Language Selection Policies in International Standardization – Perception of the IEC Member Countries

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ABSTRACT AND KEYWORDS	
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Language Selection Policies in International Standardization – Perception of the IEC Member Countries[1]

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Abstract

International standards setting organizations have different language selection policies. These policies have, besides their financial aspects, also an important cultural/ political dimension. The standards setting organizations are either bilingual (English/ French), or unilingual (English), or multilingual (English, French and further languages). We have investigated the references of the 65 national members of the International Electrotechnical Commission (IEC). The main findings are a moderate preference for the use of both English and French for the technical work, and a strong preference for the use of English only for communication.. The obvious dominance of the English language is seen as a necessity, rather than an indication of a hypothetical Anglo-American linguistic/ cultural imperialism. Finally, some conclusions regarding language selection policies in international standards setting organizations are presented.

Keywords: language selection policies; international standardization; bilingualism; unilingualism; multilingualism; IEC

Introduction

In the first half of the last century English was for the rest of the world a language to be learnt for reading and speaking, and even a language in which instruction was given (Sager, Dungworth & McDonald, 1980). English was widely translated, but by dominating great parts

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of Africa and Asia it was used directly by influential sectors of other countries. British English was also the model for Australia, New Zealand, Canada and South Africa to which their languages particularly in their written form conformed. To some extent this was even true of the United States. The English of these countries is gradually going its own way and the dominance of British English is being replaced by American English. English has become a language of convenience with a limited range of uses. It once dominated commerce, administration, even politics and law, now it is also leading in science, and to a slightly lesser extent in technology.

English is undoubtedly the dominant world language of our time (Hoberg, 1994). This applies in particular to international standardization, on both the *regional level* (e.g. the European Committee for Standardization, CEN; European Committee for Electrotechnical Standardization, CENELEC; European Telecommunication Standards Institute, ETSI) and the *global level* (in particular the International Organization for Standardization, ISO; International Telecommunication Union, ITU; International Electrotechnical Commission, IEC). On the other hand, there is also a natural tendency to preserve the national languages (Nies, 2005). From being a dominating language, English has become a co-equal language at the United Nations, UN; the European Community, EC; and other supranational organizations (Sager, Dungworth & McDonald, 1980). Besides practical and financial considerations, certain cultural, social and psychological aspects of language policy should also be taken into account.

The regional and global standards are in general developed in an *international setting* where the English language dominates, but many of the participating member countries do not have that language as their mother tongue. Indeed, English is *not the only world language* (The Nuffield Languages Inquiry, 2000). Some figures - in millions of first language speakers - are: Chinese, 1113; English, 372; Hindi/ Urdu, 316; Spanish, 304; and Arabic, 201.

The person who must use a foreign language to communicate can easily feel himself to be in an inferior position in relation to those who express themselves in their mother tongue, and he can have difficulties in really understanding a given issue. This feeling of inequality may develop into an impression of injustice (FIIG, 1979; Alberts, 2006). The privilege of some may be experienced as a form of discrimination or even as an indication of imperialism.

With regard to language policy, different *international organizations* have chosen one of the options below (ISO, 1998). In this context, "working languages" are the languages used in standards development, and "languages for communication" the languages used for communicating with the member countries, Technical Committees, standards users, governments, etc..

- Working languages are both English and French, and the organizations prefer to work at the *early project stages* in French (e.g., the International Organization of Legal Metrology, OIML; International Bureau of Weights and Measures, BIPM). It would, however, not be practical to use this option in IEC because in most of its member bodies the knowledge of French is rather limited (Teichmann, 2005).
- Working languages are both English and French. The organization prefers to communicate in both English and French (e.g., the United Nations Educational, Scientific and Cultural Organization, UNESCO; Universal Postal Union, UPU; ISO; IEC[2]) . This option is in line with Part 1 of the ISO/IEC Directives (ISO/IEC, 2004a).
- Working languages are both English and French. Communicating *in English only* presents few, if any problems (e.g., the World Trade Organization, WTO. The ITU has a somewhat different language policy. Its official and working languages are French, English, Spanish, Arabic, Chinese and Russian, on an equal footing. All these languages may be used at major conferences. ITU has three "substantive" Sectors, plus the General secretariat. The three Sectors deal with standards, development, and radiocommunications. As far as the standards Sector (ITU-T) is concerned, all study groups with the exception of Study Group 3 work in English only. They use the "alternative approval procedure", and the Recommendations are subsequently translated into the other official languages. Study Group 3 is a fairly "political" study group, dealing with tariffs and accounting principles including related telecommunication economic and political issues. It is the only ITU-T study group to have interpretation, if required, into the other official languages. It is also the only one to have contributions to it translated, along with its reports. The standards which Study Group 3 approves are annexed to the reports, and therefore translated, along with the reports, into all other official languages.
- The only working language and only language for communication is English (e.g., the European Computer Manufacturers' Organization, ECMA; and ETSI).

[2] There is, however, one exception: The *ISO/IEC Joint Technical Committee 1 (ISO/IEC JTC 1)* does not use French

The variety of language used in international standards presents a sub-group of the scientific/ technical language. The issue of *language policy* in international standardization is hardly studied in a systematic manner; exception: Teichmann, 2006c. *Ethnolinguistic issues in general* (that is, ethnolinguistic issues focussed on subjects other than standardization) are dealt with by Hoberg, 1994; Nies, 2005; Sager, Dungworth & McDonald, 1980; Beardsmore, 1986; Edwards, 1994; FIIG, 1979; Alberts, 2006; and The Nuffield Languages Inquiry, 2000. On the other hand, the *general literature on standardization* does not deal with the issue of *language policy* (e.g. Aben, 2002; Ailleret, 1982; Chauvel, 2005; de Vries, 1999; Diesken, Hoffmann, 1992; Dudlauskiene, 2005; Egyedi, 1996; Fomin, 2001; Higgins, 2005; IEC, 2006; Lelong, Maillard, 2000; Winckler, 1994; Witte, 2004; Wright, 2004; Brunsson and Jakobsson, 2000; Cargill, 1997; Glie, 1972; Schepel, 2005; Spivak and Brenner, 2001; Sykes, 1995; World Trade Organization, 2005).

Ethnolinguistic Background of International Standardization

An international standards setting organization necessarily transcends national, cultural and linguistic borders. Languages are essential tools of international relations and international comprehension, and therefore of the process in which the organization is fundamentally engaged. The cultural, social, psychological and even political aspects of linguistic issues for the regional and global standards setting organizations should not be underestimated. Language is inseparable from culture, furthermore it is an integral part of an individual's personality and identity.

English, the Lingua Franca of Our Time

There have always existed powerful languages which served as bridges between national groups and language communities. These varieties achieved widespread power because of heightened fortunes of their users, and not because of any intrinsic linguistic qualities of the languages themselves (Edwards, 1994). The most common elements here have to do with military, political and economic might, although there are also examples in which a more purely cultural status supports the lingua franca status. However, in this latter case, the cultural clout which lingers has generally grown from earlier associations with those more blatant features mentioned earlier. The muscle in any case which these languages have, derived from the fact that the original users control important commodities – wealth, dominance, learning – which others see as necessary for their own aspirations. A lingua franca weakens the role of the other languages, and it may lose its status if the speakers of

another major language achieve more military, political and economic power. Today, there is no doubt that English is the most important global variety (Hoberg, 1994) and thus has the greatest status as a lingua franca. Also, there is a tendency to replace British English by American English.

The dominance of English as language of science can be explained by American superiority in science, the quality of many American scientific institutions, and the American science management. This linguistic inequality reflects essentially a very real economic and political unbalance. Moreover, it has been said that the success of certain well-known American universities is based to a large extent on their ability to attract and integrate talents from all over the world who had been educated in very different cultural and linguistic settings (Nies, 2005).

At the present time, English is already the lingua franca in mathematics and science, in medicine and even parts of the arts. Scientists who publish the results of their research in their mother tongue will earn little recognition outside their linguistic area, that is, on a truly international level.

Another aspect of this dominance is more of practical nature: the larger the number of countries which attend an international meeting or contribute to a scientific project, the higher is the probability that English is the only language which is understood by all participants. This is the case, for instance, at the technical meetings of the international standards bodies including the IEC.

Working in English as a Foreign Language

Most technical experts who participate in the development of international standards or use them are not of English (or French) mother tongue. The person who must use a foreign language to communicate can easily feel himself to be in an inferior position in relation to those who express themselves in their mother tongue, and he can sometimes have difficulties in really understanding a given issue (Daoud, 1991). This feeling of inequality may develop into an impression of injustice (FIIG, 1979). The privilege of some may be experienced as discrimination or even as an indication of a certain imperialism.

Experience shows that language is more than just a link between thought and human beings. Language itself has even been considered by some experts to be one of the driving forces of

thought, a means of production, and most people achieve excellent results only if the language they are using is their mother tongue. It may therefore be less efficient to pursue scientific work in a foreign language, at least under certain conditions. - Detailed investigations have shown that problems may occur which are related to the recognition of rhetorical relationships in technical/ scientific texts written in a foreign language (Daoud, 1991).

As regards international standardization, some countries suggest to their experts to defend their cultural and linguistic heritage (and, of course, even more so the technological concepts of the country's manufacturers and the requirements of its users). These experts are expected *to think* in their national language. They also need to have adequate skills of the English language (Beardsmore, 1986): sufficient receptive language skills (for both listening and reading comprehension), as well as sufficient productive language skills (for both oral and written production).

Linguistic Diversity versus Unilingualism

Although the linguistic diversity in Europe causes a variety of difficulties and expenses, the EU considers it as a valuable asset which should be preserved (Nies, 2005). Due to the increasing use of English, however, the other languages tend to lose some of their capacity of discernment. Where American English supersedes the national language at the highest levels of communication, where it claims to be the only language for expressing innovation and progress, and where all new definitions are developed in that language variety, it weakens necessarily the existing linguistic diversity. It is a paradoxical task to overcome the practical obstacles of multilingual Europe and to preserve the existing linguistic diversity because of its cultural and political importance.

If small communities try to preserve their cultural identity, their members tend to have good knowledge of the neigbouring languages. In European organizations, the pressure towards monolingualism is increased by the small but numerous new member countries, the reason being that their own languages will never gain the status of working language.

At any rate, it is the position of CEN and CENELEC that the multicultural – and thereby multilingual – nature of standardization should be protected. The question is how to deal with the problem *linguistic diversity versus domination of English*. In other words, how can the practical obstacles of a multilingual membership be overcome and the existing linguistic diversity preserved? CEN and CENELEC consider their multilingualism as an investment

which is expected to yield an added value. In the global standards setting organizations, the pressure towards unilingualism will increase as additional small countries decide to join them.

Foreign Language Use - Liberal Arts versus Science and Technology

An important difference between foreign language use in the liberal arts and in science and technology should not be overlooked. In the liberal arts, projects are developed by "passing through a process" (Nies, 2005). That is, the resulting insight is produced in parallel with the process of writing. It follows that language does not merely serve as a tool, but it actually *affects the research*. By way of contrast, in science and technology the findings can frequently be presented in agreed formats; a fast comparability may be required, and in such cases the language can more or less adopt a standardized form (Nies, 2005). This is a typical lingua franca function, and it is then not very important in which language the research is undertaken. The structure of international standards is a typical example where the language adopts in many respects such a standardized form (ISO/IEC, 2004b).

Potential Negative Effects of Anglo-Saxon Language Dominance

Most bilingual or multilingual people think in their own language, and all known languages have their own structure. The obsession of many Europeans with a smattering of English can lead to linguistic impoverishment, a kind of language goulash. This attitude hinders intellectual creativity. It has also been claimed that where English is used to a wide extent, the Anglo-American communication and value system will be adopted in the long run (Nies, 2005).

Where the importance of the national language decreases, it may be on the way to become a dialect, the language of the uneducated people. The English language, however, appears to signal progress and creativity.

The linguistic poverty of some international jargon (e.g., certain documents prepared by the EU administration in Brussels) is sometimes criticized. This poverty becomes particularly obvious if one compares this jargon directly with the richness of genuine British or American English. In fact, the attention of the Britons is now attracted by the rape and deformation of their sophisticated mother tongue by competing advertising agencies.

National Translations

National laws are always written in the national languages. Where national legislation intends to adopt or reference international standards, translations are required. In ISO and IEC, these translations are prepared under the responsibility of the relevant national standards bodies. The translated texts shall be fit for use by technical experts with insufficient knowledge of English or another official language, although they have not participated in the development of the standard.

Role of French

French had the good fortune to be an important international language. Indeed, ancient French is a former lingua franca (hence the term).Whilst French is, with 150 million native speakers, globally only on the 11th rank (AFNOR, 2003), the influence of this language is certainly not only a matter of demography (Hoberg), 1994). One important criterion for the role of a given language is in fact the number of persons who study it as foreign language. It should be noted that French is an official language of most international organizations.

Specific Aspects of International Standardization

The work of the international standards setting organizations is carried out under a number of special conditions which are sometimes related to the respective language selection policies.

- The organizations can only exist and carry out their functions if all their members are linked together, ideally having the same access to information from the organizations. Conversely, the organizations need inputs from all their members (FIIG, 1979).
- It is, however, clear that communicating in all languages spoken by the members of a given organization is not possible. The more the organization grows, the more the number of languages in which its members best express themselves increases. But unfortunately, the cost of true multilingualism is prohibitive.
- It has been suggested that an organization's main language may influence its policy and programme (FIIG, 1979).
- It has also been suggested that there may exist strategies of economic and technological domination which may affect the attitude of national member bodies towards bilingualism (Durand, 1998).

- Certain users of IEC Standards who normally use the English version only report that the French version is used “sometimes, as the need arises”.That is, in the event of lack of precision, or for the clarification of apparent errors or ambiguities (Teichmann, 2005).
- The availability of a French version simplifies translating into other Romance languages, in particular Spanish (due to the similarity of the syntactic and semantic systems).
- In IEC, the secretariat of a Technical Committee is a national member body to which the responsibility for the technical and administrative services has been assigned.
- A National Committee which actively participates in standardization expects in return economic benefits for its country, e.g., increased competitiveness of industry, increased efficiency in the implementation of new technologies, more efficient technology transfer at the national level, etc. It is obvious that the scopes of *horizontal* committees are less closely related to financial benefits (Teichmann, 2003b).
- The development of IEC Standards uses a project approach that stipulates that all projects move through six project stages (ISO/IEC, 2004a). At the early stages, the documents are prepared *in English only* starting with the Proposal stage through the Enquiry stage (Enquiry draft, CDV). However, the Final Draft International Standard, (FDIS, at the Approval stage), as well as the International Standard, (IS, Publication stage), are usually *bilingual English/ French.* The importance of French is therefore relatively limited.

These specific aspects were taken into account in preparing the questionnaire to the NCs of the IEC (see Appendix A).

Research Design

The questions to be answered in this study are the following: **Which language selection policy do the IEC member countries prefer for the organization's technical work and which language selection policy in communication? To which extent should the IEC be bilingual? Could a hypothetical uniligual IEC still present a truly international organization? How does IEC's language selection policy compare to the language selection policy of other international standards setting organizations?**

Because the language selection policies of the different regional and global standardization organizations vary to some degree, one of them can be taken as a case. The IEC was chosen for the following reasons:

- An organization working at the global level (rather than the European level) is preferred, in order to avoid typical European restrictions concerning, for instance, politics (EU) or culture.
- It provides us with the opportunity to build on our own previous research, which also had the IEC as a case (Teichmann, 2000; 2003a, b; 2005, 2006, 2007).
- The first author has many years of working experience at the IEC Central Office.

Preferably, *all mayor players involved* should express their views: the TC/SC secretaries, participating technical experts who represent manufacturers or other organizations, standards users, NCs and even national governments. Because such a consultation is impossible, a "Questionnaire on IEC's language policy" was sent by the IEC CO to the NCs which are expected to represent all relevant major players in their country. The eight questions of the questionnaire are based on the above sections "Ethnolinguistic Background of International Standardization" and "Specific Aspects of International Standardization". The character of this research has necessarily to be explorative.

The number of questions of the questionnaire (Appendix A) represents a compromise between the need for a limitation of this number (a relatively high number of questions would have a negative impact on the response rate), and the need for covering at least the *most essential* aspects. 20 NCs returned their filled-in questionnaires (section "The IEC Case"). This feedback is assessed in section "Case Discussion". The last section "Conclusions" includes a statement on the study's relevance to the other international standards setting organizations.

The IEC Case

The language selection policies of the global and regional standards organizations are a sensitive matter because the national member bodies tend to have diverging ideas about the most suitable policies. Also, the different views are not always based on actual facts, but there may be signs of prejudice and lacking information (Teichmann, 2005). A variety of facts had to be taken into account when the eight items of the questionnaire were formulated, see the above sections.

Out of the 65 member countries of the IEC (figure valid at the time of circulation of the questionnaire), 20 countries (31.3%) returned filled-in and valid questionnaires to IEC CO (Teichmann, 2005, 2006). Furthjermore, comments were submitted by some of these 20 countries as well as by additional members.

The *geographical distribution* of the 20 respondents is as follows: Africa, zero (out of four African IEC member countries); North and South America, two or 33,3% (out of six member countries); Asia, three or 21,4% (out of 14 member countries); Australia and South Pacific region, zero (out of two member countries); Europe, 15 or 39,4% (out of 38 member countries). This means that no feedback was provided by the two continents where the number of IEC member countries is particularly low (Africa, Australia and South Pacific region). Conversely, IEC member bodies in Europe (the continent with the most member countries) are the ones which participated most actively. Participation of North and South America as well as of Asia occupies intermediate positions.

The 20 participating countries were:
Austria, Belgium, Canada, Estonia, France, Germany, Israel, Italy, Japan, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Saudi Arabia, Switzerland, Spain, UK, and USA.

A close look *at the feedback received* reveals the existence of six sub-groups.:

- CENELEC member countries versus CENELEC non-member countries.
- IEC member countries with a Romance language versus the other IEC member countries
- The five most important IEC member countries versus the remaining IEC member countries.

Sub-group 1a: 14 CENELEC member countries: Austria, Belgium, Estonia, France, Germany, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Spain, Switzerland, and UK

Sub-group 1b: Six CENELEC non-member countries: Canada, Israel, Japan, Romania, Saudi Arabia, and USA

Sub-group 2a: Seven IEC member countries with a Romance language as national or at least as highly important language: Belgium, France, Italy, Luxembourg, Portugal, Romania, and Spain (the feedback from Canada and Switzerland did not account for the use of Romance languages)

Sub-group 2b: The other 13 IEC member countries: Austria, Canada, Estonia, Germany, Israel, Japan, Lithuania, Netherlands, Poland, Saudi Arabia, Switzerland, UK, and USA

Sub-group 3a: The five most important IEC member countries: France, Germany, Japan, UK, and USA

It should be noted that in IEC, all members have *one vote.* However, certain member bodies not only pay the highest annual dues, they also hold a relatively high number of TC/SC secretariats, provide numerous TC/SC chairmen and participate in many project teams. They also provide more technical inputs and contribute more actively to the management of the IEC than most smaller member bodies. Therefore, the five most important members do have a fairly comprehensive insight into the nature and the implications of international standardization.

Sub-group 3b: The 15 remaining IEC member countries: Austria, Belgium, Canada, Estonia, Israel, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Saudi Arabia, Spain, and Switzerland

Case Discussion

The majority of the 20 responding IEC NCs advocates the use of *two working languages* (English and French), but - with the exception of the seven member countries with Romance languages - *only English as language for communication*. It would obviously be difficult to consider the addition of further official languages, but this discussion is not yet closed.

The dominant language in international standardization is undoubtedly English. In practice, all technical experts who wish to participate in IEC work on the *international level* need to have an adequate knowledge of English. The knowledge of French is an asset. It has been confirmed, however, that in most IEC member countries the knowledge of French is relatively limited (exceptions are the seven member countries with Romance languages; (Teichmann, 2006). It should be noted that he *use of French* as second working language may contribute to the improvement even of the quality of the *English* versions of the IEC Standards (Teichmann, 2005). On the other hand, the pressure towards unilingualism will inevitably increase in international standardization where more and more countries with own national languages wish to participate.

Most IEC member bodies are of the opinion that national economic and technological strategies do not have much influence on the NCs' attitude with regard to IEC's bilingualism. They also feel that, in general, the main working language exerts little influence on an international organization's policy and programme. It is therefore interesting to note that the *five most important IEC member countries* disagree with this view. Furthermore, there is a general agreement among the national member bodies that the issue "unilingualism versus bilingualism" is indeed related to IEC's philosophy and mission. In particular, the *five most important IEC member countries* did confirm that such a relationship may exist. However, the feedback received from the IEC member countries does not indicate the existence of actual *political problems.* That is, the dominance of the English language and the special status of the French language are perceived as a necessity, but not as indications of a hypothetical linguistic/ cultural imperialism.

It should also be noted that the present form of IEC's bilingualism is not perceived by the responding member bodies *as a handicap* in the technical work. In fact, the NCs have confirmed that a hypothetical unilingualism would not simplify the occasional difficulties in connection with the search for secretaries of Technical Committees (TCs) and Subcommittees (SCs). In this context it should not be overlooked that *all translations* of English texts into French are provided by the French NC, and entirely at its expense (there are, of course, certain other costs due to IEC's bilingualism). All such translations have now to be completed within 60 days (Teichmann, 2005). As a result of this practice, IEC's bilingualism should *no longer be considered responsible* for any significant delays in standards preparation.

In some bilingual international organizations which were set up a very long time ago, French is still an important working language (e.g., OIML and BIPM). On the other hand, the organizations which use for both working and communication English, and at the same time but to a lesser extent also French, were mostly set up a rather long time ago (e.g., IEC and UNESCO). The organizations which use both English and French for working, but only English for communication were in general set up during a somewhat later period (e.g., WTO). The organizations which use *only English* for both work and communication, however, are by comparison newcomers (e.g., ECMA and ETSI). One reason for this evidence may be that traditions tend to linger on, and we may conclude that an organization's traditional practice does not necessarily present the best solution for the present age.

This study shows that the 14 CENELEC member countries in IEC provide more support for keeping French in IEC activities than the six CENELEC non-member countries. This may be due to the fact that France is a European country which has close ties with its neighbours. It is also noteworthy that the six *CENELEC non-member countries* display a more critical attitude with regard to issues of ethnolinguistic relevance, that is, to questions 4), 5) and 6).

Similarly, the *five most important IEC member countries* have a more critical attitude with regard to questions 4), 5) and 6) than the 15 remaining IEC member countries.

These considerations confirm that the question "*Which language selection policy for the IEC?"* is not merely of academic interest; this issue does concern the organization's finance, mission and vision.

Conclusions

Parameters Affecting Language Selection Policies

In the present study the IEC was used as a case, one of the *global* organizations. We may conclude that the following parameters can affect the language policy of the regional and global standards setting organizations:

- Geographical distribution of the organization's member countries
- Time of foundation of the organization
- Relative importance of political issues
- Location of the main office of the organization
- Varied perceptions of the member countries

Geographical Distribution of the Organization's Member Countries

The geographical distribution of the organization's member countries does have an influence on the organization's language policy. For instance, certain *regional* (European) organizations – but none of the global organizations – use German. Also, *European* organizations like ETSI and ECMA are both relatively young and at the same time unilingual. The issues of these *regional* organizations are essentially technical and rarely political. *Global* organizations, on the other hand, tend to be older than the regional ones, and none of them is at present unilingual. Finally, g*lobal* organizations may get involved more frequently in discussions on political issues, and appropriate language choices will be required.

Time of Foundation of the Organization

In general, in the *older* organizations the role of the French language remains more important than it is in *younger* organizations. Furthermore, languages like Arabic and Chinese were not used in the *older* organizations. The *younger* standards setting organizations tend to be regional rather than global, and they show a strong trend towards unilingualism. In the traditionally bilingual organizations, the role of French tends to decrease as time goes on while the role of English is becoming gradually more important.

Relative Importance of Political Issues

Legal and financial issues are closely related to politics. The occurrence of such issues is rare in the regional organizations. They are more common in the global standards setting organizations which tend to have many small member countries from all continents. The political considerations may affect the choice of the official languages particularly of *global* organizations. As far as the IEC is concerned, political issues are secondary to its technical mission.

Location of the Main Office of the Organization

The location of the main office may also play a role. For instance, in a regional South American organization Spanish will always be one of the official languages. Even non-chauvinists might be appalled by the hypothetical policy of an international organization with main office in *French-speaking* Geneva which would nevertheless refrain from any use of the French language.

Varied Perceptions of the Member Countries

Unlike the majority of the remaining IEC member countries, the commission's five most important members agree - even unanimously - that

- the attitude of certain national member bodies with regard to IEC's bilingualism may be affected by economic and political strategies,
- the main working language of a global/ regional organization may exert an influence on its policy and programme, and that
- the issue unilingualism versus bilingualism may relate – in addition to to finance – also to IEC's philosophy and mission.

Relevance to Other Standard Setting Organizations

These findings are not equally relevant to *global* and r*egional* organizations.

- Global standards setting organizations

  Our findings from the IEC case apply undoubtedly to a large extent also to IEC's sister organization ISO. This is to a lesser extent the case for ITU-T which has adopted a somewhat different language selection policy.
- Regional standards setting organizations

  These organizations (e.g., CEN, CENELEC, ECMA and ETSI) face specific requirements. Therefore, *certain aspects* of our findings do not apply.

Concluding Remarks

The topic *language selection policies in international standardization* has often been debated, mostly hotly but only as an aside, and not with theoretical thinking behind it or with practical applications in mind. Nevertheless, we think that this issue will become even more important in future.

We are, on the other hand, aware of the limitations of the study. First of all, the questionnaire to the IEC National Committees had to be simplified because a more scientific approach might have discouraged an even higher number of member countries from responding. Secondly, certain secretaries of such committees informed us that they were not prepared to give their opinions on such a “sensitive” issue as language selection policies. The numerous *IEC non-member countries* could not be consulted at all, and their voices are therefore missing.

Nevertheless, the findings of the present study should be of interest to the international regional and global standards setting organizations. They will probably provide new insights for refining the organizations' language selection policies.

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Appendix A

Questionnaire

This questionnaire to all IEC member bodies consists of eight questions. It is based on the above sections "Ethnolinguistic Background of International Standardization"and "Specific Aspects of International Standardization", as well as personal experience of the first author. The eight questions are the following:

1. May the use of French as IEC's second working language be expected to enrich the intellectual resources of the IEC?

The answer to the first question is positive (55,0% of the 20 responding member countries). Especially the 14 *CENELEC member countries* (57,1%) and the seven *IEC member countries with Romance languages* (71,4%) expect that the use of French as IEC's second working language enriches the intellectual resources of the IEC. It should be noted that the countries of both sub-groups have closer relations with France than most of the six *CENELEC non-member countries* and the 13 *IEC member countries with non-Romance languages*. Both the five most *important members* (60,0%) and the 15 remaining member countries (53,3%) support the use of French as second working language.

2. Would it be possible for IEC to communicate in English only with other standards setting organizations (e.g. ISO; CEN; CENELEC; ETSI) and with other international organizations (e.g. OIML, International Organization of Legal Metrology; BIPM, International Bureau of Weights and Measures; UPU, Universal Postal Union; ITU; and WHO, World Health Organization), and to still remain a truly international organization?

The answer to this question is clearly « Yes » (85,0% « Yes » of the 20 responding member countries versus 15,0% « No »). Both the 14 *CENELEC member countries* (85,7%) and the six *CENELEC non-member countries* (83,3%) insist that it would be possible for IEC to communicate in English only and to still remain a truly international organization. The seven IEC member countries with a Romance language show moderate opposition (57,1% "Yes" versus 42,9% "No"). However, the acceptance rate by both the 13 *IEC member countries with non-Romance languages* and the *five most important IEC members* amounts to 100,0%.

3. Is the French language too complex or for other reasons out of reach of most of your experts?

A majority of the 20 participating member countries (60,0%) reports that their experts do not have a sufficient knowledge of the French language. This attitude is particularly pronounced among the six *CENELEC non-member countries* (66,7%) and the *five most important IEC members* (80,0%). Only the technical experts of the seven *IEC member countries with Romance languages* may be expected to have an adequate working knowledge of French (87,5%).

4. May the attitude of certain national member bodies with regard to IEC's bilingualism be affected by economic and technological strategies?

Whilst the number of abstentions is relatively high (35,0%), the answers to this question tend to be negative (40,0%) rather than positive (25,0%). It is interesting that this applies to all sub-groups except the *five most important IEC member countries:* a majority of them (60,0%) thinks that a member body's attitude with regard to IEC's bilingualism may indeed be affected by economic and technological strategies.

5. May the main working language of a global/ regional organization exert an influence on its policy and programme?

The answer to this question is a very hesitant « Yes » (45,0% « Yes » of the 20 responding member countries versus 40,0% « No »), but neither the 14 *CENELEC member countries* (42,9% « No » versus 35,7% "Yes") nor the six *IEC member countries with Romance languages* (57,1% « No » versus 14,3% "Yes") expect that the main working language of an international/ regional organization may exert a significant influence on the organization's policy and programme. The six *CENELEC non-member countries,* however, (66,7% « Yes » versus 33,3% "No") and the 13 *IEC member countries with non-Romance languages* (46,2% « Yes » versus 46,2% "No") do not follow this trend. Whilst most of the *five most important* IEC *member countries* (80,0% "Yes" versus 20,0% "No") feel that such an influence exists, the relative majority of the 15 *remaining member countries* (46,7% « No » versus 33,3% « Yes ») has the opposite view.

6. May the issue unilingualism versus bilingualism relate - except to finance - also to IEC's philosophy and mission?

The answer to this question is clearly « Yes » (60,0% « Yes« of the 20 participating member countries versus 25,0% « No«). Especially the six *CENELEC non-member countries* (83,3% "Yes") and the seven *IEC member countries with Romance languages* (71,4% "Yes") assume that the issue *unilingualism versus bilingualism* relates - except to finance - also to IEC's

philosophy and mission. The *five most important members* support this view with considerably more emphasis (80,0%) than the 15 *remaining member countries* (53,3%).

7. Would a hypothetical unilingualism of the IEC - as opposed to IEC's current bilingualism - increase the interest of your National Committee in accepting secretariats of IEC TCs/SCs?

The answer to this question is clearly « No » because a very solid majority of the 20 responding countries (70% « No » versus 10% « Yes ») would not volunteer to accept the responsibility for a higher number of TS/SC secretariats in a hypothetical unilingual IEC. None of the six sub-groups disagrees with this position.

8. Which language policy would you - in view of the above seven items - prefer for the IEC? Please note that this question does not concern ISO/IEC JTC 1.

a) Working language is English, IEC prefers to communicate in English only.

b) Working languages are both English and French. Communicating in English only presents few, if any problems.

c) Working languages are both English and French. IEC prefers to communicate in both English and French.

d) The following language policy: .....

Feedback received

A relative majority of the 20 ***participating countries*** (45,0%) prefers Option a); however, Option b) plus Option c) combined draw a slightly higher support (50,0%), which means that the relevant member countries wish to maintain the *working language* French. However, only a minority (20,0% of the participating countries) is in favour of bilingualism *in communication.*

Option a) receives relatively strong support by the 14 ***CENELEC member countries*** (42,9%). Their absolute majority, however, that is Option b) and Option c) combined (57,2%), wishes to retain French as *working language.* There is, however, only little support for the use of French *in communication* (14,3%).

50,0% of the six ***CENELEC non-member countries*** prefer Option a). There is, nevertheless, a certain amount of support for using French as both *working language* and *language for communication* (33,3%).

Option a) receives significant support (42,9%) by the seven IEC ***member countries with Romance languages.*** The absolute majority of these countries, however, wishes to retain French as *working language*, namely Option b) plus Option c) combined (57,2%). Their support for retaining French as *language of communication* is also considerable (42,9%).

Option a) receives again strong support by the 13 IEC ***member countries with non-Romance languages*** (46,2%), but an equally important group, namely Option b) plus Option c) combined (46,2%), wishes to retain French as *working language.* There is, however, only very little support for the use of French *in communication* (7,7%).

It is noteworthy that the five ***most important IEC member countries*** strongly recommend to discontinue the use of French in *both technical work* (100,0%) *and communication* (100,0%).

The 15 ***remaining member countries*** wish to retain French as *working language* (66,7%), but not as *language of communication* (with 26,7% in favour).

The 20 responding NCs *did not propose any additional options*. However, the Pan American Standards Commission (COPANT) has recently submitted a request to both IEC and ISO management for adopting Spanish as fourth official language in addition to English. French and Russian (Salffner, 2006)**.**

Appendix B

Abbreviations

AFNOR	Association Française de Normalisation (French standards body)
BIPM	Bureau International des Poids et Mesures (International Bureau of Weights and Measures)
CDV	Enquiry draft
CEN	Comité Européen de Normalisation (European Committee for Standardization)
CENELEC	Comité Européen de Normalisation Electrotechnique (European Committee for Electrotechnical Standardization)
CO	Central Office (of the IEC)
COPANT	Pan American Standards Commission
EC	European Community
ECMA	European Computer Manufacturers' Organization
ETSI	European Telecommunication Standards Institute
EU	European Union
FDIS	Final Draft International Standard
IEC	International Electrotechnical Commission
IS	International Standard
ISO	International Organization for Standardization
ITU	International Telecommunication Union
ITU-T	International Telecommunication Union – Standardization Sector
JTC 1	Joint Technical Committee 1 (of ISO and IEC)
NC	National Committee (of the IEC)
OIML	Organisation Internationale de Métrologie Légale (International Organization of Legal Metrology)
SC	Subcommittee
TC	Technical Committee
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organizations
UPU	Universal Postal Union
WHO	World Health Organization
WTO	World Trade Organization

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