Aristotle as a Name-giver: The Cognitive Aspect of his Theory and Practice

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Aristoteles in lingua graeca multa novavit adeo ut vocabulorum

philosophicorum, quae etiam nunc usurpantur

H. Bonitz, *Index Aristotelicus* [1870] 1955, III

I. Preliminary Remarks

Cognitive sciences constitute an interdisciplinary field that examines human mental functions in relation to cognition, involving psychology, philosophy, neurosciences, linguistics and other disciplines. In recent years, cognitive approaches to the humanities have started to hinge on linguistics, as well as on considerations in terms of literature, religion, perception and emotions, while cognitive aspects of classical literature, in particular, have been gaining ground, as attested by, e.g., the creation of a relative platform,[1] as well as by two international conferences held in 2016.[2]

Cognitive linguistics, in particular, combines cognitive sciences with linguistics and concentrates on what happens in the human mind during the production and reception of language.[3] This specific domain has flourished especially during the last three decades and is still in process of development: it is rather a set of approaches,

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[1] https://cognitiveclassics.blogs.sas.ac.uk/: It is a newly founded environment, housing cognitive classics bibliography (https://cognitiveclassics.blogs.sas.ac.uk/cognitive-classics-bibliography/).

[2] In Leiden (15-16 April, 2016) "Minds on Stage: cognitive approaches to Greek tragedy" (organizers: Prof. I. Sluiter & Dr. Felix Budelmann) and in New York (October 27 and 28, 2016), "Classics and Cognitive Theory" (organizer: Prof. Peter Meineck).

[3] Urgener and Schmid 2013:1–2.

an enterprise, than a theory with strictly prescribed methods and principles.[4] Given that cognitive linguistics examines the character of language in relation to thinking, it is understandable that the field often overlaps with psycholinguistics, neurolinguistics and sociolinguistics. It has also been defined as the investigation of the relation between language and socio-physical experience[5] and, generally, between language and conceptual categorizations. These approaches emphasize concepts and meanings as related to language;[6] this is why metaphor as a means of conveying meanings is at the center of the respective research, since it is considered to contribute to the formation of abstract notions,[7] a significant parameter of conceptual classifications.

In the present survey an attempt is made to examine whether Aristotle's approaches to language, as depicted in his theory and practice, can be paralleled with those that gave rise to the fundamental principles of cognitive linguistics. More specifically, I argue that:

1. Aristotle's views on the production and reception of language form an approach to semantics that could be treated from the perspective of cognitive linguistics;

2. Aristotle's specific treatment of language is obvious in his own name-assigning, if we examine the process that he seems to be following from the unnamed concepts that he examines to the linguistic utterances that he suggests, regardless of their grammatical/syntactic form.

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[4] See Evans and Green 2006:xix & 3; also, Evans and Pourcel 2009.

[5] Evans 2007:vi.

[6] See the Introduction of Geeraerts and Cuyckens 2010.

[7] See Sullivan 2013:1.

My interest focuses on the cognitive aspects of: *i*) Aristotle's theoretical formulations on semantics, *ii*) Aristotle's consequent practice, i.e., when he suggests new terms, whether he uses a current word, or proposes a noun ending in *-sis*, or the dative case of a noun, or a substantivized infinitive, or a nominal phrase, etc. and *iii*) the cognitive function of Aristotle's imposed terms from the angle of the receivers, i.e., the way that his newly suggested utterances are integrated into his current discourse, so that they can enhance access to knowledge for Aristotle's audience. Broadly speaking, my purpose is to trace the cognitive process of Aristotle's own mind as depicted in his views and linguistic choices, but also the cognitive character of his attributed terms from the perspective of their receivers.

Aristotle's views on semantics and on the imposition of names, as well as his linguistic suggestions, have never been examined from the point of view of cognitive linguistics, despite the fact that he was the first thinker who actually formulated the process of human signification in terms of what was later called *a semantic triangle*, as discussed below. As I argue in this paper, Aristotle treated language in a manner which could be considered as *cognitive* according to the contemporary terminology, both in his theory of signification and when he suggested utterances himself. He is concerned with the mechanisms of the production and reception of language[8] and, given that he suggested hundreds of new utterances in his researches by exploiting all the potential that his mother tongue provided him with, approaching his linguistic theory and practice in terms of cognitive linguistics is a challenging and intriguing task. However, this research aims neither at giving an exhaustive account of all the appellations that were first suggested by Aristotle, nor at defining his preferred grammatical/syntactic forms.

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[8] See below, the sections III.1 and III.2.

Certainly, some new Aristotelian terms are examined here, but mainly in order to decode Aristotle's linguistic behavior and its consequences.

Since cognitive linguistics is still in the process of self-definition, for the purposes of this survey the following fundamental and generally accepted principles and concepts—common to many linguistic fields—are used as a theoretical background in discussing whether Aristotle treated language in what is called today a *cognitive* manner in his theory and practice:[9]

a) The conventional and symbolic function of language; language expresses and externalizes certain semantic contents that we have in our mind, by vocal sounds which can also be represented in a written form.

b) It is from these semantic contents that meanings are assigned to things through words: our cognitive capacities elaborate the information that we receive into specific and defined mental entities which can be depicted in language.

c) Language means interaction: each linguistic act consists in the production of an utterance by a human being, but this meaningful vocal sound is received and understood by another human being.[10]

d) In the above procedures of the production and reception of language, a crucial role is played by:

- *Constructions*, in the sense of conventional combinations of vocal sounds and meanings, which correspond to mental images,[11] as was just pointed out in (b). Constructions present diversity as regards

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[9] See Evans & Green 2006:6–7.

[10] See Evans & Green 2006:9.

[11] See Lakoff 1987:467; Evans 2007:42.

their complexity, ranging from prefixes/suffixes to complicated compositions.[12] They are uttered by speakers and evoke meanings in the minds of listeners, according to the interactive character of language.

- *Semantic frames*: They are the conceptual contexts where *constructions* obtain their meanings. Each *construction* has to be contextualized in order to bear its meaning and it is always understood, because it is related to a certain context[13] (e.g., the construction *priest* evokes the semantic frame of *religion* with participants such as *church*, *mass*, *rituals*, etc.).

In general terms, according to cognitive linguistics human beings exploit their current linguistic material in order to bring together ideas and concepts from different areas of experience, thus creating new concepts that can be put in new contexts and applied in new usages.[14]

The limits and boundaries of concepts have raised many debates among linguists who are interested in the relation between thinking and reality. Psychologist Eleanor Rosch, who investigated the psychological background of concepts, concluded that the conceptual categories are not determined by language, but belong to a pre-linguistic level of human mental activity regardless of the language that individuals speak:[15] according to cognitive linguistics there are ways that we perceive reality which are common among people and are not affected by

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[12] See Goldberg 2013.

[13] See Filmore 1985; Goldberg 2010.

[14] See Ungener and Schmid 2013:3.

[15] See Ungener and Schmid 2013:14–15.

language.[16] Broadly speaking, a linguistic determinism is not accepted by cognitive linguists, although language is credited with a crucial role in conceptual classification.[17]

Regarding the present research, before delving into the way that Aristotle's theory and practice could be considered to evoke the above cognitive principles and patterns, it may be useful to contextualize his views within the ancient tradition of linguistic ideas.

II. Reflection on Language before Aristotle[18]

Ancient Greek reflection on language is present from as early as Homer and it can be traced in Pre-Socratic fragments,[19] while the texts of drama include several folk etymologies, wordplays, puns, etc.[20] A particular category of ancient names includes paronyms that describe social status, a position within the family, a corporal or mental attribute.[21] Later, the Sophists claim that language is a result of *convention*, and consequently human beings can change it, while Epicurus and the Epicureans

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[16] See Evans and Green 2006:101.

[17] See Evans and Green 2006:95–96.

[18] For an overview of ancient philosophical reflection on language see Kotzia and Chriti 2014.

[19] As happens with fr. 23 Diels-Kranz, in which Heraclitus, supporting the "coexistence of opposites", refers to the perception of the 'unjust' as necessary for the perception of 'just'. On the development of philosophical thought as regards the nature of language from the Pre-Socratics to Plato, see Blank 2000:400–404; Sluiter 2000; Law 2003:13–51; Frede and Inwood 2005, with further bibliography. See also Kotzia and Chriti 2014:I-II.3.

[20] E.g., Aristophanes *Clouds* 65–74; see Thompson 2007:678. See also Aeschylus *Agamemnon* 681–698, regarding Helen's name (see Sluiter 2015:11–13).

[21] Thus, according to Strabo (13.2.1.7-11), *Theophrastus* was named after his particular divine gift of eloquence, as his real name was *Tyrtamus* and it was considered as having a certain κακοφωνία, 'ill-sound'.

seem to have dealt with the issue of the origins of language from a new perspective,[22] combining the attributes of *by-nature* and *by-convention.*

Plato's *Cratylus*, taking as its subject the 'correctness of names' (*orthotês tôn onomatôn*),[23] is the first ancient linguistic text with an overall account of the two main approaches to language. Socrates discusses the issue with Cratylus and Hermogenes: Heraclitean[24] Cratylus claims that names reveal the substance of the things they represent, as they were given by a superior power (*Cratylus* 438c), a *divine name-giver*. Names are the *forms* of *substances* and these forms have all the features of the Platonic *Ideas* (386e1-3 and 439d7-440a3),[25] a view which is usually addressed by scholars as *naturalism* (429c). Cratylus claims that all names were correct at first, but in the process of use they became distorted and we can arrive at the *real* names via etymologies: the etymologies of the dialogue have recently been appreciated from the perspective of Socrates' and Hermogenes' work on a range of basic concepts of ancient Greek philosophy.[26]

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[22] See Kotzia and Chriti 2014:I.2.

[23] As Ademollo notes (2011:4-6), the "correctness of names" regards the link between words and what they signify and it must not be confused with the issue of the origins of language, although the two subjects are interrelated. *Onoma* here has the sense of 'word'; ὄνομα is 'said in two ways' (*dichôs legomenon*) in ancient linguistic thinking, as pointed out by Aristotle: *a)* it is every 'meaningful utterance' (*phonê sêmantikê*); in this respect, *rhêmata* are also *onomata* (they are rendered as such in *On Interpretation*); *b)* in the context of a *categorical statement*, a name designates the agent of a verb to the action of the verb, the *subject* (*On Interpretation* 16b19–20). For a more recent survey on the development of the term *onoma* see Wouters and Swiggers 2014.

[24] On the issue of whether Cratylus is *Heraclitean* see Aristotle's *Metaphysics* A 6, 987a32; M 4, 1078b12; Γ 5, 1010a7: in these texts Aristotle expresses the tendency to connect Heraclitus' approach to constant change with Cratylus' approach; see Dalimier 1998:24, with the respective bibliography.

[25] See also Plato *Parmenides* 129d6, 130b2, 130d1.

[26] See Dalimier 1998:38–47; see also Sedley 1998:149–151 & 2003, as well as Sluiter 2015:14–17.

On the other hand, Hermogenes argues that names are completely conventional (386a ff), an approach which is often referred to as his *rationalism*, while Socrates endeavors to prove that neither of the two extremities can actually describe the role of words in human signification. Socrates claims that a name functions as a 'didactic tool' (*organon didaskalikon*) and as an 'imitation' (*mimêma*) which is *by-nature*, meaning that it fits the nature of what is named (*Cratylus* 388b13-c1 and 423b9-11). He introduces the distinction between the *imposition* of a name and its *use*, which leads him to a stricter exposition of a name's attributes:[27] it is created by the *name-giver* (389a2), it is a *form* revealing the thing's substance (389b4) and it is adapted to the function it is expected to fulfill; it is realized in *matter* via letters and syllables which may vary, but are always well-suited to represent it (389d4-390a8 and 390e1-4). Socrates shakes the confidence that used names can lead us to the truth, to the 'first names' (*prôta onomata*), by stressing that we have to start our research from things themselves and not from the words that designate them.

III. Aristotle and Language

The issue of the correctness of names is not resolved at the end of the *Cratylus*, and Aristotle is considered to give a definite answer at the beginning of *On Interpretation*:[28] words are *symbols* of mental states of the soul, which correspond to things.

Aristotle is a distinctive case in the course of ancient philosophy of language, a thinker whose linguistic theories and practices have had an immense impact on the

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[27] Dalimier 1998:48.

[28] For a comparative survey of the two works in contemporary literature, see Dalimier 1998; Struck 2004:83; Van den Berg 2008.

study of ancient linguistics.[29] Concerning his formulations on semantics, the beginning of *On Interpretation*, i.e., passage 16a4-9, which contemporary scholars call Aristotle's *semantic text* or *semantic passage*,[30] mainly attracts our attention; however, it has to be stressed that Aristotle's semantic views are also traced below in the same treatise, where he discusses the meaning of *sêmainô*, as well as in the *Categories*, where he advises speakers to create names under certain conditions.

III.1 On Interpretation

A) Semantic Content as Connecting Reality with Language in Aristotle's Theory

In the very first lines of *On Interpretation* Aristotle explicitly puts into words the relations among the three factors of semantics for the first time in scholarship.[31] *Reality*, *thinking* and *language* are discussed as interrelated, starting from language: according to Aristotle, words *symbolize* things[32] through the 'affections of the soul' (*pathêmata tês psuchês*), which are formed by the figurative impressions of things, according to their sensory perception (Aristotle *On Interpretation* 16a4–9):[33]

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[29] See, e.g., Benveniste 1966:63–65; Schofield and Nussbaum 1982:241–266; Weidemann 1991; Manetti 1996b, 11–12; Ax 2000a, 59–60; Arens 2000. Aristotle discusses language in terms of: *a)* physiology of voice in living creatures in his biological treatises, *b)* semantics (in *On Interpretation*), *c)* predication (in *On Interpretation*, the *Analytics*, the *Topics*), *d)* the units constituting words and clauses (in *On Interpretation*, the *Poetics* and the *Rhetoric*), *e)* the potential of linguistic expression for argumentation, persuasion, deceit and pleasure (in the *Poetics*, the *Rhetoric*, the *Sophistical Refutations*), *f)* linguistic utterances that can designate certain classifications and taxonomies (in the *Categories* and the *Metaphysics*). As Ax puts it (2000a:56), Aristotle treats almost all the fundamental aspects of human language.

[30] This is also what this specific passage is called in the present article.

[31] Kretzmann 1974:3. See also Givon 2001:4; Irwin 1982; Weidemann 1991, 170–173 & 176; Montanari 1988; Manetti 1996; Sedley 1996; Verbeke 1996; Ax 2000:59–63; Arens 2000:367–370; Modrak 2001:1.

[32] The same claim is made in the *Sophistical Refutations*, treating the practical difficulty people have when they refer to non-present things (165a6–10).

[33] See Weidemann 1991.

Ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα,

καὶ τὰ γραφόμενα τῶν ἐν τῇ φωνῇ. Καὶ ὥσπερ οὐδὲ γράμματα πᾶσι τὰ

αὐτά, οὐδὲ φωναὶ αἱ αὐταί· ὧν μέντοι ταῦτα σημεῖα πρώτων,[34] ταῦτα

πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα, πράγματα ἤδη

ταὐτά.

Now spoken sounds are symbols of affections in the soul, and written

marks symbols of spoken sounds. And just as written marks are not

the same for all men, neither are spoken sounds. But what these are

signs of the primordial affections of the soul are the same for all; and

what these affections are likenesses of – actual things – are also the

same

(adapted trans. J. L. Ackrill).

Aristotle treats two semantic stages, the first one connecting vocal sounds with

mental states, and the second linking the specific states with experiential data. Even

if Aristotle's treatment cannot be strictly identified with a contemporary *semantic

triangle*,[35] he is undoubtedly occupied with what was later considered to be its

fundamental parameters. These three factors in Aristotle's text have received

sufficient attention from linguists, psychologists, logicians, and scholars from other

disciplines:

1.   'Things' (*pragmata*) are perceived through the senses. The term

pragmata is used by Aristotle to designate the 'concrete reality',[36] or the 'fact',

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[34] The script πρώτων is followed here, in the sense of 'primordial': see the discussion in Noriega-Olmos 2013:118–121.

[35] See Manetti 1993, 72. On *semantic triangles* in ancient theories of language, see Kotzia and Chriti 2014.

[36] *On the Soul* 432a3; *Meteorology* 379a32; *Physics* 226b30, 227b28.

as opposed to speech,[37] or the 'matter in question'.[38] Things are the same for all human beings because they exist independently of human perception.

2.　　　The 'affections of the soul' are the mental states of the soul[39] which emerge after sensory perception and before linguistic expression; they are either the *first meanings* formed by the figurative impressions of things,[40] or concepts as results of thinking in general (or both), they are called the *likenesses* (*homoiômata*) of things and are also the same for all human beings. The term *pathêmata tês psuchês* is not defined by Aristotle, who uses the term *noêma* right below.[41] Interestingly, Ammonius son of Hermeias, Aristotle's Neoplatonic commentator from Alexandria, cites Aristotle's text from *On the Soul* "How then will the simplest notions differ from mental pictures?"[42] as an argument for the identification of *noêmata*[43] with *pathêmata tês psuchês*. Ammonius points out that the *affections of the soul* are figures and mental concepts in the soul, corresponding to things,[44] which function so as to enable the soul to conceive of things (*tên tôn pragmatôn katalêpsin*);

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[37] *Topics* 146a3; *Sophistical Refutations* 175a8; *Physics* 263a17.

[38] *Prior Analytics* 70a32; *Politics* 1299b18.

[39] Due to the fact that I do not find the identification of these *affections* with 'thoughts' convincing, I prefer to refer to them as *mental products/states/entities*; see also below.

[40] See Weidemann ibid.

[41] Aristotle *On Interpretation* 16a10: ὁτὲ μὲν νόημα ἄνευ τοῦ ἀληθεύειν ἢ ψεύδεσθαι; 16a14: καὶ τὰ ῥήματα ἔοικε τῷ ἄνευ συνθέσεως καὶ διαιρέσεως νοήματι. Aristotle's Neoplatonic commentators identify the products of the mental part of the soul with νοήματα; see, e.g., Ammonius *On Interpretation* 17.24–28.

[42] *On the Soul* 431b2 (see also 432a13–14): τὰ δὲ δὴ πρῶτα νοήματα τι διοίσει τοῦ μὴ φαντάσματα εἶναι;

[43] Ammonius *On Interpretation* 6.21–22.

[44] Ammonius *On Interpretation* 18.28–30.

Ammonius' interpretation can be helpful regarding Aristotle's ideas about what happens in our mind after perception and before linguistic expression.[45]

3.   Vocal sounds (*ta en têi phônêi / phônai*) occur right after the formation of the *affections of the soul*, of which they are called *symbols* and *signs*.[46] Vocal sounds render things and are connected to the *affections* in a conventional way.

In general terms, Aristotle argues that things are expressed through mental entities which are represented by meaningful vocal sounds, such as 'names' (*onomata*), 'verbs' (*rhêmata*), *assertions/negations*,[47] and everything that the term *ta en têi phônêi* comprises, as *conventional vocal sounds*,[48] which are not the same for all people.[49]

If we take into consideration the fundamental cognitive principles in the preliminary remarks, principle (a) primarily summarizes Aristotle's concept of symbolic, conventional language that expresses mental states corresponding to experiential data. Furthermore, both cognitive principles (a) and (b) are evoked in

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[45] Noriega-Olmos (2013:84–89) gave us a serious and profound investigation of the psychological background of the *affections of the soul*, by examining crucial texts from *On Interpretation* and from *On the Soul*, although he renders *affections* as 'thoughts'. The psychological foundation of what happens in our mind before linguistic expression is also accentuated in this article through the lenses of contemporary linguistics.

[46] Despite the debate for the use of *sumbola* and *sêmeia* (see Pépin 1985:35–37), Aristotle uses both terms rather indiscriminately: Weidemann 1991:181 and Noriega-Olmos 2013: 57.

[47] See also Noriega-Olmos 2013:5.

[48] Consequently, speakers of the same language can share what they have in their minds by using comprehensible words. In *On Interpretation* 16a26–28, Aristotle declares that a use of a word becomes *symbolic* as soon as it is agreed upon by the members of a linguistic community. Therefore, his belief in convention is not identical with Hermogenes' extreme conventionalism in Plato's *Cratylus*.

[49] The fourth term, 'those that are written', *ta graphomena,* renders the graphic representations of spoken sounds.

each of Aristotle's descriptions of the bonds between: *i)* mental entities and things and *ii)* mental entities and linguistic utterance.

Let us begin with relation *i)*: *affections of the soul* constitute mental states which are directly related to what is perceived in a natural, we could say reflexive and almost instinctive way in Aristotle's text, a way which does not involve any kind of human conventional mediation; the specific entities are common to all people and the natural procedure of their emergence results in the formation of what can be put into words in the next semantic level. Although the precise procedure of their formation is not so clear, whether Aristotle means the very first meanings formed by the figurative impressions of things, or concepts as results of thinking about reality in general, the products of the mental part of the soul belong to a pre-linguistic stage; they are not contingent on the specific language of the speakers and constitute products of the universal capacity of mankind to perceive reality; mental states are credited with connecting reality with language as an outcome of the natural ability of any human being to think upon things. Aristotle's *affections* remind us, not only of the findings of E. Rosch,[50] but also of what was described by F. de Saussure as happening in our mind before linguistic expression: a kind of "undifferentiated conceptual medium out of which meanings are formed in a particular language by the conventional association of a certain complex of sounds with a certain part of the conceptual medium."[51]

On the other hand, as concerns the semantic connection *ii)*, human thinking interferes with the relation between mental states and language: this is no longer a natural and reflexive procedure, but one that is mediated by human convention.

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[50] See the preliminary remarks.

[51] Lyons 1995:56. However, as Lyons says (56–57): "There is much in this account of semantic structure that may be attributed to outdated psychological theories."

The bonding between words and reality occurs through the conventionally expressed semantic contents of the mind, and cognitive principle (b) could be considered as evoked here. Aristotle is the first thinker who explicitly draws a line between *i*) the natural, reflexive and non-mediated procedure in the human mind, internalizing the data of reality and *ii*) the conventional, non-reflexive and mediated—by human interference—production of language, externalizing the data which are stored in our mind.

The importance that Aristotle attributes to conceptual emergence is evident by the fact that mental states are present at both semantic levels.[52] It is worth mentioning here that the philosopher was considered to have been influenced by the structure of the Greek language in naming his categories in the homonymous treatise.[53] Thus, E. Benveniste[54] argued that it was the Greek language which inspired the *categories* for Aristotle. Among scholars who were opposed to such a linguistic determinism, J. Lallot and F. Ildefonse have convincingly shown that Aristotle selected his terms for the categories according to the content of what he wanted to designate[55] and, I have argued that in fact, the philosopher seems to have followed a process in the *Categories* which is totally congruent with his semantic passage, where mental states are presented as prior to language.[56]

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[52] Plato also refers to thinking before linguistic expression: in the *Sophist* 263d–264a, it is said that thought and speech are the same, except thought occurs without voice, while in the *Theaetetus* 189e-190a, the term *endiathetos logos* ('interior speech') designates the discussion of the soul with itself. However, in Plato there is no treatment of thinking as relating language to things in terms of semantics.

[53] See Chriti 2018, forthcoming.

[54] 1966.

[55] 2002:23–24.

[56] See Chriti 2018, forthcoming.

It could be added to the above that, when Aristotle's semantic text is analyzed from the perspective of cognitive linguistics, apart from recognizing the crucial role of mental products that connect reality with language, there is again no way to prove that language prescribes access to knowledge of things. Aristotle's views on the production of language are far from revealing any adherence to linguistic determinism: on the contrary, he seems aware of the exoglossic character of concepts that originate from percepts,[57] something which is not far from E. Rosch' findings about the pre-linguistic character of fundamental concepts. In Aristotle's text, human meaningful vocal sounds depend on what has to be expressed and there is no indication in his writings that vocal sounds determine thinking in any way.

B) Cognition and *Sêmainô* ('to signify')

Aristotle's semantic passage deals with the production of language, but in the same treatise he also formulates his views on its perception, a text that merits emphasis, as it has not yet been sufficiently appreciated as integrated into his theory of semantics.

When Aristotle defines 'name' (*onoma*) and 'verb' (*rhêma*), he describes these two classes of vocal sounds as 'signifying' (*sêmantikai phônai*). (As has already been mentioned,[58] *onoma* means for Aristotle both 'meaningful utterance' and the 'subject' of a *categorical statement*). *Names* and *verbs* are (along with *logos*) the only meaningful parts of *lexis* ('linguistic utterance, expression'), as he states in the *Poetics*,[59] and the basic constituents of a *categorical statement* (*apophantikos logos*) in *On*

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[57] See also the discussion on the *Physics* and the *Posterior Analytics* in the next section of this article.

[58] See above, note 23.

[59] Aristotle *Poetics* 1457a10–11, 1457a14–15 and 1457a23–24.

Interpretation.[60] At this point, he explains in an almost parenthetical way the meaning of *signify* by describing the activity of the mental part of the soul of both the speaker and the receiver during a linguistic act. Thus, he points out that a *verb* is a *name* in the sense of 'meaningful utterance', because the individual who utters it arrests his intellect and the listener stands still (Aristotle *On Interpretation* 16b18–19):

> αὐτὰ μὲν οὖν καθ᾽ αὑτὰ λεγόμενα τὰ ῥήματα ὀνόματά ἐστι καὶ σημαίνει τι, —ἵστησι γὰρ ὁ λέγων τὴν διάνοιαν, καὶ ὁ ἀκούσας ἠρέμησεν,—...

> when a verb is said in its own right it constitutes a name and it signifies something; for he who uses such expressions arrests the speaker's mind, and fixes his attention;

> (adapted trans. by E. M. Edghill)

This is the first ancient Greek philosophical text and probably the only one with an account of what happens in the mind of a listener who perceives a meaningful linguistic utterance: *gar* accentuates the exegetic character of the phrase, as if we are dealing with a definition of the verb *signify*.

The verb *êremêsen* requires some emphasis here, as the opposite of *kineô* (regularly meaning 'to change, modify', either in terms of space or quality).[61] The concepts of 'fixation' and 'stillness' which accompany *êremêô* when it comes to linguistic utterance in *On Interpretation*, are linked by Aristotle to consolidated

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[60] In this treatise, Aristotle focuses on the way that a statement can be formed so that it can be true or false, and he expatiates on the combination of a name and a verb, where a name is the *subject* and the verb is the *predicate*, the utterance that expresses what is attributed to the subject or said about the subject (*On Interpretation* 17a2–3).

[61] Aristotle *Physics* III, 234a32.

knowledge in two other texts, where he discusses the knotty issue of the soul's activity during perception and cognition. The boundaries between perception and conceptualization are still controversial for scholars, but the exact terms in which this debate is formed, pertaining to the investigation of the *universals* and their attainment from percepts is beyond the scope of the present paper; it is the soul's disposition after knowledge has been attained, that is our subject: the first text comes from the *Posterior Analytics* II.XIX, 100a4–8, where Aristotle treats our apprehension of the *first principles*, a passage with many thorny points regarding the distinction between perceptual and conceptual apprehension.[62] 'Resting' here seems to be the consequence of the presence of a 'universal knowledge' which comes from the repetition of many memories of specific things, forming an experience:[63]

> Ἐκ μὲν οὖν αἰσθήσεως γίνεται μνήμη, ὥσπερ λέγομεν, ἐκ δὲ μνήμης πολλάκις τοῦ αὐτοῦ γινομένης ἐμπειρία· αἱ γὰρ πολλαὶ μνῆμαι τῷ ἀριθμῷ ἐμπειρία μία ἐστίν. ἐκ δ' ἐμπειρίας ἢ ἐκ παντὸς ἠρεμήσαντος τοῦ καθόλου ἐν τῇ ψυχῇ, τοῦ ἑνὸς παρὰ τὰ πολλά, ὃ ἂν ἐν ἅπασιν ἓν ἐνῇ ἐκείνοις τὸ αὐτό, τέχνης ἀρχὴ καὶ ἐπιστήμης...,

> So from perception there comes memory, as we call it, and from memory (when it occurs often in connection with the same thing), experience; for memories that are many in number form a single experience. And from experience, or from the whole universal that has come to rest in the mind (the one apart from the many, whatever

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[62] See Barnes 1975:248–249.

[63] Ibid, 253. According to Aristotle, perception gives us *universals* right from our perception of the specific particulars: by perceiving an object A, the universal A is installed in our mind (100a17) and it is through a repetition that universal A is consolidated (Barnes 1975:252–253).

is one and the same in all those things), <there comes> a principle of skill and of understanding...

<div align="right">(trans. J. Barnes)</div>

Let us proceed with the second text which concerns a similar discussion, before commenting on the relation between 'resting' and knowledge: in the *Physics*,[64] Aristotle compares different sorts of *modification* (κίνησις) by explaining that the virtues and vices of the soul are not modifications and neither are its mental attributes, knowledge among them. Knowledge is not modified in any way, but depends on our stance towards something. Aristotle underlines that cognition does not emerge from any kind of modification, but acquisition of a *universal* (i.e., a general notion) comes from very specific experiences and we say that we have acquired knowledge when our mind is calm and still (VII.3, 247b10–14):

> ἡ δ' ἐξ ἀρχῆς λῆψις τῆς ἐπιστήμης γένεσις οὐκ ἔστιν οὐδ' ἀλλοίωσις. Τῷ γὰρ ἠρεμῆσαι καὶ στῆναι τὴν διάνοιαν ἐπίστασθαι καὶ φρονεῖν λεγόμεθα, εἰς δὲ τὸ ἠρεμεῖν οὐκ ἔστι γένεσις, ὅλως γὰρ οὐδεμιᾶς μεταβολῆς...

> Nor is the original acquisition of knowledge a process of becoming or a modification. For it is when the understanding has come to rest at its goal that we are said to know and possess a truth, and there is no process of becoming leading to the terminal pause, nor indeed to any kind of change...

<div align="right">(trans. Ph. H. Wicksteed & F. M. Cornford).</div>

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[64] Aristotle *Physics* VII.3, 247b10–14.

Aristotle neither refers to a *restless* mind before cognition, nor does he define a separation between the state of mind during obtaining knowledge and that when knowledge has been possessed; however, the soul's calmness following an act of cognition merits our attention, as it goes without saying that the state of the mental part of the soul after a certain knowledge is possessed is equated by Aristotle with the mental state after the reception of a meaningful linguistic utterance: once a certain knowledge is acquired (in these cases an installation of a universal concept, deriving from percepts), the mental part of the soul is calm in the *Posterior Analytics* and the *Physics* and, likewise, the mental soul is also calm and rests when a meaningful vocal sound is received in *On Interpretation.* In both passages (the *Physics* and the *Posterior Analytics*) where Aristotle discusses the outcomes of perception in the mind the verbs *êremô*,[65] *histêmi*, *epistamai*, just like *sêmainô*, are related to calmness and rest of mind: 'coming to rest' and 'stillness' are related to knowledge, which is something that settles in the mind and does not move or change. Stability characterizes our thinking, because knowledge is something consolidated. The verbal proximities with the philosopher's description of linguistic reception are striking, since language affects the mind of the receiver in the same way as knowledge, i.e., by bringing a certain calmness and stillness to his intellect: consequently, received language contributes to the kind of *mental stillness* that accompanies knowledge and language seems to exist side-by-side with cognition, in Aristotle's thinking.

This specific passage from *On Interpretation* is probably the earliest description of the psychological/mental background of language interaction. The mental disposition of the person who articulates or receives a meaningful utterance is paralleled with the process of acquiring knowledge in Aristotle's texts, and the

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[65] There seems to be a reference to Plato's *Phaedo* 96b, where *êremein* is related to *epistêmê.*

cognitive character of his concept of 'signifying' can hardly be doubted, a character which is intrinsically related to communication: according to the meaning of *signify*, the listener who captures the word stands intellectually at the same point as the speaker; the arrest of the mind means that intellect can connect the perceived vocal sound to a certain mental state. Consequently, words are uttered to express on behalf of the speaker and install in the listener certain *mental points*, respectively, and this is how communication is achieved: following Aristotle's approach,[66] *signifying* means the coming together of two minds through a linguistic utterance,[67] which designates a common mental state.

Therefore, after the exposition of the basic semantic levels regarding the production of language at the beginning of *On Interpretation*, Aristotle also examines language as interaction (as it is described in cognitive principle (c) in the preliminary remarks), by giving us the first definition of *signifying*. However, very little has been said regarding Aristotle's treatment of *sêmainein*, i.e., *acquiring certain knowledge*, which is mainly absent from approaches to his views on semantics, although it would be important to include the parallelism of *signifying* to *acquisition of knowledge*.

III.2 The *Categories*: *Oikeiôs* in Name-assigning

Aristotle's positions in *On Interpretation* can be completed by certain passages from the *Categories*, a treatise which has not received much attention regarding Aristotelian linguistics: the *Categories* is not treated as including the philosopher's

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[66] Weidemann makes the same remark: 1991:183.

[67] With the formulation "ἵστησι..." Aristotle may be referring to the *Cratylus*, where Socrates, in the context of the discussion about whether *names* reveal the nature of things, explains that the word *epistêmê* seems to mean that "it makes our soul stand still (ἵσταται) before things"; 437a4 ff.: ἐπιστήμη...ἵστησιν ἡμῶν ἐπὶ τοῖς πράγμασιν τὴν ψυχήν... . See also Weidemann 1991:178; Dalimier 1998:273.

approaches to semantics, and scholarship has failed to delve into significant
formulations that should be combined with what is said in *On Interpretation*,
concerning the production and reception of language. Aristotle describes in the first
logical treatise how the attribution of names should be applied, an exposition that is
totally compatible with the significance of mental states in linguistic expression and
communication, as is underlined both in the semantic passage and in the treatment
of *sêmainô*. Thus, in chapter 7 of the *Categories*, Aristotle treats *reciprocation*, by
embarking on the issue of its linguistic representation. In the framework of the
specific discussion, he admits that sometimes a linguistic designation is not possible
by using the current vocabulary and he advises speakers to *create* words if necessary
(Aristotle *Categories* 7a5-7):[68]

> ἐνίοτε καὶ ὀνοματοποιεῖν ἴσως ἀναγκαῖον, ἐὰν μὴ κείμενον ᾖ ὄνομα
> πρὸς ὃ οἰκείως ἂν ἀποδοθείη

> It may sometimes be necessary even to invent names, if no name
> exists in relation to which a thing would be given in a familiar way
> [οἰκείως]

> (adapted trans. by J. L. Ackrill).

This is the first occurrence of the verb ὀνοματοποιεῖν; Aristotle suggests that we
should invent names for unnamed subjects, on the condition that the new word is
given *oikeiôs*, which is translated in English as "properly/in an appropriate way."
However, the above translation does not render in an accurate way what Aristotle
wants to express here, in my opinion, since the adverb *oikeiôs*, which derives from
the adjective *oikeios*, denotes 'property' and 'familiarity', the second meaning

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[68] See also Aristotle *Nicomahean Ethics* 1108a17–19. See also Kotzia 2007:1092.

obviously originating from the first.[69] *Oikeiôs* is crucial, since Aristotle combines it with forms of the verbs *apodidômi* ('to define')[70] or *legô*, more than eight times in this particular chapter, where he is concerned with correct linguistic rendition.[71] Thus, right after his advice, Aristotle states that there is no reciprocation if it is not given *oikeiôs* in language by saying that "a rudder is rudder of (or somehow else related to) a ruddered" and that "a head would be given *in a more familiar way* as of a headed than as of an animal, because it is not as being an animal that a thing has a head...."[72] And he concludes (*Categories* 7a18–20):

> οὕτω δὲ ῥᾷστα ἂν ἴσως τις λαμβάνοι οἷς μὴ κεῖται ὀνόματα, εἰ ἀπὸ
> τῶν πρώτων καὶ τοῖς πρὸς αὐτὰ ἀντιστρέφουσι τιθείη τὰ ὀνόματα,...

> This is perhaps the easiest way to lay hold of things for which there
> are no established names—if names derived from the original
> relatives are assigned to their reciprocating correlatives...

> (trans. J. L. Ackrill).

Aristotle continues with other examples, but let us try to "stand still" at his theses on the function of language that seem to be advanced here: reciprocation is not valid if not expressed as it should be, and members of a linguistic community should always invent *familiar* names, i.e., names that designate an actual relation in terms of reciprocation. Undoubtedly, inventing names is an activity in total

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[69] The preferable translation would be "in a familiar way", or "with the necessary familiarity." For a similar discussion regarding *oikeios* see Memrez (forthcoming), whom I would like to thank for stressing this specific point in this article.

[70] See LSJ *s.v.* 11.

[71] See right below; see also *Nicomachean Ethics* 1119b33; *Physics* 195b3.

[72] *Categories* 7a8–17.

accordance with the philosopher's belief in convention, and Aristotle explains how a conventional 'agreement' can be done *oikeiôs*, when he encourages speakers to use "derivation from the original relatives", as noted above. This means that established linguistic material should be used in name-giving, a material that the speakers are obviously familiar with.

Judging from his treatment of reciprocation in the examples of the *rudder* and the *head*, this familiar linguistic deposit that designates known concepts can be used to express the new meanings, that are related to the named ones. In other words, a relation between things can be designated by a relation between utterances, a connection that can be built upon already used linguistic material. Especially helpful concerning the importance of linguistic familiarity that corresponds to a conceptual proximity in name-giving is a text from the *Meteorology*, where Aristotle again uses the term *oikeiôs* to approve of a current linguistic use (*Meteorology* 347a10–12):

> οἰκείως τὰ ὀνόματα τοῖς πάθεσιν κεῖται καί τισιν διαφοραῖς αὐτῶν·
> ὅταν μὲν γὰρ κατὰ μικρὰ φέρηται, ψακάδες, ὅταν δὲ κατὰ μείζω
> μόρια, ὑετὸς καλεῖται.

> names have been given in a familiar way to incidents and their
> differences; thus, when it rains in small drops it is called "drizzle,"
> while when it rains more heavily it is called "rain/shower"

> (own transl.)

In this specific text, the only way to understand Aristotle's attribution of *oikeiôs* to the use of the terms *psakades* and *huetos* is their derivation, i.e., their verbal proximity with other linguistic utterances in use: the form *psekas* means 'drop of rain' and derives from the verb *psakazô* ('to rain in small drops'), while the form

huetos means 'rain' and derives from the verb *huô* ('to rain'). So, these nouns have been attributed *oikeiôs* to the particular physical phenomena, because they derive from the verbs that designate the actions which result in these phenomena. Aristotle does not seem to care about the morphology or the grammatical gender of the nouns, but he emphasizes their origin from established utterances, which designate semantic contents that are related to what is signified by these nouns. Consequently, *oikeiôs* in linguistic use means for Aristotle using a word which is verbally related to utterances that have already been brought into the service of speakers to designate contents relative to the one that needs to be named.

In this sense, the concept of 'familiarity' is perfectly integrated into the philosopher's views regarding the priority of semantic contents over language: both in the semantic passage and in his discussion of *sêmainô*, it is the *common signified* between two speakers that renders communication successful for the receiver, when being installed in his mind. Consequently, it is not striking that Aristotle emphasizes 'familiarity' with *oikeiôs* in terms of conceptual proximities and verbal connections: how else could he conceive of the getting together of two (or more) intellects through a linguistic utterance, which primarily refers to a mental product? Given his considerations of signification in regard to the role of mental states and their consolidation in the mental part of the soul, it is hard to imagine that he would suggest new words which could not function in the way that he describes. Therefore, we will examine below how the cognitive aspects of his views on signification are also present in his own practice.

IV. Aristotle's *Familiar* Suggested Words and their Cognitive Context

One of Aristotle's indisputable linguistic contributions consists in the attribution of new terms for the subjects he discusses. Of course, he was not the first philosopher

to apply name-assigning practices: ancient Greek philosophical vocabulary has an innovative character as a whole, since its emergence seems to have its roots in the origins of ancient Greek philosophical reflection, which was constantly in search of the right nominations;[73] despite the scarce evidence, it is certain that even from the time of the Pre-Socratic philosophers, words were used as new terms, which later played a pivotal role in the course of philosophical vocabulary.[74]

Aristotle's linguistic choices have been an issue ever since antiquity. He frequently suggests terms for what he treats and he is credited with the systematization of terminology in several disciplinary fields.[75] He complains about not having words at his disposal for what he wishes to investigate by using a word of his own, *anônumos* ('without name'),[76] or by declaring that "there is no established name" (*onoma gar ou keitai*).[77] Aristotle's linguistic behaviour had been discussed by ancient commentators who pointed out that philosophers were obliged to resort to new formulations, so as to designate what they were looking into.[78] Among contemporary scholars, D. Bostock has spoken of Aristotle's "barbarisms, corresponding to nothing in ordinary Greek and evidently used by him as technical

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[73] See, e.g., Eucken 1964; Kahn 1973; Malingrey 1961; Peters 1967; Snell 1978; Barnes 1987; Urmson 1990. See also Kotzia 2007.

[74] For an overall account of the evolution of ancient Greek philosophical vocabulary see Kotzia 2007.

[75] See, e.g., Swiggers & Wouters 2002b:9-10, regarding linguistic concepts and terms.

[76] More than 70 times in his texts, the specific term is used by Aristotle to denote the lack of terms in linguistic treatment: see, e.g., *On the Soul* 418a1, 419a4, 419a32; *Nichomachean Ethics* 1107b2, 1108a17; *On the History of Animals* 490b19, 515b10; *Poetics* 1447b9, etc.

[77] *Categories* 7a13.

[78] Porphyry (*On Categories* 55.12–24) and Dexippus (*On Categories* 6.10–23) had stressed the attribution of names on behalf of the philosophers.

terms",[79] J. Barnes has argued that Aristotle was conscious of the insufficiencies of his current linguistic use for his logical formulations,[80] A. Bäck has treated "Aristotle's protocol language",[81] while J. Lallot and F. Ildefonse[82] have investigated the philosopher's terms for his categories in the treatise in question. Furthermore, eminent scholars have studied significant aspects of Aristotle's semantic practices, e.g., Aristotle's theory of predication as assessed in his logic and ontology,[83] as well as the interconnection between Aristotle's semantics and ontology in the context of his argumentative strategies.[84] In addition, his theory of metaphor has attracted the interest of cognitive researchers, who have been divided between those who argue that Aristotle's respective theory has nothing to offer in terms of cognitive linguistics, and others who claim that his views and practices of metaphor can be approached in contemporary cognitive linguistic terms.[85] In fact, metaphor is approved of by Aristotle as a name-giving method for something which does not have a name in *Eudemian Ethics* 1221a30. However, the present survey focuses on Aristotle's stance towards language in his policy of suggesting names, regardless of the linguistic use that he proposes.

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[79] 1994:XI.

[80] 1981:42.

[81] 2000:130.

[82] 2002:23–24.

[83] See, e.g., Bäck 2000.

[84] De Rijk 2002; Bäck 2000 & 2014.

[85] See Membrez forthcoming.

Linguistic utterances that first occur in Aristotle's texts are hundreds, and some cases have been meticulously studied.[86] A sketchy classification of his newly suggested terms could comprise the following categories:

a) Commonly used Greek words, e.g., σχῆμα ('form, figure') is established by Aristotle in logic as 'figure of a syllogism';[87]

b) substantivized participles, infinitives, prepositional phrases, e.g., τὸ πάσχειν,[88] τὸ συμβεβηκός,[89] τὸ οὗ ἕνεκα;[90]

c) nominal groups, e.g., ἀόριστον ῥῆμα, 'indefinite verb' ;[91]

d) cases of nouns, e.g., ἐνεργείᾳ-δυνάμει;[92]

e) derivatives, e.g. φίλησις, 'affection''',[93] from φιλία, 'friendship', plus the common Greek ending -σις;

f) compounds, e.g., ὀνοματοποιεῖν, 'to invent names';[94]

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[86] See Vasileiadis 2010.

[87] *Prior Analytics* 26b33.

[88] *Categories* 9a22.

[89] *Categories* 7a27.

[90] *Physics* 194a27.

[91] *On Interpretation* 16b13.

[92] *On the Soul* 402a26.

[93] *Nicomachean Ethics* 1157b28.

[94] *Categories* 7a5–7: see right below.

g) neologisms, e.g., ἐντελέχεια[95] ('inner power guiding to a goal, the power that keeps a body orientated to its goal').[96]

Taking into account that Aristotle stresses *i*) the symbolic/conventional character of language, *ii*) the sequence from thinking to language in name-giving, *iii*) the role of common semantic contents in linguistic interaction and *iv*) the significance of conceptual and verbal 'familiarity' in name-imposition, and, if we attempt to take a close look at the procedure that he seems to be following when he suggests new terms, we can easily conclude that he practises exactly what he adopts in theory. Therefore, he stays faithful to the importance of conceptual and verbal proximities for the production of linguistic expression and its acceptance by the receivers: as is obvious in the examples below, conceptual relevance between the new meaning and the already named one leads him to a *familiar* proposal in his linguistic suggestions, on the basis of his current linguistic material.

Starting from a case of a commonly used word, e.g., *schêma*, the new concept that emerges from Aristotle's research and does not have a name in current linguistic usage is the 'figure of a syllogism'. Aristotle resorts to a close concept, which is 'form, figure' and already has a name in his mother tongue, *schêma*. So, he re-attributes the word to the new unnamed meaning: thus, the word *schêma* is used for the first time by Aristotle with the meaning 'figure of a syllogism'. We could depict this process as following:

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[95] *On the Soul* 402a26.

[96] This is the way A. Bos defines *entelecheia* in his paper "Aristotle on Life-Bearing *Pneuma* and on God as Begetter of the Cosmos", presented at the World Congress "Aristotle 2400 years" in Thessaloniki (May 23–28, 2016; Proceedings forthcoming).

new concept: 'figure of a syllogism'

↓

relevant named concept: 'form, figure'

↓

available word: σχῆμα

↓

new utterance: σχῆμα, meaning 'figure of a syllogism'

Aristotle's linguistic suggestion departs from the concept in question; he uses a relative concept that already has a name, and, it is on the basis of this specific name that he suggests a new term. As long as the current word is related to a new sense, i.e., a sense that has not yet been named and established in use, the reattributed word can be considered a new utterance.

Let us take the case of a noun in the dative case:

new concept: 'in-actuality'

↓

relevant named concept: 'activity, operation'

↓

available word: ἐνέργεια (in the nominative case)

↓

new utterance: ἐνεργείᾳ (in the dative case)

Aristotle here additionally exploits the adverbial use of the dative case in ancient Greek to denote the 'stance towards the verb's action'.[97]

In other circumstances, he resorts to a commonly used ending to create a new derivative:

new concept: 'the disposition of affection'

$$\downarrow$$

relevant named concept: 'affectionate regard, friendship'

$$\downarrow$$

available word: φιλία

$$\downarrow$$

new utterance: φίλησις = φιλία + -σις (denoting 'movement')

Here too, Aristotle starts from the new notion that he wishes to discuss, then uses a conceptually close notion ('friendship') that is named in his linguistic community and decides that the new term should be based upon the available name by adding an ending given to ancient Greek abstract feminine nouns that designate 'movement, disposition towards something'.

Even in his famous *entelecheia* he has not distanced himself from these tactics, since the existent words *en*, *telos*, *echô*, along with their semantic contents as depicted in the linguistic utterances in practice, are coined to denote the composite new concept, and thus *entelecheia* is also suggested *oikeiôs*:

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[97] See Schwyzer & Debrunner 1950:139. See also Horrocks 2007.

new concept: 'inner power guiding to a goal'

$$\downarrow$$

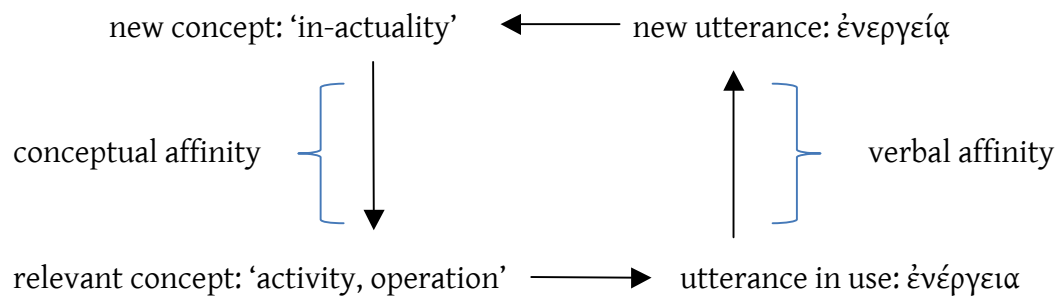relevant named concepts: 'in', 'goal', 'to have'

$$\downarrow$$

available words: ἐν, τέλος, ἔχω

$$\downarrow$$

new word: ἐντελέχεια

Whether Aristotle uses a common Greek word, or suggests a derivative, or puts a word in the dative case, or creates a neologism etc., it is by resorting to his common vocabulary, as well as the morphology and syntax of his mother tongue that he imposes terms. In the procedure described above, just as in his treatment of 'reciprocation', there are two affinities which permit the attribution of an utterance, so that the new meaningful vocal sound can actually make the mind of the listener "stand still": It is the conceptual relation between what he wants to name and what is already named that constitutes the basis of the procedure of naming what is new; the named concepts are those that supply the philosopher with the linguistic deposit, so as to pick a suitable word or to coin a new one: for Aristotle, semantic proximity is the first crucial step in name-giving. However, each name-assigning ends up with an evident verbal proximity between the used utterance and the newly suggested one:

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new concept: 'in-actuality'  ←——— new utterance: ἐνεργείᾳ

conceptual affinity  ⎰                    ⎱  verbal affinity
                     │                    ↑
                     ↓                    │
relevant concept: 'activity, operation'  ———→  utterance in use: ἐνέργεια
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The cognitive approaches as described in (d) of the preliminary remarks are not absent from Aristotle's name-giving in practice: he exploits the linguistic material that he has at his disposal to delve into the investigation of new concepts and he assigns new terms to them according to this material by suggesting ,, i.e., units consisting of conventionally connected utterances and meanings, which are formed at various levels. Aristotle's *constructions* depend on integration into particular *semantic frames*,[98] in the sense of contexts consisting of semantically interrelated concepts. Therefore, new constructed relations between utterances and *signifieds* are suggested by him, i.e., the building of new semantic and verbal connections is encouraged on the basis of existing ones. Aristotle does not give any clues or instructions regarding the accurate circumstances under which a word could be reattributed, or certain grammatical forms, syntactic combinations etc., would be preferable in name-giving, because he seems interested in the *familiarity* of the result. This means that when we try to approach his linguistic suggestions in general terms, from the point of view of what is called today *cognitive constructions*, we would say that he proposes a variety of connections between utterances and contents, by choosing what he believes that suits him for each case, from his current linguistic usages.

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[98] See the preliminary remarks, point (d).

Even if it is argued that Aristotle's method is not strictly identified with a contemporary cognitive linguistic device or model, it can hardly be questioned that his treatment of the relation between concepts and utterances in his practiced name-giving evokes what is called today by cognitive linguists as *constructions* and *semantic frames*: the fact that Aristotle builds on known concepts and words is due to the respective semantic frames that are related to the content he wants to name. Therefore, previous relations between words and meanings are activated, so as to establish new ones and it is the speakers' repeated experience of specific semantic frames that Aristotle counts on, when he selects a new term: he is based on the repeated named experience of his audience regarding certain named semantic contents and frames, in order to suggest new constructions that can be smoothly integrated into these frames. None of his linguistic suggestions can be considered as divergent from familiar conceptual and verbal contexts: new concepts that have to be named are always related to what could be called in contemporary cognitive linguistics as *semantic frames* and new concepts always participate in known and familiar contexts.

Thus, it can be said that Aristotle's name-giving constitutes a cognitive process that allows new concepts to be understood in terms of known contents and established utterances. This is the reason why Aristotle's new terms constitute organic and functional parts of ancient Greek discourse that were adopted by later scholars and used afterwards in philosophy and research. No term is imposed as a solution in an arbitrary way, but always according to the content of what is investigated, a content that is designated by Aristotle's available linguistic usages.

V. Concluding remarks

Aristotle is probably the first thinker to concern himself with matters that today are addressed under the general rubric of cognitive linguistics. More specifically: *i*) his

formulation of the line between non-mediated reflexive representation and mediated conventional signification; *ii*) his belief in the universal and non-attached to a specific language character of mental states that are formed after perception, an approach which is far from any kind of linguistic determinism; *iii*) his exploration of what happens in the mind during the reception of language, putting it side-by-side to cognition and *iv*) his tendency to exploit the available linguistic material, in order to integrate new concepts into known conceptual contexts, summarize the basic results of the present research. In an attempt to venture some reflections about the cognitive aspect of Aristotle's treatment of language, it can be said that his linguistic approaches both in his theory and practice remind us of foundational cognitive linguistic principles.

Nevertheless, his views on the production and reception of language do not receive the credit they deserve when examined exclusively from the densely written semantic passage in *On Interpretation*, however comprehensive it may be and regardless of its reasonable impact. It is a text that can be highlighted and completed—more than one might initially suppose—by Aristotle's description of 'to signify' in the same treatise, as well as by the discussion of 'familiarity' and its necessity as regards name-giving in the *Categories*. A more or less completed puzzle is thus displayed concerning Aristotle's cognitive approach to language, as he is intimately interested in both sides of linguistic interaction, production and reception of language.

His concerns are traced in his practice of name-imposition too, a procedure which involves the use of conceptual and verbal proximities for the sake of familiarity in linguistic communication. New concepts emerge in Aristotle's considerations from their relation to other concepts, and this could constitute an argument opposing to E. Rosch's belief about Aristotle's (and ancient philosophers'

in general) concepts as arbitrary logical sets with clear-cut boundaries.[99] Conceptual affinity is crucial for Aristotle to define and clarify a new concept, the definition of which is sealed with the new term that is verbally contingent on the name of the already defined and named notion.

It is not necessary to apply a specific pattern of cognitive linguistics to Aristotle's theory of semantics and its respective practice, in order to affirm the cognitive aspect of both. If we consider cognitive linguistics as a flexible framework, as Geeraerts and Cuyckens suggest,[100] we could detect in Aristotle the belief that language is a deposit helping him to organize *pragmata*/reality. It can hardly be questioned that basic cognitive principles—at least as they have been formed so far—are salient in Aristotle's views on semantics, as well as in the process that he seems to be following when he suggests new terms, as it is evident that Aristotle is interested in rendering his linguistic suggestions cognitively functional. Since cognitive linguistics focuses on language as ordering, advancing and conveying information by emphasizing the conceptual and experiential basis of linguistic categories,[101] it would not be difficult to argue that Aristotle's theory and practice regarding name-assigning evokes such a framework: the philosopher treats language as depicting a certain potential for conceptualization and categorization, according to given linguistic usages. For Aristotle, language is intrinsically related to human cognitive capacities as is shown by the fact that he uses all the potential that his mother tongue provided him with to bring together ideas and concepts. The link between language and thinking as represented in his own linguistic behaviour

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[99] Rosch 1999.

[100] Ibid.

[101] As Geeraerts and Cuyckens put it in their Introduction (2010).

demonstrates that he considered it fundamental to research, to learning about the data of experience, to categorizing them, but also to consolidating knowledge.

In an attempt to approach Aristotle by taking into account the apparatus of cognitive linguistics, the present study does not aim to prove that he had already conceived of its principles, but to reveal that contemporary interdisciplinary methods can provide classicists with new and inspiring tools when approaching ancient texts. It is among the purposes of this article to underline that such an interpretation of ancient philosophical linguistic texts and the relevant practices of ancient authors can open a new window to the study of the history of linguistic ideas. New avenues of exploration can appear and thus, e.g., more specific research could involve the cognitive function of Aristotle's classifications in his biological works, or the grammatical constructions that Aristotle seems to prefer in his name-impositions, depending on the character and subject matter of each treatise etc.; it may be hoped that, such sustained surveys are soon to follow.

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