there is not enough empirical research to measure its actual magnitude in interpreting, and other factors, in particular the overall structure of the speech and its delivery (see below) may reduce their effective weight to a considerable extent.

4. The speaker factor

While features of language and culture are frequent sources of difficulties, a much stronger determinant of interpreting difficulty is the speaker factor, i.e. the way a particular speaker constructs and delivers his/her speech. Speeches are easier to interpret if constructed in a didactic, logically linear, coherent way, if the speaker has a good voice and clear pronunciation. Good prosody also helps. Relatively slow delivery of speeches can be said to reduce cognitive pressure on listening and production, but if it is too slow, information elements have to be kept longer in short-term memory before they can be integrated into target speech sentences, which may cause cognitive saturation. Perhaps more important than articulation rate is the relative length of inter-sentence pauses. Such pauses provide cognitive relief during which processing of the previous speech segments can be completed so that processing of the next segments is not hampered by imported load carried over from the previous sentence (see Gile 2008). The speaker factor can make all the difference in terms of interpreting difficulty.

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All in all, besides the interpreter's knowledge and skills, numerous linguistic factors, cultural factors, environmental factors (such as the availability of documents, visual aids, overall redundancy of information in the meeting, quality of the sound etc.) and delivery-related factors interact in determining interpreting difficulty. This interaction is so complex that it is generally not easy to predict the overall difficulty of a given speech to a particular interpreter, though specific problems such as mentioned in Chapter 7 and earlier in this chapter can be anticipated.

5. Tactics in simultaneous interpreting

Many of the problems mentioned in this first part of the chapter are recurrent. Over time, interpreters have developed ways to deal with them. Scrutiny of the literature and discussions with conference interpreters from many countries, as well as visits to interpreting classrooms in various parts of the world, show that they are widely shared (language-specific tactics will not be dealt with here). In the second part of this chapter, the most frequent 'tactics' will be presented, explained and discussed. While in the

TS literature, such online decisions and actions are often called 'strategies', I prefer to reserve that term for planned action with specific objectives (for instance conference preparation strategies) and to opt for 'tactics' when referring to online decisions and actions. Also note that in contrast to usage in some other texts in the TS literature, my use of the terms 'tactics' and 'strategies' is restricted to *deliberate* decisions and actions aimed at preventing or solving problems, as opposed to spontaneous, perhaps unconscious reactions.

5.1 Comprehension tactics

The following are the main tactics used when comprehension problems arise or are perceived as threatening to arise under time-related or processing capacity-related pressure.

a. Delaying the response

When a comprehension difficulty arises in connection with a word or a sentence, interpreters may respond immediately with one of the other tactics presented below. However, they may also delay their response for a while (up to a few seconds), so as to have some time for thought while they receive more information from the source-language speech. After a while, they may have solved the problem entirely. If not, they may decide to resort to another tactic. Note that as explained in Chapter 7, some delay between the arrival of information into working memory and its integration into a target speech utterance is generally unavoidable. The delaying tactic referred to here is a deliberate decision arising in conjunction with a perceived difficulty.

Because of its very nature, the delaying tactic involves an accumulation of information in short-term memory, and is associated with the risk of losing speech segments in a failure sequence as outlined in Chapter 7.

b. Reconstructing the segment with the help of the context

When interpreters have not properly heard or understood a technical term, name, number, or other types of speech segment, they can try to reconstruct them in their mind using their knowledge of the language, the subject, and the situation (their *extra-linguistic knowledge*).

This reconstruction process is also an integral part of speech comprehension in everyday situations. It is defined as a tactic in the present context when it becomes a *conscious endeavour,* as opposed to an ordinary, subconscious process.

If successful, reconstruction can result in full recovery of the information. It may also entail some waiting until more information is available and therefore require time and additional processing capacity. Like the delaying tactic, it can therefore lead to saturation and/or individual deficits.

c. Using the boothmate's help

In simultaneous interpreting, there are theoretically at least two interpreters in the booth at all times. One is *active* (producing a target-language speech), while the other is *passive* (listening, but not speaking). The passive colleague, who can devote his/her full attention to listening, has a better chance of understanding difficult speech segments than the active interpreter, whose processing capacity is shared by several Efforts most of the time. Moreover, on the production side, the passive interpreter can consult a glossary or another document, which takes up much time and processing capacity, and then give the information to the active colleague, generally in writing. The presence of a passive interpreter in the booth can therefore be a major asset for the active interpreter.

The active interpreter can ask for the passive colleague's help with a glance or a movement of the head. In teams that work well, the passive interpreter will sense a hesitation in the active colleague's speech and understand there is a problem. S/he can also anticipate problems and write down for his/her boothmate names, numbers, technical terms, etc. without even being asked for help.

When the problem is terminological, the boothmate may indicate to the active interpreter the *target-language term*, so that it can be used for reformulation. Alternatively, when the problem lies with a single word, name or number, the passive boothmate may write it down in the source language for the benefit of the active interpreter who did not hear it correctly. It is more difficult to explain *ideas* efficiently, because the active interpreter does not have time to read a long explanation, but body language sometimes does the job.

This tactic is a good one because it does not cost much in time and processing capacity, and pooling together the knowledge and intelligence of two persons, one of whom does not have to divide his/her attention under high cognitive pressure, provides a better chance of finding the information than using the resources of one person only.

In order for the tactic to work, the passive interpreter must be not only physically present in the booth, but also available and willing to make the effort to listen with attention and help the active colleague. This situation does not always occur:

- Because of the intense effort involved in interpreting, interpreters feel strongly the need for rest. In teams composed of two members per target language, when conditions are difficult, interpreters may leave the booth when they have finished their active turn and only return shortly before they are on again, or else they may stay in the booth but shut themselves out and rest.
- In conferences in which papers are to be read, documents are often given to the interpreters at the very last moment, and presentations are allocated individually

to each member of the team. In such a case, all interpreters are busy reading their paper or interpreting, and no help is available to the active interpreter from other team members.

– For psychological and sociological reasons, including the awareness of one's weaknesses and some associated frustration, some interpreters do not like other colleagues to sit with them and listen while they are working.

It is important for instructors to point out the practical value of cooperation between interpreters as well as its importance in the framework of professional ethics aiming at offering clients better service. Practical aspects of such cooperation, involving in particular large and legible handwriting, should also be stressed.

d. Consulting resources in the booth

When there is no passive colleague in the booth, interpreters can look for solutions in documents they have before them.

The efficiency of this tactic varies greatly: looking for a term in a commercial dictionary may require much time and processing capacity, but finding an important word in a document which was read and marked before the conference can be fast. This is why it is important to pay attention to both the preparation of documents and their management in the booth. Instructors should show students how to make important names and terms stand out for quick reference, using highlighters or other means. Writing important technical terms and names on a sheet of paper in front of the interpreter (beside the glossary prepared for the conference) is another way of making them readily available. Documents should be laid out in the booth, sorted and marked in such a way as to minimize the time needed to access them and to recognize their identification numbers or titles, possibly with different stacks for each language, sorted by numerical sequence, type of document, etc.

Over the past decade or so, the use of light portable computers in the booth has spread greatly. Such devices are a good alternative to paper documents: for a small volume and little weight they can carry the equivalent of numerous dictionaries, encyclopaedias and other reference books and documents. Moreover, with the spreading availability of Wireless connection to the Internet in conference centres, they often offer access to all internet resources. Finding information can be as simple as entering a word or part of a word in a 'search function menu', or a key word, perhaps with one or two more words to frame it, into the relevant box of an internet browser interface, thus requiring less time and attention than searching through multi-page paper documents. Nevertheless, consulting resources in the booth other than a one or two-page document containing just a few pieces of information remains a costly operation in terms of time and attention and should best be left to moments when the interpreter is not interpreting actively.

5.2 Preventive tactics

The following tactics are used when time or processing capacity pressure is such that the interpreter believes a problem may arise or is about to occur. The idea is to limit the risks of saturation or individual deficit (Chapter 7).

a. Taking notes

When the speech contains figures and names that interpreters feel they may forget and that they cannot reformulate right away for syntactic reasons, they may take them down in notes rather than keep them in memory. While affording greater security as regards the items which are taken down, this tactic entails a cost in time because writing is slow. This increases the risk of losing other items of information that come before or after those written down (see Chapter 7). Again, this risk is reduced significantly when it is the passive colleague who writes down the information for the active colleague.

Interestingly, when translating in simultaneous from and into Japanese, some Japanese interpreters take down not only numbers and names, but also other information which 'Westerners' generally do not write (in this case, it is often the passive interpreter who takes down the information for the active colleague). The reason given by them is that syntactic structures differ greatly between Japanese and other (mostly Western) languages, which leads to much waiting before the reformulation of any specific part of a sentence, hence a possible overload of short-term memory and an increased risk of losing information. One is tempted to challenge the wisdom of this tactic because writing may increase lag and therefore working memory load as well, but the advantages may outweigh the disadvantages (the active interpreter does not *have* to read the notes taken for him/her by the passive colleague), something which only specific quantitative studies could determine if at all.

b. Lengthening or shortening the Ear-Voice Span

By changing the Ear-Voice Span (EVS), that is, the time lag between the moment a speech segment is heard and its reformulation in the target language, interpreters can control to a certain extent processing capacity requirements for individual Efforts. By shortening the lag, they decrease short-term memory requirements; on the other hand, this deprives them of anticipation potential and increases the risk of misunderstanding an unfolding sentence and driving themselves into target-language sentences which will be difficult to complete if it turns out their anticipation was incorrect. By increasing the lag, interpreters improve comprehension potential, but may overload short-term memory.

Teachers sometimes advise students to try to lengthen or shorten their EVS in specific cases (for instance when encountering numbers), but I am not aware of a clear-cut,

consistent theory or set of operational rules on the subject. It seems that EVS regulation is learned essentially through experience; I believe that this is one major benefit derived from *practice* in simultaneous interpreting during initial training, in addition to increased availability of relevant target-language elements (see Chapter 9) and automation of useful Translinguistic Equivalences (see Chapter 9).

c. Segmentation and unloading of short-term memory

When faced with potential overload of memory, as with a source language and a target language that are syntactically very different, with embedded structures in the source language or with unclear sentence structures, interpreters may choose to reformulate speech segments earlier than they would normally, sometimes before they have a full picture of what the speaker wants to say. In such cases, they may resort to neutral sentence beginnings or segments in the target language that do not commit them one way or another (see Ilg 1978; Zhong 1984 quoted in Setton 1999). For instance, in a source-language sentence expressing a causal relationship such as:

> "Because of the complex character of equation (2) as shown above, compounded by the difficulty of finding a unique solution to equations (3) and (4) which correspond to a steady state system …"

the interpreter can say in the target-language something like:

> "Equation (2) as shown above is complex
> Equations (3) and (4) describe a steady system
> It is difficult to find a unique solution to them
> …"

While interpreting these segments, the interpreter will keep in mind the causal nature of the relationship, which will eventually be expressed by "Therefore ....", "As a result…" etc.

Segmentation can save short-term memory capacity requirements by providing earlier relief to short-term memory. On the other hand, the very formulation of several grammatically complete short sentences instead of one may involve higher processing capacity requirements in the Production Effort. Recommendations can be given on a case-by-case basis.

d. Changing the order of elements in an enumeration

Enumerations are high-density speech segments and impose a high load on short-term memory. One tactic often observed, related to the previous tactic, consists in reformulating the last elements first so as to free memory from the information, and then to move on to other elements. To my knowledge, no extensive analysis has yet been performed as to why this should reduce Memory Effort load. One possible explanation is that by reformulating the last elements first, it is possible to pick them up

before they have been processed in depth and integrated fully into the semantic network, thus saving processing capacity. This tactic may work best with names, which can be reproduced from *echoic* memory (memory of the sound), or with terms which are easily transcoded; it may not be very effective if they cannot be transcoded or reproduced phonetically and require more processing capacity anyway.

5.3 Reformulation tactics

The following are tactics used frequently in reformulation. The first three are the same as those presented in Section 5.1 for comprehension.

a. Delaying the response

This is the same tactic as used in comprehension, the idea being that the waiting period is used for a subconscious (or conscious) search for a missing term or sentence structure the interpreter cannot retrieve immediately from long-term memory, or for a socially/culturally appropriate way of rendering the message if rendering it as it was formulated initially is likely to cause problems. As was the case with comprehension, waiting entails a risk of short-term memory overload, as well as a possible increase in processing capacity requirements in the Production Effort when the information is eventually reformulated – because of the backlog that has accumulated in the meantime.

b. Using the boothmate's help

As can be inferred from the descriptions in Section 5.1, the boothmate's help is more often given in the form of indications for *reformulation* than as explanations of what was said, which is reasonable in view of the strict time constraints involved.

c. Consulting documents in the booth

Documents are often used in the booth for reformulation, in particular glossaries and dictionaries, with associated risks because looking for entries takes up time and processing capacity.

d. Replacing a segment with a superordinate term or a more general speech segment

When interpreters find themselves momentarily incapable of understanding a speech segment or reformulating it in the target language, one possible solution is to reformulate the message in a less accurate manner by using a superordinate in the case of a single word, or by constructing a more general segment in the case of a whole clause or sentence: "*la streptokinase*" may be reformulated as 'the enzyme', "*Monsieur Stephen Wedgeworth*" as 'the speaker', "*deux cent trente trois millions*" as 'about two hundred and thirty million', "*DEC, IBM, Hewlett Packard et Texas Instruments*" as 'a number of computer vendors', etc.

This tactic, which requires little time, leads to loss of information in the target-language speech. This does not necessarily mean that the information is lost for the delegates; it may be repeated in another sentence in the speech, or be already known to them.

e. Explaining or paraphrasing

Interpreters may understand a term but not have available the appropriate equivalent in the target language, in which case they can *explain* it rather than translate it. In one conference in the early days of microcomputing, in the 1980s, the data processing term *tableur* (spreadsheet) was interpreted as "the programme which defines rows and columns and allows calculations to be made."

This tactic can be efficient informationally but has two drawbacks: one is the amount of time and processing capacity it requires, and the other is the fact that it may draw the delegates' attention to the fact that the interpreter does not know the appropriate term in the target language, possibly lowering his/her credibility and reducing the impact of the speech accordingly.

f. Reproducing the sound heard in the source-language speech

When encountering a name or technical term which s/he does not know or recognize, the interpreter may try to reproduce the *sound* as heard. This is not an 'intelligent' tactic insofar as it does not call for complex cognitive operations, but it can be efficient: if they know the name or term, delegates may 'hear' it as it *should* have been pronounced without even noticing that the interpreter has a problem. The approximation may also be detected and perceived as a distortion of the information, which may discredit the interpreter, especially if the name or term is well-known to the audience.

g. 'Instant naturalization'

When interpreters do not know the appropriate term in the target language, they may *naturalize* the source-language term, adapting it to the morphological and/or phonological rules of the target language. For instance, at a conference, the term *télédétection* (remote sensing) was rendered in English as "teledetection". At another conference, the English computer term 'driver', as applied to a software programme that helps operate a device such as a printer from a computer, was translated into French as "*driver*" (pronounced "dreevair").

This tactic may prove effective when the source-language and target-language lexicons are morphologically similar, as is the case of English and French medical terminology, and when there is much borrowing of terms into the target language in that particular field, for instance in information technology, where English is a loan language for most non-English speaking countries.

In these first two cases, the tactic often results in the interpreter 'inventing' terms that actually exist in the target language, as such naturalization may have been conducted previously by experts who needed the terms for their daily activity – the 'instantly naturalized' French versions of 'driver' cited above actually exist in the technolect of computer experts – there is also a French equivalent, the word *pilote*, which uses a slightly different metaphor. Also note that in some languages such as Japanese and Hebrew, borrowing lexical units (and even idioms in the case of Hebrew) from foreign languages, and in particular from English, is very frequent in daily life, and the interpreter's use of this tactic may not strike listeners as special in any way.

The instant naturalization tactic may also prove very effective when in their daily life, delegates read much written material in the source language. In such a case, they often recognize the 'naturalized' terms, which are likely to sound similar to the way they pronounce the words in the source language when reading.

h. Transcoding

Transcoding consists in translating a source-language term or speech segment into the target language word for word. At a conference on accounting, the English term 'maturity date', the standard equivalent of which in the relevant context was *date d'échéance*, was interpreted as *"date de maturité"*.

For lexical problems, this tactic can be very efficient in the same cases as 'instant naturalization'. Like naturalization, it can also lead to existing target-language terms; in various fields, many terms have been created by such transcoding by experts, just as many terms have been created by phonetic naturalization. Even when transcoding does not lead to an existing target-language term, it may facilitate comprehension for the delegates because of the semantic indications the newly created term carries. At a dentists' conference, the English term 'mandibular block' (a type of anaesthesia) was interpreted as *"bloc mandibulaire"*, whereas the appropriate term was *tronculaire*. Delegates said afterward they had no trouble understanding *"bloc mandibulaire"*, even though it bore no similarity at all to the appropriate French term.

i. Form-based interpreting

With respect to the transcoding tactic, it may be worth recalling that overall, for the reasons explained in Chapter 5 for translation, there seems to be agreement in the conference interpreting community that in order to optimize quality, interpreting should be done on the basis of meaning, not form: going through meaning instead of seeking direct linguistic correspondences allows better comprehension of the speaker's intentions and better reformulation in the target language with less linguistic interference and more idiomatic expression. Ideally, the transcoding tactic is only

an occasional option when specific difficulties arise around a term or a small group of words. However, in case of fatigue or very fast speeches, when working in a cognate language pair, interpreters may give preference to what has been called in the literature 'form-based interpreting' (see for instance Dam 2001), relying essentially on source-speech words and syntax to guide them in producing the target speech. This mode of interpreting can lead to marked losses, especially in terms of idiomaticity and clarity, but some interpreters believe that at times it may salvage more information from the source speech than meaning-based interpreting. In a recent doctoral dissertation, Alonso Bacigalupe (2006) claims that form-based interpreting is perhaps more frequent than is suggested in the literature.

j. Informing listeners of a problem

When interpreters believe they have missed an important piece of information, they may decide to inform the delegates of the loss by stepping out of their role as the speaker's *alter ego* and saying for instance "… and an author whose name the interpreter did not catch," or "… the interpreter is sorry, s/he missed the last number." When this happens, delegates may fail to react, but they can also ask the speaker to clarify or repeat the information, either on the spot or during a break.

This tactic is not used very often. It takes up time and processing capacity, and may therefore jeopardize the reformulation of other speech segments. Moreover, it draws the delegates' attention to the *interpreter's* problems. This has two drawbacks: first, delegates are interested in the speech, not in the interpreters and their problems; second, by drawing the delegates' attention to his/her problems, the interpreter may lose credibility, and therefore also indirectly weaken the impact of the speaker's message.

If important information is missed, conscientious interpreters consider it their ethical duty to inform delegates rather than gloss over it, but if the information is insignificant, or if informing the delegates may do more harm than good, they may decide to choose another tactic.

k. Referring delegates to another information source

In specialized conferences, much of the information is given not only through the speakers' spoken words and body language, but also in written handouts and on screen, via slides, overhead transparencies and PowerPoint presentations. When encountering comprehension or reformulation difficulties, interpreters can refer delegates to "the figures/names/equation etc. on the screen/in your handout," etc.

This tactic is convenient and entails little loss and little cost in time and processing capacity.

l. Omitting the content of a speech segment

Interpreters may miss information without even noticing it because they did not have enough processing capacity available for the Listening and Analysis Effort when the speech segment carrying it was being uttered. They may also omit it because it disappears from short-term memory. The omission tactic discussed here refers to the case where an interpreter decides deliberately not to render in his/her target speech information present in the source speech. This can happen when a piece of information appears to have little value and other information with more value requires the interpreter's attention and may be lost if the unimportant part is rendered, for instance when the interpreter detects a high risk of saturation. In interpreted TV interviews, where synchronicity is essential, omitting the last part of a statement may be the best choice if the interpreter is a bit behind the speaker, especially when such a lag leads to some overlapping between the last part of an interpreter's rendering of a statement and the beginning of the next statement by another speaker.

Omission can also be the interpreter's choice if something grossly inappropriate was said and the interpreter feels strongly that if reproduced, it will cause major harm to the speaker's interests and/or jeopardize seriously the intended outcome of the meeting. An alternative to omission in this second case is attenuation of the offending words or ideas.

When information is omitted, it is not necessarily lost as far as the delegates are concerned – it may appear elsewhere or be already known to the delegates. This does not mean that the omission tactic can be selected lightly. It is unethical to omit deliberately important information without informing the listeners of the loss, and some interpreters (and clients) may challenge the legitimacy of the tactic in all cases and question the interpreter's ability to judge what is important and what isn't. However, situations of cognitive saturation where the only possibility of keeping interpreting and serving best the interests of the participants requires forced choices are rife in daily practice, especially with read speeches with dense passages, as are most speeches of important political personalities being interpreted live on TV.

When the decision to omit the content of a speech segment is taken by the interpreter because of its culturally or inter-personally inappropriate nature, the associated ethical problem is even more salient: what right does the interpreter have to play the gatekeeper? In court interpreting, such a decision is definitely unethical because of the particular norms involved. In personal and professional encounters between people from different cultural backgrounds where the stakes are diplomatic and/or interpersonal, the case for omission as a tactic is less difficult to defend, and many interpreters will admit that they have occasionally omitted or attenuated an inappropriate comment or joke in order to avoid a serious diplomatic incident (anecdotes can be found inter alia in Magalhaes 2007; Torikai 2009).

m. 'Parallel' reformulation

When working conditions are particularly bad and interpreters feel it is imperative to continue speaking despite their inability to understand and reformulate the source speech properly, they may *invent* a speech segment which is compatible with the rest of the speaker's statement.

This tactic is an extreme one, to be used exceptionally and with the uttermost caution, in cases where the content of the source speech is far less important than continuity in speech for the listeners' benefit (which may occur in some TV shows). I believe it should not be taught at the same time as other tactics. It is probably best left to the very end of training, when it is introduced very carefully, with explicit examples and strong emphasis on ethical considerations.

n. Switching off the microphone

This is another extreme tactic. In the 1960s and early 1970s, some purists advocated its use when working conditions are poor and interpreters feel they cannot do a decent job, perhaps in the hope that the resulting pressure would prompt organizers to provide interpreters with more documents. It is no longer taught in most training programmes and has become a rare choice in the field because it is now unacceptable to clients. It is probably safe to say that this tactic is only implemented when working conditions are so bad that interpreters believe they can do no useful work at all, meaning that *continuing to interpret would be worse than providing no interpreting* – and when they believe they can get away with it. Otherwise, they just continue interpreting, doing their best, perhaps after warning delegates that conditions are such that they cannot maintain good-quality interpreting.

6. 'Laws' in the selection of tactics in simultaneous interpreting

Interpreters do not choose tactics at random. They seem to follow 'laws' (the term is used here to name trends found in their behaviour, not in the sense of prescriptive rules), sometimes consciously, often unconsciously. Two of them correspond to norms which are corollaries of the fundamental Sender-loyalty norm (see Chapter 3), others do not.

Law 1: Maximizing information recovery (norm 1)

Interpreters generally consider it their duty to attempt to reformulate *all* of the speaker's Message in the target language (the Message being the intended information, as opposed to Secondary Information – see Chapters 2 and 3). Tactics leading to maximum information recovery such as reconstruction from the context, using the boothmate's help and consulting documents are favoured over replacing specific terms with