## Terminological Approaches in the European Context

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Edited by

Paola Faini

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#### **EDITOR'S PREFACE**

This book is an edited selection of the articles originally presented at the International Conference on *Terms and Terminology in the European Context*, held at Roma Tre University (Rome, Italy) in October 2014.

A significant picture of the state of the art in terminological studies at the European level was one of the main outcomes of the conference. However, it also highlighted that the sheer array of different languages and cultural attitudes that characterize EU countries indicates a need to harmonize European standards. The active research work of a number of universities in the field is not always supported, or at least not effectively supported, by official institutions. This is either because a full awareness of the implications and applications of terminology is sometimes lacking, in that education and language policies often neglect the issue, or because there is some reluctance by the institutions themselves to support innovative projects. Whatever the reason, widespread understanding of the importance of terminology as a key issue in cooperative communication is still something of a mirage. It is the intention of the present book to contribute to acquiring wider and deeper knowledge, raising problematic issues and stimulating discussion by providing an opportunity to compare a variety of situations. The linguistic and cultural topics addressed during the conference have thus been reorganized and grouped into topical areas which mirror their authors' professional and research activities as well as the cultural contexts involved

The dominant focus, as the title suggests, is on terminology, and various perspectives and points of view illustrate the diversity of terminological approaches, uses and solutions, evidencing language as a constantly developing phenomenon with phases of evolution and adaptation, sometimes spontaneous but more often the result of a specific policy.

The task of offering a theoretical introduction has been delegated to an outstanding linguist and specialist in the field, Emeritus Professor María Teresa Cabré, whose speech at the conference has been intentionally reproduced as it was presented in order to preserve its passionate spontaneity together with the engaging account of her own personal and professional experience with terminology. The Editor's appreciation goes

to Dr Peter Douglas for his translation of the transcript of Teresa Cabré's original presentation in Spanish.

Rodolfo Maslias, Head of the Terminology Service at the European Parliament, offers an alternative perspective on terminology with his pragmatic introduction to IATE, the EU's huge interactive database, that successfully illustrates the key function of terminology within the European context.

It has seemed appropriate to group the remaining twenty-three chapters under six main headings. Each of these offers a particular focus on a different topic, covering both highly specific issues, such as brain processes in the acquisition of specialized knowledge, to issues of—to quote just some of the various areas covered—sexist and gender language, bilingualism, legal and economic terminology and language policies in EU countries. However divergent the contributions may seem with regard to the specific subject areas, they nonetheless represent a homogeneous collection providing a sharp focus on the methodological issues regarding terminology research at various levels.

The chapters comprising the individual papers stand on their own merit. However, taken together they form a composite picture offering a wide overview (albeit a necessarily provisional one due to the evolving nature of the language issues involved) of the themes and problems which represent the present-day process of terminological studies and approaches in a variety of national and international contexts.

Part One, *Terminology in European Academic Settings*, is comprised of three chapters. Taking the cue from the specific experience of two Italian university settings, chapters three and four evaluate the consistency and/or variability of the institutional academic English terminology used on university websites and in the presentation of their course units. With experience rooted in a different context, this time Belgium, and shifting the focus to specifically didactic issues, chapter five offers instances of how to cope with lexical/terminological uncertainty when English is used as the lingua franca in academic terminological training.

Perspectives on national issues and their relation to the European Union are the main topic in Part Two, European Union and National Issues. European and national institutional documents are explored in order to highlight terminological differences from the perspective of translation; attempts (and failures) at terminological planning in bilingualism are described through the example of Maltese; issues of language simplification are addressed by a critical assessment of the vicissitudes of Italian institutional language caught between innovation and resistance; the Serbian approach to EU terminology is also analyzed,

taking into account the presence of English as the dominant language, while the same dominance is also discussed with regard to Italian military language.

Part Three, dedicated to *Brain Processes and Corpora*, takes a decidedly scientific turn, shifting the focus to the behavior of the brain in language. The two chapters analyze first the use of brain imaging techniques in specialized language research, and then the role of parallel corpora (based on the specialized journals *Neurology* and *Revista de Neurología*) in the study of the transmission of neologisms across languages.

The chapters in Part Four, which focuses on *Sexist Language* and *Glossaries*, range from non-sexist language policies in European terminological resources, through rewriting in dubbing, to attempts at terminological normalization as a response to homophobia in medicine.

Legal and Economic Terminology is the issue explored in Part Five, seen from the standpoint of language parity in the EU and within the framework of different national contexts. The four chapters address: the progress of terminology work in South Tyrol; issues of untranslatability and language parity in the EU; the role of English in preference to Standard Modern Greek in legal and economic terminology in Cyprus and, finally, the role and position of the national language in the development of Romanian economic terminology within EU institutions.

Part Six focuses on issues related to Methodology, Rationalization, and *Innovation*, and proposes several methodological approaches. The topics, mostly rooted in their original contexts, occasionally move away from the European background to offer—from a comparative point of view interesting perspectives and descriptions of sample procedures. This is the case with the study on performance measurement in terminology planning within the Academy of Persian Language and Literature. Returning to the EU, aspects of terminology development in Latvia are instantiated by discussing the role of color names in the lexicalization of new concepts; an experienced interpreter's original point of view outlines the diachrony of work with terminology in Estonia; issues related to climate change and the environment are studied with respect to EU environmental legislation and finally, presenting the IATE term base from a didactic and methodological perspective, the Greek approach to managing terminological resources is described through a case study of an IATE project involving TermCoord and the Aristotle University of Thessaloniki.

It is the Editor's and the Authors' hope that the variety of cultural contexts and domains offered represents an opportunity to compare views, cultural habits, and language uses. The present collection should thus

appeal not just to academic groups within the humanities, but also to a wider academic and non-academic audience interested in the interactions between terminology (and, more generally, language) and the economic, scientific, legal, political and educational fields that are creating such dynamic and complex relationships throughout the countries of Europe.

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# TERMINOLOGY: INTRODUCTORY PERSPECTIVES

#### CHAPTER ONE

### UNITY AND DIVERSITY IN TERMINOLOGY: AN EVERLASTING PARADOX

#### María Teresa Cabré

What I want to talk about today is the eternal paradox between uniformity and diversity in terminology.

There is a certain history to this topic. In 1992 I organized the first general conference devoted to terminology in San Millán de la Cogolla, which opened the first general Pan American symposium on the subject. My first thoughts were about the relationship between unity and uniformity, and variation and diversity in terminology. But was this a relationship even worth considering? Speaking personally, I had begun to focus on terminology when setting up the Catalan Centre for Terminology (TERMCAT), which had been established by the Institute of Catalan Studies and the government of Catalonia. Its role was to coordinate work on terminology and update technical-scientific terms in Catalan; in a nutshell, I was working with terminology with the aim of setting up a center for terminology.

I had had some experience in Vienna at INFOTERM, the international information center for terminology. At the same time, however, I was also involved in looking at what was going on in the field in Quebec. In fact work on terminology was well integrated within individual projects in Canada; there was real terminology planning going on. It was there that I had the chance to observe the great variations that arise during the actual business of terminology. On the other hand, I have never worked on terminology for the International Organization for Standardization (ISO). My experience has always been rooted in practice and it was only later that I read around the subject and assimilated the principles.

But let's go back to Catalonia: what was going on there? There was a certain situation and there was a specific language. This was not a minority language from a demographic point of view, but a language that we might say is at a 'half-way house' stage, that is, a language that is in a

minoritized situation given that it does not have the political backing to be the official language in every situation. Consequently, the terminology model for Catalan had to have a precise goal, following a precise path, and allow Catalan to get to a point known as communicative saturation. The implication being that the language itself encapsulates sociological and sociolinguistic principles. Indeed, Catalan was meant to be the language of communication in all communicative contexts: oral, written, generalized and specific, formal and informal—but above all in formal situations—contexts in which the use of Catalan had not been permitted for a long period of time, for many years in fact. In this respect, what Catalan needed at that particular time was terminological precision that involved updating its vocabulary to enable effective communication in all fields.

So that was the beginning. In 1992, for the very first time I was able to compare what I knew with what I was actually doing in practice, and I realized that there was an imbalance, a mismatch. On the one hand there was terminology based on standardization, on the greatest standardization possible with a stress on the universality of concepts, but on the other hand there was procedure that was based on local practices and that therefore took usage into consideration. The latter involved variation, differences, and a specific culture; a specific conceptualization within a culture. There was therefore a disconnect between the theory that was being developed and what we were actually doing in practice. In fact there was a real mismatch. The moment I realized that this was the case was when I began to think about the reasons for this mismatch. On the one hand, as I've said, we had real practice that was essentially rooted in a specific setting, characterized by a specific sociolinguistic context and a specific sociocultural situation. On the other hand, we had a theory which argued for universality and the need for uniformity between concept and form, and a separation between terminology and natural languages both in their essentials as well as in how they develop. To give an example: we all know that languages evolve in a natural way. All languages evolve and all languages change. All of them—although I'm obviously talking about living languages here. If a language is not a living language, such as Latin, it doesn't change. Although even Latin might change, for example, when a new word is invented for a papal encyclical. The Vatican might create neologisms in order to express concepts such as abortion, homosexuality and so on, that did not exist previously, or perhaps had not been lexicalized. Therefore these had to be invented, but they are "laboratory" rather than "natural" creations.

So let's start from the idea that all languages continually evolve. This means that terminological language is also dynamic, and how we describe

it is dynamic. It's said that prescriptive norms for terminology almost always become descriptive norms. What is said, what is prescribed, the form that has to be used, ends up attracting so much recognition, so much acceptance, that it soon becomes the *only* form there is. When we accept this use and describe it, it corresponds to the prescriptive norm. It is clear then that the terminology that was studied at that time was an absolutely legitimate, essentially prescriptive terminology.

This means that terminology and terms, these terminological units, were biunivocal and distinct. A term corresponded to a concept and every term expressed that single concept. It was only rarely that this one-to-one equivalence was lacking, but this was not the norm given that biunivocal units were generally the rule. These units designated actual things. They didn't mean or denominate them, they named them; they gave them real names, as symbols or as nomenclatures. They therefore had the attribute of signaling real things directly, and, like proper names, these terms were not conative, they were purely denotative. It was thought that the language of scientific discourse was never ambiguous: there could be no irony, sarcasm or any deviation from a fixed idea. What's more, it was held that there was a direct relation between object, concept and term. The term was a purely linguistic unit that designated the concept. There was linguistic unity, because as well as the term there were other variants, other alternatives for designating the same concept, as in the case of international names, symbols and scientific names etc. From this perspective semantics didn't come into it. From a concept you arrived directly at the language conceived as a form, a direct form of designation.

How did we get to this situation? Why was terminology viewed as something so far removed from natural language? There were various reasons. In the first place, work on terminology originated in a specific socio-pragmatic context, a context that was concerned with a conceptual and expressive standardization for international communication in specialist fields. It was therefore the international context that gave rise to work on the terminology that underwrote communicative univocity. On the other hand, it also gave rise to a practice where the aim was normalization, and so a theory had developed that was rooted in the actual material produced by such practice. To give an example: imagine that I want to describe the people who are at a lesson on terminology, but I decide to consider only those wearing glasses. What we have is a group made up of a certain number of people and I might conclude that all those who come to classes on terminology wear glasses. But that is not really what happens. Some wear them and some don't. So how do we end up with such a uniform view of terminology? It is because we only focus on the terms that "are wearing glasses". That is, on those terms that have previously been normalized. If we first normalize the terms and then move on to the descriptive phase based on these terms and make use of them as data, the conclusion will be that all terms are biunivocal. This is how we arrived at an extremely uniform theory, despite the fact that what was happening in practice was so different. In fact, what was being observed, and defined theoretically, was a corpus of normalized, and therefore standard terms.

In the meantime, in 1992, I read a few things that opened my eyes a little, allowing me to reflect on some new directions, and new ways to consider terminology. One of these things was Sager's 1990 book [A Practical Course in Terminology Processing, published in English and in Spanish. Even back then, Sager was already asking if terminology should be a subject in its own right. He said that terms are always linked to practice, and it is for this reason that they are used in communication, translation, and research. Therefore, is there a subject that deals with terms themselves? And isn't it perhaps linked too much to the practices with which it is associated? What really caught my attention, however, was what the books said about the terminologist: what was a terminologist? According to Helmut Felber, a terminologist is a specialist in a particular field who looks for terms in order to express ideas for specific units of knowledge in that field. On the other hand, I read that Robert Dubuc had already said back in 1987 that a terminologist was like someone who drives representation, an agent for high quality communication. Without ignoring the skills involved, terminologists are, or should be, ready to train commandos of terminology, while in other situations they might be seen as guerrilla fighters. Others, for example at the University of Iowa of the Maghreb, spoke of work on terminology in Africa saying that a terminologist had to be an ethnologist or ethnographer. This is because they believe that their culture is so different from that of the industrialized West; the consequence of working with terminology from the perspective of an industrialized culture would mean cancelling out their own culture. Creating terminology might therefore come to mean the destruction of individual cultural characteristics that are specific to a certain country. So there are very different positions: there are three types of terminologist that are totally different to one other.

It was then that I began to think about the following issue: if the principles of classic, orthodox Wüsterian terminology did not, largely speaking, explain this great diversity, then we had to think about creating a broad theoretical framework that allowed for different options including all of these and others—everything that is said about terminology. At this

point I began to formulate a theory—though I'm not talking here about a communicative theory of terminology—which substantially involved a grouping together of principles. All objects of knowledge are multifaceted. This is a primary principle; indeed, it is a fundamental cognitive principle. Any object of knowledge, everything that we know, can be seen from various viewpoints, from different perspectives: I can look at it from many different standpoints. Indeed, any object, whether material or a scientific object of intellectual observation can be examined from various positions. This potential confirms the principle of the multifaceted nature of objects. and means that we can consider polyhedricity as the prerequisite of multidimensionality and multidisciplinarity. It means that an object does not exist in just one field of knowledge, but in various areas; this is multidisciplinarity. Let's take water as an example: it is an element, an object of knowledge that belongs to a field of knowledge, such as chemistry, but at the same time it belongs to other fields of knowledge such as ecology, the environment, public policy, architecture and the landscape. Objects of knowledge are multidisciplinary of necessity because they belong to various fields of knowledge. They are also multidimensional, because when we examine them we realize that they can be described according to various "dimensions", as we shall later see with regard to terms. In my view, any theory/framework should therefore encompass the principle of polyhedricity.

There is a second, absolutely essential principle: if we know that all objects are multifaceted, then we need a theory that can explain and provide some indication of how to "get into" such objects. How do we approach them? To give an example, I know from personal experience that Down syndrome is a genetic disorder. But if someone in my family has Down syndrome, it is not just a disorder, but might become an element in family planning. And so how do we get to grips with such polyhedricity? What is needed, is a theory that also includes the explanation of how to get to grips with it.

It was at this point that I came up with what I called the "doors model". It should be remembered that this is a model, not a theory, and this is also because I was fairly elastic when I formulated it. According to the doors model, a single object of analysis can be approached and considered from various viewpoints and in terms of various disciplines. Yet the object remains the same. In contrast, if we looked at a term from a linguistic viewpoint we see just one aspect of it. And if we look at terms from the perspective of conceptualization, the theory of concepts, we are describing another means of approaching terms. I created the doors model as a metaphor. In a house there are many doors, and we can get to the living

room in different ways; the thing is that we get there, even if we go through a different door using a different key or taking a different route. This is a metaphor, and like all metaphors it is useful for understanding a complex thought with various shades of meaning.

The third principle: if we have a multifaceted object then it is clear that when we describe it we need to know where it is positioned, which door we need in order to describe it. I called this principle "the principle of situational description". We cannot describe a complex, multifaceted object if it is not absolutely clear from which viewpoint it is being described. It should be stressed that all this was aimed at explaining why there were such different viewpoints, even though it was all actually about the same thing. It was the same object, but seen from completely different viewpoints. In my opinion, this theory/framework depends on one main principle among many, that is, bringing order to diversity by legitimizing the various positions. Who should be the terminologist? The specialist or the translator? It is not important. The intention behind this theory/framework is to legitimize diversity.

The final principle—actually there are others, but I'll limit myself to this one as it is transversal and covers all the rest—is the principle of non-contradiction. Whatever door I use to enter the description of terms, whatever I say about terms or the theoretical approach I use to enter the terms, implies that there are other entrance doors. Those who see other entrance doors should not be taken to task. This is the principle of internal non-contradiction. For example, if I adopt a linguistic theory for terms and it is a theory in a purely formal sense, I cannot account for all terms as this theory would contradict the fact that terms are also units of knowledge. This is what is meant by the principle of non-contradiction.

This was the starting point from which I gradually, very slowly, came to formulate a linguistic theory of terms. The communicative theory of terminology should therefore not be confused with what I call the theory/framework that gathers together a series of principles. And within the communicative theory of terminology, a linguistic theory, which, however, recognizes the principle that terms are both cognitive units and communicative units, I have been working on terms as "linguistic signs", that is, as lexical units of natural languages. In fact this is the work that the TCT carries out. But I should point out (and it's not by chance that I've just used that abbreviation) that when I say that the objects of terminology are terms—are terminological units—they are not terminological units as seen from a linguistic viewpoint, but abstract terminological units, that is, a terminological unit, an x. The terminological object is therefore an abstract unit, a global unit, that can be considered from many different

angles, whether linguistic, cognitive or social. At this point, if we look at terms from a linguistic point of view, as is the case of communicative theory, they are lexical units of natural languages, which activate a specialized meaning in pragmatic situations. These situations, it should be noted, are purely grammatical. They are lexical, or lexicalized, as well as semantic structures as they activate meaning in specific pragmatic conditions. From a linguistic viewpoint, therefore, terms are grammatical units that are used in precise pragmatic conditions; it is in these conditions that a meaning is activated. We, as linguists, can describe these units phonologically, morphologically, syntactically and semantically. With regard to decontextualized syntax and various and syntactic combinations. and with regard to decontextualized semantics and various semantic combinations. Just as we do with words. From the point of view of linguistics, terminology is a lexicology of units that acquire specialized meaning. And therefore, if we find ourselves on another floor of the house and in front of another door, such as the conceptual door—the cognitive door of terminology—these abstract units that are objects of terminology will be seen as precise, specific units of knowledge, rather than linguistic signs. They are not units of natural language but units of knowledge. These units of knowledge can be described as having a set of characteristics which interrelate and have various features: these are inherent or complementary: more central or more peripheral. They form structures through these relationships and such structures always have a focus; they have important focal points, and most of the concepts are structured in relation to these points. If the focus changes, the whole structure can also change. For example, imagine that we are looking into how information is organized on the website of the national archives in Washington: if I did a search on all the information about Jefferson and any related concepts, then all the data in the archive regarding Jefferson would come up first, while information about Lincoln would come up much later on as secondary data. The structures of knowledge are dynamic and they depend on our focus. Finally, from the point of view of communication, this abstract, global term, this abstract terminology object (or TO), is a discourse or operational unit, as it makes it possible to identify the group that is involved. It is a fact, for example, that if experts lack terminological know-how in their specific field, they are viewed with some suspicion and perhaps not even accepted as experts. You are an expert not only because you possess the knowledge, but also because you possess the units that this group, this "tribe", uses to express its knowledge. Therefore, they are units of identification for a social group, with a series of characteristics as regards this communicative viewpoint. This is therefore the context of the

communicative theory of terminology—the first principle regarding polyhedricity, has already been illustrated.

But what was the situation from the end of the 1990s till around about 2005, a time when a series of new proposals were emerging? I will now talk about these in order to illustrate some ideas about what terms are what their characteristics are and how we can approach terms that have different characteristics. What was done at the beginning was to highlight and clarify those aspects of terms that classic theory, that is, Wüster's theory of terminology, had not taken into consideration. One example being socioterminology by which terms, apart from being labels, are also units with a social function, i.e., units of social functioning. In fact the whole sociolinguistic basis of terminology had not been touched upon in Wüsterian theory. Wüster's theory was not sociolinguistic, and in fact he eschewed the social perspective of terminology. Cognitive socioterminology as espoused by Temmerman did the same thing as regards concepts. When terms are used in society, they are different in how they actually function within a discourse. They change and have different uses depending on the times, the place, the social group and so on. In the same way, concepts are an indispensable part of cultural traditions. For instance, if I think, here and now, about the concept of "cold", the cold here is not that cold, whereas if you go to Canada in winter, it is much worse than here. Reality is conceptualized starting from our own experience.

Consequently, when concepts, when the conceptualization of fields of knowledge have not been decided beforehand, the new concept, this new categorization of knowledge, is dependent on culture and experience. The variationist Quebec approach, also developed by Enilde Faulstich at the University of Brasilia in 1995, is simply a development of François Gaudin's socioterminology and holds that terms vary in different ways in different social settings. For example, there can be many differences between companies and there can be many variations within the same organization. A term used by the management of a company might be different from the one that is used by workers in the same company. During the various stages of a production line, for example.

In the last few years of the last century a kind of argument favoring the application of textual linguistics to terminology emerged in France. The precursors of this were Moniques Slodzian and Didier Bourigault, but it was Anne Condamines who wrote the first article on textual terminology—which simply means using a corpus for terminological ends, that is, for analyzing terminology and highlighting terms. Marcel Diki-Kidiri, a scholar of African Studies working at INALCO in Paris, published a book on the subject in 2008, although he had started his

research in 1999. He adopted a cultural approach to terminology. maintaining that in certain places it not only favors social progress, but the country's political and economic progress too. Terminology can contribute to the economic and social development of a country, as is the case of African states. Here, as in any other country, categorization is part of the culture, but given that this categorization is a world away from the dominant categorization, it needs to be based on a natural, spontaneous cognition of how terms are coined. For example, Diki-Kidiri talks about the first time that he went to Africa to give a course on computer training. He put the computer on the desk and a flashing light appeared on the screen: it was the flashing cursor that you used to get on old computers. Those present, that is, the people who were there to be trained (and who were not linguists), saw this and, drawing on the widely spoken language of their former French colonizers, called the cursor a "luciole" or "firefly". This was because their culture was closely connected to nature, while the concept of a "cursor", which is a decidedly abstract one, was not part of it. They saw objects in terms of the natural phenomena that were part of their lives

In recent years, Pamela Faber's frame-based terminology based on structure, has focused on the model, the fragment, the process of terminology building that starts with categorization and ends with verbalization. This is a study of what knowledge, that is, the knowledge of the expert, must be, and how it should be structured in the mind so that these experts are able to express themselves both from a semantic and a formal point of view. It is therefore the creation of a model (*frame*) of expertise, of cognitive knowledge; it is the description of precisely what it is that we have in our heads in order to produce or to understand specialist discourse in specific fields of knowledge.

All this variation, all this concern about redefining what terminology is, is a response to reality, to what really happens. After an initial Wüsterian phase linked to international communication with an emphasis on normalization—which basically created standards and the normalization of terms—terminological practices that expressed different needs began to emerge. For example, those in Quebec and Catalonia. In this way, terminology serves to endorse a language as well as a specialist language. This is the principle of saturation that I referred to earlier. Terminology planning was completely different. Terminology at the service of translation within an organization could not be the uniform terminology that ISO was endorsing, because documents, rather than norms, were being produced, something that is a completely different thing. The documents obviously had to be standardized within the institutional context, but apart from that, a

document has its own registers and is a certain type of document, and so this variation—be it denominative, pragmatic—also had to be taken into account. The translator's model of terminology is thus not the Viennese model where the aim is international normalization. They are different things and this is something that we have to keep in mind.

More like the Viennese model, although different, is the model based on the organization of knowledge, with the emphasis on information. This is a different scenario that I will just touch on with regard to the dissemination of scientific knowledge. This requires terminology, but which terminology? It is an extremely varied terminology, and above all one that takes into account the fact that as well as the orthodox denomination of the term there must also be variants closely linked to ordinary language given that the overall aim is to be comprehensible. Therefore, the reason for so much variation is the difference in the social activities that need terminology. These requirements change and so there can be no single method for terminology.

The foundations of terminology have shifted and so have the issues regarding methodology. The epistemological issues associated with these foundations have changed because the idea of the term has changed. The term is not the designation of a concept that reproduces or copies an object: this is not how it should be seen. If we look at it from a linguistic point of view, this terminological unit is a linguistic sign, a lexical unit, but if we look at it from a different point of view it becomes an identifying unit of communication. It is for this reason that certain foundations of terminology began to shift, especially with regard to the integration of terminology and natural languages. The methodology changed, and essentially this change was conditioned by the use of specialized corpora which shifted the criteria as to how terms were identified. In the past, who was it that decided if a term was a term? The specialist. This we know, and in fact we turn to the specialist when we are working on lexis. When we have doubts, we ask an expert so that theory can confirm if the word is a term. We can now do this with a computer too, but we have other pointers: above all the number of occurrences and the quantitative distribution can help us, providing us with information. Such pointers can be used to distinguish terms or to add information to dictionaries.

What is certain is that at the end of this whole process the principles that regulate the quality of a terminological project have always been the same. But with some distinctions: there has always been the *principle of quality*. The quality of the data, the quality of the sources, and the quality of the working process. Then there is the *principle of reliability*. All of us, as consultants and/or users of terminology, must be confident about the

data we use. But there is a new principle in this respect: the *adequacy principle*. This states that the outcome of a terminology assignment, the selection of data and the way in which those data are presented, should not only ensure quality and reliability, but must also be *adequate* as regards the user and the uses of the term, which, as we have seen, characterize the various aspects of work with terminology. The word of an international norm cannot be the same word as that used for linguistic planning. They are different: the selection of data is different, the way that they are represented is different, and the choice of information that each unit has to provide is different.

To conclude: we have seen that if we need to describe what is going on in terminology in Europe right now, we would have to say that there is a need to recognize diversity. It is for this reason that I am not in favor of distinct centers for the creation of terms. Second: this diversity can be briefly described as a series of scenarios that represent the needs of present-day society (which in our case is European). Third: this diversity leads us to assume a complex terminological object that we have called polyhedric in order to explain terminology from a theoretical viewpoint. Fourth: in order to explain objects of such complexity, we need various levels, perspectives and blueprints for analyses which are diverse but welldefined. Fifth: not all the studies produced up to now with the intent of modifying, adding to or changing our idea of the terminological unit, can be regarded as theories. There are some that show up inadequacies and some that describe stages in the process, while others describe new methods. We should therefore be careful what we mean by "theory". And finally, I personally feel that in order to integrate all this diversity, all these new options, we still need a theory/framework, which goes beyond the mere proposal that I have presented here. It needs to be a robust, substantial theory that brings together a series of universal principles along the lines that have been suggested.

And so we are finally left with the eternal paradox between unity and diversity in terminology. It is a conflict which in the 1980s, when I began, always came out in favor of uniformity, but that in the 21st century favors a recognition of diversity with the call to adapt our work on terminology to situations characterized by different social needs. This is because terminology, and all the schemes and all the choices regarding terminology, are made for society, and are dependent on it. We therefore have to make them suitable for the task and to guide them in responding to such needs.

#### CHAPTER TWO

# CONVERTING THE EUROPEAN TERMINOLOGY DATABASE IATE INTO THE WORLD'S LARGEST MULTILINGUAL DATA SPACE

#### RODOLFO MASLIAS

The European Union provides 80 % of the national legislation of its 28 Member States, in 24 official languages. This legislation is debated and finalized mainly by the three legislative institutions, the European Commission, the Council of the European Union and the European Parliament, but numerous other institutions and bodies participate in the governance of this large economic and political confederation of states. The fact that every legislative document produced by the EU institutions can become a binding legislative act for each Member State in its official language(s) means that the multilingual aspect of the procedure is obligatory. Indeed, multilingualism was the object of the very first regulation issued by what would become the European Union, in 1958. This regulation has always kept its number as the first legislative act, but between 1958 and the present the number of official languages has risen from 6 to 24. The fact that a translated legislative act may be made use of in any Member State and by any citizen or company for legal purposes means that every translation of a legislative text has the status of an original, and this explains the need for the accuracy and consistency of all translations in all official languages. To achieve this goal, the European Union has the largest linguistic apparatus in the world, with some 5 000 translators in more than 10 institutions, along with hundreds of interpreters, translating and interpreting in 552 language combinations. The production of legislation in every field of activity and for so many Member States with different needs and structures involves hundreds of meetings needing interpretation and thousands of documents needing translation: all this is a part of everyday life in the European institutions. Thus, for example, the European Parliament's translation page count for a

single year stands at 223,000. The consistency of legislation in the different Member States and in all languages depends on the use of accurate terminology in every field of action and in every language.

This terminology needs to be stored and constantly updated, so that it can be shared by the translators of all institutions, bodies and agencies participating in the drafting of European legislation. For this purpose, the EU has created a huge interactive terminology database that contains today more than 11 million terms in more than hundred domains and in the 24 official EU languages. This database is called IATE (Interactive Terminology for Europe, http://iate.europa.eu/). It is interactive in the sense that each translator in any of the institutions has to consult the existing terminology of the database, but is also enabled, even encouraged. to insert into it the result of his or her research into any "problem term" encountered during translation. In this way, the database is enriched every day with an average of 600 new terms; in 2014, for example, IATE acquired 225 000 new entries. However, apart from creating new entries for new concepts and adding new terms, the interactive function of the European terminology database permits the constant updating of the existing entries, thus maintaining its very high level of reliability. The interactivity of the database is limited to the internal version, since the terms are inserted into the public version after a process of validation. These can be commented on, but not modified, by the external users of IATE. The number of these external users is impressive, since we may count an average of 3 600 clicks per hour worldwide. IATE is recognized as the most precious resource for freelance translators, being the biggest multilingual database covering all fields of legislation.

The quality of entries is guaranteed by the implementation of very strict rules contained in a very detailed handbook, based on the international ISO standards on terminology and adapted to the specific needs of a multilingual database covering legislative texts in multiple domains and addressed to numerous layers of users ranging from specialized bodies to individual citizens. This procedure includes a form of cooperation among the institutions known as "consolidation", which permits common work on terminology projects related to the legislative procedures involving them all, the merging of entries with similar content, and the interinstitutional updating of the various fields, such as definition, reference and missing languages. The quality level of an entry is "marked" on a points scale from 1 to 4, depending on the reliability of the source and on how recent the update is. There is a final stage called validation, carried out by the translators-terminologists in the EU institutions. This action is

very important, especially for the wider public, because "clicking on the validation button" automatically exports the entry to IATE Public.

The structures of this cooperation between such a large number of institutions are considered to constitute an exemplary procedure. The cooperation is governed by a working group which is responsible to the hierarchies of the translation services in all the institutions. The IATE Management Group takes all policy decisions for the database, on the basis of the work and conclusions of numerous taskforces dealing with the different issues

Since 2013, IATE cooperation has been enhanced by the use of a terminology portal which is accessible to all EU officials in all the institutions. This portal, called EurTerm, enables the sharing of internal and external resources, collaborative work on terminology projects, and updates with the latest information on terminology both inside and outside the EU. Furthermore, it gives central access to wikis for each EU official language, through which the language community can develop common terminology projects, discuss various topics via domain- or text-related forums, and, last but not least, involve national experts by giving them read access to the EurTerm language wiki. This platform is managed by a web editor specialized in terminology, coordinating the interinstitutional work for this portal from the Terminology Coordination Unit of the European Parliament.

Terminology is thus an important administrative activity for a large institutional complex like the European Union, but it is also much more than that: in our times of intensive global communication in every field, multilingualism becomes a great challenge and an unavoidable necessity. Communication and understanding of the same concept in all languages used for a multinational or globalised activity is crucial, and this means consistent terminology. New technologies and intensive research in new fields daily create large amounts of new terminology in all domains and in all languages. Digital progress provides support in the form of huge interactive databases and metasearch tools to store and consult multilingual terminology. Today there is no large institution or company without a specialized database or glossary to enable understanding between its partners in different countries.

This international multilingual communication and cooperation creates huge needs for translation and interpretation. Terminology is the milestone of the quality of these two activities. Technology provides more and more tools and software to ease this work: computer-assisted translation tools, and—gradually—automated translation. The research into the development and improvement of these tools is based on two supports: the corpora of

translated texts (known as "translation memories"), and terminology databases. While translation memories can eternalize mistakes, the terminology database guarantees the quality of translations and their consistency in all languages—elements that are crucial for the correct functioning of any multilingual institution or company. As with the need for consistency of European legislation as explained above, imagine how important it is that the instruction manual for a complex machine, or a scientific report in a field like medicine, should have an identical meaning in all languages!

New language technologies need specialized terminology. They also enable and ease terminology work, its sharing and storing, and cooperation between terminology producers and managers. Interlinking possibilities, metasearch tools permitting easy searches, managing of big data, cloud technologies, statistical term extraction and multilingual alignment: all these possibilities now mean that overlapping can be avoided in terminology work. Just think of the number of glossaries or databases you encounter that contain the same entry for a specialized but commonly used financial term, for instance "tax fraud". Translators and terminologists from every financial or political institution, every bank, every university department dealing with finance or politics have created an entry in their terminology database or glossary, and in all the world's languages.

Interlinking European terminology with all reliable specialized terminology databases managed by all international organizations and bodies, academia and industry, through clouds or metasearch technology, is an objective pursued by the European Parliament's Terminology Coordination Unit in recent years, via cooperation and networking with the main actors in the field of terminology. This networking through the public website termcoord.eu, as well as intensive activity on social media, have made it possible to launch a project involving various European universities and language service providers, which has the dual aim of converting the huge collection of selected terminology resources (GlossaryLinks, http://termcoord.eu/glossarylinks/) provided by European Parliament into a powerful and user-friendly metasearch tool and connecting it with the IATE European database, and applying ontologies to the database that will make it the largest multilingual semantic terminology database worldwide. We have called this project the "Big Multilingual Terminological Data Space", and presented it in 2015 at the Riga summit on the "Single Digital Multilingual Market".

The very rich terminology material gathered for so many years from the huge legislative corpora of European legislation in so many languages must now respond to the challenge of sharing, interlinking and structuring