

# THEORIES OF TERMINOLOGY – PAST AND PRESENT

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## Abstract

The present paper offers an account of the two competing theories of terminology which have been under debate for the past two decades or so. To this end, we start our discussion from Wüster's first formulation of a theory of terminology which has been unchallenged for a long time. The analysis continues by taking a look at the two apparent camps that express criticism coming either from the traditional viewpoints or from outside and we shall analyze the two main theories that are currently on the market.

**Key words:** *empirical studies of terminology, history of terminology, terminological units, theory of terminology, General Theory of Terminology*

## Résumé

Ce travail se propose de décrire les deux théories de terminologie qui ont été débattues durant les deux dernières décennies. A cette fin, nous commencerons par la première théorie formulée par Wüster qui n'a pas été remise en question pendant très longtemps. L'analyse se poursuivra par l'étude des deux écoles qui s'affrontent actuellement sur le sujet; la première avec un point de vue traditionnel et la seconde avec un regard extérieur.

**Mots-clés:** *études empiriques de la terminologie, histoire de la terminologie, des unités terminologiques, théorie de la terminologie, la théorie générale de la terminologie, théorie communicative de la terminologie*

## Introduction

In the current paper we provide an overview of the most important theories that have been put forth in the field of terminology. To this end, let us take a closer look at what terminology, as a field of study, has come to signify. It is safe to argue that terminology is not a completely new field of study, but rather it has developed out of a basic human need, that of identifying and labelling or naming things. In spite of that, its exact definition is not clearly stated and the views on terminology as a scientific discipline vary considerably. As such, the theory of terminology has been the subject of several debates, but only recently has it been more systematically developed with full consideration of its principles, and methodology (Cabré, 2003). There is an ongoing debate in the domain as to whether one should treat terminology as a science in its own right or as a mere practice. (Sageder, 2010: 124)

Can terminology have a status as a separate field of study with its own theory and if so, what kind of theory would be required to account for terminology?

To give an answer to these questions, a brief historical development of the field should be provided.

## A historical excursus

In the 18<sup>th</sup> and 19<sup>th</sup> 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 20<sup>th</sup> 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 most prominent name associated with the study of terminology is that of Eugen Wüster. The work of Wüster, an Austrian linguist considered to be a father of terminology, was very important for the development of modern terminology. In his doctoral dissertation of 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 Scholmann 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”.

Wüster (1898–1977), an engineer with a strong interest in information science, and fierce proponent of unambiguous professional communication, developed a theory of terminology on the basis of his terminographic experience in compiling *The Machine Tool. An Interlingual Dictionary of Basic Concepts* (Wüster 1968), a systematically arranged French and English dictionary of standardized terms (with a German supplement) intended as a model for future technical dictionaries. This project was sponsored by the Organization for Economic Cooperation and Development (OECD) of the United Nations and published in 1968.

It is fair to say that all Wüster’s life was devoted to terminology. With his work he pursued a number of objectives, intended:

a) to eliminate ambiguity from technical languages by means of standardization of terminology in order to make them efficient tools of communication; b) to convince all users of technical languages of the benefits of standardized terminology; c) to establish terminology as a discipline for all practical purposes and to give it the status of a science.

However, the structural approach to the theory of linguistics prevailing in Wüster’s time was too restrictive and oriented towards formal aspects of languages to be able to account for the specificity of the semantic aspects of specialized signs. This explains why Wüster in the end saw his “Terminologielehre” as an autonomous interdisciplinary field of study, as he stated in his “Die allgemeine Terminologielehre – Ein Grenzgebiet zwischen Sprachwissenschaft, Logik, Ontologie, Informatik und den Sachwissenschaften” (1974).

Wüster developed his conception of terminology mainly on the basis of his experience as an engineer involved in national and international terminology

standardization required for the effective introduction of the standardization of physical objects, procedures and measurements in various branches of engineering. He gained additional experience from the compilation of his plurilingual dictionary of standardized technical terms. His theoretical inferences were based on observation of this limited section of technical languages – standardized technical terms with consensually agreed equivalents about a previously unified concept. This experience of a limited sector of terminology seems to explain his approach to terminology and the essence of his theoretical position. For this reason, Cabré (2003: 167) claims that Wüster developed a theory about what terminology should be in order to ensure unambiguous plurilingual communication, and not about what terminology actually is in its great variety and plurality.

Traditional terminology, rather than involving the study of language development and language evolution, mainly emphasized the concept system, which was, for the followers of traditional terminology, the basis of special language. 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 fact, research was impeded by the interests of standardization.

### **General Theory of Terminology and beyond**

Later contributions to Wüster's theory modulate and complement Wüster's ideas and have come to be known under the name, General Theory of Terminology. These contributions can be seen more clearly along the following lines (cf. Cabré, 2003: 168):

- The objective of international standardization is extended by suggestions of terminology development as part of language planning.
- Controlled synonymy is admitted. Wüster's posthumous work already concedes this point.
- A certain degree of synonymy is accepted though its avoidance is recommended in terminology intended to be standardized.
- Phraseology is added to the study of terminological units.
- The meaning of spoken forms is recognized in contexts of language planning.
- The model is made dynamic by introducing the description of the process of formation of new terms.
- The representation of non-hierarchically-ordered conceptual structures is introduced.

On the other hand, the following are not modified:

- The priority of the concept over the designation, and consequently its autonomy.
- The precision of the concept (monosemy), even though dimensions such as parameters of classification are admitted.
- The semiotic conception of designations.

From these assumptions about its evolution we note the recognition that applied terminology is not necessarily prescriptive, but, nevertheless, the following are maintained:

- The need of prescription in applications intended for standardization and language planning.
- The deliberate control of evolution (planning, unification, standardization) even though it is conceded that this is a voluntary activity.

- The priority of international forms of designation.
- The limitation to written forms even for terminology intended for language planning.

The theory developed by “loyal” followers of Wüster exhibits features which permit us to speak of a new or enlarged vision. To avoid confusions with Wüster’s theory, Cabré (2003:175) calls the traditional theory of terminology as developed further by Wüster’s followers, the *Extended general theory*. The main features of this *Extended general theory* are summarized by Myking (2001: 61) by the following captions:

- a theoretical platform characterized by ECLECTICISM;
- a set of epistemological tenets: INDEPENDENT CONCEPTS;
- an operational method: ONOMASIOLOGY;
- a defined set of problems: STANDARDISATION.

Myking’s synthesis may be considered the backbone of the extended traditional theory. Cabré (2003: 176) believes that Myking’s description of the extended traditional theory justifies moving a step forward towards the construction of a terminological theory which accounts for the empirical data produced in a great variety of circumstances, and, at the same time, offers a suitable location for the different points of view and the determination of priorities for responding to different needs. In my opinion, it is, therefore, not a question of defending positions but of analyzing whether the ideas developed so far are sufficiently broad and representative of terminological data and their overall functions to permit us to speak already of a unified theory of terminology. In this discussion, the extended traditional theory would obviously play a very important role because of its internal coherence, but it would not be suitable for forming the initial nucleus on the basis of which the theory is enriched with elements originating from other conceptions and needs. For me, it is a matter of common sense to build a broad foundation rather than starting from a limited theory and extending it. Within a broad theoretical scheme, different conceptions can be accommodated as long as there is no internal contradiction and as long as the data can be described and possibly explained.

### **What is a theory and how can one construct it?**

In order to construct and put forth a theory of terminology, one must have a very clear picture of what a theory is.

Cabré (2003: 179-80) claims that a theory is “a system of propositions deduced from a small number of principles whose objective is to represent in as simple, complete and precise form as possible a set of experimental laws.” Therefore, it is safe to assume that from this point of view, a theory is a set of hypotheses, which must be possible to confirm or to refute.

From a formal point of view, a theory has its own set of signs which together with its corresponding formation rules define a formal language that can be used to express a set of axioms. On the basis of such axioms, one can generate theorems which make up the theory. A theory may have several degrees of adequacy; it may be *observationally*, *descriptively* or *explanatorily* adequate. Observational adequacy means that the theory allows for the description of the observed data. Descriptive adequacy means that the theory allows for both observed as well as of the non-observed data which might arise to be described. This also indicates that the theory is

predictive. Explanatory adequacy encompasses both observational and descriptive adequacy as well as the ability of explaining how and why the data are produced and obtained.

During the development/evolution of a theory, there occur many different stages and processes. Thus, a theory can start from an intuition or a speculation that leads to the formulation of hypotheses which in turn must be either confirmed or rejected by means of empirical analyses.

### **Communicative Theory of Terminology**

Cabré (2000) argues in favour of a revised theory of terminology, because it represents one of the lines that provide terminology with the status of being a separate discipline in its own right. To this end, Cabré (2003: 182) starts from two assumptions. Under the first assumption, terminology is “a set of needs, a set of practices to resolve these needs and a unified field of knowledge”. The second assumption is that terminology operates with terminological units which are multi-dimensional and which are simultaneously units of knowledge, units of language and units of communication. The description of these “terminological units” should cover the concept, the term and the situation components. This is what differentiates them from other units of language with the same structural features, i.e. words, and from the units that also express specialized knowledge, i.e. 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 access to the object in a way that directly addresses the terminological unit, whether starting from the concept, term or the situation. 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, i.e. 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).

One major tenet of the newly proposed theory is the Principle of the Communicative Nature of Terminology (cf. Cabré 2000: 50). According to this principle, all terminological units “are used for communication, immediately or

eventually”. The immediate use of all terminological units refers to the fact that they are realized in the form of direct communication or indirect communication. In all other cases, communication uses terminological units in their function of representing knowledge and labelling the nodes of knowledge corresponding to the concepts of special subjects. The aim of this type of representation is to favour a common language in communication among experts (international denominative standards) or between experts and expert systems (in documentation and computational linguistics applied to knowledge engineering), thus conceptualizing a new reality.

In laying the foundations of this new perspective on a theoretical framework for terminology as a separate field of study, Cabré (2000: 50-53) introduces three conditions related to the communicative aspect of terminology: the natural language condition, the special communication condition and the specialization condition.

Under *the natural language condition*, terms possess a three-fold nature: linguistic, cognitive and social. In this sense, the field of study of terminology is defined in terms of its location within a field of knowledge. This is the only explanation for the wide range of interpretations of terms that have been offered until now. These interpretations can be summarized as follows (cf. Cabré, 2000: 50): a) for linguistics, terms belong to the lexicon of a grammar, and are specialized according to topical, pragmatic and semantic criteria; b) for special subjects, terms are a means of professional expression and communication and part of a system for representing the structure of knowledge within special areas; c) for translation, interpreting and technical writing, terms are useful and practical units of communication which are evaluated by the criteria of equivalence, adequacy, precision and economy; d) for linguistic planning, terms are lexical units requiring intervention in order to support the existence, usefulness and survival of a language as a means of expression.

*The special communication condition* which understands special communication as communication marked for topic or domain, produced in professional situations, using a formal register, and being derived from a pre-established structure. Scientific and technical communication realized by special languages differs from the texts used in general communication in three respects: a) semantically, they are concise, precise and not personalized; b) the lexicon has a predominant role, especially the quantitative and qualitative properties of nominalizations and noun phrases; c) formally, texts are highly elaborated and, in some disciplines, elements of other symbolic and semiotic systems are integrated into the text.

*The specialization condition* is a condition that communication must comply with in order to be considered a special subject discourse (Cabré, 2000: 52). However, it admits a diversity of interpretations regarding the definition of *specialized* and different degrees of specialization. If we interpret the adjective “specialized” as referring to discourse dealing with a highly structured scientific or technical subject matter, the notion of specialization is stronger than if we also apply it to specialized activities. In each case, and within each special field, discourse is produced at different levels.

## Conclusions

Terminology acquired a scientific orientation while at the same time it was recognized as a socially important activity only in the 20<sup>th</sup> century. Technological development in the second half of the 20<sup>th</sup> century also resulted in the most important innovations in the field of terminology. At that time, databanks first appeared, and the

initial approaches were made to standardize terminology within a language. 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.

The contributions of Cabré to the more recent study of terminology have clear aims; namely, 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.

The importance of empirical studies – the studies of terminology 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 or science, or both. It just depends on the point of view one follows, on the aim one has, and for which purpose one intends to use it. At the beginning of this article, we mentioned that there were two extreme positions in perceiving terminology. At this point, one would have the tendency of saying that one position is superior to the other. One either sees terminology as including both empirical and theoretical studies of terminology, or one just pursues the empirical research with the purpose of compiling the vocabulary of a certain field.

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