## Krhutová, M. (2009) Parameters of Professional Discourse. English for Electrical Engineering. Brno: Tribun EU. 197 pp.

The present study focuses on a specific linguistics problem. It provides a detailed analysis of English for Electrical Engineering and specific features of this variety of language, and studies its social aspects.

This variety is characterised by features typical of language for specific purposes. The author emphasizes the connection between the language competences of the producers and receivers and their professional knowledge, which supplies them with professional mental schemata. They facilitate the transfer of professional information in English. According to Krhutová, this kind of communication is culturally independent. It is based on the shared professional knowledge within one professional and social group. Thus this variety is free of cultural and political implications.

Krhutová presents English for Electrical Engineering as one of the international varieties of English and stresses the fact that this particular variety plays a special role because it must reflect the rapid scientific and technical development and changes of reality not encountered in other spheres of life. She also mentions the importance of English for Electrical Engineering for Czech science and technology, especially its influence on terminology used by Czech experts in this branch of science. She focuses on the written language as discourse, characterises spoken and written language, and concentrates on the communicative intentions in a written text. The transactional purpose of a written text is presented as a feature typical of scientific and technical texts, including texts on electrical engineering.

In the present study, English for Electrical Engineering is analysed from different viewpoints, taking into account various aspects of discourse analysis, stylistics, pragmastylistics, pragmatics, psycholinguistics and sociolinguistics. Special attention is devoted to the Gricean Cooperative Principle (and other principles to be considered when a literacy event is produced and perceived) in technical texts and its Maxims of Quantity, Quality, Relation and Manner. The author compares their functioning and manifestations in the style of social sciences and technical sciences. In her opinion, the stylistic features of English for Electrical Engineering are restricted by the unique and special purpose of the language variety, i.e. "... to transfer specific written information concerning a specific field of technical science mostly used in academic setting" (p. 51). The variety complies with the characteristics provided by Galperin (1971), who describes the style of technical sciences as logical in sequencing facts, following the chronological scheme, characterised by condensed sentences and specific

vocabulary. Krhutová compares the style of science and technology and popular scientific style and emphasizes the main criteria of distinction: the extent of the shared specific knowledge, the degree of explicitness and implicitness, the density of specific terms, different audience and different functions. The main function of the popular scientific style is to attract the attention of the reader. In contrast, the style of science and technology relies on instructed readers, who have already been attracted by the discipline. Consequently, it is not necessary to attract their attention and the author can concentrate on the information itself. The comparison and analyses are supported by numerous sample texts from popular scientific books, scientific books, popular scientific articles and articles from scientific journals.

Krhutová provides a deep and interesting insight into stylistic strategies with special attention to grammatical and lexical cohesion. Presenting the ideas of Brown and Yule (1983), Baker (1992) and other linguists, her conclusions are based on Halliday and Hasan's (1976) work on lexical cohesion. Referring to her teaching experience, the author concentrates on lexical cohesive items and their successful decoding and perception. "The reason behind the successful perception lies not only in appropriate pragmatic references and interpretations, but in the unambiguous semantic meaning of the lexical items typical of electrotechnical texts, which all together constitute the entity of terminology" (p. 80). Unambiguous semantic meaning based on shared professional knowledge is the central point of English for Electrical Engineering. The author also deals with the problems of deixis, hedging and signposting in this language variety.

Much attention is devoted to the viewpoint of pragmatics. Drawing on Trask's (2004) definitions, Krhutová emphasizes general knowledge of the subject matter, which is crucial for adequate interpretation of scientific texts. She provides an account of different approaches to coherence, namely functional sentence perspective (Daneš 2002), lexical cohesive chains which differ according to the specialization (Tanskanen 2006), and the point of view of anthropology dealing with the role of the general knowledge of the world and the principle of how the social knowledge is stored in our minds and retrieved from memory (Gumperz 2002). She stresses the importance of the pragmatic meaning as presented by Cook (1999), who demonstrates that different meanings of one semantic pattern may fulfil various functions in various contexts. As a result, the knowledge of language is not sufficient for decoding the information. Krhutová claims that "...language users do not rely only on their knowledge of linguistic structures and forms, but also on their experience, they have in comprehension, on the pragmatic meaning of an interpreted piece of utterance" (p. 98), while focusing on the role of professional experience, which is unique and makes the interpretation

of the text and its sense dependent on the reader's professional knowledge and experience. Drawing on Humboldt (1835), Widdowson (2000) and Crystal (2001), she concentrates on mental schemata. She provides characteristics of terminology used in English for Electrical Engineering, which is based on professional knowledge. This enables recipients to decode the pragmatic meaning on the basis of inner references among the individual terms. Terminology gives a professional discourse a unique quality. The author's research resulted in the division of terminology in English for Electrical Engineering into general scientific terms, general technical terms and branch-specific electrotechnical terms. Special attention is devoted to the question of ambiguity. Professional knowledge of the subject creates schemata in the minds of users. The schemata work both in Czech and in English. The meaning in the texts for electrical engineering is unambiguous due to such schemata and due to the precise semantic meaning of the terms. This fact is presented as an essential point. In the sphere of electrical engineering, ambiguity can have a catastrophic impact if a wrong theory is applied. Electrical engineering is a dramatically developing scientific discipline, where new discoveries are presented every day and in different parts of the world. Consequently, new words are very often coined by L2 speakers, which constitutes another characteristic feature of this variety not very common in other disciplines.

Considerable attention is devoted to the manifestation of the Cooperative Principle in technical texts. Drawing on the Gricean theory, Krhutová presents specific aspects of the principle in technical texts as obtained from her own research. The very substance of the discipline based on verifiable facts causes that the Quality Maxim is highly respected. The manifestations of the Politeness Principle are specific in this kind of texts. Authors indicate that their research results need not be of final value and invite colleagues to join their efforts and continue the investigations. The manifestations of the principles in this variety of English are compared with their manifestations in social sciences characterised by less exact data.

Drawing on the functional approach of the Prague Linguistic Circle, Brown and Yule (1983), Lyons (1977) and the theory of speech acts as defined by Widdowson (2000), the author deals with the functions of professional scientific discourse: explication, exemplification, evaluation, argumentation, definition and concluding in technical texts. She provides a thorough comparison of the style of science and technology and popular scientific styles. The analysis is accompanied by many interesting examples of the material under investigation.

In the last chapter Krhutová concentrates on sociolinguistic features. She characterises the discourse community of the users of the specific variety of language. "The users of language form an interesting social group empowered on the one hand by their extremely important profession with a great influence on the present globalising world, and disqualified on the other hand by the lack of a face-to-face communication, especially with the feminine element topped by the necessity of acquiring English as their foreign and professional language" (p. 172). She claims that the users of English for Electrical Engineering have become an elite group in the present globalising world getting special power through their profession and the professional language they use.

The study is original and innovative in many respects. English for specific purposes has been widely studied, yet there are not many theoretical studies on English for Electrical Engineering. The author provides a scientific analysis of this variety of English. English for Electrical Engineering reflects a specific reality linguists usually do not understand properly. Consequently, such an analysis of this particular variety is rare. English is used as a universal means of professional communication all over the world. It is used by speakers of different languages, it has become a specific phenomenon of present day communication and it can be characterised by its specific features. English as Lingua Franca is in the centre of attention of linguists. English for Electrical Engineering as Lingua Franca sui generis provides even more interesting material for linguistic studies because it must reflect the rapid scientific and technical development and changes of reality which are not present in other spheres of life. Mental schemata related to professional knowledge and qualification play a crucial role in communication between experts using this variety.

The author gives a detailed scientific analysis of this variety of English based on a deep theoretical background, her own research and her practical experience in teaching English at Brno University of Technology. At the same time the study presents a useful and practical handbook for those involved in teaching English for specific purposes providing them with a lot of examples illustrating her conclusions. It is also useful for all experts in technology who want to obtain interesting and detailed information about the language they have to use in their professional lives as a universal tool of communication.

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