

**Marie-Claude L'Homme.** *Lexical Semantics for Terminology: An Introduction*. 2020, xxi + 264 pp. ISBN: 9789027204677 (Hardback). Terminology and Lexicography Research and Practice. Volume 20. Amsterdam/Philadelphia: John Benjamins Publishing Company. Price € 99.00.

When it comes to terminology, many studies have been undertaken from the perspective of lexical semantics and a fairly large body of work has been published, including Frawley (1988), Binon et al. (2000), Aldestein and Cabré (2002), Schmidt (2009), Pimentel (2013), Bernier-Colborne (2016), Ghazzawi (2016), the DiCoEnviro (2018), and the DiCoInfo (2018), etc. (pp. 52-53). L'Homme has constantly been working on the investigation of terminology and specialized lexicography from the perspective of lexicology and has contributed a series of works, including L'Homme (2002, 2003, 2004, 2007, 2012, 2015, 2018), L'Homme and Bernier-Colborne (2012) and L'Homme et al. (2018). As the latest publication of its kind, *Lexical Semantics for Terminology: An Introduction*, explores the correlation between lexical semantics and terminology, especially how principles and methodologies from lexico-semantic frameworks can help to make terms understandable and describe them in terminological resources. In addition, how lexical analysis complements perspectives primarily focused on knowledge is illuminated with a wide coverage of such topics as term identification, meaning, polysemy, relations between terms, and also equivalence. In short, this book well complements other textbooks on terminology that do not focus on lexical semantics *per se* and its distinctive focus makes it especially appropriate for its main target readership, i.e. those who are interested in words and work with specialized terms, e.g. terminologists, translators, lexicographers, and corpus linguists.

This book consists of nine chapters. Chapter 1 presents a panoramic view of the whole book. First, the author explains the reason why lexical semantics is applied to terminology by presenting the similarities between terminology and lexicology or lexical semantics, i.e. both disciplines deal with "the nature of words, word content (i.e. the nature of meaning), the relationship between word content and our construal of reality, and relations between words and word meanings" (p. 1). Subsequently, in the way of answering questions, L'Homme demonstrates how the principles, methods and tools developed by lexical semantics can help understand terms, how lexical analysis can be integrated in most steps of terminology work and how it complements perspectives entirely focused on knowledge. The answers to these questions naturally form different chapters (Chapter 4 to Chapter 9), followed by the concrete applications of lexical semantics in terminology, lexico-semantic analysis of terms, together with the intended readership and introduction to illustrative examples.

Chapter 2 sketches the discipline terminology and its basic principles, particularly the knowledge (or conceptual) paradigm in which terms are often understood. The author presents a definition of terminology and introduces

some keywords, i.e. *domains, structure, concepts, conceptual structures, designations and terms* and a distinctive feature of terminology, application, which terminology is deeply rooted in and is strongly evidenced by the examples from different fields the author employs in the book. "The knowledge paradigm", "Storing and accessing concepts and terms" and "The knowledge paradigm from a linguistic point of view" constitute the rest of this chapter. Firstly developed by Wüster (1979), the General Theory of Terminology (GTT), offers a knowledge-driven approach to understanding terminology. It considers "terms as labels for concepts and as units emptied of most of their linguistic properties" (p. 17), and of course receives increasing criticisms. However, a perspective guided by the lexical content of specialized texts (lexicon-driven approach) regards terms as full linguistic units which may undergo variation and ambiguity like general lexical units. The two different ways to handle terms are necessary to fully understand the relationship between linguistic units and specialized subject fields, though a challenge is posed here for terminologists on how to strike "a balance between an ideal for unambiguous communication and the fact that language changes, and accommodates vagueness as well as ambiguity" (p. 18).

Chapter 3 compares the way in which the knowledge-driven and the lexicon-driven perspectives consider terms, and draws the conclusion that the former is more suited for applications of knowledge modeling while the latter is more adequate for the explanation of the behavior of terms in open-running texts. L'Homme further highlights the important role of corpora in terminological analysis, since they are often used by terminologists to acquire knowledge, acquaint themselves with terms, make subtle meaning distinctions and establish relations between terms. In spite of their limitations like most frameworks, such frameworks as Explanatory Combinatorial Lexicology and Frame Semantics used to analyze and describe terms are also introduced in this chapter.

In Chapter 4, the identification of terms from a short text on *endangered species* leads us to the belief that the notion of 'term' is relative to the delimitation of a special subject field and to the application, and different experts produce diverging lists when asked to identify terms in texts. Then four criteria based on lexical semantics, including the relationship with a field of knowledge, the nature of arguments, morphological and semantic relatedness and paradigmatic relations are presented to aid terminologists' selection of terms in specialized texts. Additionally, the author argues that terms are open-class units and can belong to one of the four following parts of speech: nouns, verbs, adjectives, and adverbs, which is quite insightful and different from the overwhelming preference for nouns in most specialized dictionaries and other terminological resources.

Chapter 5 further explores the distinctions between knowledge-based and lexicon-based approaches to terminology since they have a direct impact on how terms are defined, related to each other and described in terminological resources. The two different perspectives on linguistic content also uncover

underlying reasons why different explanations are often offered for similar phenomena. The knowledge-based method is based on the feasibility to differentiate concepts and to define them according to a finite list of features, whereas the lexicon-based method addresses the issue by polysemy. This chapter also contains five criteria for handling polysemy in specialized texts, which include substitution with a synonym, differential opposition, differential morphological derivation, differential paradigmatic relations and compatible and differential co-occurrence. The five criteria used to make meaning distinctions are a perfect illustration of the relational approach to which the meaning of linguistic units (here lexical units) is delimited according to the way they interact with others.

Since the knowledge-based perspective and the lexicon-based perspective advocate two different philosophies of defining terms, Chapter 6, on the basis of discussions in the previous units, presents fundamentally how to differentiate between types of lexical units and terms, i.e. predicative units and non-predicative units and how to represent predicative units used in terminology and other frameworks. Since terms, according to the author, can be non-predicative, predicative or quasi-predicative, arguments as obligatory participants are required to fully capture the meaning of terms and two criteria are suggested to describe the predicative or quasi-predicative: (1) "arguments are necessary to account for the meaning of the unit; (2) arguments are expressible in texts" (p. 142). Different systems that capture generalizations, including variables, semantic roles, semantic classes as well as frame elements are employed to represent the argument structure of terms, while different methods showing the interaction between arguments and predicative units in sentences are used to represent the link between the argument structure and the syntactic realization of arguments.

"Understanding and representing relations between concepts or terms are fundamental aspects of terminological analysis" (p. 145) in both knowledge-driven and lexicon-driven approaches. Treating relations as central in terminology, Chapter 7 profiles and distinguishes among different kinds of conceptual relations and terminological relations. The former include taxonomic relations, partitive relations, synonymic relations, oppositional relations and other conceptual relations, while the latter mainly include paradigmatic (vertical) and syntagmatic (horizontal) relations.

Following the description and application to small sets of concepts and terms, Chapter 8 focuses on larger and more complex networks of relations, structures and exhibits how different conceptual and terminological structures are created and exploited. Based on concepts, as opposed to meanings in lexical analysis, conceptual structures account for the organization of knowledge and can be represented graphically through tree representations or graphs. Terminological structures usually account for various kinds of relations between terms and the paradigmatic and syntagmatic relations are often encoded by lexical functions of terms and are represented and linked in semantic frames.

In addition to analysis of relations in a single language in Chapters 7 and 8, Chapter 9 concludes the book by examining relations across languages, more specifically relations of equivalence, and various challenges posed when adopting knowledge-driven and lexicon-driven approaches. These are further elaborated in the succeeding three parts, i.e., conceptual equivalence, terminological equivalence and problems when establishing equivalence (including non-equivalence, partial equivalence, structural divergences as well as equivalence in running texts). Whichever approach it is, exact equivalence is always the aim to achieve since it is what the terminological resources (dictionaries, term banks, thesauri, etc.) record. Equivalence can also be established between terms in running texts despite the fact that difficulties will arise when automated methods are used.

As an introduction to the application of lexical semantics in terminology, this book exhibits a number of merits, as discussed below.

Firstly, as a collection, reiteration and development of the author's long-standing views to understand terminology from the perspective of lexical semantics, this book is different from, and thus supplementary to, the traditional knowledge-based method. The proposal of a lexicon-driven approach is a big leap forward in the manifestation and interpretation of terms since it takes a completely reversed path, from lexicon to knowledge rather than the traditional knowledge-to-lexicon mode (L'Homme 2018). The weaknesses and strengths together with suitable circumstances and illustrative examples present a detailed and panoramic view of both approaches and the lexicon-based approach is thus highly underscored since it is more compatible with current corpus-based practices (L'Homme 2004). Secondly, in accordance with the lexico-semantic analysis, examples used in the book mainly come from active and dynamic corpora instead of term banks and specialized dictionaries, which further reinforces the indispensable role of corpora in terminological research. It is also stressed that corpus evidences should be supported and complemented by other sources of information. Thirdly, the lexicon-driven method lays particular emphasis on the explanation and analysis of senses in corpora, thus it draws our attention to different parts of speech of terminologies and makes it possible to draw subtle distinctions through the meticulous analysis of verbs, adjectives, and adverbs related to noun terms which take up the overwhelming majority in specialized dictionaries and term banks. The shift of focus from noun-dominant terms to terms with different parts of speech suggests that the inconsistencies caused by the omission or overlooking of verbs, adjectives and adverbs can be addressed with a descriptive method (L'Homme 2003). Fourthly, the clues provided by lexical semantics as to how humans encode meaning in their minds give us the opportunity to establish hypotheses on the storage and processing of lexical units, terms and their meanings by human beings. This indicates much potential in future research in the justification or falsification of these hypotheses combined with experimental methods. The last highlight of this book lies in its reader-friendliness owing to its elaborate design

and arrangement of contents. The introduction to basics of terminology (Chapter 2), the copious demonstrative examples from different fields and the diagrammatic and graphic presentations break the barrier for its intended readers who do not necessarily have a background in terminology. In different chapters, the introductory part serves as a link between the relevant contents in the previous chapters and what follows. The summary provides a concise and precise synopsis of the main topics covered, while the annotated list of references offers useful resources for further reading. All these are rather considerate and helpful for the readers.

In addition to the strengths discussed above, this book could even have been better if the following aspects were more carefully considered. To begin with, it could be stated more clearly that parts of speech do not equate word classes, although the author has already noted their differences when talking about limitations of frameworks derived from lexical semantics (Chapter 3). Lehmann (2013: 143) notes that *part of speech* is a calque on the Latin *pars orationis*, which is a calque on the Greek *méros lógou*, all of which mean literally 'part of speech' or 'part of sentence'. Word classes instead, are defined as lexeme classes in structural linguistics. A lexeme is an abstraction corresponding to a class of word-forms and, therefore, a component of the system rather than of the text. Consequently, lexeme classes, too, are essentially components of the language system. Thus, a word class in the sense of 'lexeme class' is not actually a 'part of speech' (or of the sentence). Wang (2014: 346) and Wang and Huang (2017: 88-89) hold that word class categorization takes place at two levels — *parole* and *langue*: 'part of speech', a term for word tokens in syntax at *parole*, refers to the speaker's propositional speech act functions including reference, predication and modification; 'word class', a term for word types or lexemes in the lexicon of a communal language (*langue*), refers only to the conventionalized propositional speech act functions. Word tokens are often found in specific contexts and can assist researchers as corpus concordances while word types are usually listed in dictionaries or term banks as lexemes by dictionary compilers. The two terms applying to different contexts indicate two different levels of word class categorization and should be distinguished from each other. In addition, it is argued by the author that the knowledge-based and lexicon-based approaches are supplementary to each other and a balance is supposed to be maintained when terms are represented and explained (L'Homme 2018). However, it appears that this viewpoint mainly ushers in "What", a new and supplementary lexicon-based method, whereas the issue as to "How" to maintain the balance has not been sufficiently addressed. What specific rules to follow? What yardsticks to use to assess whether a balance is kept or not? Seemingly no definite answers are given in this book. What is more, the author employs plenty of examples from a wide range of fields, most of which, however, come from natural sciences, such as computing, anatomy, environment, zoology, biology, chemistry and geology. The observations drawn may be more repre-

sentative and persuasive if more examples were taken from social sciences as well.

To sum up: As an introductory monograph on the analysis of terms with the help of philosophies and methods borrowed from lexical semantics, this book provides a different perspective and a new solution to terminological representation and interpretation. Differing from the traditional knowledge-driven approach which depends on a prior delimitation of concepts and advocates a prescriptive way of terminology representation and interpretation, the lexicon-driven approach introduced in this book treats terms as lexical units delimited syntagmatically and paradigmatically and defines their meanings according to their relations to other units. This relational approach, which indicates a more descriptive way, is more compatible with current corpus-based practices, provides useful criteria for selecting terms and making fine-grained semantic distinctions, and supplements well the traditional knowledge-based method in term analysis. This book tightly bonds terminology and lexical semantics and will elicit more interesting future studies and contribute to the development of lexicon-oriented terminology studies; as such, it is strongly recommended.

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