

HeidelGram: Network analysis of grammarians' references in 19th-century British grammars – a corpus-based study

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The *HeidelGram* project, based at the English Department of Heidelberg University, has a twofold aim. Firstly, it makes an essential contribution to historical grammar studies by compiling, making available and analysing a representative, XML-annotated, 10-million-word corpus of historical English grammar books from the 16th to the 19th centuries. Secondly, it introduces state-of-the-art network analysis into historical corpus linguistics in order to considerably extend the set of concepts and methods applied in historical linguistics and corpus linguistics, and to exemplarily implement and analyse various kinds of networks, such as a network of grammarians or of lexemes of *Sprachkritik* to examine complex discursive manifestations of the modern framework of *verbal hygiene* (Cameron 1995) in long-term diachrony.

The combination of corpus-based historical linguistics (see Jucker and Taavitsainen 2014: 4) and network analysis (see Freeman 2004, White 2011) has been rather uncharted territory. Based on network and graph theories (see, for instance, Jungnickel 2013), the analysis of social networks has become a key technique in sociology. Since its emergence in the early 20th century (see Freeman 2004), the approach has been adopted by many other disciplines, such as communication and media science, information science, biology, geography, and economics. Recently, network analyses have been conducted using social media data, literature, or drama (e.g. Elson et al. 2010, Agarwal et al. 2012, Moretti 2013), but so far there have not been any network-based linguistic studies on historical non-fictional texts.

This pilot project constitutes the first part of a series of network analyses of full-text historical English grammar books. Since previous research on grammar writing (e.g. Wischer 2003, Tieken-Boon van Ostade 2008, Anderwald 2016) was mostly restricted to shorter periods of time, specific linguistic phenomena or single authors or grammars, and was not corpus-based, this is the first study that begins to analyse grammar books from a large-scale perspective.

The present study investigates the varied connections between 19th-century grammarians by analysing references authors make to other 19th-century grammars and grammarians. Applying Mehler's concept of *citation networks* (Mehler 2008: 356ff) and White's notion of *scholarly networks*, references are understood as "record[s] of who has cited whom within a fixed set of authors" (White 2011: 275). The network will show the *in-citations*, i.e. referenced grammarians, and the *out-citations*, i.e. the grammar books that contain these references (ibid.). The systematic examination of grammarians' references in 19th-century grammar writing serves as a starting point to identify influential and isolated grammarians, and discursive strategies which show how grammarians deal with alleged authorities in the field.

A pilot corpus of 19th-century British grammar books (40 texts, ca. 2.6 mio. words) forms the basis for this pilot network analysis. It contains the most well-known and widely distributed grammars of the 19th century (cf. Leitner 1986, 1991, Linn 2006, Michael 1987, Görlach 1998), such as Crombie (1802), Cobbett (1818), Sweet (1892/1898) and Nesfield (1898), as full texts in digitised form. Main criteria

for text selection are numbers of published editions, their distribution, and common use, as found in book catalogues and secondary literature on grammar writing.

A first manual search in the grammar books, supplemented by those names that are usually considered the most famous and influential authors of their time (cf. Dons 2004, Finegan 1998, Görlach 1998, Linn 2006, Schmitter 1996, Tieken-Boon van Ostade 2008, Wolf 2011), results in a list of English and foreign grammarians that are referred to. This list of about ninety referenced authors, applied to the pilot corpus, yields all references made to other grammarians.

After manually deleting false positives, such as references to other people with the same name, the concordance list is turned into a multi-dimensional matrix and into different kinds of networks for chronological visualisation.

The dyadic ties between authors are examined quantitatively, i.e. in terms of the number of references, and qualitatively, i.e. by classifying different kinds of references, e.g. quotation, approval of approaches to grammar, the citing of authorities, and various forms of criticism. Approval, for instance, is "I *concur* with Baker in considering ..." (Crombie (1802) on Baker (1724)), whereas examples of criticism are "Mr. Cobbett has *mistaken* the real causes of defective arrangement" (Doherty (1841) on Cobbett (1818)) and "Mr. Harris could declare *nothing more incomprehensible* to man's understanding, than [...]" (Murray (1847) on Harris (1751)). Authors might also adopt other grammarians' views, as in Murray (1847) referring to Crombie (1802), who criticises Lowth (1762): "If, as Doctor Crombie informs us, [...], Doctor Lowth *violated* the simplicity of our language, [...], that is a sufficient reason for *not receiving his grammatical opinions*, without first strictly examining their truth, and next their applicability to the English language". By classifying the various kinds of references, we are able to show different and changing attitudes towards other grammarians' approaches to grammar, and to discuss substantial implications for the development of the genre and 19th-century language practices.

The network of references further reveals paradigm shifts in grammar writing, systematically charting particularly the rise of descriptive grammars after the predominance of prescriptivism and, at the same time, critically reflecting on fixed assumptions of what is known to be 19th-century 'prescriptive' and 'descriptive' grammar writing. Preliminary results show, for example, that the rejection of prescriptivism is by no means a uniform process and that prescriptive aspects in grammar books never vanish completely. Moreover, grammarians do not use references uniformly. While some authors usually quote other grammarians without stating their own opinions, others show criticism and disapproval openly. Interestingly, however, those self-opinionated authors who criticise other grammarians most frequently are themselves never referred to in other grammar books.

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