's writings, the argumentation of the conjecture $\pi \rho \alpha \gamma \mu \dot{\alpha} \tau \omega \nu \sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \nu$ stands firm. It is a common nominal phrase in the *Poetics*, it is built upon the existing practice of creating nominal phrases with $\sigma \dot{\nu} \sigma \tau \alpha \sigma \iota \zeta$ and a noun modifier in genitive plural, a modifier that denotes the parts, the elements to which the act of composing refers. Its use in the definition of tragedy reflects the continuity in the understanding of the work of art as a composite structure, just as any other living being.

Bibliography

Original texts and translations

Aristotle, *De Caelo*, translated with an Introduction and Notes by C. D. C. Reeve, Hackett Publishing Company, Inc., Indianopolis/Cambridge, 2020.

Aristotle, *Generation of Animals & History of Animals I, Parts of Animals I*, translated with and Introduction and Notes by C. D. C. Reeve, Hackett Publishing Company, Inc., Indianopolis/Cambridge, 2019.

Aristotle, *Meteorologica*, with an English translation by H. D. P. Lee, Harvard University Press – William Heinemann LTD, Cambridge, MA – London, 1952.

Plato, *Euthyphro, Apology, Crito, Phaedo, Phaedrus*, with an English translation by Harold North Fowler, Harvard University Press, Cambridge, MA –London, 1914 (repr. 2005).

Plato, *Laws*, by R. G. Bury, in two volumes, Harvard University Press – William Heinemann LTD, Cambridge, MA – London, 1926 (repr. 1961).

Plato, *Republic*, translated from the new standard Greek text, with Introduction, by C. D. C. Reeve, Hackett Publishing Company, Inc., Indianopolis/ Cambridge, 2004.

Plato's *Symposium*, a Translation by Seth Benardete, with Commentaries by Allan Bloom and Seth Benardete, The University of Chicago Press, Chicago, 2001.

Plato, *Timaeus and Critias*, translated by Robin Waterfield, with an Introduction and Notes by Andrew Gregory, Oxford University Press, Oxford, 2008.

Secondary sources

Adrados, F. R. (2005), A History of the Greek Language. From Its Origins to the Present, Brill, Leiden – Boston.

Astius, D. F. (1908), *Lexicon Platonicum sive Vocum Platonicarum Index, Vol. I- II*, zweite auflage, Hermann Barsdorf Verlag, Berlin.

Bonitz, H. (1870), *Index Aristotelicus*, Akademische Druck- und Verlagsanstalt, Graz (repr. 1955).

Buck, C. D. – Petersen, W. (1945), *A Reverse Index of Greek Nouns and Adjectives*, The University of Chicago Press, Chicago.

Chantraine, P. (1933), La formation des noms en grec ancien, E. Champion, Paris. DELG = Chantraine, P. Dictionnaire étimologique de la langue grecque. I-IV₂, C. Klincksieck, Paris, 1968-1980.

De Vries, G. J. (1969), *A commentary on the Phaedrus of Plato*, Adolf M. Hakkert, Amsterdam.

Leunissen, M. (2018), 'Order and Method in Aristotle's Generation of Animals' in A. Falcon and D. Lefebvre (eds.), *Aristotle's Generation of Animals. A Critical Guide*, Cambridge University Press, Cambridge, 56-74.

Petruševski. M. D. (1948), 'Definicijata na tragedijata kaj Aristotela i katarsata' [La définition de la tragédie chez Aristote et la catarse], *GZFF* 1, 1-17.

Petruševski. M. D. (1954a), 'Παθημάτων κάθαρσιν ili πραγμάτων σύστασιν?' ['Παθημάτων κάθαρσιν ou bien πραγμάτων σύστασιν?'], ŽA 4, 209-250.

Petruševski. M. D. (1954b), 'Ušte ednaš za Aristotelovsta definicija na tragedijata i katarsata' [Encore sur la définition de la tragédie d'Aristote et la catharsis], *GZFF* 7, 79-110.

Schironi, F. (2010), 'Technical languages: Science and Medicine' in E. J. Bakker (ed.), *A Companion to the Ancient Greek Language*, Wiley – Blackwell, Malden MA – Oxford – Chichester UK, 338-353.

Sicking, C. M. J. (1963), 'Organische Komposition und Verwandtes', *Mnemosyne* XVI, 225-242.