

**Larissa Alexeeva**

University of Perm

## **INTERACTION OF TERMINOLOGY AND PHILOSOPHY**

### **1. INTRODUCTION**

The question of philosophical concern with terminology is old enough. Now we may discuss the great role of this interconnection due to the comprehension of the influence of philosophy on terminology. My presentation is aimed at two main goals:

1. to prove that terminology and philosophy have deep historical interconnection, modifying the concept of the term and the theory of the term,
2. to discuss the content of Philosophy of Terminology.

Our discussion will be centred on the concept of philosophy of terminology and on what it depends. Philosophy of terminology may be regarded as an attempt to understand the nature of the term and its relationship with the intellect and the world. Philosophy of terminology considers the fact that terminology, like any other science, was formed by the efforts of philosophers. It was philosophy where the first terms, such as idea, form, etc. appeared. Philosophers started to examine the interconnection between language and thought by focusing on the role of language in shaping and communicating human thoughts. Although philosophy did not solve the problems of terminology directly, its importance for terminology is that it has brought together significant theories of the term, which put forward the following issues: What is a term? What is the connection between terms and objects? Does terminology describe the world, or does it construct a picture of reality? The attempts to answer these questions lay in the basement of further theories of the term.

The main question which arises in this respect is related to the role of philosophy in the development of terminology. We believe that philosophy has helped terminology to achieve the status of science. Philosophy put terminology in conceptual order and gave the possibility to view its historical development. We also believe that philosophy has contributed to clarification of the three fundamental questions put up by Herbert Picht (2003:109-110):

1. Is terminology an autonomous discipline or just a craft?
2. Is there a coherent theory of terminology at all?
3. What is a term?

In this way, the philosophical aspect of terminology is a study of the term from the scientific point of view. It means that philosophy of terminology formulates and solves fundamental theoretical issues, and works out ontological problems in this field. However, we also meet a different point of view about the idea of an interconnection of philosophy and language, e.g. J.L. Austin (Austin 1961) rejected the attempts of philosophers to theorize about language and called for “linguistic philosophy”. He advocated a common-sense and anti-

philosophical realism, and argued that linguistic analysis could free linguistics from philosophical “pseudo-problems”.

## 2. A BRIEF HISTORICAL BACKGROUND

From its birth and until the present terminology has been conditioned in large part by philosophy and logic, whose claim was that universal and general definitions of truth were applicable to all languages (including special ones). A brief historical background would be to the point. Ancient philosophers established a tradition of metaphysical speculation. They concerned themselves with the categories of things existing. This tradition continued through the Middle Ages. With the works of René Descartes the focus of philosophical concern changed from the issue of what things are to how we know, in other words, to epistemological questions. In the 17th century, knowledge of terms was characterised by the reaction against the rationalist approach to terms. This was noticeable in Port-Royal logic (the dual theory of the sign) which regarded the nature of the sign, including the term, from the point of view of the integrity of two ideas: the idea of things which stimulated the second – the idea of presentation of things.

At the beginning of the XXth century preoccupation with language began to dominate philosophy and caused its linguistic turn. This change involved a great interest of philosophers in linguistic matters. This was a period when the theory of terminology was enriched by a genius conception of Eugen Wüster (1935) of the interconnection among language, terminology and thought. Philosophers of the beginning of the XXth century (analytic philosophers such as G.E.Moore, G.Frege, L.Wittgenstein, B. Russell) tried to replace Neo-Kantianism and idealism by philosophical realism. They were primarily concerned with the nature of truth, with reality, and with the connection between thought and the world.

L.Wittgenstein discussed the therapeutic role of philosophy, i.e. the role of philosophy in the overcoming of confusions and incorrect understanding of language. As for language, it was regarded as the medium for thinking about and describing reality. Analytic philosophers relied on formal logic as a methodological tool and were concerned mainly with formal linguistic elements. They assumed that language had a perfect structure which, if analysed correctly, could reveal the structure of reality. These logical innovations led to the idea that logically perfect and ideal languages (clear, precise, free of ambiguities of natural language, able to express scientific truth), could be constructed. Important figures of the Vienna Circle (O.Neurath, H.Hahn, R.Carnap) assumed that all sciences could be unified under a single discipline, physics, and that there were no distinctions between natural and human sciences. Here is a list of works on private philosophy which had a great impact on the development of philosophy of terminology and set up the foundations of further discoveries of the term:

1892        G.Frege On Sense and Reference, Concept and Object  
1905        B.Russel On Denoting  
1914        B.Russel Our Knowledge of the External World

- 1915 Ferdinand de Saussure Course in General Linguistics
- 1918 B. Russel The Philosophy of Logical Atomism
- 1921 L. Wittgenstein Tractatus Logico-Philosophicus
- 1925 O. Jespersen The Philosophy of Grammar
- 1928 R. Carnap The Logical Structure of the World
- 1928 D. Hilbert Principles of Mathematical Logic
- 1928 H. Reichenbach The Philosophy of Time and Space
- 1929 R. Carnap, H. Hahn, O. Neurath The Scientific World: the Vienna Circle

in Russia

- 1862 A. Potebnya Thought and Language
- 1911 N. Berdyaev Philosophy of Freedom
- 1913 P. Florenski Thought and Language
- 1914 G. Shpett Phenomenon and Sense: Phenomenology as the Main Science and its Problems
- 1915 P. Florenski Dialectics
- 1916 P. Florenski Science as a Symbolic Description
- 1922 P. Florenski Term
- 1923 G. Shpett Esthetic Fragments
- 1927 A. Losev Philosophy of Name
- 1928 E. Drezen For the Unified Language

In the context of such philosophical ideas, terminology was formed as a separate branch of knowledge. Most of those philosophical theories have been adopted by terminology. Therefore, it was quite natural that at the period of its generation, terminology came under the influence of logic and remained an applied and practical science. This may be seen from the following: terminologists mainly described the object of their research. This method convinced them that the main property of terms is their reference to real things. As the result of explorations in this field, numerous terminological systems of various branches of science were described. However, as has been stressed by many scholars, terminology of the beginning of the XXth century followed the formal course and was deprived of a real philosophical and methodological foundation.

For a long time the question of interaction between terminology and philosophy was not seen as essential even though it had roots in classical works on philosophy and terminology. Recall René Decartes, who believed in the existence of a universal language, and T. Hobbes and J. Locke, who were interested in the relationship between language and ideas. B. Russell, who never saw himself as a philosopher of language, proved that the apparent grammatical form of a sentence could mislead us about the hidden logical form of proposition expressed by the sentence. In order to demonstrate this, he distinguished between names and descriptions, and between definite and indefinite descriptions. These arguments were closely connected with the concept of term and its definition (the term is the name of a definition).

### 3. P. FLORENSKI AS THE FOUNDER OF PHILOSOPHY OF TERMINOLOGY IN RUSSIA

In Russian terminology the following names, best known for their contribution to terminology, should be marked. The first important step has been made by P. Florenski (1998), who concerned himself with the questions *how do science and terminology correlate? how to define a special word?* Discussing the first question, he suggested that the sense of science was in constructing terminology. As for the term definition, he was of the opinion that to define a term was to reveal its truth. He was also the first philosopher to notice the influence of terminology upon philosophy itself. In order to show this, he used the phrase “*the stop of a thought*” in the meaning of “the product of thought”, or the term. He suggested that the term, fixing a certain item of scientific knowledge, rhythmically cut the dialectical and progressive movement of philosophy, and thus provided this flow with stability. D.S. Lotte (1961) advanced the idea that terminology developed in two ways: by means of evolution and by means of revolution. G.O. Vinokour (1939) distinguished between a common word and a term – a common word is the name of an object, while a term is the name of a concept. He also provided terminology with a theory of the term as a function of the word.

### 4. TERMINOLOGY AND LOGIC

As we have stated above, at the initial stage of its development, terminology as a branch of science was under a strong influence from logic, which provided it with a possibility to establish strict and determined relations between objects of reality and terms. The term at first seemed most naturally definable by appeal to the realm of abstraction, rather than to living phenomena. The main idea of terminological research of that period was to put terminology in order. It should be noted that the influence of logic was common to most sciences, e.g. Gottlob Frege (1984) was concerned with the question of the logical, secure and evident foundations of mathematics. He advocated the thesis known as logicism. One of Frege’s philosophical aspirations was to construct a perfect language by means of logical notation, which would make it possible to express one’s thoughts in an accurate and exact manner. B. Russel (1972) was also known for his attempt, together with A. Whitehead, to establish secure logical foundations for mathematics.

On such a theoretical basis the research of definite terminological systems got an additional impulse. Applied terminology based on logical methods has succeeded in the description of sublanguages of various branches of science. We should stress that the use of logic as the basis for terminological study caused not only unification of domain terminologies, but also unification in methods and ways of terminological research. In a philosophical sense, standardization and unification of terminology dealt with simplified objects (taxons) and this, by all means, was the reason for terminological uniformity. Traditional terminologists regarded unification and standardization to be quite real and natural. However, the method of empirical description caused some difficulties, for they could not describe terms which revealed such qualities as alogism, openness, and discrepancy. Although the meaning of terms seemed to be clear and understandable, still all attempts to characterize the meaning of

terms as they were used in texts failed. It became clear that even the most strict and determined terminological systems could not fix terms in a single meaning.

Seen from the descriptive point of view, there was an obvious difficulty in telling why lines of demarcation among terminological systems appeared to be diffused and movable. Consider: the terms *abstract, action, addition, aggregate, aid, analogy, area, balance*, etc. were used in various branches of science – biology, chemistry, physics and others. Sometimes it was quite difficult to state what branch of science they belonged to. Consider: *classification, behaviour, element, feature, form, material, measure, period, standard*, etc. What is more, logic dealt with questions of truth and falsity, which were believed to be objective, independent of individual human mental processes and therefore common to all rational beings. Thus, an attempt to study terms on a logical basis has not attained its aim, since the term has revealed features not of a strict language unit, but of rather a puzzling thing. As a result, we are beginning to think that the subject of terminology gives the researchers dealing with unification a slip.

## 5. MODERN TERMINOLOGY AND PHILOSOPHY

Perhaps it is not fair to discuss only the sources of philosophy. From the very beginning terminology has been involved in a very complicated philosophical problem: the discrepancy between the desire to obtain definite and truthful data and the impossibility to attain this aim. The main problem to be solved by terminology is to consider the adequacy of a descriptive method, since on the one hand, it really provides terminology with numerous descriptions of terms systems, but on the other it does not solve the problems of standardization and unification of terms. In such a situation, terminology has to start a dialogue with other sciences and to begin constructing theories.

In our view, modern terminology has taken a philosophical turn since its aims have been replaced by the questions of the relationship among mind, language and knowledge. This means that in a philosophical interpretation, the term as the object of terminology has the potential of being regarded as an idea or an element of a theory. It is the theory of the term which has replaced an empirical study of isolated terminological systems. Empirical descriptions were characterized by their endless search and unobservable varieties. In contrast to these, philosophy has created the world of theories which assists in systematizing numerous descriptions and makes it possible for terminologists to scrutinize them with renewed care and by means of new ideas. This scrutiny has resulted in a new interpretation of the object of terminology. In other words, the object of terminology has been changed in such a way that it has become orientated to man, who is considered to be the creator of terms. The theory of the term has also changed – terminology comes close to a philosophical view of its role in the process of world cognition. Terminology starts to concern itself with such questions as *in what way is man connected with the world, how does he feel the reality of science?* Formal and logical aspects of terminology are gradually substituted by theoretical and cognitive ones.

## 6. THE RELATION BETWEEN TERMINOLOGY AND SCIENCE

Now it is necessary to define what we mean when we suggest that the object of terminology has been changed. We still have to explain what is the modern object of terminology. When we discuss its modern role, we mean the way it fixes knowledge, in other words, the relation between terminology and science. The term may be regarded as an element of the information system which is created by science. Terms are also integrated into a certain system by means of internal regularities. Science is an external factor as far as terminology is concerned. Science and the system of terms are interconnected. This means that there are periods when the tempo of their development is the same, in which case terminology keeps pace with science. Following this, we may say that the object of terminology has come closer to that of scientific philosophy, since terminology duplicates the sciences whose languages it studies. To paraphrase a well-known saying of M. Foucault (1966), it is possible to say that terminology has become a twin science, occupying a metaepistemological position.

However, there are periods when the internal development of terminology may not satisfy the demands of science, and in such cases terminology does not interpret science. In those cases we may say that terminology does not duplicate science, or that it loses its metaepistemological position.

To the theory of terminology, a conspicuous question is the nature of the term. Although the term has been used by terminologists for a long time, there is no certainty that we know its nature. The attempt to study the term by means of rational methods did not attain its aim. It may be explained partially by the specificity of the human intellect. It has been noted (Gousev 2002) that objectively its organization is more strict and systematized than reality itself. The world around us does not contain such perfect geometrical figures as a dot or a straight line, there is no “ideal body” and “ideal gas”, in other words, it does not contain all those things which comprise the conventional basis for scientific research. As psychologists have noted, people have a genetical ability to find order in phenomena which possess none at all. In this way, the theory of the term reaches a point where it begins to realize that the term does not reflect the correlation of a thing and a word, but rather that of man and reality.

Philosophy of terminology makes it possible to ascertain that the main feature of the term is discrepancy and complexity. P. Florenski, a well-known Russian philosopher, has studied the vast role of philosophy in linguistics. He argued that any research in the sphere of language, including terminology, has as its aim to make this discrepancy more vivid and more objective. Philosophy and terminology are at the basis of the organism of language (Florenski 1998). In this sense, the role of philosophy does not reside in the fact that it creates a common total theory of truth, on the contrary, it breaks this tenet and suggests that terminology may develop without common consent, as a system of individual theories. Philosophy of terminology distinguishes between the two contrasting approaches to terms: one way of studying terms is to observe their external structurization (description of various terminological systems), the other is to regard their internal structurization (terminologization and conceptualization).

Concern with the concept of the term as a language category is the defining feature of philosophy of terminology. It argues that the first thing to realize about the term is that it is not only a unit of language. More than that, philosophy helps terminology to realize that objects of scientific research do not exist in the real world but are constructed specially for the study in question. In this sense, terms are not only objects of description, but also models, specially created for the purpose of the analysis. Thus, when we approach terminology by means of traditional views, it is regarded as having strong links with logic. In contrast to the former, a philosophical view of terminology considers it to be an open and integrative science because it may be presented as a complex of theories.

## 7. METATERMINOLOGY

There remains a final issue to be discussed. The consequence of a age-old influence of logic upon terminology has resulted in the following. The subject of terminology – the term – was viewed separately from intellectual activity. Logic did not answer the question of how terms were born, since it was mainly occupied with the problems of systematization of terms and description of already existing knowledge. In addition, the term in its logical aspect was studied as an independent special unit, separate from language. A great discovery was made in terminology when the linguistic nature of terms was revealed and studied (Nalimov 1974, Gousev 1984, Nikitina 1987, Lejchik 1989, Grinev 1993, and others). Similar ideas have been put forward by H.P. Grice (1991), who distinguishes between a natural and a non-natural meaning: a natural meaning is discovered and not made, a non-natural meaning is constructed artificially. They are broader in scope in so far as they encompass all systems of signs, including linguistic ones, endowed with meaning by human convention.

A. Tarski (1956) also distinguished between an object language and a metalanguage. He suggests that we use metalanguage in order to interpret and analyse the properties of object language. Linguists with such views have proved that natural language, which exists as the initial phenomenon and therefore as a prime language model, creates other language models, secondary and derived, including terms. In this sense, it may be assumed that terms fulfil the function of commenting scientific knowledge and operating previously created terms, but in new special meanings. Term definitions are formulated in metalanguage. From the concept of metalanguage we might derive a similar concept of *metaterminology*, having in mind that new terms are created as a result of interpretation of previous scientific theories. If we assume that the term is the name of a thought, we must also take into consideration that scientific ideas, once fixed by terms, are based on them. Consider the evolution of the concept *light*: ancient scientists (Pythagoras, Plato, Epicurus) thought of it as *rays* emitting from eyes, Newton shared the same view. In 1690, Huygens introduced the *ether* light theory, in 1900 Planck introduced the term *quantum* for the concept of light. It is necessary to point out that the term *metaterminology* has not yet been adopted in terminology, though it may quite naturally be included into the paradigm of such notions, e.g. *metascience*, *meta-semantics*, etc.

## 8. CONCLUSION

We would like to emphasize the idea that interaction of terminology and philosophy also has an impact on philosophical dialectics. On the one hand, philosophy educates terminologists as followers of preceding knowledge, schools and trends. It imposes a certain order onto theoretical activity. On the other hand, philosophy mobilizes researchers of the term to create new, non-standard conceptions of the term, i.e. to disregard logical laws for the sake of scientific truth. Thus, the most important contribution of philosophy of terminology to the theory of the term is the following:

1. Philosophy of terminology shows that the term is to be studied not only as an object of description, but also as a model of a certain knowledge presented by a researcher.
2. Philosophy of terminology reconciles terminologists with different viewpoints on the common ground of complexity and discrepancy of terms. Philosophy shows the possibility to study internal regularities of terms.
3. Philosophy of terminology clarifies theories of terms.
4. Philosophy of terminology makes terminologists realize new internal relations of the term, including issues of world cognition and its fixation by means of language.

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