Early Modern English Scientific Text Types: Different Levels of Linguistic Complexity?

Jesús Romero-Barranco, University of Málaga

Abstract

Complexity was first defined by Simon as hierarchies of different elements originating from simplicity (1962: 468). In Linguistics, Givon (2009) has analysed syntactic complexity from the point of view of language typology; Dahl (2004) and Nichols (2009) have assessed grammatical complexity cross-linguistically; and Blankenship (1974), Chafe (1982) and Maas (2009) have studied the different levels of complexity in spoken and written registers. Furthermore, Lehto (2015) elaborated a diachronic analysis of the levels of complexity among different text types in early Modern English legal material, based on Biber's works on linguistic complexity. Biber (1992) identified some key linguistic features associated with reduced complexity (i.e. *that* deletions, contractions or clause coordination, among others) and increased complexity (i.e. nominalizations, phrasal coordination or passive constructions, among others). These features occur in different patterns across different registers and the calculation of their frequency allows for the assessment of the level of complexity in different kinds of texts.

In itself, the concept of complexity has not been hitherto evaluated in early English medical writing, especially considering its different text types. In the light of this, the present paper analyses the levels of linguistic complexity in two early Modern English medical treatises housed in Glasgow, Glasgow University Library, MS Hunter 135: a surgical treatise (ff. 34r-73v) and a recipe collection (ff. 74r-121v). These two treatises conform as the ideal input for this study inasmuch as they represent two text types of medical writing and, consequently, they allow for the comparison in terms of linguistic complexity. According to Pahta and Taavitsainen (2004), theoretical treatises were the most formal text type while remedybooks represented the popular medical knowledge, surgical treatises falling in-between these two. Therefore, the analysis sheds light on the differences between two of the branches of medical writing in early Modern English. The present study, therefore, has been conceived with the following objectives: a) to identify the complexity features present in these two witnesses; and b) to analyse the different levels of complexity in both text types.

In order to carry out such an analysis, the linguistic features identified by Biber (1992) will be retrieved and their frequency calculated. Furthermore, textual organisation will be also analysed as it certainly contributes to the level of complexity of a particular text. On methodological grounds, the texts have been transcribed following semi-diplomatic conventions so that editorial intervention is kept to a minimum. After the transcription, the texts have been POS-tagged so that automatic searches could be carried out by way of a conventional concordancer. These texts are part of *The Málaga Corpus of Early Modern English Scientific Prose* (available at http://modernmss.uma.es), a corpus that aims to provide a sample of ca. 1,000,000 POS-tagged words of early Modern English scientific prose.

References

Biber, Douglas. 1992. "On the Complexity of Discourse Complexity: A Multidimensional Analysis". *Discourse Processes* 15: 133-163.

Blankenship, Jane. 1974. "The Influence of Mode, Submode, and Speaker Predilection on Style". *Speech Monographs* 41.2: 85-118.

Chafe, Wallace L. 1982. "Integration and Involvement in Speaking, Writing, and Oral Literature". In Tannen, Deborah (ed.), *Spoken and Written Language: Exploring Orality and Literacy*. Norwood: ABLEX. 35-53.

Dahl, Östen. 2004. *The Growth and Maintenance of Linguistic Complexity*. Amsterdam: John Benjamins.

Givon, Talmy. 2009. *The Genesis of Syntactic Complexity*. Amsterdam: John Benjamins.

Maas, Utz. 2009. "Orality versus literacy as a dimension of complexity". In Sampson, Geoffrey,

David Gil and Peter Trudgill (eds), *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press. 164-177.

Lehto, Anu. 2015. *The Genre of Early Modern English Statutes: Complexity in Historical Legal Language*. PhD Dissertation. University of Helsinki.

Nichols, Johanna. 2009. "Linguistic Complexity: A Comprehensive Definition and Survey". In Sampson, Geoffrey, David Gil and Peter Trudgill (eds.), *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press. 110-125.

Pahta, Päivi and Irma Taavitsainen. 2011. "An Interdisciplinary Approach to Medical Writing in Early Modern English". *Medical Writing in Early Modern English*, edited by Irma Taavitsainen and Päivi Pahta. Cambridge: Cambridge University Press. 1-8.

Simon, Herbert A. 1962. "The Architecture of Complexity". *Proceedings of the American Philosophical Society* 106.6: 467-482.