Sergei Garin[1]

HOMONYMY IN PORPHYRY'S LOGIC

Resume: The article analyses problematic logical and semantic components of Aristotle's theory of homonyms within the scopes of Porphyry's commentary on "Categories". The paper describes some features of the doctrine of homonymy of nouns and verbs in commentator tradition from Porphyry to Simplicius. The work has shed some light on the issues of the interpretation of the terms: κατηγορίαι, ὄνομα, and ῥῆμα. The logical theories of Porphyry and other commentators are analysed within the field of the subject. The article is generally aimed at awakening the scholarly interest towards the logic and semantics of Porphyry.
Keywords: history of logic, Aristotle, Porphyry, Simplicius, ancient semantics, homonymy.

С. В. Гарин

ОМОНИМИЯ В ЛОГИКЕ ПОРФИРИЯ

Резюме: В статье рассматриваются логико-семантические проблемы аристотелевской теории омонимии в рамках комментария на его «Категории» Порфирия. Описывается понимание омонимии именных и неименных частей речи (глаголов) в логической комментаторской традиции от Порфирия до Симпликия. В работе проясняются некоторые затруднения в интерпретации таких понятий, как κατηγορίαι, ὄνομα и ῥῆμα. В рамках поставленной темы анализируются логические подходы Порфирия и других комментаторов. Статья нацелена на пробуждение исследовательского интереса к логике и семантике Порфирия.
Ключевые слова: история логики, Аристотель, Порфирий, Симпликий, античная логика и семантика, омонимия.

Traditionally, the problem of homonyms and related semantic phenomena, as presented in the "Categories" of Aristotle was considered as the introductory part of the Peripatetic school of logic, the so-called *antepredicamenta*, necessary for the absorption of the subsequent parts of Organon. The doctrine of homonyms in "Categories" was a kind of introduction, but was not usually considered as essentially connected with the categorical scheme of Aristotle. In the commentary tradition of Porphyry, Simplicius and Boethius raised the question about not only the didactic connection between homonyms and categories, but also the logical relations between them.

[1] *Гарин Сергей Вячеславович*, кандидат философских наук, доцент кафедры философии Кубанского государственного университета.

Garin Sergei, candidate of philosophy (PhD), docent, Department of Philosophy, Kuban State University.
svgarin@gmail.com

It should be noted that Aristotelian homonymy as a problem in its various aspects was considered in the fundamental work of K. Shields [Shields 2009]. The features of homonyms in connection with the general problem of polysemy are analysed in the article of T. Irwin [Irwin 1981]. Aspects of argumentation of the "third man" in Plato and the connection between eponymy and homonymy were clarified by J. Malcolm [Malcolm 1981]. The theory of Speusippus, in line with its linguistic understanding of homonyms (Peripatetic classification of names, ὀνόματα) is considered along with the Aristotelian interpretation of homonyms in L. Taran's article [Taran 1978]. Although the problem of Aristotle homonyms became almost classical, reflection of this concept in the texts of commentators, namely Porphyry, Simplicius, Boethius has not yet received sufficient attention.

In a commentary on Aristotle's "Categories", Porphyry considered the problem (ἐρώτησις) about the relationship between the main objectives of the treatise and the way its presented, starting with linguistic arguments about the nature of homonyms, paronyms, synonyms etc,. He indicates that the issue of homonymy for the "Categories" is extremely important, because categories are often mistakenly identified with the objects they signify (in S. K. Strange translation):

> Φημὶ ὅτι ἐπεὶ τὸ ὂν ὁμώνυμον δοκεῖ εἶναι τῷ Ἀριστοτέλει καὶ αἱ κατηγορίαι ὁμωνύμως λέγονται κατηγορίαι καθ' ὧν κατηγοροῦνται, διὰ τοῦτο πρῶτον περὶ τῶν ὁμωνύμων ποιεῖται τὸν λόγον [*Cat*: 61, 10–13].
>
> I claim that Aristotle discusses homonyms first because he holds that being is a homonym and because predications are homonymously said to be predications of that of which they are predicated

This means that the semantics of categories in the time of the creation of the classic comments on Aristotle's work caused difficulties among the peripatetic and platonic scholars. It is no coincidence that Porphyry, Ammonius and Simplicius were trying to solve the problems (ἀπορίαι) related, firstly, to the authenticity of the title "Categories" ("Ten genera of being" or "Ten voices"), and to the subject of the treatise itself.

Porphyry, being one of the pioneers of semantics, pointed out that the categories discussed in the treatise of Aristotle, only *signify* what is called "genera of being", but don't pertain to ontological reality. The difficulty here is that the "Categories" can be interpreted in three ways: as φωναί, as νοήματα, and as πράγματα.

When we use the term "κατηγορίαι" and don't distinguish it from what it represents, then, according to Porphyry, we are not only platonising peripatetic ideas (Porphyry indeed was involved in this very seriously), but rather don't distinguish between *homonymous elements of language*.

That is why, according to the Tyrian commentator, Aristotle began his work not with the definitions of the first and second substances or with the full list of categories that would be natural, but with a very unexpected clarification regarding the *nature of homonyms*.

Porphyry, in developing his ideas, writes (in Steven K. Strange translation):

> Why does he begin with homonyms, not with synonyms, if synonyms are things that share both the same name and the same account, and something sharing both its account and its name would be a clearer case than something that has only its name in common with something else? [*Cat*: 61, 5–9].

To answer this question, it should be noted that in general, Porphyry follows the Aristotelian interpretation of two-dimensional, semantic, logical, and linguistic objects: "I would argue that all have the name, definition (ὁρισμός), or the description (ὑπογραφή)" [*Cat*: 61, 5–9]. Thus, the logical objects contain names, designative components and definitive, revealing the essential features of the object. Speaking in terms of Frege-Carnap, we use the name and extensional-intensional characteristics, reflecting definitive segments of the object.

One commentator of Aristotelian logic, Boethius, clarifies that the "definition (diffinitio) reveals the *essence of things* by genus and specific difference, while the description (descriptio) simply refers to the object with the help of common features" [Strange 1992: 38]. Thus, by distinguishing nominal and designative semantic aspects of a word, following Porphyry, we can ask the question:

> Πῶς οὖν ὁ Ἀριστοτέλης ὁρίζεται τὰ ὁμώνυμα; Ὁμώνυμα λέγεται, ὧν ὄνομα μόνον κοινόν, ὁ δὲ κατὰ τοὔνομα λόγος τῆς οὐσίας ἕτερος [*Cat*: 61, 28–31].
>
> How then does Aristotle define homonyms? Those things are said to be homonyms that have only their name in common, and have a different account of the essence corresponding to the name.

Expression λόγος τῆς οὐσίας here reflects the understanding of lexical and definitive expression of the essence, the substantial properties of an object. However, the question about the nature of essence (νοήματα or πράγματα) is extremely controversial for understanding the "Categories", and generally, is one of the cornerstones in the great debate between Peripatetic and Neoplatonic schools.

In the next question of the "Commentary", we see the distinction of the scope of homonyms, which includes not only the nominal parts of speech, but also verbal. Porphyry indicates that:

> But if there exists homonymy not only in the case of names but also verbs and conjunctions — for example in the case of ἀνδραποδίζεσθαι, which means both enslaving someone else and being enslaved by someone else — why does Aristotle say "things which have the name only in common", as if homonymy existed only in the case of names? Because "name" applies not only to words possessing a specifically name-like character, that is, those to which articles are adjoined [Strange 1992: 41].

Porphyry's example with τῷ ἀνδραποδίζεσθαι ὁμωνύμῳ ὄντι, literally, "ἀνδραποδίζεσθαι, that there is a homonym" [Strange 1992: 41], expresses the complexity that ἠνδραπόδισται "he was enslaved" — is a perfect passive / middle voice a third person singular of the verb ἀνδραποδίζω. The word ἠνδραπόδισται here is in an ambiguous position because simultaneously, it can mean either "he was enslaved" — if we treat it as a verb in the passive voice — or, if we understand it as a middle voice ἠνδραποδισμένος, — "he enslaved someone else".

Simplicius, citing Boethius, clarifies new examples of homonymy, adding to the already considered noun τὸ κύων:

> λέγοντες 'τὸ κύων ὁμώνυμόν ἐστιν' καὶ 'τὸ ἠνδραπόδισται ὁμώνυμόν ἐστιν' [Simplicius *Cat*: 25, 23–24].
>
> We say "dog is homonymous", and "he was enslaved".

Thus, τὸ κύων and τὸ ἠνδραπόδισται equally pertain to the same logical category. Boethius' indication is based on the fact that the neuter article *τὸ* may be posed before *nouns* (τὸ κύων), and before the *infinitive verbs* (τὸ ἠνδραπόδισται). It means that the presence of the article does not provide a clear basis for distinguishing the grammatical parts of speech [Chase 2003: 116].

In the commentary on the "Categories", Simplicius raises the problem of understanding homonyms in the context of non-nominal parts of speech, almost literally quoting Porphyry:

> Why Aristotle calls homonyms only the words in which only the name (ὄνομα) is common, although homonymy is also applicable to verbs, as in the case of ἠνδραπόδισται, and participles, such as, ἠνδραποδισμένος, and to the conjunctions? [Chase 2003: 116].

To understand the details of the subject Simplicius describes multiple meanings of ὄνομα:

1. Symbol of a proper name (τὸ κύριον);
2. Designation of a nominal name (τὸ προσηγορικόν);
3. Common name for all parts of speech.

Describing these nuances, Simplicius refers to the differentiation of Boethius:

> Βόηθος δὲ διχῶς φησιν τὸ ὄνομα λέγεσθαι, τό τε πρόταξιν ἄρθρου λαμβάνον, ὃ καὶ ἰδίως ὄνομα λέγεται, καὶ τὸ ἐφ' ἅπαντα τὰ τοῦ λόγου στοιχεῖα διατεῖνον [*Simplicius Cat*: 25, 18–19].

> Boethius says that the "name" has two meanings: one, in the special sense in which it acts as a noun, and another one that applies to all elements of speech (λόγος).

Thus, the complexity connected with the fact that the Greek ὄνομα, grammatically understood, is the opposite of ῥῆμα. In any case, from a logical point of view, ῥῆμα is not the subordinate concept of ὄνομα. Both of these terms are subordinates of a generic concept "part of speech". On the other hand, ὄνομα, taken in the general sense, includes the ῥῆμα, being a generic term. This difficulty is widely discussed by commentators, namely Olympiodorus, David, Boethius [Chase 2003: 115]. Obviously, a semantic differentiation of the term ὄνομα between narrowly grammatical meaning, that reflected a *certain part of speech* in general, would eliminate this difficulty. Thus, we have:

1) ὄνομα$_1$ — term signifying *noun*,
2) ὄνομα$_2$ — term signifying *name*.

Consequently, ὄνομα$_1$ in Euler — Venn diagrams will be at the same level of subordination with ῥῆμα towards ὄνομα$_2$, while the last, is a generic term both to the ῥῆμα, and ὄνομα$_1$.

It is worth noting that homonymy applies not only to the nominal parts of speech in Ancient Greek. Of particular importance is the logical and semantic reconstruction of designative levels of language in the doctrine of Aristotle and Porphyry.

One of the key issues in Porphyry's framework on the issue of defining homonymy, is that we essentially have to refer to the *essence* of the designata of the name. Moreover, it is not just essence, but the *logos of the substance-essence* (ὁ λόγος τῆς οὐσίας). What function does the appeal to ὁ λόγος τῆς οὐσίας play in determining homonymy? Is it not enough to just simply indicate the difference in the designative-denotative functions of homonymous expressions? This problem is reflected in one of Porphyry's questions:

> You have correctly shown not only that the phrase "corresponding to the name" necessarily belongs to the definition of homonyms, but also that the definition of a thing cannot be soundly given unless the definitional account is stated according to the name. But why does he add that the account is "of the essence"? You ought to show why it did not suffice for him to say merely that the account corresponding to the name is different [Strange 1992: 44].

To answer this question, it is necessary to resolve difficulties connected with the interpretation of the terms ὁ λόγος τῆς οὐσίας separately.

Porphyry, faced with the difficulties in defining λόγος, extracts its semantics in several dimensions:

1) Judgment on the basis of calculations (λόγος καὶ ψηφιστικός),
2) Judgment and understanding on the basis of external speech (λόγος καὶ προφορικός),
3) *Internal* reasoning (λόγος καὶ ἐνδιάθετος),
4) Teleological and generating thought (λόγος καὶ σπερματικός) [*Cat*: 65, 3–12].

These distinctions are complemented by the new varieties of the concept: "Another meaning of logos associated with the definition ὁ ὅρος, i. e. limiting definitive judgment ὁ λόγος ὁ ὁριστικός" [*Cat*: 65, 3]. Porphyry introduces a generic term for reflection / understanding of the λόγος τῆς οὐσίας. The concept of ὁριστικὸς λόγος here reflects the separation positing the definitive borders (from ἡ ὁρία — border) of the object, in other words, the positing of the object's certainty.

Porphyry has written his question-answer commentary on Aristotle's "Categories", along with his "Isagoge". The question-answer "Commentary", so called *minor*, is a simplified version of his lost full-fledged "big" commentary on the "Categories". The simplification here is indicated by the presence of the many examples for beginners. Thus, explaining the nature of homonyms in the context of ὁριστικὸς λόγος and, broadly, within the framework of ὁ τῆς οὐσίας δηλωτικὸς λόγος, Porphyry shows an example of the circulation of ancient Greek coins of different value, but having one name (in S. K. Strange's translation):

> For example, since there are bronze and silver drachma, as well as gold ones, someone who merely says "Give me a drachma" says something that is unclear ἄδηλόν τινα λέγει, but someone who says "Give me a gold drachma" distinguishes the kind that he wants from the others… Similarly, since logos has several uses, if one says the "logos of the essence", λόγος ὁ τῆς οὐσίας the addition "of the essence" τῆς οὐσίας indicates that what is meant is the definitional account (ἐδήλωσεν τὸν ὁριστικὸν subject λόγον). So the definitional account that corresponds to the name and the account that reveals the essence, that is, the definition, must be different for each of the members of a class of homonymous things [*Cat*: 65, 5–11].

The peculiarity of those distinctions connected with the fact that Porphyry essentially develops a logical doctrine of objective and intensional aspects of the name.

Speaking about the kinds of homonyms, Porphyry, in developing cognitive-ontological differentiation, highlights two types of homonymy, based on:

a) *Chance,* ὧν ὁ μέν ἐστιν ἀπὸ τύχης (ontological factor),
b) Activity of thinking, ὁ δὲ ἀπὸ διανοίας (cognitive factor).

The last comprises three types:

1) By similarity, τὸν καθ' ὁμοιότητα,
2) By analogy, καὶ τὸν ἐκ τῆς ἀναλογίας,
3) Homonyms based on subjects related to one source, καὶ τὸν ἀφ' ἑνὸς καὶ πρὸς ἓν οἱ πάντες ἔσονται τρόποι.

Porphyry provides empirical examples of *chance homonyms*, which are not determined by the operations of thought, but rather are the actual descriptions of particular circumstances:

> Ἃ ὡς ἔτυχεν καὶ ἀνεπιστάτως διάφορα πράγματα τῆς αὐτῆς ἔτυχε προσηγορίας [*Cat*: 65, 22].
>
> Different things that have the same designation purely by chance and unintentionally.

Ἀνεπιστάτως here literally means "unintentionally", for example, the name of Alexander may have several different referents: Alexander, son of Priam and Alexander, son of Philip of Macedon.

The fact that two different objects have the same name doesn't imply any deliberate intention. Two different individuals have the same name due to the special, incidental circumstances. This kind of homonym reflects the *ontological entities* or facts.

Another type of homonymous expression based on the activity of thinking and its operations (similarities, metaphors, analogies, etc.) Porphyry explains with following (S. K. Strange translation):

> ὅταν φέρε ἄνθρωπόν τε προσαγορεύσω τὸ ζῷον λογικὸν θνητὸν καὶ εἰκόνα ἀνθρώπου, ὅταν ἰδὼν λέγω ὅτι 'ἄνθρωπος τοῦτο.
>
> Suppose I were to use the name "man" both of a mortal rational animal and of a picture of a man [*Cat*: 65, 25].

Thus, we have different designative-denotative function of the name "man", among them the iconic (εἰκόνα) and objective functions:

1) Man_1 τὸ ζῷον λογικὸν θνητὸν,
2) Man_2 καὶ εἰκόνα ἀνθρώπου.

In this case, homonymy, according to Porphyry, is organized by thinking or, derived from thought.

In developing the subject, Porphyry points out the different aspects of the homonymous concept of the term source (*beginning*). Thus, a monad is the source of number; the point is the source of line, the spring — source of a river, heart — source of the animal. Summarizing all these cases, Porphyry concludes:

> We apply the concept of homonyms here, because we believe (think) that items are similar [*Cat*: 65, 34].

It is clear that the generating function of the "source" in all of these cases is different. As to extensional and intensional features of language, the generative function of the point to construct the line (set of points) is fundamentally different from the biological function of the heart for the "generation" of animal as well as on the physical formation of the river's geodetic characteristics. However, in all cases, we include in the designative intensional function some common attribute "to generate". Homonyms from thought, according to Porphyry, were based on such operations of thinking.

It is interesting that Porphyry uses the analogy only as a *geometric method*,

> Ὁ δὲ τοιοῦτος λόγος τῆς δείξεως κατὰ ἀναλογίαν λέγεται παρὰ τοῖς γεωμέτραις.
> What is called the analogy by geometers [*Cat*: 66, 1].

Continuing his research, Porphyry considers a third type of homonym connected with the thought: the origin of the denotata from *one source* (τὸ ἀπό τινος ἑνὸς κοινὴν διαφόροις πράγμασι προσηγορίαν γενέσθαι). Porphyry gives an illustration of medicine, where objects that perform different pragmatic functions belonging to a common domain receive the identical name function. For example, τό τε βιβλίον ἰατρικὸν, τό τε φάρμακον καὶ τὸ σμιλίον**,** *medical book, medication, medical knife* (scalpel).

Quite unexpectedly, Porphyry (following Aristotle) also included this type of expression to the domain of homonyms. From the standpoint of modern logic, these concepts are generic, having identical general characteristics. The predicate ἰατρικὸν "medical" in respect of a scalpel and medicine performs different function. What is common, however, is an indication of belonging to the generic class of objects. Three sets "medical book", "medical scalpel" and "medical drug", have the common feature of "medical" which reflects the generic level of concepts (identical for all subordinate elements) that, from the logical point of view, is not a case of homonymy.

References

Cat — Commentaria in Aristotelem Graeca. Volume 4.1 (*Porphyry*). Ed.: *Busse A*. Berlin: Reimer, 1887.

Simplicius Cat — Commentaria in Aristotelem Graeca. Volume 8 (*Simplicius*). Ed.: *Kalbfleisch K*. Berlin: Reimer, 1907.

Chase 2003 — *Simplicius*. On Aristotle Categories 1–4. Translated by Michael Chase. L., N.Y.: Bloomsbury Academic, 2003.

Irwin 1981 — *Irwin T*. Homonymy in Aristotle // The Review of Metaphysics. Vol. 34, № 3, 1981. P. 523–544.

Malcolm 1981 — *Malcolm J*. Semantics and Self-Predication in Plato // Phronesis. Vol. 26, № 3, 1981. P. 286–294.

Shields 2009 — *Shields C*. Order in Multiplicity Homonymy in the Philosophy of Aristotle. Oxford, 2009

Strange 1992 — *Porphyry*. On Aristotle Categories. Translated by Steven K. Strange. L., N.Y.: Bloomsbury Academic, 1992.

Taran 1978 — *Taran L*. Speusippus and Aristotle on Homonymy and Synonymy // Hermes. № 106, 1978. P. 73–99.