Abstract
During the past several decades, the theory of terminology has been a subject of debates in various circles. The views on terminology as a scientific discipline vary considerably. Currently, there are a number of treatments of this field and a number of debatable questions involved. Is terminology a science, or just a practice? Does terminology have a status of separate scholarly discipline with its own theory or does it owe its theoretical assumptions to more consolidated disciplines?

Key words
Terminology; a theory of Terminology; empirical studies of terminology; terminological units; term growth; term formation

1. Introduction
Terminology is not a completely new field of study. It has developed and is still developing from the simple human need to name and identify. Its precise definition and scope are, however, still not clearly defined. During the past several decades, the theory of terminology has been a subject of debates in various circles. Just recently, however, it has been systematically developed, with full consideration of its principles, bases, methodology and the approach to terminology has gone from being amateurish to truly scientific (Cabré 1992).

The views on terminology as a scientific discipline vary considerably, and there are currently a number of treatments of this field as well as several debat-
able questions surrounding it. Is terminology a science, or just a practice? Does terminology have a status of a separate scholarly discipline with its own theory or does it owe its theoretical assumptions to more consolidated disciplines?

To determine the answers to these questions, I consider it important to briefly mention the historical development of this field, which is connected with traditional schools, as they have undoubtedly contributed to its present status and nature.

2. Historical development in the field of terminology

In the 18th and 19th centuries, scientists were the leaders in terminology. They were, however, mainly alarmed by the proliferation of terms. They were worried about the diversity of forms and the relationships between forms and concepts. Neither the nature of concepts nor the foundations for creating new terms were of concern to them.

In the 20th century, engineers and technicians became involved. Rapid progress and the development of technology required not only the naming of new concepts but also agreement on the terms to be employed. As a result of practice, terminological work began to be organized in certain specialized fields.

During the first half of the 20th century, neither linguists nor social scientists paid special attention to terminology. Terminology, as we understand it today, first began to take shape in the 1930s. The work of Eugen Wüster, an Austrian linguist considered to be a father of terminology, was very important for the development of modern terminology. In his doctoral dissertation in 1930, he presented arguments for systematizing working methods in terminology, established a number of principles for working with terms and outlined the main points of a methodology for processing terminological data.

According to Wüster (cited in Cabré 1995: 5), four scholars can be identified as the intellectual fathers of terminological theory: “Alfred Schlomann from Germany, the first one to consider the systematic nature of special terms; the Swiss linguist Ferdinand de Saussure, the first one to have drawn attention to the systematic nature of language; E. Dresen, a Russian, a pioneer in underscoring the importance of standardization; and J. E. Holmstrom, the English scholar from UNESCO, who was instrumental in disseminating terminologies on an international scale.”

The work of Eugen Wüster is considered to be the basis for the beginning of the terminology science. The three classical schools of terminology, the Austrian (Vienna), the Soviet and the Czech (Prague) schools, all emerge from this work. His work was also the base for the so-called General Theory of Terminology, which was later developed and enhanced by his successors.

The second half of the 20th century saw rapid scientific advances and technological developments, resulting in the need to name objects and ideas associated with the new and highly developed branches of human activity. The process of
naming was essential and inevitable. As Alain Rey (cited in Cabré 1992) says: “Only in the twentieth century has terminology acquired a scientific orientation while at the same time being recognized as a socially important activity.”

Technological development in the second half of the 20th century also resulted in the most important innovations in the field of terminology. At that time, data-banks first appeared, and the initial approaches were made to standardize terminology within a language.

The third stage – the boom of terminology between 1975 and 1985 – is marked by the proliferation of language planning and terminology projects (some countries, like the former USSR and Israel, had begun their language policies earlier).

The significance of the role of terminology in the modernization of language became apparent in this period. Moreover, the spread of personal computers brought about a major change in the conditions for processing terminological data (Cabré 1992).

3. Traditional view on terminology

While the view of traditional terminologists had been unquestioned for a long time, their principles started to be questioned and criticized at the end of 20th century.1

The main purpose of traditional terminology was to assign a new term to a new concept that appeared in a language. In the naming process, terminologists started from the concept, which they placed into a concept system, on the basis of which it had been defined before being named as a term (the onomasiological approach).

Their main focus was on exploring the ways in which to make terminology as efficient and unambiguous as possible. They were adherents of monosymy (the precision of concepts) and univocity of term (absence of synonymy). Their objective was to achieve a standardization of terminology – a tool for reaching unambiguous and clear communication, independent of cultural differences.

It is synonymy and polysemy, however, which are facts in a language, and terms are often vague and ambiguous. The ubiquity of ambiguity is apparent, for example, in English for Specific Purposes (Business English or legal English). So-called intentional ambiguity can even play an important part here as it can serve its purpose and become an efficient tool for the author in keeping the options available (Chovanec 2005).

On the other hand, there are fields where definiteness and determinacy are inevitable. These fields include many subject fields in scientific and technological areas. They definitely require and press for standardization of terminology (mathematics, physics, engineering, etc.) (Weissenhofer 1995).

Critiques of traditional terminology in cognitive science point out that interlocutors play an important part in the construction of knowledge through discourse. They also stress the omnipresence of culture (even scientific culture) in the perception of reality (Cabré 2003).
Traditional terminology, rather than involving the study of language development and language evolution, mainly emphasized the concept system, which was, for the adherents of traditional terminology, the basis of special language (synchronous aspect). Concepts, however, evolve over time, as do their designations (Temmerman 2000).

To conclude, we can say that traditional terminology had a number of dogmatic principles, confused the principles with facts and converted wishes into reality. It failed to create a theoretical framework that would support its own principles and methods. In essence, research was impeded by the interests of standardization.

Nevertheless, the importance of terminology in its present status must not be disregarded and should be seen as historically important due to its evolution and advancement in the fast developing world of modern technology.

4. Terminology – a science, an art or a practice?

How is the field of terminology viewed today? Has it reached the status of a separate scientific discipline? Can it be considered a science, or just a practice and art?

Not all experts agree that terminology constitutes a separate scientific discipline, nor do they all consider it a theoretical subject. For some, terminology is a practice dealing with social needs that are related to political and/or commercial ends (Juan Sager, Robert Dubuc, Bruno Besse, Blaise Nkwenti-Azeh). In the opinion of others, terminology is a true scientific discipline that owes much to the other subject fields, from which it borrows fundamental concepts (Helmut Felber, Christer Laurén and Heribert Picht, Maria Cabré, Kyo Kageura, Johan Myking). It is, nevertheless, considered a separate discipline in the sense that it has reformulated and synthesized the original foundations so that it could build its own field. There are many intermediate positions, the advocates of which, although admitting that terminology contains some original theoretical features, are persuaded that it only conceives of them within the framework of other, more consolidated disciplines (Rita Temmerman).

So, apparently, we may distinguish two extreme positions. Representatives of the first are of the opinion that terminology has the status of a separate scientific discipline with its own theory, while the advocates of the other are persuaded that it owes theoretical assumptions to more consolidated disciplines. The latter see terminology as practice, or the process of compiling, describing, processing and presenting the terms of special subject fields with the aim of optimizing communication among specialists and professionals concerned with the standardization of language. Strehlov and Wright (1993) see it as the art of analyzing terms in context and the systematic study of naming and labelling concepts with the aim of developing vocabulary for a given field.

Thus, the way we may perceive terminology can be distinguished from the way we intend to use it. Being conscious of that, the following distinction emerges (see Figure 1).
The advocates of the first group see terminology as a separate scientific discipline. They focus on developing a theoretical framework for Terminology (with capital letter, Terminology is referred to as a scientific discipline) within which the dynamics of terminology (term growth and terminological formation) can be described. Terminology as such is then used by linguists, scientists from cognitive sciences, and sociolinguists. The output of their effort is represented by a consolidated theory of Terminology.

The representatives of the second group see terminology as a practice and an art. For this group, the main aim of terminology is that it be used for communication
in specialized fields, for communication through intermediaries and in compiling glossaries and dictionaries of specialized fields. Terminology, from this point of view, is used by specialists in given fields, intermediaries (such as semi-specialists, interpreters and translators) and linguists — terminologists, terminographers, and language planners. Here, terminology represents a tool for communication; terminology is a target. The output of their effort culminates in the issuing of standardized dictionaries for specialized fields, or dictionaries for specialized areas (such as a dictionary of law, dictionary of IT terms, or dictionary of economic terms).

Let me now move on to discuss the opinions of the advocates of the first group. When can a certain concept, subject or study be given a status of a separate linguistic science?

The establishment of scientific discipline requires, among others, the construction of theoretical explanations of how things work. This means that to be able to give terminology the status of science, we need to have a theory of terminology.

Does current terminology have its own theory?

Terminological theory development has undergone many years of inactivity, and only in the last two decades have there been some recognized movements — or as Cabré says: “a rush of critiques of established principles and suggestions proposing new alternatives to the traditional theory” (Cabré 2003: 163).

Numerous national, transnational and transregional networks of terminology have sprung up throughout the world, ignoring, however, the existence of each other. Johan Myking (cited in Cabré 2003) considers this approach to be a potential danger. He thinks that different epistemological and paradigmatic positions might block practical cooperation and lead to separate networks and lack of contact among different terminological discourse communities.

More lines or approaches to the study of the theory of terminology have recently appeared. Cabré talks about negative, constructive and probabilistic lines, where the representatives of the first one reject and ignore the existence of the opponent. Members of the constructive line are either positively engaged in revising traditional theory and evaluating dissenting opinions or they refine the interpretation of Wüster’s original work in order to silence its critics. Advocates of the probabilistic line manifest themselves in the revision of the original, and some alien postulates with the purpose to call attention to the need for cooperation in the construction of a wider and more complex theory (Cabré 2003).

Johan Myking (cited in Cabré 2003), the representative of the probabilistic line, discusses the contribution sociotermiology has made to Wüster’s theory and provides three types of positions: the moderate and loyal; the radical and subversive; and, finally, the radical and loyal. He describes the extended traditional theory, which, according to Cabré, means a step forward in the construction of terminological theory, but for her it is a matter of common sense to build a broad foundation, rather than starting from a limited theory and extending it.

Cabré advocates the necessity of the Theory of Terminology, because it represents one of the lines giving Terminology the status of being a separate discipline. The following draft is a summary of her proposal for the theory (see Figure 2).
She starts from two assumptions, the first being that terminology is simultaneously: “a set of needs, a set of practices to resolve these needs and a unified field of knowledge” (Cabré 2003: 182). Her second assumption is that the elements of terminology are the so-called **terminological units**. Terminological units are multi-dimensional; they are, at the same time, **units of knowledge**, **units of language** and **units of communication**. Their description must therefore cover the
cognitive (the concept), linguistic (the term) and sociocognitive / communicative / pragmatic (situation) components. This multi-faceted feature distinguishes them from other units of language with the same structural features (words), and from the units that also express specialized knowledge (specialized, morphological and phraseological units).

In approaching and accessing the object of terminology as a field of study, and in an attempt to formulate a theory in which the different strands of terminology can be combined, she introduces a model which she calls the theory of doors. The model represents the plural, but not simultaneous, access to the object in a way that directly addresses the central object – the terminological unit, whether starting from the concept, term or the situation (see Figure 1). The choice of the door of entry to describe and explain terminological units is conditioned by the adaptation of a theory suitable for its door of entry – a theory that does not deny the multi-dimensionality of the object. Such an approach allows the description of the real data in all their complexity.

Cabré studies terminological units within the framework of specialized communication, in a specialized discourse that is produced in such a framework. The framework is distinguished by a systematic presentation of information and by two types of linguistic features, the first is lexical – the use of units that have, in spite of their wide occurrence, limited meaning in a special context, and the second is textual – consisting of the text having a precise content, more concise and systematic expression than general texts. It is because of their structure of knowledge, which is controlled by the meaning of the concepts. The framework of specialized communication transfers specialized knowledge; it covers, for example, the communication among specialists, between specialists and semi-specialists, and between specialists and learners.

Within a linguistic theory, terminological units do not differ from lexical units (i.e., a comparison of their phonological, morphological and syntactic characteristics would reveal no difference). They are different with respect to their semantic and pragmatic dimensions. Following this presumption, Cabré (2003) refers to terminological units as ‘units of special meaning’ and adds that “any lexical unit would thus have the potential of being a terminological unit” (Cabré 2003: 190).

Even though Cabré talks about the Theory of Terminology, and she is the advocate of treating Terminology as a separate discipline, I see her approach as more pragmatic than that of Kageura. Despite this, Kageura has, undoubtedly, been contributing significantly to the development and consolidation of the Theory of Terminology, and although his work has not yet been finalized (he is planning to carry on further analysis, especially on term formation and terminological growth), his Proposal of a Theoretical Framework is worthy of note. The following draft (Figure 3) and brief description summarize his point of view.
His study addresses the *Quid iuris* and *Quit facti* concerning the theoretical status of the study of terminology. From the point of view of *Quid facti*, terms are recognized as empirically observable objects. The *Quid iuris* of Terminology is concerned with the study of its theoretical status, i.e., the conditions under which a study of terminology can obtain an independent status as a theoretical study of Terminology (with a capital letter, he refers to the study that takes such a theoretical form that can claim, ‘*de jure*’, to be a study of terminology in itself).

His concept of Terminology can be summed up in the following points (Kageura 1999a, 1999b):

1. The concepts *vocabulary* and *domain* are required before the concept of Terminology is consolidated. These concepts are extra-linguistic, so the existence of the concept Terminology is supported by certain *extra-linguistic factors*.

2. The concept Terminology is consolidated at the level of ‘parole’, and the proper theory of Terminology can obtain an independent status *de jure*, only providing that it is linked up with the concept ‘domain’ or some of its representations.
3. The concept of terminology precedes the concept of term: ‘It is terminology, not individual terms, that corresponds more closely to the concept domain’ (Kageura 1999b: 1).

This means that if a lexical unit is to be recognized as a term, a terminological space for its placement should exist in advance. Thus, when treating terms as empirical objects (a quid facti point of view), we always presuppose the existence of the concept of terminology which belongs to the sphere of parole. This presupposes having a concrete linguistic existence, meaning that the concept of terminology should have its empirical materialization, (i.e., terminology) as a set of concrete terms. Therefore, at the empirical level, the recognition of terms always corresponds with the recognition of terminology, meaning that when there is only one term, it is already recognized as a terminology.

4. There always is a terminological sphere, which may linguistically be a sub-part of the lexical sphere, as distinct from the textual sphere.

All these explanations create a basis for the quid iuris of the essential theoretical status of Terminology, where terminology as a vocabulary of a domain in its totality represents an empirical object of Terminology with some anchor points to two external concepts – domain and vocabulary.

To pursue the study of Terminology, he further describes the process of term formation and terminological growth, with a few simplifying assumptions and reference to his further work (Kageura 1999b, 2001).

5. Conclusion

The contributions of Cabré and Kageura to the study of terminology have clear aims – to set up a theoretical framework that would underpin the procedures and methods of this field, enabling it to attain the status of an independent discipline. They both agree, however, that further work must be carried out and that cooperative effort must be made to allow an appropriate theoretical model to emerge. Due to the lack of communication among specialists, different lines of development and varying perceptions of certain issues, this task will not be easily achieved. As Kageura (1999b: 1) states: “Many efforts have already failed due to the fact that the Theory of Terminology was often related not to the theory of Terminology, but to the terms as empirical objects. The proper studies of Terminology (Dynamics of Terminology – term formation, and term growth) lag far behind”.

The importance of empirical studies – the studies of terminology (the studies of vocabulary of certain domain (Kageura)) or terminological units within the framework of specialized communication in a specialized discourse (Cabré) – is, however, of unquestioning importance and one should not underestimate, trivialize or disregard it. It is quite the opposite. The studies of terms within Terminology and general studies of terminology must be treated as complementary.
To conclude, we may say that terminology can be seen as practice (art) or science or both. It just depends upon which point of view one follows, what one’s aim is, and for which purpose one intends to use it. At the beginning of this article, I mentioned that there were two extreme positions in perceiving the terminology. At this point, I would rather say that one position is superior to the other. You either see Terminology as *quid iuris* (this point of view includes both empirical and theoretical studies of Terminology), or you just pursue the empirical research with the purpose of compiling the vocabulary of a certain field.

Nevertheless, in both of the approaches, perpetual development is apparent. In the first approach, the research that focused on the consolidation of the Theoretical Framework for Terminology and The Dynamics of Terminology has been and will continue to be carried out. In the latter, due to industrial and technical development as well as globalization, the need for systematic terminological work (including standardization) to eliminate trade barriers will be of crucial importance and inevitable in nature.

Notes

1. Cabré says that this movement can be evidenced by several seminars that took place in 2003. Of immense importance for discussion were the seminars in Barcelona, where the specialists expressed critical views about the traditional theory of terminology, and in Vasa, where supporters of the traditional theory assembled with the purpose of analyzing the meaning and significance of the existing critical opinions.

2. Science is a continuing effort to discover and increase human knowledge and understanding through disciplined research. Using controlled methods, scientists collect observable evidence of natural or social phenomena, record measurable data relating to the observations and analyze this information to construct theoretical explanations of how things work. The methods of scientific research include the generation of hypotheses about how phenomena work, and experimentation that tests these hypotheses under controlled conditions (http://www.wikipedia.com [14.4.2010]).

References


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