Language combinations: best practices explained

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1. Introduction

The work of conference interpreters is characterized by high levels of proficiency and understanding of more than one language. In addition to their mother tongue, interpreters typically use one or more other languages in their profession, of which they have complete understanding and the necessary cultural knowledge (AIIC, 2012). These working languages are usually known as A, B and C languages, and together form the interpreter's language combination (AIIC, 2004). For language combinations, as for other aspects of the profession, best practices are instrumental in ensuring that the interpretation work is carried out in the best of ways. In Europe, as a general best practice for language combinations, it is advised that interpreters have at least one A language, their mother tongue, and one or more C languages, their passive languages. In addition, some interpreters might have a B language – a language that while not being the mother tongue allows a very advanced level of expression. It is advised that interpreters use the A language, their mother tongue, as the target language, or accessorily the B language, when they have one. Working towards a B language is commonly referred to as *retour* or 'bidirectional interpreting'. These best practices are established in Europe by virtue of being supported by the International Association of Conference Interpreters (AIIC, 2004), which is active worldwide, as well as by European academic programmes for interpreters' training (EMCI, 2014b) and employers (European Commission, 2012).

The following work intends to explore the current language-combination best practices in Europe, how they came to be, and what supports them. Understanding language-combination best practices, and how they relate to the profession, implies considering the different aspects these practices depend upon; such as, linguistic aspects (e.g., what distinguishes, both theoretically and practically, the A language from B and C languages), training models, professional environment and professional conventions. This work will therefore adopt a multidisciplinary approach and draw from different perspectives, including historical and pedagogical ones. The objective will be to present an overview of the main approaches that can offer meaningful insights on language-combination best practices. For practical reasons, while cases from other geographical contexts will be mentioned for comparison, this work will analyse the European reality.

The first fundamental step, after an introduction of the main actors concerned with language-combination conventions in Europe, will be defining language combinations and the practices associated with them. As mentioned, different perspectives can add to a comprehensive overview of language-combination best practices. The first of these will be that of training and of pedagogical approaches, which have a great influence in shaping best practices today. Both a historical perspective on interpreters' training (section 2.3) and pedagogical approaches (section 2.4) will be outlined. The next perspective to be introduced will be that of professional practices and of market realities. Of particular importance in this sense are institutions such as the United Nations or the European Union, who, by employing considerable numbers of interpreters, constitute a major share of the overall interpretation market. Nonetheless, certain other markets can provide interesting elements for comparison, too. Finally, the perspective of cognitive science will be introduced. This will comprise of an overview of the main topics that relate multilingual language processing to interpreting. Studies on language processing in multilingual speakers can offer valuable insight on some of the cognitive aspects of the work of interpreters, and that can help understand language-combination best practices.

The literature review will allow, globally, a discussion of some aspects of language-combination practices that are particularly interesting for discussion. These will be presented in a structured, critical discussion in chapter 3. The themes presented in the literature review will be shown here in their relation to one another and discussed. This will allow exploring, from a multidisciplinary perspective, what sustains current language-combination best practices and to answer the research question outlined above.

2. Literature review: views on language combinations and multilingualism

In the literature review, different perspectives on language combinations will be presented: the most historically significant institutions in the establishment of best practices (2.1); the current content of working-languages definitions and best practices (2.2); a historical perspective on these practices (2.3); a pedagogical one (2.4); the situation in professional environments (2.5) and cognitive-science research related to working languages (2.6).

2.1 Best practices: reference institutions today

To understand where language-combination definitions and best practices originate, and their relevance for professional interpreters, some contextual elements need to be outlined.
This section will describe the International Association of Conference Interpreters (AIIC), the reference institution for professional conference interpreting, and the European Masters in Conference Interpreting (EMCI) Consortium, which groups a number of renowned academic programmes devoted to interpreters' training.

2.1.1 AIIC

The International Association of Conference Interpreters, known by its French acronym AIIC, can be considered the main representative of conference interpreters worldwide (Boéri, 2015). AIIC was founded shortly after the Nuremberg Trials, where simultaneous interpreting as we know it today was first used (Gaiba, 1998). AIIC's mandate, set at the time of its creation in 1953, is to be a global professional association to which both freelance and staff interpreters around the world can belong and to define the ethical standards and work conditions under which interpreters' work (Thiéry, 2005).
Throughout the years, the association has produced numerous publications and surveys and contributed to the creation of an established professional community. Today, as a professional association, AIIC negotiates 5-year agreements with major employers of interpreters to define working conditions, remuneration and pension provisions. Among the organizations that have agreements with AIIC, we can find the United Nations (UN), the North Atlantic Treaty Organization (NATO) and the European Union (EU) (Thiéry, 2015).

AIIC can be considered a reference in terms of professional standards. The association has always been active in the promotion of such standards, working closely with the International Organization for Standardization (ISO) to provide regulations for interpreters' working conditions (Thiéry, 2015).

AIIC also devoted great attention to interpreters' training; for example, through its criteria for interpretation schools and sponsoring of training events and seminars (Thiéry, 2015). AIIC also offers a *Survey of Interpreting Schools and Programs* - a fully searchable directory for interpreting programmes worldwide (AIIC, 1999). AIIC remains today the only professional association dedicated exclusively to conference interpreting and as such sets the ethical and professional standards necessary for guaranteeing quality in conference interpreting (Bao, 2015).

2.1.2 EMCI

The European Masters in Conference Interpreting (EMCI) Consortium was started in 2001, under the supervision of the European institutions, as an effort to coordinate the different interpreter-training programmes existing at the time. The EMCI programme managed to significantly harmonize interpreters' training curricula, emphasizing in particular: skill progression, background knowledge, simulated practice and student self-practice (Moser-Mercer, 2015b).

Today, the EMCI Consortium groups 15 programmes across Europe and actively collaborates with the European Commission and the European Parliament – a long-standing tradition. Since the beginning, the programme's curriculum was in fact developed "in consultation with the European Institutions" (EMCI, 2014a). The collaboration was always actively maintained, as "continuation of this cooperation is an integral part of the programme" (EMCI, 2014a).

In virtue of its connection with the European institutions, the EMCI is an important actor linking students to prospective employers. In fact, the programmes seek "to meet the demand for highly-qualified conference interpreters, in the area of both widely and the less widely-used and less-taught languages and in view of the expansion of the Union and of the Union's increasing dialogue with its non-European partners" (EMCI, 2014a).

Both AIIC and the EMCI were critical in their efforts to give a common and organized structure and framework to the profession and can still be considered as widely influential in setting conventions for working conditions and training curricula in Europe, respectively.

2.2 Language-combination definitions and best practices

The following section will be dedicated to the definitions of language combinations and to the best practices existing today.

2.2.1 A, B, C languages

The creation and the adoption of standards and conventional practices can be considered a critical step in the evolution of professional interpreting (Setton & Dawrant, 2016). As with other aspects of the profession, this also applies to language combinations.

While each interpreter, depending on her/his personal background, has an individual combination of working languages, all professional interpreters share the fact of having certain proficiency levels in their languages and to attribute to each language the status of active or passive language.

A conventional scheme can therefore be used to define language combinations, and be applied to interpreters in general, from the moment they are admitted to a training course all through their careers. The systematic use of this classification system can be considered one of the milestones in the professionalization of conference interpreting (Setton & Dawrant, 2016). According to this conventional system, the working languages of interpreters are classified according to an A, B, C order (AIIC, 2004).

These labels allow simultaneous reference to both the level of mastery of each language, and its role in the language combination. A working language can in fact be either a native or a learned language, and either passive, “only for understanding and interpretation into another language”, or active, “for interpreting both from and into that language” (Setton & Dawrant, 2016: 49).

A, B and C languages are defined by AIIC in terms of language proficiency and of the role each language serves. A very similar wording to that of AIIC’s definition is also used by the European Commission (2012) and by the EMCI Consortium (2014b) in their external communication presenting language combinations to prospective students, clients and users. AIIC’s definitions, and their variations, are critical in shaping the perception people outside

the professional interpreting world have of language combinations. Their use can also signal that a certain institution acknowledges the importance of professional standards and conventions.

AIIC's definitions (AIIC, 2004) are as follows:

> *A language: The interpreter's mother tongue (or another language strictly equivalent to a mother tongue), into which s/he interprets from all other working languages, generally in the two modes of interpretation, simultaneous and consecutive. AIIC members are expected to have at least one A language.*
>
> *B language: A language into which the interpreter works from one or more of her/his other languages and which, although not a mother tongue, is a language of which s/he has perfect command. Some interpreters work into B languages in only one of the two modes of interpretation. In principle, an interpreter's main active language is the mother tongue - the language in which the interpreter was formally educated and feels completely at ease.*
>
> *C language: Passive languages are those languages of which the interpreter has complete understanding and from which s/he interprets. These are what interpreters call their C languages, according to AIIC classification.*

AIIC's definition of the A language entails that this is the language in which the interpreter has the most ease of expression and agility, by virtue of it being the native language. This is, by default, the language in which the interpretation is produced. The definition of the A language can also include that "while all interpreters have one A language, there is the possibility that some might have more than one" (AIIC, 2002, European Commission, 2012). In these rare cases, interpreters are able to work into a second active language from all their other languages, and are thus said to be "bilingual interpreters" (AIIC, 2004) or to do a second full booth (AIIC, 2012).

Complementary to the A language, the C language is the one interpreters use as source language. For C languages, as stated by AIIC, perfect understanding is required. The level of expression does not, on the other hand, need to be specified.

A language combination can, technically, be composed solely of an A language and one or more C languages. Different language combinations are nonetheless possible, as some interpreters also have a B language in their combination.

AIIC specifies that, while not being a native language, the B language is one that allows the interpreter very high levels of expression, a criterion setting the B language apart from the C language. In principle, the B language is therefore a learned language for the interpreter, but mastered to a level that allows near-native quality in expression.

In addition, AIIC (2004) also specifies that the B language is better suited to specific interpreting situations, and that its status depends heavily on the amount of training undertaken:

> *An active language which is not the interpreter's mother tongue can only be acquired after years of hard work and frequent stays in a country of that language. Usually, however, the second active language reaches a satisfactory standard only after many years of practice and is more suited to interpretation of technical discussions where lexical accuracy is more important than style or very discrete shades of meaning. It is customary only to work into the second active language out of the mother tongue.*
>
> *The very rare case of true bilinguals, i.e., people whose personal circumstances have resulted in their having two "mother tongues", is the exception that proves the rule. Bilingual interpreters are much in demand, especially if they can offer a third language.*

As the flexibility of the A, B, C classification reflects, a language combination can be structured in several different ways, reflecting the personal and professional background of each interpreter. The number of C languages, for example, can vary greatly from one professional to the other.

In addition to the different uses listed above for each language category, a language combination could also include information about the modalities of interpretation, specifying for instance if a B language is used only in the consecutive mode (Setton & Dawrant, 2016).

2.2.2 Directionality: conventional practices

Best practices for language combinations are not only composed of definitions of proficiency and understanding. Closely related to these definitions is in fact the issue of directionality. In general terms, directionality is determined by the fact that certain languages are for the interpreter active and others passive: professional interpreters work from their passive language into their active one(s).

An important issue of debate related to directionality comes from observations that some active languages might be better suited for use as target languages than others. The A language is, generally speaking, more commonly considered a better target language than the B language (see for example Bartłomiejczyk, 2015; Lim, 2005; Mackintosh, 1999), and this practice is often associated with AIIC (Iglesias Fernández, 2005).

Regarding this issue, AIIC's language definitions include an important prescriptive element. While both A and B languages are defined as suitable for use as target languages in the interpretation process, it appears that the A language is considered the default target language and that the B language is by definition an additional active language. "In principle", AIIC's definition of the B language reads, "an interpreter's main active language is the mother tongue" (AIIC, 2004).

Furthermore, the B language is defined by AIIC as a valid target language only under precise circumstances, such as outstanding proficiency and cultural competence levels, and preferably in specific work situations that limit the necessity for linguistic sensitivity and creativity (AIIC, 2004).

Besides, the description of the use that is made of each language in the profession is tightly associated with the definition of the language itself in terms of proficiency. The practices recommended by these definitions are therefore seemingly tied to the definitions themselves of what A, B and C languages are. Similarly, the fact that interpretation towards a non-native language is commonly referred to as *retour* or as 'inverse translation' can be considered a symbolic acceptance of the fact that the default direction for interpretation is towards the A language (Bartłomiejczyk, 2015).

2.3 Theoretical approaches

The following section will present an overview of the traditional approaches that have been particularly influential in defining current practices in interpretation.

2.3.1 The Paris School

The idea that interpretation should preferably be carried out using the mother tongue as target language or, conversely, using the mother tongue as source language, has been the subject of a long debate among interpretation scholars, and different arguments have been presented on either side. The dominant position in Western countries has traditionally been that of preferring interpreting towards the native language (AIIC, 1970; Bros-Brann, 1976; Déjean Le Féal, 1981; Gile, 2005; Seleskovitch & Lederer, 1989, Thiéry, 1989).

This stance is best represented by the Paris School scholars, in particular by Danica Seleskovitch, among the first scholars to teach at the *École supérieure d'interprètes et de traducteurs* (ESIT). ESIT was founded in Paris shortly after the Nuremberg Trials and became known for being the source of the Paris School of thought (Lederer, 2015). Thanks to Seleskovitch, ESIT became the first institution to develop and mainstream research on interpreting (Gile, 2009). Based on a series of personal observations and studies, Seleskovitch (1968) initially argued that interpreters can guarantee a high-quality output only when they express themselves in their mother tongue, and that interpreting towards a second language should be discouraged.

Arguments in favour of interpretation towards the A language typically ranged from purely linguistic observations to concerns about professional deontology: retour was at times cited as a threat for professional quality standards (Dejean Le Féal, 1998; Donovan, 2003).

More recently, *retour* has been given greater attention in interpretation pedagogy due to an increase in its use in professional settings, related for example to the growing use in international conferences of less widely-spoken languages (EMCI, 2002), as explained in section 2.5.2. Nonetheless, the idea that interpretation towards the mother tongue would naturally be of better quality has remained dominant in the West until today (Bartłomiejczyk, 2015).

2.3.2 Considerations on interpreting into A

One of the main observations of Seleskovitch and Lederer (1989) on interpreting towards the A language is that the mother tongue grants the speaker a unique ability to use language creatively and intuitively. In her/his first language, a native speaker has command of the whole of the syntactic and semantic structures of the language. In their A languages, interpreters would be distinguished by their ability to naturally pick the words that strike the most, and produce the most evocative images and structures.

This instinctive ability would help interpreters beyond creativity: in the native language, corrections, too, happen intuitively. A native speaker is in fact able to immediately spot defects in the language she/he uses and, if aware of having uttered a poorly-constructed sentence, to correct it instinctively, without needing to rationally think about syntax (Dejean Le Féal, 2000).

In addition to allowing greater ease and creativity, working into a mother tongue would free interpreters from the burden of having to retrieve and use idiomatic expressions in a learned language (Seleskovitch & Lederer, 1989), a task that is operated automatically and often without conscious effort in the native language.

Working into the mother tongue has also been said to allow interpreters to focus on what is truly important in the source speech (Seleskovitch & Lederer, 1989), since the formal aspect of the output does not burden the interpreter's mind. In the words of Seleskovitch and Lederer (1989: 114), interpreting towards the A language "automatically assures that the interpretation will be complete and the whole content conveyed".

2.3.3 Considerations on interpreting into B

According to Seleskovitch, there is an obvious difference in quality between interpretation into an A and a B language, and advocating *retour* would be comparable to assuming that "interpreting is tantamount to substituting target language words for source language words" (Seleskovitch, 1999: 55-56).

In spite of the interpreter's efforts, creativity, intuition and idiomaticity would remain lacking in a B language (Seleskovitch & Lederer 1989). According to Newmark (1981: 180), an interpreter speaking a learned language can more easily be betrayed, rather than by her/his carefully learned grammar and vocabulary, by her/his "unacceptable or improbable collocations".

Seleskovitch and Lederer (2002) argued that an interpreter working into a B language should possess considerable background knowledge of the topic discussed and that her/his work should focus on reporting the factual elements and argumentations accurately. Interpreting the aesthetic components that might be present in a speech, or attempting to reproduce complex and stylistically charged sentences in a B language, would risk embarrassing the speaker rather than serving them (Seleskovitch & Lederer, 2002).

In addition to concerns related to performance quality, there can be deontological reasons for discouraging *retour*: for example, it has been suggested that interpreting into a B language could risk becoming widespread practice, in spite of its lower quality, because of the advantage of a combination with *retour* on the market. A significant risk would in this sense be that of interpreters working into a B language without the necessary proficiency levels because they feel pressured to do so to enhance their employability (Donovan, 2003).

2.3.4 Other approaches to directionality

It should be mentioned that the views presented in sections 2.3.1, 2.3.2 and 2.3.3 reflect mostly a Western approach, and more precisely, as mentioned, the one that originated from the Paris School.

While historically interpreting schools in Western Europe have been associated with the idea that interpreting into an A language ensures a quality that cannot be achieved when working in *retour*, a different interpreting tradition has been known for promoting the practice of *retour* and for encouraging students to practice interpretation towards the B language (Page, 2006). In Eastern Europe, proponents of the so-called Soviet School followed an alternative pedagogical model to that of the Paris School, whereby interpreting was taught towards the B language (Chernov, 1999; Denissenko, 1989; Rejskova, 2001; Shveister, 1999).

This approach was based on two observations: that interpreters understand their native language better and that the understanding of the passive language is more essential to the interpreting process than proficiency in the active one (Chernov, 1992; Denissenko, 1989). Understanding of one's mother tongue is significantly better, Denissenko (1989) argued, and this is especially useful in cases where the speaker might be speaking fast or have a particular accent. Another reason for preferring to work in *retour* would be the restricted number of lexical choices the interpreter disposes of in her/his rendition. Having only a few options for a

given concept in the target language would, in this sense, allow the interpreter to act more quickly and with reduced control over the output.

As a further reason for interpreting into a B language, the Soviet School suggests that users' expectations are usually not as high as scholars believe them to be. Audiences, Denissenko argued, are willing to forgive imperfections in the interpreter's performance such as a "somewhat stiff, less idiomatic or slightly accented language" (Denissenko, 1989: 157). In Eastern European countries, and in those that are former members of the Soviet Union, bidirectionality is today still significantly more common than in Western Europe (Iglesias Fernández, 2005).

While there exists different approaches to language, as indicated above, it can be argued that in Europe the approach to directionality advocated by the Paris School scholars turned out to be the most successful, especially in the institutional market.

2.4 Language combinations in interpreters' training

The following section will be dedicated to exploring how these practices and traditions are reflected by interpreters' training programmes. This will include mention of both the past and present interpretation pedagogy, and an overview of the current practices and selection criteria of interpreters' training programmes in Europe.

2.4.1 Pedagogical approaches

The guidelines provided by pedagogical materials on language combinations can be useful to complement the definitions of language proficiency and understanding levels of A, B and C languages proposed in section 2.2. Interestingly, the Paris School scholars already provided some description of the necessary language competencies of interpreters: in the first edition of their 1989 work, Seleskovitch and Lederer (1989) proposed indicative language-proficiency levels by which to assess the performance of candidate students.

Criteria for the A language

For the A language, Seleskovitch and Lederer (1989: 197) argued that "the candidates must be able to express themselves articulately in their native language and be able to vary the register as appropriate. Their command of their native language should be intuitive" (...) since

it is important for interpreters "to have their mind free to focus on understanding the message, their verbal expression being completely spontaneous". Besides, the status of 'native language' should not be enough to define the A language: "any candidate whose native language is not in dispute but whose command of the language displays obvious lexical deficiencies and whose cultural background is clearly lacking will be disqualified" (Seleskovitch & Lederer, 1989: 197).

More recently, necessary A-language levels for candidate students have been defined by the reference work of Setton and Dawrant (2016). Starting from the assumption that the A language is "usually the mother tongue or native language, and/or the main language of education", Setton and Dawrant (2016: 62), propose several practical criteria for evaluating prospective students. In her/his A language, the candidate:

> - *is most at ease, expressing him/herself naturally, clearly and well without undue effort and in a standard accent;*
> - *has a convincing, educated command at university honours level, both written and oral;*
> - *can read complex texts aloud fluently, confidently and intelligently;*
> - *can use the language correctly in a range of registers (formal, colloquial, humorous, ironic, etc.);*
> - *has a large vocabulary and good command of idiom, usage, colloquialisms and cultural references;*
> - *exhibits high verbal fluency and flexibility, and can easily generate synonyms, paraphrase, and express things in different ways for impact, or for different settings and audiences;*
> - *can expand or compress expression;*
> - *can 'read between the lines', and anticipate how sentences are going to end and where the argument is going;*
> - *is familiar with discourse and style conventions in different genres"*

From reading these criteria, we can notice that pedagogical definitions of the A language have maintained a considerable degree of continuity since the establishment of the Paris School: in both definitions the accent is put on the importance of natural and idiomatic expression, the ability to vary the language register according to the situation, and familiarity with the language's cultural background. We can notice in 2016 that the pedagogical material for interpreters' trainers has adopted a more pragmatic approach: while Seleskovitch and Lederer (1989) proposed a more general definition of the A language, Setton and Dawrant (2016: 62) present criteria that can more easily and directly be linked to external observation and judgement, such as "educated command at university honours level", "a range of registers (formal, colloquial, humorous, ironic, etc.)", and ability to "anticipate how sentences are going to end".

Criteria for the B language

The directionality debate, presented in section 2.2.2, and the varying views around it, make requirements for the B language a particularly interesting issue from the viewpoint of trainers. With regards to expression in the B language, Seleskovitch and Lederer mention that, while "absolute perfection is not expected", the candidate "must be able to convey complex arguments to a demanding audience" (Seleskovitch & Lederer, 2002: 197-199).

With the evolution of interpreting pedagogy, additional definitions of the B language in terms of requirements and expectations have appeared. In 2002, the EMCI Consortium held a workshop to explore the particular challenge of teaching simultaneous interpretation into a B language (EMCI, 2002: 61-62). A set of core principles for the assessment of candidates were outlined:

> - ***Resourcefulness****. This covers both use of B language and handling message rendition; Candidates must show flexibility in language use and in terms of expressing content.*
>
> - ***Robustness of B language****. Candidates cannot all be expected to have B language proficiency of professional level. Criteria are needed to test probable progress in B and likely ability of B language to hold up under the pressure of SI.*

> ➢ *Motivation. An interesting approach to assessing motivation as a predictor of likely progress in the B language is to require candidates to answer questions about the country and culture. Questions cover all aspects of life in a country – sporting results, key innovations, nursery rhymes etc. and are designed to assess the degree to which candidates take a genuine interest in the language and culture.*
>
> ➢ *Quality of A language. Quality of A language is always vital, but particular care must be taken for candidates who have spent long periods of time abroad or have grown up in a bilingual setting, in other words precisely those candidates most likely to present an A-B combination.*
>
> ➢ *Teachability. Teachability refers here to attitude and ability to react appropriately to advice and criticism. This is highly relevant in interpreting studies, because much comment on the students' work is inevitably of a personal nature, as it relates to language, delivery, voice and presentation.*
>
> ➢ *Biographical details and general attitude. Age, time spent in the B language country, past working experience, particularly previous interpreting experience, and knowledge of B language country(ies) and culture were all felt to be significant.*

It can be noticed, firstly, that the criteria proposed by the EMCI for assessing a B language are distinctly less detailed and objective than those given by Setton and Dawrant (2016) for the A language. Criteria such as 'motivation', 'teachability' and 'general attitude' appear difficult to measure objectively, suggesting that the B language might be harder to define that the A language.

Some criteria advised for the B language, such as resourcefulness, robustness of the language and teachability, could arguably be applied to the examination of the candidate in general, and not only to the evaluation of the B language. Others reflect, on the other hand, the uniqueness of the B language. For example, the EMCI (2002) document advises that

particular attention be given to the candidate's A language, in cases where there is a B language in the combination.

Motivation and attitude towards the cultural context of the B language are also given particular relevance. In general, the B language appears to pose greater difficulty in its pedagogical definition than the A language, and its assessment to rely more on the personal evaluation of the trainers tasked with the admission examination.

Criteria for the C language

Concerning the C language, criteria for admission are directed at the understanding of the language, and candidates' proficiency is not an element for evaluation.

In their 2002 work, Seleskovitch and Lederer (2002) mentioned, for example, that the candidate student needs to be able to understand her/his passive languages "regardless of subject, circumstances, or the accent of the speaker, or how quickly he is speaking". In other words, "as if they were his own".

Candidates must in addition possess an "extremely rich" vocabulary in these languages. Similar criteria are mentioned by Setton and Dawrant, for whom the really important factor for the C language is if the candidate is able to understand "any speaker" of that language, in a conference setting, "without too much effort" (Setton & Dawrant, 2016: 63).

2.4.2 Interpreting schools: admission criteria today

Today, conference-interpreting academic training programmes present a variety of admission criteria, which reflect, to different degrees, the language-combination practices presented in section 2.2. The admission criteria of institutions belonging to the EMCI Consortium, for instance, vary from one institution to the other. Below are listed the possible language combinations students can have at the moment of admission in each school.

- Antwerp - KU Leuven Campus St-Andries

  A-C-C with Dutch A for both consecutive and simultaneous interpretation. A-B for consecutive only, with Dutch into another language (KU Leuven Campus St-Andries, 2016).
- Antwerp - Universiteit Antwerpen

A-B-C or A-C-C with Dutch A. B needs to be either French, English or German. The A-B-C combination is new and aims to increase students' "chances on the current conference market, where a decent return is a requirement" (Universiteit Antwerpen, 2017).

- Budapest - ELTE University

  A-B-C with Hungarian A. B and C can be either English, French, German or Chinese. Students with English, German or French as a mother tongue (A) are also accepted if they have Hungarian knowledge of a B or C language (ELTE University, 2014).

- Cluj- Napoca - Universitatea Babeş-Bolyai

  A-B-C or A-C-C with Romanian A. B and C can be English, French, and Spanish. (Universitatea Babeş-Bolyai, 2017).

- Geneva - Faculté de Traduction et d'Interprétation

  A-A ; A-A-C ; A-B-C ; A-B-C-C ; A-Bcons-C ; A-Bcons-C-C ; A-Bcons-Bcons ; A-C-C ; A-C-C-C. Passive languages taught for each active language:

  Arabic: English, French.

  English: Arabic, French, German, Italian, Portuguese (in C only), Russian, Spanish.

  French: Arabic, English, German, Italian, Russian, Spanish.

  German: English, French, Italian, Spanish.

  Italian: English, French, German.

  Russian: English, French.

  Spanish: English, French, German.

  (University of Geneva, 2017).

- Istanbul - Boğaziçi University

  A-B-C with English and Turkish. Whichever the candidate's mother tongue, she/he must have "a very high level of competence in at least two languages involved in the program". "The B language is the second strongest language of an interpreter. An interpreter should be capable of interpreting into this language too, also from the C language" (Boğaziçi University, 2017).

- La Laguna - Universidad de La Laguna

  A-B-C or A-C-C. The language combination must include Spanish and English and at least one other language (Universidad de La Laguna, 2017).

- Ljubljana - Univerza v Ljubljani

  A-B-C or A-C-C with Slovene A. B and C can be either English, French or German (Univerza v Ljubljani, 2017).

- Madrid - Universidad Pontificia Comillas

  A-B ; A-B-C ; A-B-C-C ; A-C-C ; A-C-C-C with Spanish A and English B. C languages can be French and German (Universidad Pontificia Comillas, 2017).

- Paris - ESIT - Université Sorbonne Nouvelle Paris 3

  English or French required as A and B. The languages offered are German, English, Arabic, Bosnian, Croatian, Serbian, Chinese, Spanish, French, Greek, Italian, Japanese, Portuguese and Russian (ESIT, 2016).

- Paris – ISIT

  A-B-C or A-B-C-C with French and English required. The languages offered are Arabic, Chinese, Dutch, English, French, German, Hungarian, Italian, Polish, Portuguese, Russian, Slovak, and Spanish (ISIT, 2017).

- Prague - Charles University

  A-B with Czech A. B can be English, French, German, Russian or Spanish (Univerzita Karlova, 2017).

- St. Petersburg - SCIT - Herzen University

  A-B-C with Russian A. B can be either English or French and C can be English, French, German, Spanish or Chinese (SCIT - Herzen University, 2016).

- Trieste - Università degli Studi di Trieste

  The languages offered are Arabic, French, English, Italian, Dutch, Portuguese, Russian, Serbian/Croatian, Slovenian, Spanish and German (Università degli Studi di Trieste, 2017).

- Warsaw - Uniwersytet Warszawski

  No information on language combinations is available.

Among the universities of the EMCI Consortium, we can notice that the most common requirement seems to be that of having knowledge of the local language, either as A or B language. The only confirmed exception in this sense is the University of Geneva.

Eight universities accept students either with or without a *retour* in their combination, while five universities require a B language. Generally, these requirements are compatible with the EMCI's and AIIC's recommendations and best practices. Interpreters are for instance always required to have one A language. Having a B language is more often than not optional. Conforming to the EMCI principles, the admission exams are tasked with assessing that the language combinations proposed by students correspond to the necessary levels to begin the training.

It can be noticed that with the exception of ISIT, universities requiring a B language are all located in Eastern Europe. Interesting cases in particular are that of Charles University, that focuses the curriculum on only two languages, and that of Boğaziçi University, which demands students to interpret into the B language also from the C language, a practice that seems at odds with professional best practices advising interpreters to work into their B language only from their A language (AIIC, 2004).

Beyond Europe, it is interesting to notice that academic institutions follow at times significantly different practices, often more distant from the ones advised by AIIC. In China, for example, training programmes rotate around the single most common language combination, English-Chinese, and require bidirectionality (Bao, 2015). An example is the Graduate School of Translation and Interpreting of Beijing Foreign Studies University. In their interpreters' training programme, the language combinations offered are either A-B English-Chinese or A-B-C English-Chinese plus another language among German, Russian, French, Spanish, Korean or Thai (Beijing Foreign Studies University, 2017).

The case of China is an important reminder that language combinations might be determined by a variety of other factors such as different traditional approaches to interpreting and market reality. While this work focuses mainly on European realities, the aspect of the diversity of markets can be considered relevant both at the local level and at a global one. This aspect will be examined in more detail in section 2.5.

2.4.3 Employers' commitment to interpreters' education

Some institutions employing large numbers of interpreters have links with academia and actively participate in interpreters' training programmes and professional development. For example, the Directorate General for Interpretation (DG Interpretation) of the European Commission provides support for interpreters' training in various ways, which include

supporting teaching and examinations through the presence of European Commission interpreters in training programmes and providing teaching materials. In collaboration with the European Parliament, the European Commission has also provided grants for interpreters' training (DG Interpretation, 2013).

The European Parliament also contributes considerably to interpreters' training, through means such as "Virtual master classes, e-learning, participation of experienced staff interpreters at final exams, seminars for course leaders and trainers, grants for the organisation of post-graduate courses in conference interpreting, projects aimed at supporting interpreter training and students' visits to the European Parliament" (European Parliament, 2017).

Similarly, the UN shows great commitment to interpreters' training, collaborating with universities and providing teaching support and training materials to students. Both institutions are active in the organization of conferences for training institutions and support the sharing of best practices (Chai and Zhang, 2013; DG Interpretation, 2013). The UN also organizes internship programmes for students as part of its Language Outreach initiative, while the European institutions participate routinely in Virtual Classes that connect students to both the institutions and other EMCI programmes (Moser-Mercer, 2015).

These pedagogical activities can expand beyond the EMCI context. For example, the DG Interpretation cooperates with universities in member countries of the EU, candidate countries and third countries (DG Interpretation, 2016).

Interpreters' training programmes have in conclusion different approaches to language combinations and, in the European context, the EMCI schools benefit from the support of institutions susceptible to employ interpreters upon graduation.

2.5 Professional practices

The following section will focus on a different but related perspective on language combination best practices: the professional environment. The aim of this section is to explore how language combination conventions are applied by interpreters in their professional practice, as well as the views of interpreters and employers on the subject.

2.5.1 Institutions

Preferring interpreting towards the A language is customary within the European Commission, the European Parliament, the UN, the Council of Europe and NATO (Szabari, 2002). Depending on the institution they work for, interpreters tend to have different types of language combinations. For example, an interpreter working for the European Parliament will generally have more C languages than one working for the UN, as the number of languages used in each session is generally larger at the European Parliament than at the UN.

But even within these institutions, which mandate interpreters to work into their A language, *retour* cannot always be avoided. This has been especially true in circumstances where bidirectionality was a necessity, such as in the case of minority languages. For example, with Central and Eastern European countries joining the EU, institutions have more and more required interpreters to work into their B languages, as often there was a shortage of interpreters possessing passive knowledge of the languages of the new countries. *Retour*, practiced from native speakers of these less-diffused languages, was necessary for other interpreters to be able to work (Lim 2005; Szabari, 2002).

At the UN, the Arabic and Chinese booths have traditionally been in a similar situation, and they are considered bidirectional booths. Due to insufficient numbers of interpreters having the necessary levels of Arabic or Chinese as a C language, the interpreters working in these booths are required to be able to work into their B language, generally English, for the use of the audience as well as of the other booths (Setton & Dawrant, 2016). As a consequence, these booths are composed of teams of three interpreters instead of two, and the interpreters employed must prove their ability to work in *retour* when they pass the UN accreditation exams (United Nations, 2017c).

2.5.2 Other markets

While preferring interpretation towards the A language is customary in the institutional market in Europe, alternative practices exist in other contexts. There are for instance markets where interpreters work mostly bidirectionally. These are, at a global scale, mostly national and private markets, where demand for bidirectional interpreting between the local language and English is high. For example, interpreters working mostly bidirectionally represent the majority of interpreters in China, Japan and Brazil (Setton & Dawrant, 2016).

The success of *retour* in these markets is generally attributed to the fact that certain languages are not widely practiced beyond the borders of the country they are common in. This is, for example, the case of Chinese, Korean, Japanese, Vietnamese or Baltic languages.

As business and political contacts with these countries increase, the need for interpreters able to work bidirectionally from and into these languages increases (EMCI, 2002). In these cases, foreign interpreters often have to count on bidirectional interpretation, and use as source a colleague that is a native speaker of, for example, Chinese, and works into English, a B language for her/him (Setton, 1994, Lim, 2005).

This situation bears some similarity to that of the interpreters of minority languages within institutions, described in the previous section, as in both cases the scarcity of speakers of a certain language makes *retour* a more convenient, if not necessary, choice.

The fact that this situation is nonetheless more prevalent in Asian markets can be exemplified by the fact that JACI (personal communication, 2017), the Japan Association of Conference Interpreters, reports that nearly all their members have an A-B combination:

> *Nearly 100% of interpreters in Japan (English-Japanese, not limited to JACI members) are expected to and actually do work both ways. An interpreter who only works toward his/her mother tongue would not command any quality job offers, if at all. One major reason for this is that there aren't enough native English speaking interpreters who understand the Japanese language at a high level -- and this hasn't changed in the past 50 years or so.*

While bidirectionality practice is more common today in Asian countries such as China (as mentioned in section 2.4.2) or Japan, it also can be observed in Europe, in cases outside that of minority languages within the institutions.

In private markets in Western Europe interpreters are, for instance, reporting they are often demanded to work towards their B languages (Szabari, 2002). The practice of *retour* in non-institutional markets has been observed to have caused an overall increase, in recent times, in the use of B languages (Fernández, 2003). In Eastern European countries, in particular, the share of interpreters working uniquely towards their A language tends to be lower, estimated for example in Slovakia at below ten percent (SATP, personal communication, 2017).

AIIC (2011) found that C languages can also be used as active languages: a survey from the association found the practice of working towards a C language exists in Africa especially (41.7% of all respondents), Arab Countries (30%), Brazil (32.4%), Israel (54.5%), Netherlands (30.6%) and Turkey (50%). Worldwide, among AIIC members surveyed, 14.3% of all C languages were reported to have been used as active languages (AIIC, 2011).

Interpretation markets emerge, as a result, very diverse in their approaches to language combinations. Especially outside Europe and the institutional markets, interpreting towards a language that is into the mother tongue is significantly more common, with large numbers of interpreters working regularly towards their B languages or even towards languages they still consider C languages.

2.5.3 Perspectives: interpreters and clients

Different surveys have investigated interpreters' professional practices and the expectations of clients. In relation to language combinations, these surveys can be used to investigate whether directionality is an important factor for interpreters and clients, and what their views on the topic are.

Interpreters

Various surveys have reported that interpreters generally prefer working into their A language (Donovan, 2002, 2004; Nicodemus & Emmorey, 2013). Nonetheless, there are instances of interpreters reporting being more comfortable working into a B language (Al-Salman & Al-Khanji, 2002). Interpreters can clearly have a variety of reasons for preferring to work into the A or the B language. Following is a review of surveys that have investigated these preferences among their respondents that declare working bidirectionally.

Among interpreters that prefer working into their mother tongue, reasons include being able to better manipulate the language and to manage problematic situations with more elegance, or the fact that their understanding of the B language was greater than their ability to express themselves in it (Lim, 2005). Other reasons are the fact that this type of interpretation is "less tiring, one is less tense and has more flexibility" (Donovan, 2002: 7).

Conversely, interpreting towards a B language is "more vulnerable to constraints such as speed, unprimed information and fatigue" (Donovan, 2002: 7).

Among interpreters that prefer working into a B language, a distinction can be made among those that are members of AIIC and those that are not. In the first case in fact the reported preference is expressed with knowledge of the best practices advised by the professional association. These interpreters represent an exception in their environment. In the other cases, and notably in Asian markets, *retour* is expected. Korean interpreters that declared to prefer working into a B language mentioned the difficulty to understand non-native speakers in a learned language and the fact that foreign audiences would be more forgiving of imperfections in a *retour* than local audiences towards an imperfect Korean rendition (Lim, 2005).

When the question of why they preferred working in *retour* was answered by AIIC members, half of the respondents mentioned the better understanding of their A language. Donovan (2002: 7) gives a possible reason for this preference arguing that "most interpreters claim to be less ambitious when working into B, in that they attempt to concentrate more on simply getting the message across and "not worrying too much about style".

Clients

An interesting question with regards to the perception of directionality is whether audiences are sensitive to an interpreter working into a non-native language. Different surveys have investigated the importance of different qualities, or lack thereof, of the interpretation for the satisfaction of the client. 'Native accent' has been used as a criterion for judging the quality of interpretation since the first surveys on the topic have been conducted (Bühler, 1986).

Conversely, non-native accent can be presented to audiences as a possible element of dissatisfaction. Non-native accent is also one of the most distinctive characteristics of an interpreter working in *retour* (see for example Lee Yung-Hyang, 2003) and can therefore be considered a criterion for establishing the opinion of audiences on directionality. The results of these inquiries seem to show that audiences are not particularly concerned with foreign accents. In a survey by Moser (1996), half of the respondents reported that they did not see foreign or regional accents as important elements of the interpreter's rendition. Among the respondents that attributed some importance to accents, the majority judged them only marginally important and only a small minority judged them as being disturbing.

In a more recent survey, Donovan (2002: 6) remarked that "no interviewee mentioned as a reason for dissatisfaction accent – regional or foreign, incorrect grammar or a non-native interpreter". The audience interviewed by Donovan was well aware of the fact that interpreters were not working into their mother tongue. "Although most participants (but not all, even when the interpreter had a fairly marked accent) accepted that they had noticed one or several of the interpreters was not a native speaker, they were uninterested in this aspect of interpreting" (Donovan, 2002: 6).

Mackintosh (2004) has suggested that audiences might be unable to express an objective judgement with regards to directionality if they have only been exposed to conferences interpreted by highly qualified professionals which would minimize the issues of *retour*. "At meetings using AIIC interpreters" for instance, the audience would "virtually never be exposed to non-native or very marked regional accents" (Mackintosh, 2004).

This consideration seems plausible in light of the knowledge that highly qualified interpreters arguably would only work in *retour* when having a B-language proficiency level that allows them to minimize the issue of accent. In addition, it can be the case that, when audiences are confronted with a foreign accent, "they may well be more bothered by incorrect syntax or grammar than by the accent" (Mackintosh, 2004).

Approaches to directionality in the professional sphere seem also to be subject to practicality, as illustrated by the practice of *retour* for less-widely-spoken languages. Audiences do not generally appear to be concerned by directionality issues.

2.6 Perspectives on multilingualism

The section will present different concepts of multilingual language processing that bear relevance to interpretation and, in particular, to the concept of language combination. When available, studies linking these concepts directly with interpretation will be presented.

2.6.1 Bilingualism

Bilingualism is a term that broadly indicates the coexistence of two language systems within an individual. In the field of psycholinguistics, bilingualism is studied from the perspective of "the cognitive and neural mechanism, processes and knowledge structures" that allow a person to acquire and speak more than one language (De Groot, 2015: 31).

The languages a multilingual person speaks are generally referred to as L1, L2, L3, referring to the chronological order in which they were learned. In general, a bilingual speaker's L1 would arguably correspond to an interpreter's A language, by virtue of being the first language learned in chronological order, although this would not be the case of interpreters whose A language does not correspond with the first language learned but rather to the language of education and culture. Depending on the case, a bilingual speaker's L2 can correspond to the level of proficiency of either a B language or a C language.

Bilinguals, and multilingual speakers in general, are not a homogeneous group: different factors can determine the extent to which a second language, or L2, will be prevalent and in which functional areas. For example, bilinguals can be distinguished between those that are 'balanced', with equal proficiency in L1 and L2, and those that are 'dominant' or 'unbalanced', with higher levels of proficiency in L1 compared to L2. They can also be distinguished between receptive, those that understand L2 but lack the ability to produce it, and productive, that both understand and produce L2.

A further distinction is made between 'simultaneous' bilinguals, that were exposed to both languages since birth, 'early sequential', that were exposed to both languages since an early age, but to their L1 first, and 'late' bilinguals, that started learning L2 after L1 had been acquired (Baker & Prys Jones, 1998; De Groot, 2015).

2.6.2 Second language acquisition: the critical period hypothesis

Degrees and types of bilingualism are, as mentioned in the previous section, related to the age at which the second language, L2, is acquired. The ability to learn a language easily is generally associated with young age (De Groot, 2011).

'Critical period' is a term used to indicate the time frame within which language acquisition is most efficient. Birdsong (1999) described the critical period as a window of time, in the development of the brain, during which a language that is acquired can be considered a native language. After such period, the brain's capacity for language learning would deteriorate.

From a neurophysiological perspective, the critical period has been linked with the higher degree of plasticity observed in the brains of children. Penfield and Roberts, among the first to formulate the critical period hypothesis, estimated that the stiffening of the brain would start around age 9, due to the progressive coating of neurons in myelin, a substance that

increases neurons' conductivity (Penfield & Roberts, 1959, in Singleton, 2005). The critical period hypothesis has been indirectly supported by clinical observations: the recovery of language functions following brain-damaging accidents is for example distinctly better in children than in adults, suggesting that earlier stages of life are those in which brains are especially equipped for acquiring language functions (De Groot, 2011).

Flege, Mackay & Piske (2002) studied Italian-English bilinguals to investigate whether the age of L2 acquisition had impacted their linguistic dominance. Early bilinguals were found to be dominant in their L2, English, while late bilinguals were dominant in L1, Italian. It was also observed that late bilinguals, dominant in Italian, had a recognizable foreign accent when speaking English, while early bilinguals, dominant in English, had no accent in either language. From these findings, it can be argued that it is possible for early bilinguals to avoid significant phonetic interference among languages, and that the ability to do so might be dependent on the period of acquisition.

It has also been observed that when learning a third language (L3), bilingual speakers tend to face a greater interference from their L2 language than from their L1, even where L1 is more dominant (Clyne, 1997). While different factors can contribute to explain this phenomenon, this appears to confirm that L1 and L2 are processed in different ways, and that L2 mechanisms are in this sense more compatible with late language acquisition (De Groot, 2011). On the other hand, the examples of late bilinguals mastering their L2 to native-like levels and the cases of early bilinguals not reaching comparable results indicate that the age of acquisition is not a conclusive factor to determine language proficiency (De Groot, 2011).

2.6.3 Language control

A central question for multilingual language processing is how different language systems are managed in the brain. While in the past it was hypothesized that bilinguals suppress one language system when using the other, which would make it appear that simultaneous interpretation is almost impossible (Christoffels, 2004), evidence now points to the idea that both languages are constantly active in the bilingual mind (De Groot, 2015). This entails that during both language production and comprehension linguistic elements are constantly active and competing with one another (e.g. Calabria, Hernández, Branzi & Costa, 2012; Marian & Spivey, 2003).

The control mechanisms of multilingual speakers are particularly crucial for interpreters, who constantly have to operate these selection processes in situations where both language-systems involved are used (Schwieter & Ferreira, 2017).

In terms of the neurophysiology of language control mechanisms, Abutalebi and Green (2007) observed that bilinguals control language comprehension and production through a dynamic process that involves both cortical and subcortical structures in the brain. In case of lexical competition, specific areas are inhibited in order to select the intended language. This process is also known as reactive inhibition or reactive suppression (De Groot, 2011).

How bilingual minds manage to control two language systems in order to avoid interference from one language to the other is a particularly interesting question in relation to the ability of interpreters to simultaneously understand one language and speak another, as this is considered an extreme language control situation (Moser-Mercer, 2015a), also due to the fact that in simultaneous interpretation, interpreters must be able to focus on at least three tasks: comprehending the input message, producing the output message and memorizing strings of the input they have just heard in the time before it can be translated, due to sequencing differences in the source and in the target language (De Groot, 2011).

2.6.4 Quality of output and effort

Interpretation constitutes, as mentioned in the previous section, a situation of extreme language control. One question this issue raises is whether such an intense effort in controlling two or more language systems will impact differently the L1 and the L2. One element that seems to suggest that interpreters face more challenges when working in *retour* is accuracy, which can arguably suffer from the increased effort demanded by *retour*. For example, a study focusing on English-Chinese bidirectional interpreters found that in terms of accuracy of the interpretation, interpreters working from their B language (English) into their A language (Chinese) reported higher scores (Chang & Schallert, 2007).

Interpreting towards a B language has on the other hand been observed to present advantages in terms of anticipation scores (Kurz & Färber, 2003) and efficient strategic processing (Al Salman & Al Khanji, 2002), findings consistent with the idea that working from the native language implies reduced effort in the understanding of the source speech.

Nonetheless, research seems to suggest that working in *retour* is, globally, considerably more demanding in terms of energy. Gran and Fabbro (1988) observed that interpreting students

become tired more quickly when interpreting into a B language. Conversely, both language production and correction are controlled more spontaneously when working into the A language (Gran & Fabbro, 1988).

At a neurophysiological level, interpreters working into a learned language exhibit more extensive frontotemporal activation increases, also pointing to the conclusion that this type of interpretation might be more taxing at a cognitive level (Rinne, Tommola, Laine et al., 2000). These findings seem to collectively signal differences in terms of cognitive processing for interpreting towards A and towards B languages.

2.6.5 Memory and lexical retrieval

Tightly related to the topics of language control and of output quality is that of memory. Just as other components of interpreting, the lexical retrieval of interpreters has to be a quick and constant process. The question of whether memory is impacted by the fact of speaking the first or the second language is therefore a crucial one for interpreters and trainers.

Christoffels (2004) tested both trained interpreters and untrained bilinguals with lexical retrieval tasks. In this study, the group of bilingual speakers was composed of 40 university students, native Dutch speakers, with good proficiency levels in English. The group of interpreters was composed of 13 professionals, native Dutch speakers, who worked into both Dutch and English and had an average of 16 years of professional experience. The two groups were tested on the same lexical retrieval tasks, consisting of translation and picture naming in both Dutch (L1) and English (L2).

In general, interpreters were faster than bilinguals on both the translation and the picture-naming task. In the translation task, interpreters exhibited no difference between speed of translation towards L1 and L2, while a difference was observed in bilinguals. In the picture naming task interpreters were faster than bilinguals only in English, suggesting that picture naming capacities in L1 are not significantly increased by interpretation training. Interestingly, picture naming in L2 was slower for both bilinguals and interpreters, even though interpreters had an active knowledge of English. The difference between picture naming speed in L2 and L1 was predictably smaller for interpreters. As Christoffels (2004) suggests, these results might indicate that despite training, first-language dominance has an effect on a picture naming task, indicating that lexical retrieval could be easier for interpreters when they are working towards the A language.

Another study on lexical retrieval seems to confirm these findings: De Bot (2000) remarked that when asked to come up with the equivalent of a given word in another language in their combination, interpreters were significantly faster in retrieving A-language equivalents for B-language words than vice versa.

The greater ease interpreters exhibit when retrieving words in their A language seems to suggest that the availability of a larger number of lexical choices does not impede interpreters from retrieving the right words, contrasting Denissenko's (1989) affirmation that the fewer lexical choices available in *retour* necessarily entail more agility in the performance.

On a neurophysiological level, different studies point to differences in L1 and L2 processing (Schwieter & Ferreira, 2017). While both L1 and L2 language-processing are associated with activity in the dorsolateral prefrontal cortex, an area normally associated with executive functions, including working memory, and the temporal gyrus, an area involved in the processing of external stimuli, the two types of language processing seem to be associated with different patterns of activation of these areas.

In a comparison of L1 and L2 brain activity, Kim, J., Kim, M., Lee, J., Lee, D., Lee, M., and Kwon (2002) found that for the L1, the use of working memory was associated with the right anterior dorsolateral prefrontal cortex and with the left superior temporal gyrus, normally associated with spoken-word processing (Buchsbaum et al., 2001). The working memory in L2 was on the other hand associated with different parts of the dorsolateral area and of the temporal gyrus, namely the posterior part of the dorsolateral area (instead of the anterior part), and the left inferior temporal gyrus (instead of the left superior), normally associated with visual processing (Chinese Academy of Sciences, 2015).

In a positron emission tomography (PET) study analysing interpreters, Rinne et al. (2000) also found that the left frontal lobe was activated while interpreting towards the native language, while the left-sided area of the frontotemporal lobe was more activated when interpreting towards a learned language.

Multilingual language processing emerges as a highly complex task. Topics such as the critical period and language control have the potential to bring significant insight to discussions on language-combination best practices if further research is carried out.

3. Critical discussion

The following chapter will be a discussion of the content presented in the literature review. It will be structured around three main themes: the difference between the A and the B language, the virtuous cycle of best practices and the characteristics of *retour* as a practice.

3.1 The A and the B language: a comparison

From the literature review, we can notice that language-combination practices are often discussed in relation to the directionality issue, which could be summarized by the question, 'Is it really preferable to work mostly towards one's native language?'.

To understand what the specific characteristics, and potentially the advantages, of working towards the native language are, it is important to start by identifying the differences between the native language and the languages learned later in life. Since only languages mastered to a very high level can stand comparison with the native language as target languages for interpretation, the following section will focus on the A and the B language exclusively.

3.1.1 Differences according to definitions

A first step to understanding the difference between the A and the B language is looking at the differences in how these languages are defined within theoretical approaches to interpretation.

According to AIIC's definitions, the A language is better with respect to idiomaticity and creative use in virtue of the fact that it is the interpreter's language of culture. The A language is in fact "the language in which the interpreter was formally educated and feels completely at ease" (AIIC, 2004). In the B language, the same characteristics that qualify the A language as the ideal target language are supposedly lacking due to the fact that cultural knowledge and an innate affinity with a linguistic environment in which the language is used are absent.

According to Seleskovitch and Lederer (1989), as well as to Newman (1981), the lack of idiomaticity in a learned language presents a significant challenge to the rendition of the source message. Professional interpretation is arguably better executed, according to these

observations, by interpreters working into their A language – especially in terms of style and presentation.

While these definitions of A and B language are undoubtedly useful in that they provide a largely applicable generalization, their universality could be discussed. It could, for instance, be argued that not all interpreters can be represented by these definitions. Because of their background, some interpreters might have had more exposure to certain areas of expertise in their B language than in their A language (Gile, 2005). Others might have a weak A language and one or more strong B languages according to AIIC's definition of the A language as mother tongue (Setton & Dawrant, 2016). Interpreters of mixed backgrounds might be unsure whether the first language they learned actually corresponds to an A language when this differs from the language of education and/or culture. This could be the case for interpreters whose mother tongue is foreign, or considered a dialect, in the country of upbringing.

It has also been pointed out that AIIC's definitions (AIIC, 2004) of working languages are "somewhat idealized" and occasionally vague (Setton & Dawrant, 2016: 50). An example is the use of the term "perfect command" in relation to the A language (Setton & Dawrant, 2016). Other expressions referred to the A language, such as the interpreter being "completely at ease" and the A language possibly corresponding to a "strict equivalent" of the mother tongue, lack concrete references to the characteristics the interpreter is expected to have in this language (see for comparison section 2.4.2 on admission requirements for interpreters' training programmes).

In terms of available alternative definitions, the UN uses the term "main language" to define the default target language of their interpreters. This is described as "generally...the language of an individual's higher education" (United Nations, 2017a), giving a central place to the role of education for the definition of an interpreter's A language. Similarly, the University of Geneva (2017) describes the A language as being an interpreter's native language or "*langue de culture*", giving equal status to the fact of being the mother tongue and the fact of being the language of education.

In sum, it seems that no precise universal distinction is made between A and B languages at the level of definitions. AIIC's description of working languages, by far the most popular, do not provide concrete terms of reference to identify one's A language in individual cases, which suggests that the A – B distinction depends heavily on the specific characteristics and

background of individual interpreters. Definitions do, nonetheless, provide some general guidelines to understanding what the A language is. Despite differences in wording, AIIC, the UN and the University of Geneva all point to a definition that identifies education and cultural competence as critical factors to determine an interpreter's A language.

As argued by Seleskovitch and Lederer (1989), the fact of being a native speaker of a language does not, alone, guarantee someone has the necessary linguistic competencies required for an interpreter in her/his A language. While the distinction between A and B language is not universally defined, we can conclude according to these definitions that the A language is distinguished, in most cases, by the fact of being the language in which the interpreter has experienced her/his linguistic and cultural environment in the early years of life and in which the majority of knowledge was acquired.

3.1.2 Differences from a cognitive and neurophysiological perspective

Research on multilingual language processing allows exploration into how different languages coexist in the brain, and how the brain manages this coexistence. Most studies in this area focus on bilinguals, speakers who have very high levels of proficiency in two languages, referred to as L1 and L2.

So-called balanced bilinguals have a similar level of proficiency in their L1 and L2, as mentioned in section 2.6.1. For each concept, these speakers have at least two lexical entries, receiving the same amount of activation and competing for selection (Seeber, 2014). This would arguably be a situation akin to that of interpreters with two A languages. For interpreters whose native language is distinctly better mastered than other learned languages, lexical entries belonging to the L1 are activated more readily and strongly for each concept than lexical entries in the L2. In this sense, L1 and L2 would correspond to A and B language, or to A and C language, depending on the degree of proficiency in L2.

When comparing the classification of interpreters' working languages with that of multilingual speakers' languages, we could wonder if cognitive science allows to make a clear distinction between the L1 and the L2 that could be applied to interpreters' A and B languages with the purpose of finding criteria for a more precise definition of A and B languages.

The differences between L1 and L2 have indeed, as outlined in section 2.6, been the subject of research. The question of how unique the first language is can be linked to research on the

critical period hypothesis, which is concerned with the physiological changes in the brain that would make language learning significantly different for adults and for young children.

The question of whether age impacts the extent to which a language can be mastered can be related to the directionality issue in interpretation. The association between the A language, the mother tongue, and the role of default target language for interpretation often implies that the production in the A language will be superior to that in languages learned later on in life (e.g. Seleskovitch, 1968). Asking if a language learned at an earlier stage will necessarily be better spoken and understood than one acquired afterwards means asking if there are unavoidable differences between L1 and L2.

Picture-naming tests have for example shown that both bilinguals and trained interpreters have quicker reflexes in their first language, with interpreters scoring better in second-language word retrieval than bilinguals (Christoffels, 2004). This highlights the relevance of training for B language proficiency, and the fact that, despite training, the first language is likely to still remain dominant. The latter idea seems confirmed by De Bot (2000), who observed that interpreters where faster in retrieving words in their A language than in other languages in their combination.

Differences between the first and the second language have also been observed at the neurophysiological level: working memory appears to work differently when a speaker is using her/his L1 than when using the L2 (Kim et al., 2002).

As mentioned in section 2.6, research has also investigated the differences between interpreting towards the L1 and the L2. Interpreting towards L1 has been observed to allow greater accuracy scores (Chang & Schallert, 2007), while interpreting towards L2 seems to present advantages in terms of anticipation scores (Kurz & Färber, 2003) and efficient strategic processing (Al Salman & Al Khanji, 2002). Interpreting towards the L2 on the other hand also implies greater cognitive effort (Gran & Fabbro, 1988; Rinne et al., 2000).

The studies presented seem to confirm the idea that languages learned after a certain stage of development, the critical period, are different from languages learned very early in life. The age at which a language is learned cannot be considered as the only factor determining proficiency in language (De Groot, 2011), as it can be assumed that other elements such as personal motivation, anxiety, input and output skills, and learning environment likely play an important role (Robertson, 2002). It seems plausible to assume, nonetheless, that a language learned very early in life relies upon a unique set of mechanisms, different from the ones

associated with languages learned later in life (Clyne, 1997; De Groot, 2011; Flege et al., 2002; Kim et al., 2002; Schwieter & Ferreira, 2017; Seeber, 2014). Applied to interpreters, this idea could suggest that the A language is, in some respects, unique compared to other working languages for interpreters corresponding to the 'late bilinguals' category.

Additionally, it would seem that age of acquisition of a language learned after the first one influences the extent to which this language will be a 'second mother tongue' in terms of cognitive processes. Arguably, since very few interpreters possess more than one mother tongue (AIIC, 2004), following this hypothesis would lead to think that the A and B languages of most interpreters, even when used in the same role of target languages, are inherently different, because most B languages have generally been learned significantly later than A languages.

3.1.3 Differences from a pedagogical perspective

A third level at which the A and the B language can be distinguished is that of the criteria for external assessment. In section 2.4.1, some representative lists of criteria for the assessment of active languages have been introduced. These criteria refer to the language-proficiency levels prospective interpreters are expected to exhibit at the moment of admission to a training programme. It is interesting to notice that in both criteria proposed by the Paris School and criteria proposed by Setton and Dawrant (2016), there are significant differences in the way A-language and B-language capacity are assessed.

For the A language, Seleskovitch and Lederer (1989) mention, for example, the fact that being the speaker's first language is not sufficient to qualify an adequate level of A language proficiency. The necessary proficiency level in the A language must be akin to that of a university graduate, and the candidate must be able to easily move across registers and styles and to correctly interpret cultural references.

Setton and Dawrant (2016: 62) also mention that the A language is not only the native language but also one that the interpreter speaks and understands in a variety of situations, with minimum effort and flexibility, with good sense of idiomaticity and humour, in which she/he has received formal education "at university honours level", and of which she/he has considerable knowledge in terms of cultural background.

These criteria are globally indicative of a certain linguistic standard that prospective students are expected to have in their language, a standard being not only high but objectively measurable.

The admission criteria for a B language are, as mentioned in section 2.4.1, less precise than those for the A language. Candidates are for example expected to possess a vast vocabulary but "perfection is not expected" (Seleskovitch and Lederer, 2002: 293). In the definition given by EMCI (2002), motivation and attitude appear to occupy a central place, comparable to that of the more linguistic and precise criteria in Setton and Dawrant's (2016) definition of the A language.

This might suggest that the decision to admit a candidate student to a training programme with a B in her/his combination is a decision that heavily relies on the specificities of each individual case, rather than on an objective language-proficiency measurement. These criteria might also reflect the fact that candidate students, and interpreters in general, that have a B language are expected to likely come from linguistically and culturally mixed backgrounds.

While for the A language cultural competence and knowledge of the extra-linguistic environment are assumed to a certain extent, and more focus is given to linguistic abilities, for the B language biographical details seem to be particularly relevant. Perhaps this is linked to the fact that a candidate examined in a B language has likely already proven to possess high linguistic skills in an A language, and some of these, such as resourcefulness, are considered transferable across languages.

Another possible reason for the particular relevance of biographical details for the B language might be the fact that these are particularly linked to motivation and interest towards the language and its cultural elements. Personal motivation indicates that the candidate student is willing and able to progress in her/his knowledge of the language, a highly important factor since students are not expected to have native-like proficiency in their B language, but they are expected to be willing to practice and progress significantly. In general, expectations towards the B language can, arguably, vary in accordance with the situation of the interpreter examined and with the context of the examination.

In none of these cases, arguably, the criteria for defining the A language are universally applicable. They remain, nonetheless, useful to understand why interpreters are observed to

perform better when speaking their first language, which offers them a larger knowledge-base and reduced cognitive effort. The differences between the A and the B language can, in sum, point to a reason why the two language-categories are defined as different in current language-combination best practices, and why the A language is considered to be a more suitable target language for interpretation.

3.2 Best practices in context

Language-combination best practices are a particularly interesting topic in relation to interpreting in that they not only relate to efficacy but also to important historical and contextual factors. The establishment and respect of these practices is in fact linked, in the European context, to the development of the profession as such and to the influence of its main actors.

3.2.1 Continuity in interpreting traditions

Similar to AIIC, the first interpreters' training programmes in Europe appeared between the 1940s and the 1950s. The *École d'Interprètes* (ETI) of the University of Geneva was the first one, in 1941, and ESIT opened in Paris in 1957 (Keiser, 2004).

The case of ESIT is particularly interesting because, in addition to offering one of the first academic programmes tailored to conference interpreters, the school had profound links with the fundamental ideologies permeating the beginning of interpreting studies. It is in fact, as mentioned, the institution where the Paris School of thought was born (Lederer, 2015).

Seleskovitch, also a central personality in AIIC, was a notable member of ESIT, and taught there from the year it was opened. Seleskovitch had, as mentioned, a significant influence on the development of research on interpreting. At ESIT she started one of the first doctoral programmes in Europe dedicated to translation and interpreting, encouraging interpreters themselves to conduct research on their profession. In the 70s, out of a total of seven doctoral theses on interpreting worldwide, five were produced by ESIT. While, subsequently, the School gradually lost its major influence on the profession, it can be said to have given an origin to interpreting studies (Gile, 2009).

Despite the growing influence of cognitive science and a plurality of views, a certain continuity from the Paris School's ideas on interpreting and interpreters' training could be noticed in the productions of AIIC members through the 90s (Gile, 2009).

AIIC's working-languages definitions used today originated in the same environment as the Paris School ideas established in the early 70s, and bear some similarity to them. In AIIC's definition of the B language it is, for example, affirmed that a B language "is more suited to interpretation of technical discussions where lexical accuracy is more important than style or very discrete shades of meaning" (AIIC, 2004). This can be linked with Seleskovitch and Lederer's (2002) claim that interpreters working in *retour* should focus on reporting the factual elements and argumentations accurately, and that interpreting the aesthetic components that might be present in a speech, or attempting to reproduce complex and stylistically charged sentences, would be problematic in a B language, and should be avoided (Seleskovitch & Lederer, 2002).

While no particular advantage or disadvantage of working in *retour* is mentioned in AIIC's definitions of working languages, the association highlights the aspect of quality and constant training as requirements for B languages: the definition of B language offered by the association is in fact shortly followed by a reminder that using a B as target language is possible only when the second active language has been practiced for years, intensively, and through frequent stays in a country where the B language is spoken (AIIC, 2004). Seleskovitch and Lederer's (2002) also affirmed that for interpreters working in *retour*, extensive background knowledge over the topic discussed is particularly crucial.

3.2.2 Intra-sectorial relations in the European market

One recurring theme in the literature review has been that of the mutual reinforcement of practices among the major stakeholders in the interpreting environment in Europe. AIIC and the EMCI are, as mentioned, very influential actors in the current European environment.

AIIC is known to be the reference association for professional standards (Bao, 2015), and to have links with significant employers of interpreters (Thiéry, 2015). As such, AIIC is in the position of being able to influence professional practices and working conditions.

AIIC's definition of language combinations is therefore likely to be considered best practice by employers and interpreters that relate to each other through the association. The EMCI represents the largest and best-known project of coordination among academic programmes

for interpreting students. Interpreters' training programmes are particularly relevant to the discussion on language combinations and directionality because they have a direct influence on the working languages interpreters use in their profession. By setting requirements for the language combinations students can have at the moment of admission, academic programmes are both operating a first selection of the candidates they will consider and defining which language combinations their graduates will enter the market with. Furthermore, the EMCI establishes rules on the final evaluation of students graduating from the programme, and on the composition of the exam jury.

The EMCI and AIIC are also, as mentioned, related to one another in terms of language-combination best practices. This is best represented by the fact that the EMCI quotes AIIC's definitions of language combinations on its website and by the fact that, while exceptions exist (see section 2.4.2), schools belonging to the EMCI Consortium reflect in their approach language-combination best practices as defined by AIIC.

Moreover, both the EMCI and AIIC have important links with the same major employers of interpreters in Europe, such as the European Commission, the European Parliament and the UN. As mentioned in section 2.1, these institutions not only employ large numbers of interpreters but also adhere to AIIC's recommendations on professional standards.

These employers are also, as mentioned in section 2.4.3, actively engaged in interpreters' training, particularly in the context of the EMCI (see for example the UN Language Outreach initiative and the European institutions' Virtual Classes). In their collaboration with academia and through their engagement for interpreters' training, these organizations are reinforcing the establishment of professional best practices from the beginning of interpreters' training through their professional careers.

Current language-combination best practices in Europe are, in sum, sustained by a long-standing and continuous relationship that today links the most important actors in the field in terms of education, professional conventions and market.

3.2.3 *Retour* within best practices

Best practices establish that while both active languages, A and B, are suitable target languages for interpretation, it is preferable to work towards the A language when possible. This preference can be explained by the differences between the A and the B language

outlined in section 3.1. Nonetheless, the practice of *retour* remains covered by best practices as a possibility, and its use is common in certain contexts.

In what cases is it appropriate to use the B language as target language? Dejean Le Féal (1998), exponent of the Paris School, not only thought *retour* was inferior to interpreting towards the native language, but also wondered whether interpreting towards a B language would not have become, in future years, a tendency capable of hurting the profession itself. Donovan (2003) predicted that market demand would drive increasing numbers of professionals to require a B language in their combination in order to be employed. These opinions have not been reflected by reality, at least in markets where professional best practices are applied. As outlined in the previous section, in European institutional markets today *retour* is far from being the dominant practice.

The idea that bidirectionality might become a growing necessity is, on the other hand, a reality for specific cases and contexts, such as that of less-widely-spread languages. Even within large international organizations, the scarcity of interpreters with adequate passive knowledge of uncommon languages seems to have generated a habit of systematically using *retour* for certain languages, such as Arabic and Chinese (Setton & Dawrant, 2016).

At a global scale, it can be observed that interpreting towards a B language seems to be more common in contexts where interpretation involves less-common languages (Szabari, 2002). This reality is highlighted by Lim (2005: 12):

> *The question of directionality can be summarized in a phrase: theoretically, it is recommended to work into one's mother tongue, however, the reality is not always so accommodating. Therefore, care should be taken so that all of the conditions are optimum to ensure the best quality possible when working into B.*

In Europe, the most significant employers adhere to AIIC's language combination conventions. Nonetheless, market requirements are subject to change, as illustrated by the case of the most recent languages of the EU requiring an increase in bidirectional interpreting, and traditional views may vary, as the case of extra-European markets shows. This can make working in *retour* as common, in specific cases, as working into the A language. What should be taken into account in these cases, as pointed out by Lim (2005), is that *retour* should be practiced with particular attention to all the aspects that contribute to the quality

of the performance, such as those mentioned by AIIC (2004): particularly solid language B-language knowledge and constant training.

As a generalization, we can remark that in Europe, on the institutional markets, best practices are usually followed: interpreters are more likely to work towards their A language from their C languages, while bidirectional interpretation between an A and a B language is most likely to occur systematically when needed, such as in the case of less-widespread languages.

4. Conclusions

Language combinations are an essential feature of the work of interpreters. Framing working languages in a structured classification, language combinations allow to efficiently organize the work of both individual interpreters and teams. Furthermore, the classification of working languages can be considered one of the milestones of the professionalization of interpreting (Setton & Dawrant, 2016). The purpose of this work, presented in the Introduction, was to explore current language-combination best practices in the European context, and to understand the reasons that sustain them.

The first part of this work has been dedicated to defining the current language-combination best practices in Europe, starting from an introduction of the main actors involved in their establishment, namely AIIC, the organization setting professional standards for interpretation in Europe and the EMCI Consortium, which provides a framework for interpreters' training in universities.

In the European context, the current best practices for language combinations are best represented by AIIC's (2004) definitions of working languages. These definitions establish that the languages constituting an interpreter's language combination are classified through an A-B-C order, where A is the interpreter's mother tongue and B and C are languages learned later in life and mastered to different extents. The minimum possible language combination comprises of an A and a C language. Additionally, many interpreters have multiple C languages, some have one or more B languages, and a very small number have two A languages.

Best practices do not only refer to the classification of working languages, but also provide indications on how these languages should be used in interpretation, whether as target or source languages, through the concept of directionality. While both the A and the B language can be used as the target of interpretation, and are therefore considered active languages, the A language is considered to be inherently more suitable for this function. Interpreting towards a B language is therefore known as *retour*, or bidirectional interpreting, and it is considered advisable only in conditions where the interpreter is able to ensure the adequate quality of expression.

After the presentation of working-language definitions and best practices, this work has explored different aspects of language combinations in pedagogical and professional contexts and under the perspective of cognitive sciences. The different perspectives presented have provided a comprehensive background which has been used to undertake a critical discussion of the main factors explaining and sustaining current practices. What emerged from this critical discussion is that language-combination best practices originate from a blend of two different factors: rootedness in language-specific characteristics and relation with professional contexts.

Best practices seem, firstly, to be rooted in the differences existing among working languages. This work has analysed, in particular, the difference between the A and the B language, seemingly the closest ones in terms of function. This difference, which has been suggested, independently, by different disciplines, is likely to be the basis upon which it is considered more effective for interpreters to work mainly towards their mother tongue.

While different opinions have long existed among interpretation scholars, the predominant view in Europe has been, since the professionalization of interpreting, to consider that interpreting towards the A language brings greater quality to the interpreter's performance.

This view, best represented by the Paris School of thought, is based on two assumptions: that the mother tongue has some unique characteristics that languages learned afterwards do not possess, and that interpreting towards the mother tongue allows the interpreter to perform with greater agility and reduced effort compared to interpreting towards a learned language.

These assumptions seem to be supported by multiple observations. For example, current interpretation pedagogy suggests a difference between A and B language by presenting trainers with concrete assessment criteria for the A language, but with significantly more general advice for evaluating students with a B language.

Differences have also been observed in terms of cognitive and neurophysiological studies. Research in these areas seems to confirm the existence of a difference between the mother tongue and a language learned later in life, likely related to the differences between different stages of cognitive development. Moreover, research tentatively points to an association between *retour* and greater effort and decreased accuracy, potentially supporting the idea that interpreting towards the A language is an advisable practice.

The limitations of literature suggesting a difference between A and B languages are in the fact that it appears difficult to clearly define the A and B language they apply to in universal

terms. As seen, it is challenging to have criteria for language classification that can apply to all interpreters, and it seems especially hard to point to a precise moment in children's cognitive development after which a language learned will not anymore be considered an A language.

On the other hand, the existing best practices could arguably not be detailed enough to comprehend all possible cases while being sufficiently clear and succinct. The current practices arguably function as to entrust qualified professionals with their practical implementation; a reality, as seen from pedagogical criteria for student assessment, particularly evident in the case of establishing the fitting category of a working language.

Secondly, best practices appear to be rooted in use by their adaptiveness and by their relevance to the European institutional environment. In Europe, the main stakeholders of the profession are related by stable relationships dating back to the professionalization of interpreting. These relations create a virtuous circle for best practices, which are maintained more or less stable from the selection of students through interpreters' employment by large international organizations and adhesion to a professional association. While this clearly only applies to the main stakeholders, it is interesting to notice that in Europe the network established between these actors is particularly well-balanced and actively maintained by all parties involved.

Current best practices are, in addition, arguably sustained by the fact of being adaptive and reflecting professional realities. In this sense, *retour* represents a particularly interesting topic. Interpreting into the B language went from being actively discouraged, (Seleskovitch, 1999) and considered a potential threat for quality in interpretation (Donovan, 2003), to being accepted, and in certain contexts common, even within institutions that abide to AIIC's best practices.

An interesting feature of this evolution is the fact that *retour* was appropriately codified by language-combination best practices in a way that allowed for it to be practiced in situations where it appeared necessary, with respect of the highest quality standards allowed by these situations, while still remaining a second choice when interpreting into A is possible. The best practices defined by AIIC and applied by the main training institutions and employers emerge, in this sense, as particularly effective and consistent with the realities and needs of the profession. *Retour* is, as a consequence, used in institutional settings only by appropriately trained interpreters, and only when the availability of certain languages is scarce.

In conclusion, the current state of language-combination best practices in the European context can be explained only through a blend of different factors, which include the differences between working languages and contextual factors. Current best practices appear supported, at different levels, by their relevance in classifying working languages, and by their capacity to adapt to market realities and to reflect the dynamic and varied reality of professional interpreting. Further research on the differences between native and learned languages, and in particular on the effects of different periods and types of language exposure at an early age, would be particularly interesting to further explore the characteristics of different active languages.

5. References

Abutalebi, J. and Green, D. (2007). Bilingual language production: The neurocognition of language representation and control. *Journal of Neurolinguistics, 20*(3), pp. 242-275.

AIIC (1970). *Ensignement de l'Interprétation. Dix ans de colloques (1969-1970)*. Geneva : AIIC.

AIIC (1991). *Conseils aux étudiants souhaitant devenir interprète de conférence*. Geneva: AIIC.

AIIC (1999). Conference interpreting training programmes best practice. Retrieved August 9, 2017, from http://aiic.net/p/60.

AIIC (2004). How we work. Retrieved August 9, 2017, from https://aiic.net/page/1403/how-we-work/lang/1.

AIIC (2011). A statistical portrait 2005 – 2009. Retrieved March 18, 2016, from http://aiic.net/page/3585/a-statistical-portrait-2005-2009/lang/1.

AIIC (2012). Working languages. Retrieved August 9, 2017, from https://aiic.net/page/4004/.

Al-Salman, S. and Al-Khanji, R. (2002). *The Native Language Factor in Simultaneous Interpretation in an Arabic/English Context*. Montreal: Les Presses de l'Université de Montréal.

Baker, C. and Prys Jones, S. (1998). *Encyclopedia of Bilingualism and Bilingual Education*. Clevedon: Multilingual Matters.

Bao, C. (2015). Pedagogy In H. Mikkelson and R. Jourdenais (Eds.): *The Routledge Handbook of Interpreting*, pp. 400-416. London/New York: Routledge.

Bartłomiejczyk, M. (2015). Directionality In F. Pöchhacker (Ed.): *The Routledge Encyclopedia of Interpreting Studies*, pp. 108-110. London/New York: Routledge.

Beijing Foreign Studies University (2017). Graduate School of Translation and Interpreting. Retrieved September 10, 2017, from: http://global.bfsu.edu.cn/en/?p=331.

Birdsong, D. (1999). *Second language acquisition and the critical period hypothesis*. Mahwah, NJ: Erlbaum.

Boéri, J. (2015). Key internal players in the development of the interpreting profession In H. Mikkelson and R. Jourdenais (Eds.): *The Routledge Handbook of Interpreting*, pp. 45-61. London/New York: Routledge.

Boğaziçi University (2017). The Department of Translation and Interpreting Studies: Application. Retrieved September 10, 2017, from: http://transint.boun.edu.tr/?q=en/node/25.

Buchsbaum, B. R., Hickok, G. and Humphries, C. (2001). Role of left posterior superior temporal gyrus in phonological processing for speech perception and production. *Cognitive Science, 25,* pp. 663-678.

Bühler, H. (1986). Linguistic (semantic) and extra-linguistic (pragmatic) criteria for the evaluation of conference interpretation and interpreters, *Multilingua, 5*(4), pp. 231-235.

Chernov, G. V. (1992). Conference Interpretation in the USSR: History, Theory, New Frontiers. *Meta, 37*(1), pp. 149-162.

Chernov, G. V. (1999). Simultaneous Interpretation in Russia. *Interpreting, 4*(1), pp. 41-54.

Chinese Academy of Sciences (2015). Brain Morphology and Function Report. Retrieved December 10, 2017, from http://mdd.psych.ac.cn/EntityDetail.do?name=left%20inferior%20temporal%20gyrus&type=BR.

Calabria, M., Hernández, M., Branzi, F. and Costa, A. (2012). Qualitative differences between bilingual language control and executive control: Evidence from task switching. *Frontiers in Psychology*, *2*, pp. 1-10.

Chai, M. and Zhang, A. (2013). Professionalization of translation and interpreting brings about education of professional translators and interpreters: A thought about "The Third UN-MoU Universities Conference", *East Journal of Translation, 2013*(4), pp. 4-8.

Chang, C. C. and Schallert, D. L. (2007). The impact of directionality on Chinese/English simultaneous interpreting. *Interpreting, 9*(2), pp. 137-176.

Christoffels, I. (2004). *Cognitive studies in simultaneous interpreting*. Ipskamp/Enschede: PrintPartners.

Clyne, M. (1997). Some of the things trilinguals do. *The International Journal of Bilingualism*, *1*, pp. 95-116.

De Groot, A. M. B. (2011). *Language and Cognition in Bilinguals and Multilinguals: An Introduction*. New York: Psychology Press.

De Groot, A. M. B. (2015). Bilingualism In F. Pöchhacker (Ed.): *Routledge Encyclopedia of Interpreting Studies*, pp. 31-34. London/New York: Routledge.

Dejean Le Féal, K. (1998). Non nova, sed nove. *The Interpreters´ Newsletter*, *8*, pp. 43-51.

Dejean Le Féal, K. (2000): Perfecting Active and Passive Languages, *Conference Interpretation and Translation, 2*, pp. 7-23.

Dejean Le Féal, K. (2003). Impact of the international status of the interpreting student's mother tongue on training. *Forum, 1*(1), 53-76.

Denissenko J. (1989). Communicative and Interpretative Linguistics In L. Gran and J. Dodds (Eds.): *The Theoretical and Practical Aspects of Teaching Conference Interpretation*, pp. 155-158. Udine: Campanotto Editore.

DG Interpretation (2013). Cooperation with universities. Retrieved August 20, 2017, from http://ec.europa.eu/dgs/scic/ cooperation-with-universities/index_en.htm.

DG Interpretation (2016). Cooperation with universities. Retrieved August 20, 2017, from http://ec.europa.eu/dgs/scic/docs/cooperation/list_universities_europa.pdf.

Donovan, C. (2002). Survey of Users expectations and needs In *EMCI Workshop - Teaching simultaneous interpretation into a B language*. Workshop proceedings, pp. 2-11.

Donovan, C. (2003). Teaching simultaneous interpretation into BIin Kelly, D., Martin, A., Nobs, M., Sanchez, D. and Way, C. (Eds.): *La direccionalidad en traduccion e interpretacion*, pp. 367-380. Granada: Editorial Atrio.

ELTE University. Courses available at the Department of Translation and Interpreting of ELTE (2014). Retrieved August 20, 2017, from http://www.elteftt.hu/en/courses.

EMCI Consortium (2002). *EMCI Workshop - Teaching simultaneous interpretation into a B language*. Workshop proceedings.

EMCI Consortium (2014a). Aims. Retrieved August 25, 2017, from http://www.emcinterpreting.org/?q=node/11.

EMCI Consortium (2014b). Examinations. Retrieved August 25, 2017, from http://www.emcinterpreting.org/?q=node/84.

EMCI Consortium (2015). Course structure. Retrieved August 25, 2017, from http://www.emcinterpreting.org/?q=node/13.

ESIT (2016). Master professionnel : Interprétation de conférence. Retrieved September 20, 2017, from http://www.univ-paris3.fr/master-professionnel-interpretation-de-conference-46709.kjsp?RH=1258208973093.

ESIT (2017). FAQ inscriptions à l'ESIT. Retrieved September 20, 2017, from http://www.univ-paris3.fr/faq-inscriptions-134714.kjsp?RH=1258285716406.

European Commission (2012). The conference interpreter's language combination. Retrieved August 9, 2017, from http://ec.europa.eu/dgs/scic/what-is-conference-interpreting/language-combination/index_en.htm.

European Parliament (2017). Cooperation with universities. Retrieved December 10, 2017, from http://www.epgenpro.europarl.europa.eu:80/static/interpretation/en/universities/introduction.html.

Fernández, E. I. 2003. La bidireccionalidad en formación de la interpretación en España: un studio empírico In D. Kelly, A. Martin, M. L. Nobs, D. Sánchez, and C. Way (Eds.), *La direccionalidad en traducción e interpretación: Perspectivas teóricas, profesionales y didácticas*, pp. 347–365. Granada: Editorial Atrio.

Flege, J.E., Mackay, I.R.A. and Piske, T. (2002). Assessing bilingual dominance. *Applied Psycholinguistics, 23*(4), pp. 567–598.

Gaiba, F. (1998). *The Origins of Simultaneous Interpretation: The Nuremberg Trial*. Ottawa: University of Ottawa Press.

Gile, D. (2005). Directionality in Conference Interpreting: a Cognitive view In R. Godijns and M. Hinderdael (Eds.): *Directionality in Interpreting: The 'Retour' or the Native?,* pp. 9-26. Gent: Communication and Cognition.

Gile, D. (2009). Interpreting studies: A critical view from within. *MonTI Monografías de Traducción e Interpretación, 1*, pp. 135-155.

Gran, L. and Fabbro, F. (1988). The Role of Neuroscience in the Teaching of Interpretation. *The Interpreter's Newsletter, 1*, pp. 34-40.

Iglesias Fernández, E. (2005). Bidirectionality in Interpreter Training in Spanish Universities: An Empirical Study In R. Godijns and M. Hinderdael (Eds.): *Directionality in Interpreting: The 'Retour' or the Native?,* pp. 101-125. Gent: Communication and Cognition.

ISIT (2017). Conference Interpreting: exceptional intercultural expertise. Retrieved August 20, 2017, from http://www.isitinternational.com/programs-management-communication-translation/conference-interpreting-multilingual-expertise/.

JACI - Japan Association of Conference Interpreters (2017). Personal communication : Annex 1.

Keiser, W. (2004). L'interprétation de conférence en tant que profession et les précurseurs de l'Association Internationale des Interprètes de Conférence (AIIC) 1918-1953. *Meta, 49*(3), pp. 576–608.

Kim, J., Kim, M., Lee, J., Lee, D., Lee, M., and Kwon, J. (2002). Dissociation of working memory processing associated with native and second languages: PET investigation. *NeuroImage*, *15*, pp. 879-891.

KU Leuven Campus St-Andries (2016). Postgraduaat conferentietolken. Retrieved August 20, 2017, from https://onderwijsaanbod.kuleuven.be/opleidingen/n/CQ_51230583.htm#activetab=diploma_omschrijving.

Kurz, I. and Färber, B. (2003). Anticipation in German-English simultaneous interpreting. *Forum, 1*(2), pp. 123-150.

Lederer, M. (2015) Paris School In F. Pöchhacker (Ed.): *The Routledge Encyclopedia of Interpreting Studies*, pp. 295-297. London/New York: Routledge.

Lee, Y.H. (2003). *Comparison of Error Frequency in Simultaneous Interpretation A to B and B to A (Korean-English)*. Unpublished DEA (pre-doctoral) thesis. University of Geneva, École de Traduction et Interprétation.

Lim, H.O. (2005). Working into the B Language: The Condoned Taboo?. *Meta*, *50*(4).

Lorenzo, M. P. (2002). ¿Es posible la traducción inversa? Resultados de un experimento sobre traducción profesional a una lengua extranjera In G. Hansen (Ed.): *Empirical translation studies: Process and product*: *Copenhagen studies in language*, pp. 85-124. Copenhagen: Samfundslitteratur.

Mackintosh, J. (1999). Interpreters Are Made Not Born. *Interpreting*, *4*(1), pp. 67-77.

Mackintosh, J. (2004). How interpreting is perceived by users. Retrieved August 30, 2017, from http://aiic-usa.com/p/1404.

Marian, V. and Spivey, M. (2003). Competing activation in bilingual language processing: Within- and between-language competition. *Bilingualism: Language and Cognition*, *6*(2), pp. 97-115.

Moser, B. (1996). Expectations of users of conference interpretation. *Interpreting*, *1*(2), pp. 145-178.

Moser-Mercer, B. (2015a). Neuroscience approaches In F. Pöchhacker (Ed.): *Routledge Encyclopedia of Interpreting Studies*, pp. 270-272. London/New York: Routledge.

Moser-Mercer, B. (2015b). Pedagogy In F. Pöchhacker (Ed.): *Routledge Encyclopedia of Interpreting Studies*, pp. 303-307. London/New York: Routledge.

Newmark, P. (1981). *Approaches to Translation*. Oxford/New York/Toronto/Sydney/Frankfurt: Pergamon Press.

Nicodemus, B. and Emmorey, K. (2013). Direction asymmetries in spoken and signed language interpreting. *Bilingualism: Language and Cognition, 16*(3), pp. 624-636.

Page, J. (2006). Review of: Godijns, R. and M. Hinderdael (Eds.), (2005). *Directionality in Interpreting. The 'Retour' or the Native? The Journal of Specialised Translation*, *6*, pp. 212-214.

Pedersen, V. H. (2000). Translation into L2—In practice, and in the classroom In M. Grosman, M. Kadric, I. Kovačić, and M. SnellHornby (Eds.): *Translation into non-mother tongues. In professional practice and training*, pp. 109-116. Tübingen: Stauffenburg Verlag.

Penfield, W. and Roberts, L. (1959). *Speech and brain mechanisms*. Princeton, NJ: Princeton University Press.

Rejskova, J. S. (2001). Working in Another Language: *Retour* Training. *SCIC Universities Conference* Report. Joint Interpreting and Conference Service. European Commission.

Rinne, J., Tommola, J., Laine, M. et al. (2000). The translating brain: Cerebral activation patters during simultaneous interpreting. *Neuroscience Letters*, *294*(2), pp. 85-88.

Robertson, P. (2002). The Critical Age Hypothesis. *Asian EFL Journal, 4*(1), pp. 4-25.

Robson, A. L. (2002). Critical/Sensitive Periods In N.J. Salkind (Ed.): *Child Development*, pp. 101-103. New York: Macmillan Reference.

SATP - Slovak Association of Translators and Interpreters (2017). Personal communication: Annex 1.

Schwieter, J. W. and Ferreira, A. (2017). Bilingualism in Cognitive Translation and Interpreting Studies, In J. W. Schwieter and A. Ferreira (Eds.): *The Handbook of Translation and Cognition*, pp. 144-164. Hoboken: Wiley Blackwell.

SCIT - Herzen University (2016). Admission. Retrieved December 18, 2017, from http://scit.herzen.spb.ru/en/cit/abiturient/.

Seeber, K. (2014). Simultaneous interpreting into a B language: Considerations for trainers and trainees. Conference paper. Geneva: Faculty of Translation and Interpreting.

Seleskovitch, D. (1968). *L'Interprète dans les Conférences Internationales – Problèmes de Langage et de Communication*. Paris: Minard lettres modernes.

Seleskovitch, D. and Lederer, M. (1989). *A systematic approach to teaching interpretation*. Paris: Didier Erudition.

Seleskovitch, D. and Lederer, M. (2002). *Pédagogie raisonnée de l'interprétation*. Paris: Didier Erudition.

Setton, R. (1994). Experiments in the Application of Discourse Studies to Interpreter Training In Dollerup, C. and Lindegaard, A. (Eds.), *Teaching translation and interpreting 2: Insights, aims, visions*, pp. 183-198. Amsterdam/Philadelphia: John Benjamins.

Setton, R. and Dawrant, A. (2016). *Conference Interpreting – A Complete Course*. Amsterdam/Philadelphia: John Benjamins.

Shveister, A. (1999). At the Dawn of Simultaneous Interpretation in Russia. *Interpreting, 4*, pp. 23-28.

Szabari, K. (2002). Interpreting into the B language In *EMCI Workshop - Teaching simultaneous interpretation into a B language*. Workshop proceedings, pp. 13-20.

Thiéry, C. (1989). Discussion In L. Gran and J. Dodds (Eds): *The Theoretical and Practical Aspects of teaching Conference Interpretation*, pp. 83-91. Udine: Campanotto Editore.

Thiéry, C. (2015). AIIC In F. Pöchhacker (Ed.): *Routledge Encyclopedia of Interpreting Studies*, pp.13-15. London/New York: Routledge.

United Nations (2017a). United Nations Language Careers: About us. Retrieved September 10, 2017, from https://languagecareers.un.org/dgacm/Langs.nsf/page.xsp?key=AboutUs.

United Nations (2017b). United Nations Language Careers: Interpreters. Retrieved September 10, 2017, from https://languagecareers.un.org/dgacm/Langs.nsf/page.xsp?key=Careers-Interpreters.

United Nations (2017c). United Nations Language Careers: Language competitive examinations. Retrieved December 10, 2017, from https://careers.un.org/lbw/home.aspx?viewtype=LCEFD&FId=2.

Universidad de La Laguna (2017). Máster en Interpretación de Conferencias: Requirements. Retrieved August 20, 2017, from http://masteric.webs.ull.es/wordpress/en/requirements/.

Universidad Pontificia Comillas (2017). Máster Universitario en Interpretación de Conferencias. Retrieved August 20, 2017, from http://www.comillas.edu/es/postgrado/social/master-universitario-en-interpretacion-de-conferencias.

Università degli Studi di Trieste (2017). Sezione di Studi in Lingue Moderne per Interpreti e Traduttori. Retrieved August 20, 2017, from http://iuslit.units.it/it/dipartimento/sezioni/sezione-studi-lingue-moderne-interpreti-e-traduttori.

Universitatea Babeş-Bolyai (2017). Admission. Retrieved August 20, 2017, from http://masteric.lett.ubbcluj.ro/admission.html.

Universiteit Antwerpen (2017). Postgraduate of European Masters in Conference Interpreting. Retrieved August 20, 2017, from https://www.uantwerpen.be/nl/onderwijs/opleidingsaanbod/pavo-conference-interpreting/profiel/.

University of Geneva (2017). Maîtrise (Ma) en interprétation de conference. Retrieved August 9, 2017, from http://www.unige.ch/fti/files/2314/9915/4848/MAINT-combiling_2018.pdf.

Univerza v Ljubljani (2017). Curriculum. Retrieved August 20, 2017, from http://www.prevajalstvo.net/curriculum-graz-in.

Univerzita Karlova (2017). Translation & Interpreting Training. Retrieved August 20, 2017, from http://utrl.ff.cuni.cz/UTRLFF-184.html.

Woumans, E. (2015). Effects of Bilingualism on Cognition. Retrieved April 7, 2017, from http://users.ugent.be/~wduyck/articles/Woumans2015.pdf.

Yudes, C., Macizo, P. and Bajo, T. (2011). The Influence of Expertise in Simultaneous Interpreting on Non-Verbal Executive Processes. Retrieved April 7, 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3203554/.

Annex 1

Re: [Contact Us] Delia Solari

JACI <info@japan-interpreters.org>

Tue 10/3/2017 3:56 PM

Inbox

To:Delia Solari <delia.solari@outlook.com>;

Cc:JACI Admin <admin@japan-interpreters.org>; JACI Support Desk <support@japan-interpreters.org>;

Of course, go ahead. I would remind you though, even though what I told you is pretty much the truth in Japan, I have no evidence to back it up. Nobody has ever bothered to collect data since it's always been like this in Japan.

Please send us a copy when it's all said and done!

Mike Sekine

On Tue, Oct 3, 2017 at 6:14 PM, Delia Solari <delia.solari@outlook.com> wrote:

> Dear Mike,
>
> Thank you for your reply, it is very useful and important for me.
> Would it be OK for you if I use this information while writing my dissertation?
>
> Best regards,
> Delia Solari
>
> > On 26/09/2017 08:07:34, JACI <info@japan-interpreters.org> wrote:
> >
> > Ms. Solari,
> >
> > Thank you for contacting us.
> >
> > Q. Would it be possible to know what share of JACI members work towards the mother tongue exclusively and what share work towards other languages too?
> >
> > A. Although we do not have hard data to prove this, it is safe to say that nearly 100% of interpreters in Japan (English-Japanese, not limited to JACI members) are expected to and actually do work both ways. An interpreter who only works toward his/her mother tongue would not command any quality job offers, if at all. One major reason for this is that there aren't enough native English speaking interpreters who understand the Japanese language at a high level -- and this hasn't changed in the past 50 years or so.
> >
> > Sincerely,
> >
> > Mike Sekine
> > Japan Association of Conference Interpreters
> >
> >
> >
> > On Sat, Sep 23, 2017 at 6:39 PM, Wufoo from JACI <no-reply@wufoo.com> wrote:

Re: Language combinations

sekretariat@sapt.sk

Tue 10/3/2017 11:36 AM

Inbox

To:Delia Solari <delia.solari@outlook.com>;

Dear Delia,

out of interest I started a survey among our members. Give us 24 hours and I'll be able to give you a more precise overview of how people translate into the B language. Then, of course, you can use it.

Best regards,

Maria Mlynarcikova
--
Slovenská asociácia prekladateľov a tlmočníkov
Slovak Association of Translators and Interpreters
www.sapt.sk
Konventná 9
811 03 Bratislava

On 3 Oct 2017, at 11:13, Delia Solari <delia.solari@outlook.com> wrote:

Dear Maria,

Thank you for your reply, it is very useful and important for me.
Would it be OK for you if I use this information while writing my dissertation?

Best regards,
Delia Solari

> On 03/10/2017 10:52:58, sekretariat@sapt.sk <sekretariat@sapt.sk> wrote:
>
> Dear Delia,
>
> Thank you for your message.
>
> SAPT doesn't have rules about language combinations, as Slovak is such a small language that most translators and interpreters work into their B language as well. I believe the share of people who work into their mother tongue exclusively would be below 10%.
>
> Best regards,
>
> Maria Mlynarcikova
> --
> Slovenská asociácia prekladateľov a tlmočníkov
> Slovak Association of Translators and Interpreters
> www.sapt.sk