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Communicative context and the evolution of language: The case of the patent specification genre, 1711 – 2011

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Abstract:

Although there is now a well-established tradition of applying generalized evolutionary theoretical models to the study of language change (e.g. Croft 2000), this research has tended to focus on the evolution of languages at a very high level of generality. However, studies of register, genre and stylistic variation have demonstrated that language varies systematically depending on the communicative contexts in which it is used (Biber & Conrad 2019). This insight is clearly relevant to evolutionary models of language change: these communicative contexts are the cultural environments within which language evolves, much like the physical environments within which species evolve. Each particular communicative context shapes the language used within it in non-arbitrary ways, making language choices ever more well adapted over time for the expression of meaning in that particular cultural domain.

In this talk we will present some preliminary findings from an ongoing project that aims to develop an evolutionary account of how texts in one very specific genre have changed over time in response to cultural pressures. The genre in question is that of the patent specification.

Patenting is the branch of intellectual property law relating to innovations in industrial technology, and the patent specification genre lies at the heart of the entire patenting process. It is the genre in which a prospective patentee describes their invention in detail and explains why they believe it is worthy of intellectual property protection. Once it has been submitted for inspection, the specification then becomes the main focus of the patent officer's technical assessment of the inventor's claims; and if the patent application is successful, the specification finally becomes the means by which the inventor's knowledge is made available to the public, both during the period of patent protection and in perpetuity after the expiry of the patent itself.

The data for our study consist of a diachronic corpus of British patent specification texts ranging from the publication of the world's first specification in 1711 to the present day, with one

patent selected at random per year. The project is divided into two main phases. Phase 1 (which is now complete) focuses on changes in the rhetorical structure of the patent specification genre over the last three centuries, using a combination of move structure analysis (Swales 1990; Biber et al 2007; Samraj 2014) and string edit distance techniques (Navarro 2001). Phase 2 (which is still in progress) focuses on changes at the lexico-grammatical level, with particular reference to aspects of register and phraseology.

Our expectation was that the diachronic changes revealed by our analysis would conform either to the classic neo-Darwinian 'phyletic gradualist' model of evolutionary change, or to the alternative 'punctuated equilibrium' model proposed by Eldredge & Gould (1972). In practice, however, our results do not fit comfortably into either of these two models, but rather combine aspects of both. Specifically, we find that the patent specification genre is subject to constant and gradual change throughout its existence, but also that this constant and gradual contour is 'punctuated' by abrupt and dramatic shifts at four clearly identifiable points in time. Accordingly, we argue that the evolution of the patent specification genre is best described, following Malmgren et al (1984), as an instance of 'punctuated gradualism'.

References

- Biber, D. & Conrad, S. (2019). *Register, genre, and style*. 2nd Ed. Cambridge, UK: Cambridge University Press.
- Biber, D., Connor, U., & Upton, T. A. (2007). *Discourse on the move: Using corpus analysis to describe discourse structure*. Amsterdam: John Benjamins.
- Croft, W. (2000). *Explaining language change: An evolutionary approach*. Harlow, UK: Longman.
- Eldredge, N., & Gould, N. E. S. J. (1972). Punctuated equilibria: an alternative to phyletic gradualism. In T.J.M. Schopf (Ed.), *Models in paleobiology* (pp. 82-115). San Francisco, CA: Freeman Cooper & Co.
- Malmgren, B. A., Berggren, W. A., & Lohmann, G. P. (1984). Species formation through punctuated gradualism in planktonic foraminifera. *Science*, 225(4659), 317-319.
- Navarro, G. (2001). A guided tour to approximate string matching. *ACM computing surveys (CSUR)*, 33(1), 31-88.
- Samraj, B. (2014). Move structure. In K.P. Schneider & A. Barron (Eds.), *Pragmatics of Discourse* (pp. 385-406). Berlin: Walter de Gruyter.
- Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge, UK: Cambridge University Press.