Terminology and social-economic globalization

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The purpose of this study is to demonstrate the effects of economic and social globalization on linguistic globalization, and the types of implied problems and tasks for terminology. World languages and small languages differ markedly in the reasons universal and special causes of terminological difficulties appear related to languages and new domains. In my study, I examine these effects and illustrate the phenomenon with examples.

GLOBALIZATION

The process of globalization has always been a part of the process of development, so globalization itself is not a new phenomenon (see Kozma 2002, Kozma–Fóris 2002a); it is only the scale and speed of change that has increased recently. In fact, due to the accelerating rate of scientific and technical development, what is happening now is that the consequences of globalization also appear quickly and in large numbers. These consequences are: a huge increase in productivity, the focusing of world production in the hands of a few multinational companies, the exhaustion of global energy sources, the explosion of the world's population, large-scale environmental pollution, the fast flow of manufactured goods in bulk, the gigantic scale of the amount and speed of the information, the formation of new types of ally networks etc. In this new phase of development, the world's informatics and telematics networks offer huge possibilities for every area of science, industry, economics and social activities. The great globalised networks that control the world's economy, social networks, biological networks and information networks are all governed by similar laws (Barabási 2002, Csermely 2005).

As the rate of development accelerates, a large number of products and methods are emerging that improve or substantially modify our quality of

life. The appearance of telecommunication and telematic networks, and the flow, storage and accessibility of information at an almost unlimited speed and in almost unlimited quantity provides – among other things – the opportunity for life long learning. Unfortunately, the subjective conditions for the real exploitation of such opportunities are not available. Institutions and experts in the fields of education, development and training are averse to new opportunities. The mass production of materials elaborated for these purposes, and the development of modern methods and tools to facilitate processing are lagging behind. Despite this, some positive tendencies can be observed. Distance learning and virtual universities, possibilities already available and being used on the Internet, indicate that the new way of learning independently of space and time has already begun (Kozma–Fóris 2002b).

By the last third of the 20th century, economic pressure made it clear that production confined by borders and deprived of natural connections is not competitive. It was obvious that only by cooperation between countries could the European economy and culture compete with a North America integrated into a coherent political and economical system, and with a Far East that is integrated by capital. Along with scientific and technical globalization, regional connections appeared across borders. In the beginning bilateral relations were formed gradually developing into multi-lateral regional cooperations (such as the Alps Adriatic Working Community, see Horváth 1998, Földes–Inotai 2001, Fóris 2002). This structure favours thinking in multinational regions again. Regionalism, which emphasizes the equality of members in every issue and mutually beneficial cooperation, is one of the pillars of the economic and cultural policies of the European Union.

Language, beside its roles in thought and the transfer of information, has always been a significant bearer of national identity in European cultures. Since the Age of Enlightenment, due to the vital role of language, the right to use the mother tongue became one of the main aims of movements fighting for national independence; and the other way round: denying such a right was a means of assimilating minorities.

Many consider the linguistic imperialism of the English language a natural or even inevitable consequence of globalization (Phillipson 1992). The newest results of development tend to appear first in economically more developed countries and spread from there. New objects and processes

are first named in the language of their inventor. In most cases, even the inventors find it difficult to introduce new terms. For instance, physicists continually discover new elementary particles, and they are running out of possibilities to differentiate them with new names, so they are forced to use the names of colours to identify the additional particles (green, yellow, red). The link between concepts and linguistic signs is disambiguated with the help of lexicons and dictionaries.

The linguistic aspect of acquisitions by one language area from another, may happen in various ways. One possibility is that the linguistic sign is assimilated along with the concept: for example foreign words and expressions borrowed without significant changes, loanwords, loan translations, other word-formations; or new word creation.

Contemporary European culture evolved from the achievements of previous civilizations, and makes use of many things from them. This integration happened at the level of languages as well. Words from previous civilizations (Greek, Latin) can be found in every European language. Obviously, this is also true for world languages such as English, Spanish or German. Borrowing foreign words is a natural component of cultural-economic relations and cultural inheritance. For example, due to industrial development, a large number of German loanwords have been incorporated into the Hungarian language, and a similar linguistic effect has been caused by the spread of sports.

Owing to the scientific/technical boom, new developments appear in numbers far too manifold to be incorporated spontaneously into the language, and for this reason, national harmonization has become necessary.

It is obvious that instead of ignoring this development, we have to take an active role in the process. What this means is accepting both the positive and negative effects of globalization.

Given the achievements of the beginning of the 21st century, we can say regarding the preservation of world cultures and languages that modern technology, the variety of available means, personal mobility and success all provide brand new opportunities for learning and education. In the course of such development, we have every opportunity to maintain the cultural and linguistic diversity that has evolved over thousands of years. A tendency towards uniformity is also a part of technical development, and very often it seems to be the easier way in shaping our future, especially for economical reasons.

TERMINOLOGY AND GLOBALIZATION

Globalization is becoming more and more pronounced, and some processes whose effect had not been noticeable earlier seem to be new phenomena just because they appear in a more robust form.

As a result of globalization new concepts, and consequently, new terms come into being in large numbers and at a high speed. Concepts of new tools, processes, relationships etc., and the terms that refer to them spread across languages very quickly. Therefore, only a short period of time is at our disposal to match a term with the concept and to fit the new term into the existing terminological system. Small languages have two choices: either they adopt the international word along with the concept or they create a new word. New professions, trades and disciplines come into being and a large number of terminological problems crop up that need to be solved within a short period of time. The concepts that are created nowadays are so complex and so laden with scientific-professional content that adjusting them to the terminological system requires comprehensive scientific knowledge. Furthermore, terminology works require organized control and support.

The rapid, massive changes that take place today also alter the quality of phenomena, objects and concepts. If we look at a time span of 150–200 years, we see that the signboard hanging at the front of the workshop has been replaced by multimedia advertising techniques; and horse-drawn vehicles have been replaced by modern transportation networks. Compared to their forerunners, both improvements offer completely different qualities of time, space, size and efficiency. Likewise, linguistic phenomena appear in new ways and new varieties.

The isolation of languages for specific purposes has decreased significantly thanks to the improvement and spread of communication systems, and technical conceptual systems are no longer restricted to one profession, but are known among professionals of other areas as well. Conceptual systems and terminological systems of various professions are becoming more closely connected and mutually affecting each other.

In my research, I originally endeavoured to show the new features of changes in Hungarian terminology, but I have come to realize a significant portion of these changes are universal in nature. Such changes in terminology are as follows (for details see Fóris 2005):

(1) A change of paradigm caused by development. During the paradigm

shift, many problems are caused by the fact that the old and new paradigms are simultaneously present.

(2) New concepts and terms referring to these paradigms emerge in unforeseen amounts and at a higher speed than ever before. These terms are incorporated into technical languages in a very short time (the previously decades-long process has decreased to a few months or even weeks) and they are also introduced into general language very quickly.

(3) Due to the high rate of diffusion and incorporation it is very difficult to rectify incorrect terms after their creation (of both technical and general languages).

(4) The role of scientific enquiry is essential today, so the application of scientific methods and academic standards is of key importance when it comes to terminological development.

(5) The necessity for interdisciplinary cooperation at academic standards is more explicit than ever in terminological works. The formation of conceptual and terminological systems is only possible with the simultaneous application of more technical and linguistic knowledge.

(6) The contact between various languages has increased prodigiously thanks to globalization, especially because of the development of communication systems, and the subsequently intensified interaction between languages.

(7) Unambiguous use of the terminology of a language is made possible only by the precise definition of the concept a term refers to, and such definition should be made in accordance with up-to-date scientific knowledge. This will ensure consistent use at the various linguistic levels.

(8) The renewal of terminology must be carried out through the cooperation of every field of knowledge involved and based on scientific grounds.

(9) The so-called reference works (various types of dictionaries, databases, corpuses) compiled with the help of modern technology play an important role in linguistic research and in the application of its findings as well (see Hartmann 2001). The production of these works requires extensive intellectual and financial investment. Modern technology (the computer, the internet, multimedia) not only makes this work easier and quicker, but also provides opportunities for the creation of new principles and new working methods.

These components are the essence of the paradigm shift and the chief causes of the change in approach.

Although the above listed characteristics of terminological processes have appeared in languages spoken in economically developed areas, their consequences are in many ways different in the case of small languages and world languages. In what follows, I will highlight the related problems and indicate the effect such changes have on the development of terminology.

As we have seen, the changes that have taken place in processes related to terminology are a consequence of development. Globalization is one of the key features of modern networks of relationships, and it is present in linguistic processes, as in any other segment of social life.

By *linguistic globalization* we mean the process in which more and more common linguistic elements are incorporated into various languages due to the growing frequency of language interference that accompanies development. The advanced state of technological development today favours the formation of relationships in every field between speakers of different languages. This continuous contact expands the phenomenon of linguistic interference to the entire developed world, and ensures its permanence. Linguistic globalization is most palpable in the process by which the natural term sets of languages are becoming uniform, but it is also present at other areas of language use. (Think of the more and more unified structure of CV's and competitions.)

In order to use languages effectively and unambiguously, we have to make sure that the rapidly growing terminology, characteristic of globalized societies, reaches a state that allows for members of a speech community to speak their own language among each other. The purpose of a terminological/conceptual system is to ensure the unambiguous exchange of information between speakers of one language as well as speakers of different languages. Under the above mentioned circumstances, *reference works*, such as monolingual and multilingual corpuses of technical texts, terminology databases, and terminological dictionaries are necessary for the everyday use, research and development of terminology. Only once they are at our disposal can informatics, telematics and multimedia systems be used to develop national languages.

In the case of *world languages*, the compilation of such reference works is a profitable business venture, as they are used throughout a large territory. For example, the market of reference works for the English language is

world-wide. Due to the huge number of users, the cost of production will be regained mostly by direct sale and partly by the indirect output of application. At areas where the production costs of such reference works are not yet worth investing, for example in the case of newly emerging domains, the compilers finance their work from the profit of other works, or from government funding. Economically developed communities that speak world languages are able to advance these infrastructural investments.

However, *small languages* (Pusztay 2006) are spoken by small communities, and this results in many hindrances as regards the compilation of reference works. Because the population is small in numbers, it is impossible for the people to work in every area of science, industry, commerce etc. at equally high standards and levels of specialization, therefore the reference works of certain areas are not in demand. As the size of the studied domains is rather small, the demand for using terminology reference works is also low, and consequently financing the compilation of such reference works cannot be expected to be a profitable business investment. For that reason, funding for the compilation of terminology reference works is generally obtained from government sources, which offer restricted possibilities. Under these circumstances, the infrastructural conditions that would serve the development of small languages takes a lot more time to evolve. As a positive example, let me mention the cooperation of Belgium and the Netherlands for the benefit of Dutch terminology: the two countries have been funding the creation of free and openly accessible terminology databases (but they do not give financial support to the commercially motivated publishing of dictionaries) (Steurs 2005).

For the above-mentioned reasons, *Hungary* is lagging behind in the creation of synchronic terminology reference works. The Hungarian National Corpus is an openly accessible corpus of present-day Hungarian, but it does not contain texts of technical languages. Other corpuses, terminology databases, or reference lexicons are not publicly accessible. Several specialized dictionaries have been compiled with commercial aims, and a number of Hungarian institutions have databases for terminological purposes and for internal use, but none of these are accessible freely and openly.

Terminological harmonization (see Cabré 1996) has not yet taken place within the Hungarian language area. A further difficulty is caused by the fact that the majority of new EU standards (more than 70% of them) are not available in Hungarian, only in English, and the terminology section

of standards is also available only in English and at a high cost. Because of this research, translation, interpretation, education etc. are all facing serious difficulties.

Economical, scientific, cultural etc. development is unthinkable without proper language use, meeting the requirements of modern times, and terminology is a fundamental contributor to this. Terminology has a key role in the domestic economy and in the network of our international relationships. An example: a basic problem of former socialist countries is that their economic terminology is not compatible with the business and financial terminology of the market-oriented Western world. The entire conceptual system was adopted from the West, and as a consequence, a new terminology system had to be established in the receiving languages. Similar to the change of the political system, the change of the economical system made experts say "we have no word for that" when they encountered terminology problems.

Compared to world languages, small languages are more heavily affected by foreign languages. The leading figures of science, banking, finance, administration etc. are practically bilingual (English and mother tongue) when it comes to professional communication. On the other hand, the majority of people who use the services are monolingual. Scientists and the leaders of economical and social life have a strong interest in making their environment understand their achievements and aims and in enabling the public to use them. Communication problems in society may cause tension, such as in the case of the contradictory attitudes towards the achievements of biotechnology or the spread of alternative sources of energy. The development of a national terminology system that is brought up-to-date through international harmonization could be a way to ease the tension.

In academic and professional cooperation two tendencies are evolving simultaneously: one is professional *differentiation*, which is focusing on a narrow field; the other is the *integration* of very different academic and professional strata. The advantage of the network of relationships evolving in the 21st century is that the collaborators can put their share of knowledge into the network of problems to be solved without delay and in a ready-to-use form. But the advantage of integrating knowledge from various professional fields may only be exploited if professional communication of *different depths* can take place among the professional fields involved. Build-

ing up a terminology system that is *segmented according to user demands* is a primary condition for achieving this. Above all, this means defining terms *at varying levels*.

A way to satisfy the ever increasing demand for terminology databases in accordance with the purposes of small nations could be to create national databases that serve the particular aims palpable from actual use (that is of the appropriate size, at the appropriate academic level and content).

Small nations are not involved in every trade (for example, the Baltic states do not produce grapes and wine while landlocked countries are unfamiliar with sea fishing), or they may only be involved in sub-fields of certain fields (for example, just in the sale and operation of telecommunications devices but not in their development and production); whereas they have a strong interest in other domains (such as administration of the European Union or tourism).

The content, size and academic level of terminology reference works should be adjusted to the demands of *national use*. The common set of mutual national interests should be determined in various languages. By practical selection, the financial and intellectual investment could be significantly reduced. However, it is a great undertaking to establish the terms that designate basic concepts, and also the ones that are of public interest and general use, and therefore are to be selected from the term-stock of trades.

Databases that already exist in world languages could serve as models for developing the databases of smaller languages. Other existing national (not public, general language etc.) databases could serve as the starting point for developing the national terminology, as a term that has already been matched with a concept and defined in accordance with it could be readily used. The tasks of the development of the national terminology include: the selection of the necessary terms, harmonizing the conceptual and terminological systems of the source language and target languages, finding the right term (signifier for the concept), developing the terminology, and making the achievements accessible publicly and freely. This would ensure not only the introduction of new terms but also the harmonization of terms.

CONCLUSIONS

Due to the geographical, economical and scientific features of small nations, the set of terms continuously used in smaller languages does not cover the entire term-stock; some domains do not make it into the national terminology at all, others only partly.

Therefore, national terminology databases and terminological dictionaries need only be extended to the terms actually in use. During the *minimizing process*, two tasks requiring interdisciplinary cooperation need to be solved: a) selection of terms used at the given domains and in general language; b) processing of the selected terms (fitting them into the conceptual system, finding the right signifiers, providing multi-level definitions, storing data, and making data accessible etc.). Existing reference works of world languages can help with these tasks. Translation, adjustment into the national system, and filling the gaps of missing terms make up the major part of classification of terminology (Cabré 1998). Providing multi-level definitions for terms of certain domains would be beneficial, as in a few domains the demand for information on a given concept is very diverse for the user, distributor, manufacturer, researcher and developer.

It appears that communication in a small language may involve part of the international terminology set therefore the required national terminology set could form part of the international one.

It would be very beneficial to create the *minimized terminology database* of small languages of the European Union (or of some part of the EU).

The coordinated development of the terminology of small languages could be an effective way to preserve the multilingualism of the European Union. This would contribute to the preservation of national languages and national cultures in the midst of globalization.

To carry out this plan, participants in the common development of terminology should agree on common principles of research, development and application of terminology, as well as the methods, division of tasks, and operational and financial conditions. As for the last item on the list, surely funding could be obtained from the language learning funds of the European Union.

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TERMINOLOGIJA IR SOCIALINĖ BEI EKONOMINĖ GLOBALIZACIJA

Dėl mažų tautų geografijos, ekonomikos ir mokslo ypatumų jų kalbų terminija neaprėpia viso pasaulio terminijos; be to, kai kurių sričių tautinės terminijos dar nėra, kitų sričių terminija sukurta tik iš dalies.

Nacionalinės terminų duomenų bazės ir terminų žodynai turėtų ribotis tik iš tikrųjų vartojamais terminais. *Minimizavimo proceso* metu reikėtų išspręsti du tarpdalykinio bendradarbiavimo uždavinius: a) atrinkti terminus, vartojamus tam tikrose srityse ir bendrinėje kalboje; b) atrinktus terminus apdoroti (nustatyti jų vietą sąvokų sistemoje, rasti tinkamus žymenis, parengti keleto lygmenų apibrėžtis, užtikrinti duomenų laikymą ir prieigą prie jų ir kt.). Juos gali padėti išspręsti didžiųjų pasaulio kalbų informaciniai terminijos ištekliai. Vertimas, pritaikymas prie tautinės sistemos ir terminijos spragų užpildymas užima didžiąją terminijos klasifikacijos dalį (Cabré 1998). Tam tikrų sričių terminų keleto lygmenų apibrėžtis tikslinga parengti dėl to, kad gali labai skirtis informacijos apie tam tikrą sąvoką kai kuriose srityse poreikis, kylantis vartotojui, prekiautojui, gamintojui, tyrėjui, tobulintojui ir kūrėjui.

Mažųjų tautų kalbos gali vartoti tik dalį pasaulio terminų, o tam tikra speciali tautinė terminija, kaip šaltinis, gali sudaryti visos tarptautinės terminijos dalį.

Būtų labai naudinga sukurti mažųjų Europos Sąjungos (ar jos tautų dalies) kalbų *minimizuotą terminologijos duomenų bazę*.

Koordinuota tokių kalbų terminijos plėtra gali būti veiksmingas įvairiakalbiškumo išlaikymo Europos Sąjungoje būdas. Tai padėtų išsaugoti tautines kalbas ir tautines kultūras globalizacijos sąlygomis.

Kad būtų galima įgyvendinti tokį planą, terminijos kūrėjai ir tobulintojai turėtų susitarti dėl bendrų terminijos tyrimo, tobulinimo ir vartojimo principų, taip pat ir dėl užduočių pasiskirstymo, darbo ir finansavimo sąlygų. Finansavimą būtų galima gauti iš Europos Sąjungos kalbų mokymo fondų.

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