BOOK REVIEW
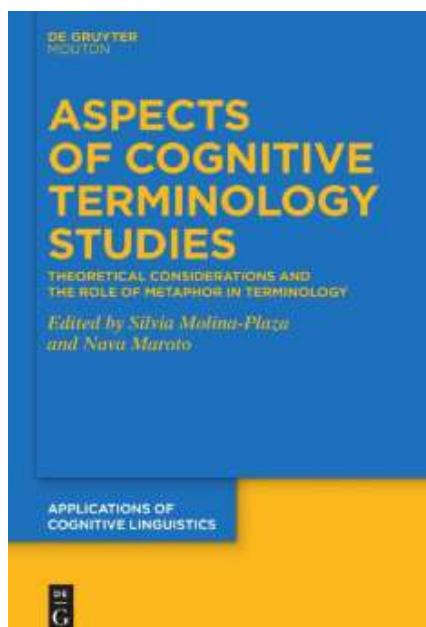
A JOURNEY THROUGH COGNITIVE TERMINOLOGY: EXPLORING THE ROLE OF METAPHORS IN SPECIALISED DISCOURSE

Bearing in mind the vastness of the field of Cognitive Linguistics and various avenues of research that open up within it, there is a prominent need of systematisation of knowledge within its different branches. The use of the cognitive linguistic tenets in the analysis of terminology has been the focus of a bulk of previous research, some of which has been published in *ESP Today* (Martin et al., 2024; Navarro i Ferrando, 2021). The book edited by Sylvia Molina-Plaza and Nava Maroto, a part of the series *Applications of Cognitive Linguistics*, offers a comprehensive account of the latest directions in the cognitive-linguistic research in the field of terminology. The volume focuses both on the theoretical issues in cognitive terminology and the practical applications of the conceptual metaphor theory in the realm of terminology studies. Building on previous research that emphasised the importance of conceptual metaphors in scientific and technical discourse (e.g., Tercedor et al., 2012; Ureña Gómez-Moreno & Ruiz de Mendoza Ibáñez, 2022), as well as on Temmerman's (2000) sociocognitive approach to terminology which opposes the traditional terminology theory, this book highlights that terminology studies need to acknowledge the existence of conceptual metaphors in different specialised domains and further explore their use, which may have practical implications for the fields of translation studies and teaching languages for specific purposes (LSP).

The book contains twelve chapters organised into two parts. The chapters in the first part (Chapters 1-5) address basic issues in terminology, such as the notion of a specialised text, the role of culture in terminology, the treatment of polysemy, the metaphors used for the process of term borrowing, and specialised terms in specialised discourse (namely, shipping forecasts). The second part (Chapters 6-12) comprises the studies which explore the use of metaphors in different discipline specialised fields.

In Chapter 1, Ona Domènech-Bagaria focuses on the concept of specialised texts and different levels of specialisation within specialised discourse. After a detailed overview of the definitions of specialised texts in the pertinent literature, the author goes on to offer their own operational definition of what constitutes a specialised text. From the cognitive point of view, what makes a text specialised is the way in which the topic is approached and conceptualised. From the point of view of pragmatics, the specialised nature of the text is determined by the characteristics of a sender, while, in the linguistic sense, one of the key features of a specialised text is terminology. When it comes to vertical variation, all texts can be categorised into highly specialised, moderately specialised and informative texts. The author concludes that, when deciding whether a text can be considered specialised, terminological diversity is a more important criterion than terminological density.

In Chapter 2, Pilar León-Araúz and Pamela Faber deal with the importance of acknowledging the cultural dimension of terminology, using the example of Ecolexicon, a terminological knowledge base on environmental science which contains terms from multiple languages. Starting from the frame-based approach, they demonstrate how it is possible to make Ecolexicon culture sensitive and adapt all different modules in it accordingly. Each general definition in this resource is followed by specific definitions in a specialised domain. What is also important is recontextualisation, which entails dividing the propositions that link the concepts into active and inactive sets, in order to reflect domain-specific context variation.

Chapter 3 is dedicated to the importance of polysemy in specialised language. At the beginning of the chapter, Marie-Claude L'Homme points out that some approaches still view monosemy as the defining feature of terms and hence tend to eliminate polysemy in order to ensure unambiguous communication. In term banks, polysemy is usually reduced because of two prevalent paradigms: the domain paradigm, which tends to include only the meanings relevant to specialised fields, and the noun paradigm, which mostly focuses on nouns and may neglect other word classes. Instead of these, the author proposes an approach to specialised polysemy which would take into account the combination of knowledge-based and lexicon-based criteria and acknowledge different types of specialised polysemy, the microsense phenomenon and regular polysemy. The author thus suggests that terminological resources should incorporate and balance three sources of information, lexical evidence, corpus data and expert knowledge when dealing with polysemy in specialised texts.

In Chapter 4, Joaquín García Palacios and Beatriz Guerrero García examine the features of terminological borrowing and the conceptual metaphors used to capture its nature. The authors describe why the current metaphor of *loan* is inadequate and propose using the metaphor of borrowing as a virtual copy instead. This metaphor is deemed to be more adequate since there are similarities between the process of borrowing and creating virtual copies, in that the borrowed terms are still linked to their original language, while, at the same time, they evolve further in the target language. The majority of borrowed terms in different fields come from English and carry a conceptualisation performed in this language, which may lead to cultural, linguistic and cognitive asymmetries in target languages. Hence, term specialists should pay special attention to the proper transmission of the nuanced meanings of the original terms.

Ana Bocanegra-Valle's chapter explores the specialised terms and phraseological units in the shipping forecasts issued by the British meteorological office. The shipping forecast typically has a five-move structure, which entails date and time, gale warnings in force for target sea areas, an overview of barometric pressure, different conditions for target sea areas, and optional elements. The author shows how certain specialised terms consistently appear in these moves, as well as that they may be supplemented with other terms and phrases in order to strengthen or extend their meaning. She provides abundant illustrations of the specialised maritime terms conveying information about the pressure, wind, sea state, weather and visibility. These findings could be especially useful for maritime English teachers for designing authentic course materials, all with the aim of incorporating corpus-driven insights and thus improving the currently used teaching materials.

Chapter 6, authored by Patricia Martín-Chozas, Isam Diab-Lozano, and Elena Montiel-Ponsoda, explores the representation of metaphorical terms in the Semantic Web. The authors point out the tenets of Temmerman's sociocognitive approach to terminology, which argues for the acknowledgement of the fact that terms are dependent on language and culture. Metaphorical cognitive models play a very important role in scientific discourse since they structure new ideas and terms. The authors argue that this fact should be reflected in the databases such as the Semantic Web in order to link terminological resources to metaphorical resources. They thus propose linking terminological resources, such as TermitUp and TermLex, to metaphorical repositories, like MetaNet, to provide a joint representation of terms and metaphors.

In Chapter 7, Javier Herrero Ruiz examines the metaphors and metonymies in specialised telecommunications discourse. The author identifies a number of metaphorical mappings that motivate the meaning of the terms in the field of telecommunications, starting from the traditional ones such as drums and smoke signals, to a variety of terms in the fields of computers, gadgets, and technology and antenna taxonomies. Apart from the relevance of conceptual metaphors in the motivation of the terms related to telecommunications, the author also emphasises

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the importance of metonymy and metaphtonymy, since they serve to fully develop the used metaphors by expanding or reducing the metaphor source.

Chapter 8 by Chelo Vargas-Sierra explores the conceptual metaphors used in the discourse on menopause. Drawing on the data from an extensive corpus of texts on menopause, the author identifies two metaphors dominant in its framing. The FAULTY MACHINE metaphor frames the menopausal body as failing and faulty, thus fostering a very negative view of women's health. According to the ROLLERCOASTER metaphor, menopause entails a series of extreme physical and emotional ups and downs, which projects the image of disruption and instability. Both of these metaphors highlight physical and mental deterioration in menopause, which may have severe consequences. Thus, the author proposes replacing them with the metaphors foregrounding the more positive aspects of menopause – for example, conceptualising menopause as a *game*.

In Chapter 9, Silvia Molina-Plaza and Antonio Martínez-Sáez explore the use of metaphors in the discourse of biotechnology, utilising the data from a corpus compiled from original scientific articles. The authors identify eight interrelated groups of conceptual metaphors which are commonly used in biotechnology discourse, namely, natural order metaphors, those based on conceptualising cells, viruses, etc. as human beings, everyday objects and processes, conventional metaphors used in other genres, war and control metaphors, communication metaphors, and surveillance metaphors. The metaphors belong to two groups: those which supplement new meaning to a word in general language and those that transfer terms from one field to another. The utilised metaphors have the function of creating a cohesive structure in biotechnology articles, as well as improving precision when communicating different concepts and processes.

In Chapter 10, Micaela Rossi focuses on the translation of metaphors in scientific texts using a compilation of English texts collected from the journals *Scientific American* and *Nature*, and their translations into French and Italian. The author first elaborates on the distinction between terminological and pedagogical (explanatory) metaphors in scientific texts, since the difference in the nature of these two types of metaphors may affect the choice of translation strategies. Additionally, two factors influence the possibility of translating scientific metaphors: (i) availability, that is, whether the concept structured by the metaphor is available in the lexicon of the target language, and (ii) the opportunity factor, that is, whether the metaphorical translation is appropriate and technical enough in the target language. This study shows that there are three strategies in translating metaphors from English into French and Italian – namely, direct translation, modification and neutralisation. Terminological metaphors are commonly preserved in translations, while explanatory metaphors tend to be neutralised, and the additional factor in this process is the scientific domain the metaphorical terms stem from.

Chapter 11, by Nava Maroto, explores metaphorically motivated cybersecurity terminology in English and its equivalents in Spanish, French, Italian, and Catalan.

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The key source domains that structure the cybersecurity terms in these languages include traditional security or the military, biology or medicine, the domain of economics, architecture, construction, engineering, and colours. Three cases are noted in translating the metaphors: (i) the original metaphors found in English terms are maintained in target languages; (ii) the metaphor may be modulated in that the target language preserves the metaphor, but uses a different source domain; and, finally, (iii) metaphorical motivation may be lost altogether. While Italian tends to directly borrow the terms from English, Spanish, French and Catalan prefer calques or descriptive terms.

In the final chapter, Arsenio Andrades Moreno examines legal discourse metaphors in a vast corpus of EU principal founding treaties, using their versions in English and Spanish. The author first identifies the most frequent source domains utilised in the English corpus and then compares them with the texts in Spanish. It is shown that conventional metaphors are dominant in both languages. Via these mappings, the European Union is conceptualised as a FAMILY, a BUILDING, a BODY/PERSON, a MACHINE or BUSINESS, which highlights the unity among people in this community and the idea of security and stability. The English and Spanish versions of the text are highly similar when it comes to the source domains and the linguistic expressions of metaphors. Still, the author notes some differences between these languages in the source domains of BODY and BUILDING, which demand further research.

This volume is a valuable addition to the previous studies in the field which aim at highlighting the role of conceptual metaphor in terminology. It brings new theoretical considerations, provides rich evidence on various metaphors underlying the terminology in different disciplines such as telecommunications, law, biotechnology, etc., and offers important insights into the possibility of interlinguistic transfer of metaphorically motivated terms in different languages and different specialised areas. Despite some minor limitations, for example, the fact that a reader must be well-versed in cognitive linguistics and terminology studies to fully comprehend the content, the volume will be a useful resource to all scholars interested in terminology and cognitive semantics, to metaphor scholars who wish to keep up with new avenues of conceptual metaphor research, as well as to LSP practitioners and translators.

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