

Origin and development of English for Medical Purposes.

Part I: Research on written medical discourse

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Abstract

In this two-part review, I present the birth and growth of 'English for Medical Purposes', a branch of applied linguistics. This first part summarises the research conducted on English-medium written medical discourse, from early register analysis in the mid-1980s that had a clear pedagogical aim (i.e. teaching reading English-language medical discourse to non-Anglophone medical students and health professionals) to more sophisticated genre and rhetorical studies later on.

Keywords: Medicine, English, Written discourse, Genre

Introduction

The birth and rise of the English for Medical Purposes (EMP) field is related to the mid-twentieth century emergence of English as the *lingua franca* of scientific communication in general, and of medicine in particular. The evolution is now well documented in a number of publications.¹

A few telling figures: by the end of the 1980s, some two million medical papers were published by about 25 000 medical journals, 15 000 of which – all Anglo-American – were considered 'serious' journals. By the year 2000, over five million medical papers were published annually.²

If we add to this figure the 500 or so journals in nursing and dentistry, the final figure is 10 million health-related peer-reviewed papers published every year, over 80% of them being written in English. It should be kept in mind that many medical journals that used to be published in national languages have recently switched to English as their language of publication. This is the case of the *Croatian Medical Journal*, the *Mexican Medical Journal*, the *Saratov Journal of Medical*

Scientific Research (Russia), and many other medical journals in Latin America, Eastern and Western Europe, Asia, and the Middle East. Incidentally, this linguistic shift is quite frequent also in other disciplines, both the 'hard' and 'soft' sciences. It should also be stressed that not only English-medium 'conventional' medical journals but also journals on alternative and complementary medicine are steadily on the increase.³

This undeniable growth in the volume of English-language medical literature has been accompanied by an important body of linguistic and sociolinguistic research on English written and oral medical discourse, a field that is commonly referred to as 'English for Medical Purposes'. It is the purpose of this paper to outline briefly its origin and development.

Research on written medical discourse

Early EMP research on written medical discourse: The EMP Newsletter and register analysis

In 1983, a group of English for Specific Purposes practitioners met at a conference for the Arab world. A subgroup discovered by chance a mutual involvement in English for the Health Sciences, and two British linguists, Nigel Bruce and Liz Nakhoul (who then worked at the University of Kuwait) volunteered to initiate an information network. This is how the first EMP journal, the *EMP Newsletter*, was launched. The *Newsletter* was welcomed by applied linguists and English language practitioners involved in EMP. The journal was published twice a year and was distributed free of charge across 60 countries to about 450 subscribers. Very sadly, though, Operation Desert Storm in 1990 wiped out Nigel and Liz's work in the Arab world, and the *EMP Newsletter* ceased

publication. As a consequence, those interested in conducting research on medical discourse had to look for new outlets for their publications (Nigel Bruce, personal emailed communication, July 12th 2013)

The research published in the *EMP Newsletter* and elsewhere in the early 80s was mainly oriented towards solving problems of a pedagogical nature, because the need for assessment was fundamental to EMP curriculum design. That research – based on rather small linguistic corpora – tended to be descriptive, involving statistical (quantitative) analyses of grammar, sentence patterns, and lexis of medical discourse, i.e. a kind of research that is referred to as ‘register analysis’. Salager-Meyer,^{4,5} for example, analysed a corpus of 100 000 words drawn from 12 medical specialties that enabled her to determine the core lexis of medical articles written in English, i.e. the lexical items that are homogeneously distributed across the medical spectrum, irrespective of the medical specialty. EMP course design studies then became very popular, and a variety of short or intensive EMP courses and tailor-made in-house textbooks saw the light around the world, especially in the Middle East and Latin America. But course-design papers based on these early register studies became scarcer, and EMP research started being more empirical.

Later EMP research on written discourse

I shall start this sub-section by referring to medical word lists. Medicine, as is well known, has a large corpus of technical and specialised terms, mainly borrowed from Greek and Latin. Chung and Nation,⁶ for example, report that technical/specialised words – i.e. words with a narrow range of occurrence and unknown in general use – account for as much as 37.6% of all word types in an anatomy text, compared to 16.3% in an applied linguistics article. As Ferguson⁷ rightly argues, specialised vocabulary is better learnt while studying medicine, and the difficulty in understanding it depends, to a great extent, on the learners’ mother tongue and on their level of medical knowledge.

By contrast, there is a general consensus that the semitechnical vocabulary presents the greatest obstacle for intermediate non-native English EMP students; it is thus that part of the medical English lexis that should be emphasised in EMP reading courses. That is why Chen and Ge⁸ and Wang *et al.*⁹ devoted their attention to this semitechnical vocabulary, so as to create an academic medical word list. Wang *et al.*⁹ analysed over one million running words from research articles from a wide range of medical specialties and drew a list of 623

word families that account for 12.24% of the tokens making up their linguistic corpus. To our knowledge, the latest lexicographic study that has been conducted on medical discourse is Mungra and Canziani’s academic word list for *clinical case histories*.¹⁰

Regarding generic studies on medical discourse, the most frequently researched genres (or text-types) are the research article abstracts,^{11–13} research articles per se either from a diachronic perspective¹⁴ or from a structural standpoint,^{15–16} and case reports.^{17–19} Other medical genres, such as book reviews,²⁰ editorials,²¹ letters to the editor,²² narrative and systematic review articles,²³ and the acknowledgment paratext²⁴ received the attention of applied linguists as well, but not to the same extent as the research article and the case report.

Most of these EMP genre studies combined the investigation of a given genre communicative function with the study of certain lexico-grammatical features, but some exclusively focused on a specific feature, such as hedges,²⁵ ‘if conditionals’ across medical genres²⁶ or the expression of criticism^{27,28} examined from a cross-linguistic, cross-generic, and diachronic perspective.

Summary

Although very brief, this review of the research that has been carried out over the past 30 years on written medical discourse shows how the field has evolved from quantitative analyses of syntax and lexis to more socially-oriented studies. The second part of this review will deal with research conducted on oral medical discourse.

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References

1. Gunnarsson BL. Professional discourse, London: Continuum; 2009.
2. Cooter M. News notes. *Eur Sci Editing* 2000;26(2):67.
3. Salager-Meyer F, Alcaraz Ariza MA, Pabón M, Zambrano N. Paying one’s intellectual debt: acknowledgments in scientific/conventional and complementary/alternative medical research. In: Gotti M, Salager-Meyer F. editors *Advances in medical discourse analysis: oral and written contexts*. Bern: Peter Lang; 2006. p. 407–31.
4. Salager-Meyer F. The core language of English medical literature: classificatory frame-work and rhetorical function. *Reading Foreign Language* 1983;1(1): 54–64.
5. Salager-Meyer F. Specialist medical English lexis: classificatory framework and rhetorical function: a

- statistical approach. *English Medical Purposes Newslett* 1985;2(2):5-18.
6. Chung TM, Nation P. Technical vocabulary in specialized texts. *Reading Foreign Language* 2003;15:103-16.
 7. Ferguson G. English for Medical Purposes. In: Paltridge B, Starfield S, editors *The handbook of English for specific purposes*. New York: John Wiley and Sons; 2013. p. 243-61.
 8. Chen Q, Ge GC. A corpus-based lexical study on frequency and distribution of Coxhead's Academic Word List word families in medical research articles. *English Specific Purposes* 2007;26:502-14.
 9. Wang J, Liang SI, Ge GC. Establishment of a medical academic word list. *English Specific Purposes* 2008;27: 442-58.
 10. Mungra P, Canziani T. Lexicographic studies in medicine: academic word lists for clinical case histories. *Ibérica* 2013;25:39-63.
 11. Salager-Meyer F. A text-type and move analysis study of verb tense and modality distribution in medical English abstracts. *English Specific Purposes* 1992; 11(2):93-115.
 12. Salager-Meyer F. Discoursal flaws in Medical English abstracts: a genre analysis per research- and text-type. *TEXT* 1990;10(4):365-84.
 13. Salager-Meyer F, Alcaraz Ariza MA, Lewin B. Abstract quality in complementary and alternative medicine papers: a structural and cross-generic analysis. In: Bondi M, Lórez L. editors. *The language and structure of abstracts: variation and change*. Bern: Peter Lang; 2014, in press.
 14. Atkinson D. The evolution of medical research writing from 1735 to 1985: the case of the Edinburgh Medical Journal. *Appl Linguistics* 1992;13:337-44.
 15. Nwogu K. The medical research paper: structure and functions. *English Specific Purposes* 1997;29:43-53.
 16. Li L, Ge GC. Genre analysis: structural and linguistics evolution of the English-medium medical research article (1985-2004). *English Specific Purposes* 2009; 28:93-104.
 17. Taavitsainen I, Pahta D. Conventions of professional writing: the medical case report in a historical perspective. *JEnglish Linguistics* 2000;28:60-76.
 18. Taavitsainen I. Medical case reports and scientific thought-styles. *Rev Lenguas Fines Específicos* 2011; 17:75-98.
 19. Salager-Meyer F, Alcaraz Ariza MA, Luzardo Briceño M. The medical narrative from a diachronic perspective (1840-2009): titling practices and authorship. In: Gotti M, Sancho Guinda C. editors *Narratives in academic and professional genres*. Bern: Peter Lang; 2012. p. 293-319.
 20. Salager-Meyer F, Alcaraz Ariza MA, Berbesí M. Collegiality, critique and the construction of scientific argumentation in medical book reviews: a diachronic approach. *Journal of Pragmatics* 2007;39:1758-74.
 21. Giannoni DS. 'Don't be stupid about intelligent design': confrontational impoliteness in medical journal editorials. In: Salager-Meyer F, Lewin BA. editors *Crossed words: criticism in scholarly writing*. Bern: Peter Lang; 2011. p. 79-98.
 22. Magnet A, Carnet D. Letters to the editor: still vigorous after all these years. A presentation of the discursive and linguistic features of the genre. *English Specific Purposes* 2006;25:173-99.
 23. Mungra P. Macrostructure and rhetorical moves in secondary research articles: the meta-analysis and the systematic analysis. In: Gotti M, Salager-Meyer F. editors *Advances in medical discourse analysis: oral and written contexts*. Bern: Peter Lang; 2006. p. 331-57.
 24. Salager-Meyer F, Alcaraz Ariza MA, Pabón Berbesí M. Backstage solidarity in Spanish- and English-written medical research papers: publication context and the acknowledgment paratext. *J Am Soc Inform Sci Technol* 2009;60(2):307-317.
 25. Salager-Meyer F. Hedges and textual communicative function in medical English written discourse. *English Specific Purposes* 1994;13:149-170.
 26. Ferguson G. If you pop over there. A corpus-based study of conditionals in medical discourse. *English Specific Purposes* 2001;20:61-82.
 27. Salager-Meyer F, Alcaraz Ariza MA, Zambrano N. The scimitar, the dagger and the glove: intercultural differences in the rhetoric of criticism in Spanish, French and English medical discourse (1930-1995). *English Specific Purposes* 2003;22:223-47.
 28. Salager-Meyer F, Alcaraz Ariza MA, Pabón Berbesí M. Expert knowledge holders vs. factual reporters: critical voices in written medical genres. In: Salager-Meyer F, Lewin B. editors *Crossed words: criticism in scholarly writing*. Bern: Peter Lang; 2011. p. 173-202.

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