TERMINOLOGY – AN INTERVIEW WITH MARIA DA GRAÇA KRIEGER

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ReVEL – We know that there is a strong relationship between the disciplines of Terminology and Lexicology (this issue of ReVEL is dedicated to both fields). How would you define terminology and lexicology? What are the similarities and differences between the two?

Maria da Graça Krieger – This question seems simple, but the answer is not, because it involves many aspects that need to be clarified. Broadly speaking, let's say that Terminology and Lexicology are similar in that they both concern lexicon. The difference between the two is that Lexicology concerns general vocabulary, while Terminology focuses on specialized or thematic vocabulary, which is composed of technical and scientific terms. This is why Lexicology is traditionally described as the scientific study of the vocabulary, and Terminology as the field that singles out from the general vocabulary the technical and scientific terms. Even if this answer is concise, it is correct and stems from the concept of lexicon as the total of words that constitute a language. It is only from this angle that we can establish a methodological division between the general and the specialized vocabulary.

I mention this methodological division because the lexicon is not a monolithic block. On the contrary, it's a dynamic system, in which lexical items that are similar in form belong as much to general as to specialized communication. General language dictionaries, of an exhaustive character, may add at the end of an entry its specialized meanings when this is relevant. A good example of this lexical transposition is the Portuguese word *balanço*: its common meaning is that of a kind of toy (swing), but in

the specialized language of Accounting, it takes the meaning of review or financial statement. Another example is the Portuguese word *tributo*: it means a payment or a tax to be paid when it is used in Economics, but tribute or homage when it is used in general communication. These examples, typical of the functioning of language, demonstrate that there are no clear boundaries between terms and words within the lexicon. In fact, the boundary between specialized and general vocabulary is not defined by the designation of the lexical item, but by its semantic level. And, in spite of their conceptual specificities, words as well as terms are lexical items that are part of the lexicon of a language, and obey to the same language rules.

It is important to note that the language phenomenon that determines the union or division of the concepts of *word* and *term* is typical of terminologies coined with words from the general lexicon, in which cases terms cannot have denominative exclusivity. Some scientific disciplines, like Biology and Zoology, have used technical and scientific Greek- and Latin-based nomenclatures in their terminology-building. This was done in order to avoid the ambiguities common to the general lexicon. The naming principle of these nomenclatures – a kind of technical and scientific universal language – greatly influenced the terminology-building of many scientific disciplines. For example, medical terminology uses Latin and Greek word forms, like *nephrolithiasis* (*litíase renal* in Portuguese) and *cardiopathy*. This type of terminology, even though it follows the morphosyntactic rules of the language, tends towards designative exclusivity because it is limited to terms and is not usual in informal conversations.

In view of the various aspects that need to be considered to properly answer your question, it is important to stress that even if the main object of studies remains the lexicon, this doesn't imply homogeneity of research in Linguistics. In fact, the general tendency is to adopt a theoretical and epistemological approach, and choose one descriptive aspect of this basic component of all linguistic systems. This tendency can be explained because the concept of lexicon can vary according to the favored theory, or because of the special emphasis given to one of the innumerable aspects of the lexical items of any given language. For all these reasons, the field of research in Lexicology is vast and presents many different ways to approach the word, most importantly in relation to semantic aspects and coining of neologisms, as well as

vocabulary identification, and ways to transpose the lexical level of a language to word usage.

ReVEL – What were the first terminological studies? How did the discipline develop?

Maria da Graça Krieger – Before answering, I would like to mention that terminology has two distinct meanings. When written with a lowercase *t*, *terminology* refers to the specialized vocabulary of scientific, technical, and technological domains. For example, there are terminologies in Medicine, Economics, Law, Linguistics, etc. This is another way of saying that every specialized field of knowledge has its own terminology or specialized language, in direct relationship with the specific concepts of each specialized field of knowledge. Even if specialized languages have existed for a long time, there is nowadays a multiplication of terminologies because of fantastic technical and scientific development.

When written with an uppercase *T*, *Terminology* refers to the discipline of theoretical and applied studies of technical and scientific terms. This second meaning is recent, having only emerged in the 1960's. Even if still quite recent as a discipline, Terminology has already spurred research that put it on par with the other disciplines that deal with the lexicon, namely Lexicology and Lexicography. The youngest of the trio, Terminology owes its emergence to Austrian engineer Eugen Wüster, professor at the University of Vienna. He formulated the General Theory of Terminology (GTT), theory which became the basis for the development of a group that came to be known as the Vienna School.

Wüster conceived Terminology as an interdisciplinary field, in which Linguistics, Cognitive Sciences, Computer Sciences and Communication converge. However, Wüster's theory favors the cognitive and normative aspects of terminologies; thus, it was dedicated to the international standardization of the technical and scientific terms, with the aim of controlling international usage. The objective of this school of thought was the recognition of the term as one of the cognitive nodes of a specialized

knowledge; the term was not conceived as a linguistic sign with its natural constitutive elements.

At the end of the last century began to appear other linguistic propositions for terminology research, but based on different principles. They present a reversal of epistemological paradigms in the study of terms. The main difference is that the term is no longer apprehended as a simple ontological representation of a field of knowledge, but is now conceived as a lexical item with a linguistic as well as a cognitive aspect. Consequently, the term is ruled by the linguistic systems and functioning of the language. The referential frame for the study of terms returned to their real context of occurrences. It was then found that terms present both variation and synonymy, a fact that was not acknowledged by the traditional theory. Furthermore, it has been observed that terms act in a similar way to lexical items of the general vocabulary, and that the specialized vocabulary isn't a language by itself as was previously thought. Thus, terms and words are not *a priori* different; they are only distinguished by the concept, specialized or not, that they transmit in the act of communication.

Because of these new descriptive and linguistic bases that allow a transition from normative to descriptive, Terminology is now a discipline of Linguistics in its own right. Moreover, its epistemological parameters firmly establish Terminology among the Language Sciences. It is in this context that the Communicative Theory of Terminology (CTT) was formulated, in the early 1990's, by Maria Teresa Cabré and her team at the Pompeu Fabra University of Barcelona, Spain. Equally significant is the emergence in Canada of Socioterminology, in the 1980's, from the work of Jean-Claude Boulanger and Pierre Auger. Socioterminology was further developed by François Gaudin in his doctoral thesis.

These contributions spurred research in Terminology; the discipline now presents a greater descriptive and explicative body of works that show the complexity of terminology-building and terminological principles. The same communicational bases have given rise to a better understanding of the definition principles and of phraseology. The latter is increasingly integrating the body of subjects studied by Terminology – a position I have been defending for some time. Indirectly, and from a

methodological point of view, Terminology research has been broadening our knowledge of specialized texts, most importantly because they represent the "natural habitat" of terminologies.

All these recent developments allow me to say that the history of Terminology is still being written, and the way is open for a pragmatic and linguistic view of specialized lexicon.

ReVEL – Where does Terminology research stand today in Brazil? What are the main subjects of research? What are the main objectives of the discipline in this country?

Maria da Graça Krieger – In Brazil, Terminology research has progressed significantly. Pioneering works, mostly from the University of Brasilia (UnB), came about in the 1980's. The University of São Paulo (USP) also conducted research on neology in technical and scientific terms. At the beginning of the 1990's was created TERMISUL, at the Federal University of Rio Grande do Sul (UFRGS), followed by several other groups from various universities in the State of São Paulo, among which the Federal University of São Carlos (UFSCar) and the São Paulo State University (Unesp) in São José do Rio Preto. In the Northeast, the Federal University of Pernambuco (UFPE) and the Federal University (UFC) and State University of Ceará (UECE) also began conducting research in Terminology. This geographical map of research has considerably expanded since these early years, and many new groups of research have since been created. Also, Terminology has become part of many graduate studies programs; as a result, there is a significant number of thesis written or being written on the subject. Works done at the undergraduate level also have focused on some aspects of Terminology. In short, the discipline has now become a recognized field of study in Brazil. The situation was different just 15 or 20 years ago, but not only in Brazil – Terminology is still considered a "new" discipline among the Language Sciences.

To say that Terminology is a recognized field of study means that it produces both theoretical and applied research – which indicates a diversity of research focus, as I will explain. At the same time, Terminology is a field where interdisciplinarity plays a

key role, in particular with Translation, Information Science and Library Science. The interaction with these other disciplines brings other research focuses that reflect the different visions and interests of linguists.

In the case of linguistic-oriented Terminology, the principal research interests are centered on the terms themselves and their extraction, on specialized phraseology, on terminological definition, and on specialized texts. The latter may be documents like scientific papers, thesis, and reports, among other possibilities.

It is worth mentioning that the identification of specialized language has been greatly facilitated by computer programs that assist in extracting terms. But even with the help of these programs, terminology identification remains complex, because technical and scientific terms tend to be multiword- and not single-word terms. Also, terms present problems of degrees of lexicalization to become syntagmas. Computer programs are still unable to satisfactorily resolve these problems, and are limited to extracting term candidates. The specialist must then intervene to determine whether a lexical item, or even a symbol, is a term.

I would like to mention some of the open questions in the field, in relation with the problematic aspects of terms, and explain in what ways Terminology relates to Translation, for example. In the first place, translators need to recognize terms as specialized vocabulary in order to translate them accurately. Indeed, terms represent concepts of specialized knowledge whose translation in the target language can have a totally different syntagmatic structure. Even more crucial for translators is the question of neologisms in specialized language; this has been the subject of much research in our discipline.

In Library Science, terminology research is related to database indexing. Terms are used in indexes in order to enable users to find specialized written material. And as the Information Technologies enable computer search, the subject of linguistic variation has become central in terminological studies.

There are also studies with applied purposes, like that of producing glossaries, thematic dictionaries, and even terminological data banks. In Brazil, we now have

access to a growing number of terminological products, the result of research in Terminology. Much of these products were created with the aid of specialized-language corpora – a productive interface between Terminology and corpus-based Linguistics.

To summarize, I tried to trace the frame of current and recurrent research subjects in Terminology, and to show how it relates to other disciplines. It is true that there are still many other aspects that I haven't mentioned, but Terminology is an ever-expanding research field. At its core is still the specialized vocabulary of languages, but the lexicon is multifaceted and at the basis of all communication. To understand what is at the basis of terminologies means to understand other aspects of the creation of specialized knowledge.

ReVEL – What is your stand in relation to the use of foreign words in Brazilian Portuguese? Do they have a "corrupting" effect on our language?

Maria da Graça Krieger – I have a very strong opinion on this subject and will give a clear answer to your question. The use of foreign words is a natural and universal process in cultural languages. This fact has to do with factors related to the dynamism of all lexical systems. Languages are always evolving, by adopting new words and by abandoning words that are no longer used. Of course, this doesn't mean that the changes affect the language as a whole; a part changes in order to adjust to the communication needs, and a stock remains to allow the conditions for communication between members of a same linguistic community.

As I have said already, these are intrinsic aspects of the functioning of the language; terminologies have a strong influence in the introduction of news words, as the lexicon is of a denominative and designative nature. The emergence of a new concept, a new technology, or a new technological product creates the need for a new term to identify it. This new term may originate from the vernacular, or from foreign words. In fact, foreign words already are predominant, simply because there are a greater number of technical and scientific developments outside of Brazil. In our country in

general, we import both the product and its name. Some countries have a tradition of translating technological "importations". However, this translation may come already too late; once the use of the foreign word is established, it may be impossible to reverse the situation.

With this in mind, I want to mention a social and cultural aspect typical of Brazil, a country where there are no real language policies. I'm not talking about ineffective "protectionist" policies, but about actions to help promote our national language, like the creation of a lexicological institute that would play the role of a respirce center on language-usage. Instead, we have here a sort of "culture of the foreign word", which we use in the most varied contexts. In order to be more appealing and convincing, and also to give an "international" feeling, we use more readily "*50% off*" or *delivery* instead of the Portuguese words *liquidação* and *entrega*. Do we need these foreign expressions? Objectively, no. But we'll need to get used to them.

My opinion on the subject doesn't mean that I'm against foreign words, nor does it mean that I think they corrupt or lower our language. I have already said that to adopt foreign words is a natural process of modern languages. Some words already don't belong to specific languages and are universal, for example *táxi* (taxi), *charme* (charm) and *chance*. However, I do believe that excessive use is not necessary: we already have equivalent words in our vernacular language. Lexicological studies have shown that there is a difference between necessary and unnecessary borrowing. Is it justified to coin the term *inicializar* (to initialize), to mean to turn a computer to a starting position, when we can use the simpler and better-known *iniciar*?

In conclusion, I would like to say that studies on Brazilian Portuguese neology have shown that the incidence of foreign words is relatively small in comparison to the size of our vernacular language. However, we should not forget that the language is an expression of national identity, which is why we should consider important to promote the language we speak.

ReVEL – Could you make a few suggestions of essential readings on Terminology for our readers (students, professors, and researchers in Modern Languages and Linguistics)?

Maria da Graça Krieger – I'll suggest a few essentials, hoping I won't forget important works. My list begins with some international publications, because, in Brazil, research in Terminology is still recent and not as developed as elsewhere: Alain Rey's *La Terminologie: noms et notions* (PUF, 1979), and Juan Sager's *A practical course in terminology processing* (John Benjamins Publishing Company, 1990). Maria Teresa Cabré's books are fundamentals: *Terminology: theory, methods, and applications* (John Benjamins Publishing Company, 1999), and, in Spanish, *La Terminología: representación y comunicación* (IULA/Universitat Pompeu Fabra, 1999). Another essential is Eugen Wüster's collection of texts, in Spanish: *Introducción a la teoría general de la terminología y a la lexicografía terminológica* (IULA/Universitat Pompeu Fabra, 1988). I would also like to recommend Canadian authors like Pierre Auger, Jean-Claude Boulanger and Guy Rondeau, who have greatly contributed to the development of the discipline.

In Portuguese, the bibliography has reasonably increased as a result of the development of studies and research in Brazil, most notably in the last decade. I recommend *Ciências do Léxico,* a collection that is now at its 5th issue. In these issues, there is always a part dedicated to Terminology. I also recommend *Introdução à Terminologia: teoria e prática* (Contexto, 2004), that I have coauthored with Maria José Bocorny Finatto, and Lídia Almeida Barros' *Curso básico de Terminologia* (Edusp, 2004).

There are also specialized scientific publications like *Debate Terminológico,* by the Rede Ibero-americana de Terminologia (RITerm) and *TradTerm* of the USP, in addition to all the others that dedicate special issues on the subject, like *Organon* n. 26 (UFRGS, 1998) and, of course, this issue of ReVEL. It is also possible to find papers on the websites of the Terminology research groups, as well as in the digital libraries of the universities that offer this discipline in their curriculum.