

Development of an 'Interlanguage' in Medicine

© Csilla KERESZTES & © Bernadett BORDA

University of Szeged, Szeged, Hungary

keresztes.csilla@med.u-szeged.hu;

borda.bernadett@med.u-szeged.hu

Background

At present, English is the most widespread lingua franca of the western world used in sciences. It has become necessary for the members of the medical community to be able to search scientific literature in English and to be able to express themselves in this language if they want to be fully accepted members of the international academic community. Non-English speaking clinicians and researchers have no other option but to learn English if they want to be informed of the latest developments in their fields. The trend to use one lingua franca, English, leads to the use of technical terms in English even in daily non-English language conversations of medical experts. Anglicisms are not only present at the lexico-semantic level, they also affect semantic and syntactic levels, but examples of ortho-/typographic changes and new rhetorical patterns can also be identified in the first language of these physicians (Salager-Meyer et al., 2003; Alcaraz & Navarro, 2006; Keresztes, 2006, 2013). Nevertheless, the former lingua franca of medicine, Latin, has still kept its position in hospital communication between medical doctors and also in written documents. The result of the English influence is that native languages (and among them Hungarian) borrow English loans, adapt them as Anglicisms, and subsequently integrate them into the (medical) vocabulary. English has become the primary source for the creation of new concepts and their corresponding denominations in medicine. Any feature that can be code-switched from one language to another can turn into a permanent interference feature (a borrowing) in the recipient language.

Methods

The main aim of our research was to reveal the current state of the Hungarian medical language. Previous studies (Kontra, 1981; Keresztes, 2003, 2007; Bősze, 2004; Mészáros, 2009) have described certain changes in the language used by the Hungarian medical discourse community, and we focused on answering the following question:

1. What borrowed characteristics does the Hungarian medical language exhibit?
2. Have these changes/borrowings become inherent elements of this specific purpose language?
3. Can the recent medical language be described as an 'interlanguage' used by the medical community?

We analyzed 254 discharge reports (written between 2007 and 2012), and interviewed 18 physicians (25 to 62 years of age) working at the University of Szeged

to find answers to the above questions. Borrowings identified in the written documents were classified as:

1. orthographic features,
2. lexical and semantic features,
3. grammatical and other features.

When analyzing and categorizing data collected from the written documents, we compared and cross-checked these data with dictionary entries found in Hungarian general/medical dictionaries. The following dictionaries/encyclopedias were used:

- Bakos Ferenc (2007). *Idegen szavak és kifejezések szótára* [Dictionary of foreign words and expressions]. 2007. Budapest: Akadémiai.
- Benjámin Katalin (Ed) (2006). *Brencsán orvosi szótár* [Brencsán medical dictionary]. Budapest: Medicina.
- Benkő Loránd (1967). *A magyar nyelv történeti etimológiai szótára* [Historico-etymological dictionary of the Hungarian language]. Budapest: Akadémiai.
- Fábrián Pál and Magasi Péter (1992). *Orvosi helyesírási szótár* [Medical orthographic dictionary]. Budapest: Akadémiai.
- Lozsádi Károly (2006). *Etimológia medica* [Medical etymology]. Budapest: Medicina.
- Pusztai Ferenc (Ed) (2003). *Magyar értelmező kéziszótár* [The concise dictionary of the Hungarian language]. Budapest: Akadémiai.
- Zaicz Gábor (2006). *Etimológiai szótár* [Etymological dictionary]. Budapest: Tinta.

Other works used as a reference were:

- É. Kiss Katalin, Kiefer Ferenc and Siptár Péter (2003). *Új magyar nyelvtan* [New Hungarian grammar]. Budapest: Osiris.
- Magyar irodalmi és köznyelv nagyszótárának korpusza / Magyar történeti korpusz [Corpus of the academic dictionary of Hungarian/Hungarian historical corpus] (see website <http://www.nytud.hu/adatb/index.html>).

During the semi-structured interviews, physicians working at the university clinics were asked about the presence and use of the English language in their professional life.

Results and Discussion

The influence of medical English (E) on the Hungarian (H) language of medicine affects all linguistic levels from orthography to lexis through semantics and syntax; nevertheless, it can be detected primarily in the area of vocabulary. Lexical changes due to contact involve not just direct importation of words but a variety of other processes leading to innovations in the lexicon of the Hungarian language: borrowed English loanwords are combined with Hungarian suffixes, become assimilated morphologically to the Hungarian language, and expand vocabulary in other word classes as well, e.g., E n/v *stent* > H n *stentelés* 'stenting', word root *stent* + verbal thematizing suffix *-el* + nominal derivational suffix *-és*, Latin (L)/E v *elongate* > H adj *elongált* 'elongated', word root *elongál* + adjectival suffix *-t*, E n/v *trigger* > H v *triggerrel* 'to trigger', word root *trigger* + verbal thematizing suffix *-l*. Morphological

adaptation may seem difficult as Hungarian has complex rules involving case and number, but, in many cases, the borrowed words are treated like Hungarian word roots of equivalent categorical status, and they take the bound morphology and other properties appropriate to the class they are assigned to.

In the studied documents, few borrowed words have shown no semantic change. In most cases semantic narrowing can be seen, the borrowed lexeme has retained only one or two of its original (English) sememes, when used in the Hungarian language of medicine, e.g., E *support* has 3 sememes, whereas H *szupport* has only one sememe in medical Hungarian: *a mechanism or arrangement that helps keep something else functioning*. After the borrowing process has taken place, the borrowed item may lose its original meaning (semantic narrowing), change it (semantic shift) or develop new meanings (semantic widening), e.g., E v/n *burst* 'to break suddenly/a sudden break while under tension or expansion' > H n *burst* 'sorozatos külső ingerület' 'serial external stimuli'.

Unassimilated loanwords (e.g., *guided, spike, upgrade*) and semantic borrowings such as loan translations (e.g., *mélyvénás* 'deep vein', *sószegény* 'low salt', *várólista* 'waiting list') and loan blends (e.g., *echodús* 'echo rich/dense', *pacemakertasak/-zseb* 'pacemaker pouch/pocket', *vérvnyomáskontroll* 'blood pressure control') make up the largest portion of English contact-induced changes in the studied Hungarian discharge reports.

The impact of English language contact on grammatical structures is less than that on lexical ones, but the frequency of impersonal structures, for example, is unusually high (e.g., *ultrahang jobb oldali nephrolithiasist igazolt* 'ultrasound has revealed nephrolithiasis on the right side', i.e., the physician performing an ultrasound examination found that the patient has nephrolithiasis). On the other hand, the passive and other impersonal structures are employed as a strategy for avoiding the use of personal object pronouns, i.e., avoiding having the patient as the direct object, e.g., *magasvérnyomás, hyperlipidaemia ismert* 'high blood pressure, hyperlipidaemia are known', i.e., the patient suffers from high blood pressure and hyperlipidaemia. In most discharge reports the agent of the sentence (the physician or the patient) is hidden, i.e., agentless sentences are used, or the agent is referred to as an institution, e.g., *Ügyelet járt kinn nála* '[the patient] was visited by the medical duty service', i.e., a physician who works for the medical duty service visited the patient, or *OMSZ hozta az ambulanciára* 'the National Ambulance Service has brought [the patient] to the outpatient department', i.e., health workers from the National Ambulance Service transferred the patient to the outpatient department¹.

Based on the analysis of the studied documents and the semi-structured interviews, it may be concluded that interference features are also introduced by speakers whose competence in the source language is strictly passive. Not each member of the Hungarian medical discourse community is a fluent speaker of English. As they also attend workshops and postgraduate training events organized and held by research physicians (bilingual Hungarian and English speakers), they are also 'exposed to' some of these borrowings. For them the language used by the research physicians is similar to an interlanguage. They share this common interlanguage with the research physicians, but they are not necessarily speakers of the English language. They have acquired only certain features of the English language that they incorporate into their medical Hungarian. Most of the features transferred this way are lexical.

¹ For more data and analyses see Keresztes, 2013.

The adoption of loanwords is usually a deliberate decision. A reason for it, besides need and prestige, may be the fact that the discourse community deliberately tries to withhold their 'real' language from outsiders, emphasizing in-group status, or differentness from other groups/communities. The newly developed language may serve as a symbol of the medical discourse community.

It is likely that passive familiarity is the mechanism by which English features contribute to the emergence of the recent medical Hungarian, an interlanguage that is used by these speakers only in one domain of their language use. The discourse community of medical Hungarian comprises both bilingual speakers of English and Hungarian and members of a group who speak Hungarian and understand the interlanguage that is used by the bilingual members. Those belonging to the latter group may never speak English itself, but their passive familiarity with the English language, or at least the interlanguage that they use, makes them introduce some English features into their medical Hungarian.

As a consequence of the above described changes, we suppose that the changes have led to the development of a specific language, which might be considered a special jargon, the medical jargon. This medical interlanguage contains mostly Hungarian elements with Latin medical vocabulary, and it also comprises several English language contact-induced features. It is not an interlanguage in the classical meaning of the word (cf. Selinker, 1972; Corder, 1975), but it is rather a reversed interlanguage. In interlanguage proper learners of a second language (L2) transfer certain features from their first language (L1) into L2, whereas in the case of the Hungarian medical language, bilingual speakers transfer elements from L2 into their L1. Hungarian–English bilingual doctors use their L1, L2 and the medical interlanguage (MI) in different domains of their professional life, e.g., L1 is used when they take patients' history, L2 when they teach medical students in the English language program, and MI when a physician speaks to another physician at the clinic.

Interlanguages are described by many scholars as permeable, dynamic, changing and yet systematic, but they may undergo relative fossilization and relative change, but it always reveals an underlying cognitive process. There are certain features which are fossilized in MI, and these features make it possible for multiple speakers to speak and understand it. MI is understood not only by bilingual doctors but also by those members of the medical community who are not necessarily fluent speakers of English, and also by other health workers at the University Clinics such as nurses and assistants. Members of the latter two discourse communities may acquire this MI during their work or at postgraduate trainings.

MI may be considered a bridge between clinicians and primary care physicians, as well as other health workers, who are involved in clinical care. But at the same time, MI also has a gate-keeping function: those who cannot acquire it and do not have at least a passive knowledge of it will have restricted access to certain medical information, knowledge and other benefits, e.g., patients who are excluded from it have restricted access to information on their health status, management and prognosis of their disease. Patients do not speak this interlanguage, thus, the code has to be translated for them. All in all, the discharge report is not written for the patients as they do not have the same linguistic code that physicians share or the medical knowledge behind it. Discharge reports are rather about the patients, and the interlanguage with the medical content should be 'translated', mediated toward the patients by members of the medical society at various levels.

Conclusions

Arguments advanced from a linguistic aspect support the idea that the dominance of English as the lingua franca of medicine is beneficial to the careers of non-native, English speaking physicians; however, it can have negative effects on the native tongue of these physicians. Disadvantageous effects of the dominance of English on the position of other languages have also been described in the literature (cf. Kontra et al., 1999; Skutnabb-Kangas, 2000).

A language barrier is created between upper class medical science and lower class medical practice. It is a situation that not only do physicians seem unwilling to change, but one that they actively encourage in the more prestigious section of academia.

More publication in English leads to less publication in Hungarian (cf. Péntek, 2004; Bősze, 2009). *Kaplan* (2001:19) highlights the risk that English might “still the voice of science in languages other than English”. It may have several serious consequences: domain loss in the field of sciences (cf. Gunnarson, 2001), and a general neglect of the Hungarian language (Grétsy, 2002; Bősze, 2002). The terminology of some medical disciplines lack Hungarian words and expressions. Some of the terms are not translated into Hungarian, they have no Hungarian equivalent, and the English terms are frequently used. Some of the Hungarian patterns of text and discourse are replaced by Anglo-American patterns concerning formulation of research results and theories. Therefore, some scholars (e.g., Minya, 2003; Zimányi, 2006; Bősze, 2009) think that Hungarian medical researchers might lose the ability to talk about their specialty in Hungarian.

The Hungarian medical community is in a situation of diglossia, in which English is considered to be the high language by many speakers, i.e., the language used in research and advanced academic teaching, while Hungarian is the low language, used for teaching at lower levels and for popularization. However, the bilingualism of physicians in general is unbalanced, and they have to express their thoughts concerning medical research in a language in which their mastery is not as far-reaching as in their mother tongue. Therefore, there might be a great risk that their process of thinking and the development of ideas will be disadvantaged, having a negative impact on the quality of their Hungarian research.

The modernization and development of the Hungarian language of medicine can be achieved only through publishing in Hungarian. Terminology and nomenclature do not develop spontaneously, but they are developed and sustained by the professionals working in that specific field (cf. Kiss, 2009). The linguistic formulation (phenomena coding) is the task of the professionals as well as the spreading of recent information, data and knowledge. Scientific textbooks, university notes should be published in Hungarian, and university instruction should be performed in Hungarian (É. Kiss, 2004).

The level of awareness of language must be raised among scientists (cf. Gunnarson, 2001). This is a requirement if native speakers are going to guide developments in the desired direction and not remain ‘passive victims’ of a linguistic power structure. It is impossible and probably undesirable to prevent external influence completely, but language policies should instead aim at adapting changes to the Hungarian context and incorporate them into the traditional Hungarian patterns and structures. It is important to concentrate not only on the adaptation of words to

our linguistic system but also take note of the more fundamental and perhaps more subtle text and discourse patterns.

An interlingual means of communication certainly has its merits but also involves a number of problems, such as disadvantages for lack of language proficiency, the diversity of cultures and their history, and the different structures and meanings of the various languages (cf. Bakró-Nagy, 2009). In addition, national languages form national identities, and a nation may fear being foreignized by means of the Anglophone culture represented by the English language (cf. Fischer, 2008).

The conclusion suggested by the material examined here is that linguistic Englishization in special fields of discourse is a more complex and nuanced process than it may appear at first sight. Many phenomena that are perceived as Englishisms do not, in fact, have the consequence of bringing the Hungarian language closer to the English language. In this sense, it demonstrates the paradox that linguistic globalisation often results in linguistic fragmentation at the same time, which has the somewhat unexpected consequence of leading to a more complex and varied linguistic landscape.

References

- ALCARAZ, Ariza M. Á., & NAVARRO, Fernando (2006). Medicine: Use of English. In: Brown, Keith (Ed). *Encyclopedia of language and linguistics* (pp. 752-759). (2nd edition). Volume 7. Amsterdam: Elsevier.
- BAKRÓ-NAGY M. (2009). A jövő a múltból múltból tekintve. A magyar nyelv a határon innen és túl. In *A jövő kutatás helye a 21. században. A jövő kutatás fejlődése és tudományterületi kapcsolatai. VII. Magyar (Jubileumi) Jövő kutatási Konferencia* (pp. 39-47). Győr: Palatia.
- BŐSZE P. (2002). Gondolatok az orvosi nyelv magyarításáról. *Magyar Orvosi Nyelv*, (1), 2-5.
- BŐSZE P. (2004). Gondolatok az orvosi nyelv magyarításáról. In Balázs Géza (Ed). *A magyar nyelvi kultúra jelene és jövője*. Budapest: Magyar Tudományos Akadémia.
- BŐSZE P. (2009). A magyar orvosi nyelv fejlesztése: Lehetőségek, kötelességek. *Magyar Tudomány*, (1), 75-85.
- CORDER, S. Pit (1975). *The study of interlanguage*. Paper presented at AILA Congress, Stuttgart.
- É. KISS K. (2004). *Anyanyelvünk állapotáról*. Budapest: Osiris.
- FISCHER, R. (2008). Introduction: Studying Anglicisms. In Fischer, R., & Pulaczewska, H. (Eds). *Anglicisms in Europe: Linguistic diversity in a global context* (pp. 1-15). New Castle upon Tyne: Cambridge Scholars Publishing.
- GRÉTSY L. (2002). A szaknyelvek nyelvújításáért. *Magyar Nyelvőr*, 126, 275-283.
- GUNNARSSON, Britt-Louise (2001). Swedish tomorrow – A product of the linguistic dominance of English? In Boyd, S., & Huss, L. (Eds). *Managing multilingualism in a European nation-state. Challenges for Swedish. Current Issues in Language and Society 7/1* (pp. 51-69). Clevedon: Multilingual Matters Ltd.
- KAPLAN, R. (2001). English the accidental language of science? In Ammon, U. (Ed). *The Dominance of English as a language of science: Effects on other languages and language communities* (pp. 3-26). Berlin & New York: Mouton de Gruyter.
- KERESZTES Cs. (2003). Az angol nyelv hatása a magyar szakmai nyelvre In Tóth Sz. (Ed). *Nyelvek és kultúrák találkozása* (pp. 168-172). Szeged: Officina Press.
- KERESZTES Cs. (2006). Lektorálás a szakfordító képzésben: Kontaktushatásra létrejött nyelvi változatok azonosítása javító olvasáskor. In Demeter É., & Solymosi M. (Eds). *Szegedi Nyelvi Mozaik* (pp. 101-112). Szeged: Szegedi Tudományegyetem Idegennyelvi Központ.

- KERESZTES Cs. (2007). Nyelvi kontaktushatások vizsgálata szakszövegek fordításakor. In Silye M. (Ed). *Szaknyelvoktatásunk – határokon átívelő híd* (pp. 295-301). Debrecen: Debreceni Egyetem.
- KERESZTES Cs. (2013). *English language contact-induced features in the language of medicine*. Frankfurt am Main: Peter Lang GmbH.
- KISS J. (2009). A tudományos nyelvek, az anyanyelv és az értelmiségi elit. *Magyar Tudomány*, (1), 67-73.
- KONTRA M. (1981). *A nyelvek közötti kölcsönzés néhány kérdéséről, különös tekintettel 'elangolosodó' orvosi nyelvünkre*. Nyelvtudományi Értekezések, 109. Budapest: Akadémiai.
- KONTRA M., PHILLIPSON, R., SKUTNABB-KANGAS, T., & and VÁRADY T. (Eds) (1999). *Language: A right and a resource. Approaching linguistic human rights*. Budapest: Central European University Press.
- MÉSZÁROS Á. (2009). A magyar egészségbiztosítási szakszókincs kialakulásának és módosulásának vizsgálata. *Alkalmazott Nyelvtudomány*, (1-2), 17-34.
- MINYA K. (2003). *Mai magyar nyelvújítás. Szókészletünk módosulása a neologizmusok tükrében a rendszerváltástól az ezredfordulóig*. Segédkönyvek a nyelvészet tanulmányozásához, XVI. Budapest: Tinta.
- PÉNTEK J. (Ed) (2004). *Magyarul megszólaló tudomány*. Budapest: Lucidus.
- SALAGER-MEYER, F., ARIZA, A., & ZAMBRANO, N. (2003). The scimitar, the dagger and the glove: Intercultural differences in the rhetoric of criticism in Spanish, French and English medical discourse (1930-1995). *English for Specific Purposes*, 22, 223-247.
- SELINKER, L. (1972). Interlanguage. *International Review of Applied Linguistics in Language Teaching*, (10), 209-231.
- SKUTNABB-KANGAS, T. (2000). *Linguistic genocide in education, or world-wide diversity and human rights?* Mahwah: Lawrence Erlbaum Associates.
- ZIMÁNYI Á. (2006). *Nyelvhasználat, nyelvváltozás*. Pandora Könyvek, 4. Eger: Líceum.