



Chapter 2

On the Structure and Contents of the Monograph

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The book is a collection of papers and aims to unify the questions of syntax and semantics of language, which are included in logic, philosophy and ontology of language. The leading motif of the presented selection of works is the differentiation between linguistic tokens (material, concrete objects) and linguistic types (ideal, abstract objects) following two philosophical trends: nominalism (concretism) and Platonizing version of realism. The opening article under the title “The Dual Ontological Nature of Language Signs and the Problem of Their Mutual Relations” provides a broad introduction into the problem area connected with this differentiation, while the logic-formal characteristics of the distinction are framed in the work entitled “On the Type-Token Relationships” (Chapter 1).

The basic part of the book deals with issues relating to syntax (Chapters 2-4) and semantics of language (Chapters 5-6), as well as pertaining to syntactic-semantic-pragmatic questions (Chapters 7-13). Throughout the book, language, categorial language, is characterized syntactically as generated by classical categorial grammar (Chapter 2) and formalized on two opposing levels: as language of expression-tokens (level of *tokens*) and language of expression-types (level of *types*).

The author’s considerations contained in Chapters 2 and 4 lead to the important philosophical conclusion that in formal-logical syntactic studies on language the assumption that expression-types constitute the primary language layer while expression-tokens make the secondary one, can be neglected; thus, this speaks in favour of the opposing standpoint—the concretistic one—in the ontology of language syntax.

In the works “Meaning and Interpretations”, Parts I and II (Chapters 5 and 6), it is underlined, however, that such semantic concepts as: meaning, denotation and interpretation are defined on the *types level*, yet their formal definitions require making use of notions of the *tokens level*. The semantic notions introduced in the above-mentioned articles are also used in the following works of the present selection, under the titles: “Three Principles of Compositionality” and “On Metaknowledge and Truth” (Chapters 7 and 8). They formalize two principles of compositionality that are well known in the literature on the subject, deriving from Frege, i.e. those of meaning and of denotation; they are related to the syntactic principle of compositionality

which was introduced by the author. All the three principles are, at the same time, three conditions of homomorphism of categorial language algebra into three kinds of non-standard models of language (one syntactic and two semantic ones: intensional and extensional), which allows introducing three definitions of truthfulness into these models.

The next two works in the collection, entitled: “On Language Adequacy” and “What is the Sense in Logic and Philosophy of Language” (Chapters 9 and 10) concern adequacy of categorial language syntax along with its dual semantics: intensional and extensional, and categorial compatibility of any of its syntactic categories with two corresponding semantic categories: intensional and extensional, based on the compatibility the syntactic category of each language expression with the ontological category assigned to its denotatum. The well-known problem of categorial compatibility for first-order quantifiers finds its solution in the paper “Categories of First-Order Quantifiers” (Chapter 11).

In the work “Logic and Ontology of Language” (Chapter 12), being in a sense a summary of the considerations presented in the preceding chapters of the book, language is treated as an ontological being, characterized in compliance with the logical conception of language proposed by Ajdukiewicz. Application—like throughout the book—of tools of classical logic and set theory has resulted in emergence of a general formal logical theory of syntax, semantics and pragmatics of language, which takes into account duality in the understanding of linguistic expressions as tokens (concretes) and types (abstract objects). In terms that take into account a functional approach to language itself, there comes out an ontological neutrality of logic with respect to existential assumptions relating to the ontological nature of linguistic expressions and their extra-linguistic ontological counterparts.

The issues connected with applying logic while explaining the manner of using linguistic tokens and linguistic types to determine notions of language communication are raised and illustrated in the last chapter of the work, bearing the title “A Logical Conceptualization of Knowledge on the Notion of Language Communication”.

Note. All the older works which were published in the past will present terminology adjusted to the whole as well as contemporarily applied set of formal-logical and set theory symbols. All the works will have an abstract and key words attached. In the version prepared for printing they are adapted to SUL Springer style and typeset in the LaTeX system by my co-worker Dr. Zbigniew Bonikowski.