ATLANTIS
Journal of the Spanish Association of Anglo-American Studies
35.1 (June 2013): 207–211
ISSN 0210-6124

Isabel Moskowich and Begoña Crespo, eds. 2012: *Astronomy 'playne and simple'. The Writing of Science between 1700 and 1900*. Amsterdam and Philadelphia: John Benjamins. 240 pp. ISBN: 978-90-272-1194-1.

Nuria Calvo Cortés
Universidad Complutense de Madrid
ncalvo@filol.ucm.es

The last few decades have witnessed a growing interest in the language of the Late Modern English period in general and, more specifically, in the history of scientific English. As a result, a broad variety of studies have been published. Books have incorporated chapters covering the linguistic characteristics of this time (Barber et al. 2009); specific manuals describing the English language (Beal 2004; Tieken-Boon van Ostade 2009) and changes in the writing of scientific texts (Banks 2008; Schnell 2010) have been written; finally, corpora containing texts written in the eighteenth and nineteenth centuries and corpora of scientific language have been compiled. Following the pattern of *Early Modern English Medical Texts: Corpus Description and Studies* (Taavitsainen and Pahta 2010), the book under review, *Astronomy 'playne and simple'*, offers a description of *CETA*, *The Corpus of English Texts on Astronomy*. It also includes a CD-ROM copy of the corpus. *CETA* is one of the many sections of the *Coruña Corpus*, which contains scientific texts (e.g. natural, medical, agricultural and social sciences) written between 1600 and 1900.

The eleven chapters of the book have been organised in three parts. Chapters 1 and 2 can be read as an introduction, Chapter 3 provides a description of *CETA*, while Chapters 4 to 11 describe different pilot case studies using *CETA*. The four compilers of the corpus contribute with either one or two articles each, authoring six in total, whereas the other five chapters are written by specialists in the period and/or in corpus linguistics. No better author could have been chosen for the first introductory chapter, as Joan Beal is a world-known expert in the English language of the eighteenth and nineteenth centuries. Also, the choice of Isabel Moskowich to describe the characteristics of the corpus is entirely appropriate, as she heads the project. As regards the rest of the contributors, the book includes a variety of authors who specialise in different disciplines within the field of corpus linguistics, and how they present the case studies varies according to their own areas of interest.

In the opening chapter, 'Late Modern English in its Historical Context', Beal provides a lengthy introduction to the historical events of the time before concentrating on the linguistic features that distinguish this period from its predecessor. This chapter is an abbreviated version of the book written by the same author, *English in Modern Times*

(2004). However, the chapter fits in perfectly as the introduction to the book because constant reference is made to the *Coruña Corpus* and to the fact that this is the time in which the English language starts to be regarded as equally powerful, in scientific writings, as classical languages.

The second chapter, 'Astronomy as Scientific Knowledge in Modern England', by Begoña Crespo, must also be read as an introduction. It carries out an in-depth analysis of the relationship between society and science in eighteenth and nineteenth-century England. According to the author, this explains the proliferation of certain types of texts and the specific features of the language of scientific writing. Crespo introduces the reader to some of the features of *CETA* by concentrating on the authors of the texts included in the corpus and "their cultural background" (19). Despite mentioning that there are only two women writers among the authors in *CETA*, Crespo does not explain the reasons for this scarcity. Some of the authors in consecutive chapters point out the lack of texts written by women as a flaw, since as a consequence the corpus does not allow comparisons between men and women writers; however, it is arguably justifiable due to the lower presence of women writing in the society of the time.

When faced with a new corpus, the researcher needs to know its characteristics before initiating any linguistic analysis. This description is precisely the aim of Moskowich's '*CETA* as a Tool for the Study of Modern Astronomy in English' (Chapter 3), where she presents the main features of *CETA*, such as text types, authors, number of words and time-span covered. The use of tables, graphs and search windows to exemplify searches in the corpus provide invaluable guidelines for those using *CETA* for the first time. Moskowich thoroughly justifies the importance of the compilation of *CETA*, arguing that it fills "a gap left by other historical corpora" (38). The author also explains aspects related to the decisions made when editing the texts and to the software employed when using the corpus.

The rest of the chapters focus on the analysis of specific features of the English language, with special reference to scientific texts. All of them make use of *CETA* for their corpus-based analyses. Unfortunately, they all tend to describe again the features of the corpus that are relevant to their studies, making the contributions rather repetitive; the reader does not expect such reiterations, since all these characteristics of *CETA* are already described in Chapter 3. References back to this chapter would have sufficed for essays which appear consecutively in a monograph on the corpus.

In Chapter 4, 'Astronomical Discourse in 18th and 19th Century Texts: A New-born Model in the Transmission of Science', Crespo describes how scientific texts written in the Late Modern English period reflect the changes that Science underwent at the beginning of the eighteenth century. She chooses for her analysis only the texts written by men. The reason may lie in the fact that only two women writers are included in the corpus and, had she chosen to include them all, she might have felt the need to observe differences between male and female writers without enough evidence. However, she does not explain the reasons for the exclusion. The conclusions to this chapter are not too illuminating, since

no important differences between the two centuries are found, and the author tentatively relates the higher presence of persuasion devices in dialogues with their conversational style.

In her analysis of adjectives, 'Patterns of English Scientific Writing in the 18th Century, Adjectives and Other Building Blocks' (Chapter 5), Moskowich again reiterates the description of the corpus. Given that she signs the chapter describing the characteristics of *CETA* (Chapter 3), it is surprising to find all the figures indicated again (with an error appearing on page 84, Table 1, in the total number of tokens, which the author herself has given earlier as 13,724). The repetition is not only reflected in the description of the corpus, but also in the comments on sources. Moskowich wisely emphasises how the size of the samples contained in the corpus allows for better research, since a wider number of words contributes to clearer conclusions in quantitative analyses.

In Chapter 6, 'Accounting for Observations of the Heavens in the 18th Century, New Nouns to Explain Old Phenomena', Gonzalo Camiña analyses the morphological processes employed to form nouns which are found in the texts contained in the eighteenth-century sub-section of *CETA*. The choice for this sub-section of the corpus is well and extensively justified by the author. Since Camiña is one of the compilers of the corpus, he provides detailed descriptions on some of its features, although he also refers the reader to Chapter 3. The considerable number of graphs and tables included contributes to clarifying all the explanations and findings. The author interestingly points to the fact that, when analysing first-occurrence dates for some terms, corpus studies can provide better results than the *OED*. Finally, Camiña acknowledges that having only one sample written by a woman is a drawback, although he offers some tentative conclusions.

Chapter 7, 'Subject Specific Vocabulary in Astronomy Texts, a Diachronic Survey of the Corpus of English Texts on Astronomy', by Pascual Cantos and Nila Vazquez, differs from most chapters in the book on several accounts. First of all, it is the only study that uses not only *CETA*, but also the Corpus of Late Modern English Texts, Extended Version (*CLMETEV*). The reason for this is the interest of the authors in comparing their data extracted from a corpus of astronomy with data from a non-specific corpus. Secondly, this is a chapter that shows a higher degree of complexity than the rest in terms of application of statistical methods, as shown in the use of formulae and of statistical concepts such as 'terminology density' (130). More than in any of the other chapters are the graphs and tables welcomed by the reader, to aid in the full understanding of some of the data analysed. Finally, it is also the chapter with fewest references to the characteristics of *CETA*. The fact that the whole corpus is used, and that it is also compared to a non-specific corpus, makes it a very relevant contribution to the book and it might encourage other linguists not working specifically in scientific language to carry out similarly designed studies.

In the next chapter, 'A Corpus-driven Analysis of Complex Predicates in 18th Century Scientific Writings in *CETA*', Inés Lareo, another of the compilers of the corpus, unfortunately begins by describing, once again, the characteristics of *CETA*. The study concentrates on the eighteenth century, but the reasons for this limitation of the period are not explained. The inclusion of a map in Figure 5 (165) is extremely clarifying, as the

reader can locate places more easily than if presented in a table. However, she shows some inconsistencies in Tables 2 (158-59) and 4 (164) in relation to some of the dates of publication and the places of education. For instance, the date provided for Bonnycastle in Table 2 (159) is 1789, whereas in Table 4 (164) it is 1786; also, the place of education of Hill in Table 2 (158) is Westminster, while in Table 4 (164) it is Peterborough. Table 2, in fact, might have been omitted, since Table 4 includes the same information together with the figures relating to the author's study. Finally, the restriction to one century contributes to the lack of definite conclusions in some cases, as the author herself subtly indicates in stating that "further research on the 19th century *CETA* . . . will be carried out" (173).

Bethany Gray and Douglas Biber devote Chapter 9 to 'The Emergence and Evolution of the Pattern N + PREP + V-*ing* in Historical Scientific Texts'. This chapter also differs from others while sharing many features with Chapter 11, 'Thematic Structure in Eighteenth Century Astronomy Texts', by David Banks. Refreshingly, neither provides detailed information about the corpus. They include plenty of examples in their explanations, which contributes to a better understanding of the structures analysed. In addition, an extensive review of the literature regarding the constructions studied is provided. However, whereas Gray and Biber extract their data from the whole corpus, that is, the whole period is considered, Banks limits his analysis to the sub-section of the eighteenth century, as quite a few authors in the book do. The need for a manual —as opposed to a computerised— analysis is Banks' justification for his choice, restricted to five texts from the eighteenth century. Gray and Biber claim the usefulness of this particular corpus for analysing grammatical structures in scientific writing. As regards Banks' conclusions, the fact that only five texts have been analysed has clearly given the author the opportunity to carry out an in-depth analysis; however, this limitation does not allow him to reach general conclusions that could be applied to all the texts of the period, which suggests the need for further research.

Hedges are the object of analysis in Chapter 10, 'An Analysis of Hedging in Eighteenth Century English Astronomy Texts'. Francisco Alonso-Almeida presents an excessively lengthy explanation of "the concept of hedge" (201) before describing the characteristics of *CETA*. Again the reasons for the limitation to eighteenth-century texts only are not indicated. As in the case of Chapters 9 and 11, a substantial number of examples are provided, which, together with the tables included, helps the reader follow the development of the ideas presented. In the end, however, despite the "clear evidence of the use of hedging in eighteenth century astronomical texts" (218) claimed by the author, further research is still required, as he himself indicates.

The compilation of *CETA* has certainly opened new possibilities for linguists analysing scientific language, as shown in the case studies carried out here. This book is a good companion to the corpus as it offers useful insights for those using the corpus for the first time. However, it also presents some drawbacks. Many chapters are iterative in the description of the corpus. This is particularly remarkable in the chapters written by the compilers themselves. In addition, most of the case studies concentrate on the eighteenth

century, which explains some of the shortcomings in the findings. An explanation for this could lie in the fact that the *Corpus of Early English Medical Writing* (CEEM) does not extend beyond 1800 —the compilation of this medical corpus being incomplete as yet— and comparisons are easier to establish if the same time-span is used. It is also true that there is a lack of scientific corpora of the Late Modern English period, with the exception of CEEM, and certainly CETA is a novelty in this respect; however, there are other corpora of the eighteenth and/or nineteenth centuries that are hardly mentioned (e.g. CLMETEV, only referred to in one of the chapters) or even ignored, such as the *Corpus of Late Modern English Prose* or the *Corpus of Historical American English*. Despite not including scientific texts exclusively, their use might have contributed to understanding the evolution of some structures in scientific writing as opposed to non-scientific writing.

Notwithstanding these flaws, *Astronomy 'playne and simple'* is an illuminating book on a period of the English language which has not received enough attention, and it highlights the need for more research into both the scientific language and the sociolinguistic aspects of the period considered in the volume.

Works Cited

Banks, David 2008: *The Development of Scientific Writing, Linguistic Features and Historical Context*. London: Equinox.

Barber, Charles, Joan C. Beal and Philip A. Shaw 2009: *The English Language. A Historical Introduction*. Cambridge: Cambridge UP.

Beal, Joan C. 2004: *English in Modern Times*. London: Arnold.

Shnell, Hildegard 2010: *The Evolution of the English Scientific Register*. Munich: GRIN Verlag.

Taavitsainen, Irma and Paivi Pahta 2010: *Early Modern English Medical Texts: Corpus Description and Studies*. Amsterdam and Philadelphia: John Benjamins.

Tieken-Boon van Ostade, Ingrid 2009: *An Introduction to Late Modern English*. Edinburgh: Edinburgh UP.

Received 17 January 2013 Revised version accepted 14 March 2013

Dr Nuria Calvo Cortés is Associate Lecturer in English Linguistics at Complutense University in Madrid. Her research focuses on the semantic and syntactic evolution of expressions in the history of the English language, with special interest in the Late Modern English period (eighteenth and nineteenth centuries). The framework of her studies is Cognitive Linguistics and most of her analyses are corpus-based. At the moment she is carrying out a study of progressive structures in British and American nineteenth-century English.

Address: Departamento de Filología Inglesa I. Facultad de Filología. Ciudad Universitaria s/n, 28040, Madrid, Spain. Tel.: + 34 91 394 53 92. Fax: +34 91 394 54 78.