

Rethinking anticipation: an experimental study
of negation in German to English simultaneous
interpreting

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I confirm that the work submitted is my own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

The present research investigates how simultaneous interpreters tackle head-final negation when interpreting from German into English. To analyse the strategies used, specifically anticipation, the study engages with the concept of 'strategy' in simultaneous interpreting. Strategies are here defined and described as multifactorial phenomena.

The investigation required an experimental approach. The data was collected during an online task of simultaneous interpreting from German into English carried out by 9 professional interpreters. The experiment design included two independent variables (speed and redundancy) in order to assess their influence on interpreters' approaches. In order to test both variables, the material used were two German speeches, both containing high- and low-redundancy sentences. One of the speeches was read at a slower rate (100wpm) while the other at a faster speech rate (140wpm).

Two pilot studies were carried out to test the methodology. All sessions with participants were entirely carried out remotely using Zoom. In this regard, this study engages with remote simultaneous interpreting as a research tool (rather than as a research subject).

The analysis of results ultimately revealed that anticipation was not the most used strategy. Participants used waiting and other strategies more often, and this result has been contextualized in a discussion on risks in simultaneous interpreting. As for speed and redundancy, it appeared that the former had a significant impact, causing a decrease of waiting and an increase of omissions in the faster speech. Instead, redundancy appeared to have an influence more evident on strategies used in the slower speech.

The use of anticipation was thoroughly analysed, and a new form of anticipation was identified and labelled as pragmatic anticipation. Along with the forms of anticipation already described in previous literature, pragmatic anticipation provides a better understanding of this strategy and will need to be considered in interpreting studies.

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Chapter 1: Introduction and research questions

1.1 Introduction

The present study investigates how simultaneous interpreters tackle syntactic asymmetries when interpreting from German to English. In doing so, the study engages critically with key concepts from interpreting studies, such as the concept of ‘strategy’, in an attempt to refine the current understanding of interpreting strategies, specifically anticipation. The focus of the research is on a specific syntactic feature of German as a source language that represents a difficulty in German-English SI: head-final negative sentences, i.e. structures where negation appears at the end of the sentence, often before the non-finite verb. It is worth noting that German is not the only language that is syntactically different from other languages (such as French, English or Italian). There are several languages, and language pairs, that can constitute a difficulty in SI, for instance Japanese or Turkish which are distant from Italian, French or English. Therefore, the results of this study are applicable to any SI carried out between syntactically different languages.

The main research question of the present study is: (i) with what frequency and under which conditions is anticipation used when tackling head-final negative sentences? The aim is to thoroughly analyse the use of anticipation, and in order to do so it is necessary to account for the possible factors that could influence it, hence the inclusion of the two independent variables speed and redundancy. Therefore, the second research question revolves around the possible impact of these two variables on the interpreters’ performance, more specifically (ii) what kind of impact speed and redundancy had on the use of anticipation. Finally, the third research question aims at assessing whether speed and redundancy have an impact on the other strategies, hence (iii) how input rates and sentence-level redundancy influence the occurrence of other strategies.

Speed can quickly become a hurdle in simultaneous interpreting, as an input speech that is either too slow or too fast can be difficult to manage. However, the initial hypothesis is that speed can have a positive impact on the performance of interpreters in this set-up. In fact, a higher speech rate when tackling head-final negative sentences entails that the interpreter is exposed to the unknown source-language element sooner, hence they do not need to wait or anticipate as often as they would when working with a slow input speech. On the other hand, however, a higher speech rate makes it more difficult for the interpreter to keep the speaker’s pace, hence resulting in a possible increase of omissions (as shown in previous research, Barghout, Rosendo and García,

2015). It was important to thoroughly analyse the effect of speed as, based on the initial hypothesis, speed might have caused a decrease of anticipation in the data analysed.

The second variable accounted for is redundancy, which is used to indicate a context that has a high or low predictability. Although all political texts are redundant to some extent (Chernov, 2004), the expectation was that the sentences considered to be high-redundancy sentences were easier to predict, hence it was expected that the occurrence of anticipation would increase for those sentences and decrease in low-redundancy utterance.

Analysing both variables in relation not only to anticipation but also to other strategies was insightful as it allowed to provide a clearer understanding of the approaches taken by professional interpreters.

Anticipation has been widely analysed in the research community (Jörg, 1997; Van Besien, 1999; Vandepitte, 2001; Chmiel, 2021; Hodzik and Williams, 2017). It allows interpreters to produce the target language verb (or any other target language element) before the speaker has uttered the source language counterpart. This strategy enables interpreters to avoid waiting for the source language verb, i.e. they are able to free some of their (limited) processing capacity (Gile, 2009), hence avoiding the risk of overburdening their working memory (Amos and Pickering, 2020).

However, anticipation has thus far been analysed when used in regular sentences, with the verb in the positive form. The frequency of use, as well as how this strategy is used, are likely to change when interpreters tackle head-final negative sentences, due to the structural specificities of this linguistic feature. Anticipating a verb without including the negation in the verbal bracket would be an evident mistake and the only solution would be an open self-correction, which is not a particularly negative scenario, but it is not a desired outcome for interpreters. It is therefore worth looking at these negative structures in order to assess whether interpreters use anticipation and, if not, to establish what approaches they choose. In order to assess the use of anticipation in these cases, the present research adopted an experimental approach, in line with previous studies (Amos et al., 2022; Lozano-Argüelles and Sagarra, 2021; Amos et al., 2023; Ito et al., 2018; Chmiel, 2021) to control the occurrence of the dependent variable, the use of anticipation. Moreover, this study aims at providing a better understanding of anticipation not only with a quantitative analysis (i.e. how many times anticipation was used by the participants), but also through a qualitative analysis of *how* anticipation was used, and whether its use varies compared to previous research. The study includes a reflection on

how we understand the terms ‘anticipation’ and ‘strategy’. While anticipation is the main focus, the investigation provided a realistic account of the general approach(es) taken by interpreters and how, sometimes, practice can differ from theory.

The experiment included two independent variables: speed and the redundancy. The former was included in the design as the initial hypothesis was that it could influence the use of anticipation, specifically that a higher input rate would decrease the occurrence of anticipation. The influence of speed, however, was also measured in relation to other strategies used, such as waiting or omission. Speed has been analysed by previous researchers in relation to the use of strategies (Dose, 2020) or, more often, to assess its influence on omissions (Pio, 2003; Barghout, Rosendo and García, 2015; Barik, 1971). The second independent variable, redundancy, was included to assess its impact mainly on the use of anticipation. The concept of redundancy was taken from Chernov (1994; 2004). The author describes redundancy as the condition that allows interpreters to make predictions (hence, anticipations), but also as a *condition sine qua non* for SI to be possible at all. To this end, redundancy was included to understand to what extent this variable could influence the occurrence of anticipation, hypothesizing that anticipation would be found more often in high-redundancy sentences. Although Chernov (2004) analyses redundancy at different levels (which will be detailed in Chapter 4), the focus of the present investigation is single sentences that were extrapolated for the data analysis, hence redundancy was considered exclusively at sentence level.

The perspective adopted as a basis for the study is that expressed by the Information Processing Theory (Donato, 2003), which states that the language pair involved in SI has an impact on the difficulty of the interpreting task. While it remains true that interpreters translate meanings and not only words, as clarified by Seleskovitch (1986) and the Paris School, linguistic asymmetries existing between working languages can have a significant impact on interpreters’ performances by increasing the cognitive load on the interpreter (Seeber and Kerzel, 2011). To this end, it was necessary to review the strategies analysed in previous research, with particular attention to language-specific strategies such as waiting, stalling, anticipation, segmentation and changing the order (which will be addressed in Chapter 2).

Moreover, the analysis of the current literature on strategies revealed the need to define here the term ‘strategy’ in order to first understand how an action made by an interpreter can be defined as a strategy. In the data analysis and discussion, the strategies found are considered online actions that take place during the interpretation and, although

these strategies are intentional and goal-oriented, interpreters may only be partly aware of them (Kohn and Kalina, 1996). This definition has its basis in Kohn and Kalina's discussion of strategies in interpreting and in Gile's definition of tactics as online actions and decisions (while Gile considers 'strategies' as planned actions, such as conference preparation strategies (Gile, 2009)). These descriptions were linked to the feedback provided by participants in the present study when they were asked "What is the strategy that you use the most when interpreting from German?" and "What do you think is the strategy you used the most today?". Although strategies, as Kohn and Kalina (1996) and Gile (2009) underlined, are goal-oriented online actions, interpreters' feedback confirmed that interpreters are not always aware of which one(s) they are using. In fact, in response to the questions mentioned above, several interpreters provided rather vague answers, such as: Interpreter #7 'I tend to use non-committal verbs to get the sentence out and then refine it. I used this strategy today. Surely there are several strategies used that **I am not conscious about, I am not conscious of using them**' [my emphasis]; Interpreter #9 "tough question. **I don't know which strategy I use the most. Probably** I anticipated more in the slow speech rather than chunking" [my emphasis]; Interpreter #6 "Today I was able to anticipate better in the slow speech, so **I believe** I used anticipation more in Speech A" [my emphasis]. This suggests that interpreters often choose strategies unconsciously, but they still have a personal preference that plays a role in this choice. In fact, Gile (2009) underlines how there are some laws that may explain what makes interpreters prefer one strategy over another. Their preferences can be shaped by several different factors, in fact most interpreters when asked what strategy they use the most, started their answer with "it depends". The different factors that appear to define the choice of strategies are addressed in detail in Chapter 5.

The strategies that were the focus of the analysis are primary strategies, i.e. approaches taken by interpreters specifically to tackle the head-final negative sentences or, in some cases, what allowed interpreters to tackle this syntactic hurdle. During the data analysis, it was tempting to focus on every single aspect of the interpreters' performance and identify an array of different strategies that ultimately form the style of the interpreters, but this excessive theorization of strategies would not been as useful and it would not have answered the research questions. Kohn and Kalina (1996) highlighted how the individual definitions of strategies (e.g. the different names given to strategies depending on the single nuances found when they were used) are bound to be of a theoretical nature, and the goal of this research is to provide an analysis using a theoretical

basis but that is useful and readily applicable to practice as well. For this reason, despite all strategies being important as they are part of the general approach of the interpreters to their interpretation assignment, the focus is specifically on head-final negative sentences in order to shed light on this hurdle and on how simultaneous interpreters tackle it.

In addition to the set of strategies available, it would be helpful for students to be aware that that no strategy can be imposed to them, as the data shows how the choice of a strategy depends on objective and subjective factors, the latter being personal preference, as already underlined by Gile (2009). This is the reason why it is important to discuss strategies while students are still in training because they can receive feedback from their trainer about their performance and this feedback is provided in a protected environment, rather than from a client who is dissatisfied with their work. Another reason why it would be helpful to let students find the most suitable strategy for them, rather than prescribing which one is the one to use, is that the interpreting task is already challenging as it involves a series of efforts (Gile, 2009) and it is a type of communication where the interpreter has very limited control (Seleskovitch, 1986). The interpreter's approach to the interpretation in terms of the strategies used should therefore be within their control, otherwise it will generate added effort, something they have to do, rather than a tool to make their task easier. Although strategies are goal-oriented (Kohn and Kalina, 1996), they must, to some extent, be unconscious or spontaneous, as interpreters, particularly simultaneous interpreters, simply lack both the time and the processing capacity to stop and contemplate what strategy is the best. If instinct or personal preference (Gile, 2009) leads an interpreter to anticipate or wait, having to over-ride this instinctive response with a strategy that they were told to use or were told to be more helpful inevitably requires some processing capacity, and in this way the strategy becomes a further effort.

The analysis of previous literature as well as the results of the current experiment revealed a tension between theoretical and practical accounts of interpreting. For instance, segmentation was included as a language specific strategy in Chapter 2 and the definition provided by Goldman-Eisler (1972/2002) was used in the data analysis of the two pilot studies in order to identify the occurrences of segmentation. However, this revealed that it is difficult to identify segmentation in practice and to distinguish it from other strategies such as short *décalage* or changing the order. In order to provide a faithful account of the approaches taken by interpreters in real settings, while theory was reviewed and analysed

in the current study for completeness, it was sometimes necessary to focus more on the practical approaches as theory can sometimes be stricter or more neatly categorized than practice.

In terms of the methodology and data analysis, they have both been thoroughly tested. As detailed in Chapter 3, a first pilot study had been organised with one participant, mainly to test the feasibility of the data collection and analysis, and to assess the appropriateness of the material used. For the first pilot study, the source text was manipulated to artificially add head-final negative sentences and to lengthen the middle field (i.e. the space between the finite and non-finite verb, Bevilacqua; 2009). However, the results showed that some sentences appeared too artificial. Moreover, adding head-final negative sentences would not have been positive for the present research as it would have meant fabricating a condition where it was not happening naturally, hence diminishing the ecological validity¹ of the experiment. To this end, the type of material used as source text was changed both for the core experiment and for the second pilot study.

Chapter 4 will focus on the two independent variables of redundancy and speed, specifically reporting how speed was analysed in previous studies. As for redundancy, Chernov's (1994; 2004) concepts of inference and redundancy were thoroughly reviewed in order to clarify how the level of redundancy of each sentence was established. Finally, the discussion of the results of the study was divided into two chapters, i.e. Chapter 5 and Chapter 6. While the former includes the discussion of all the strategies used by participants and whether they were influenced by the independent variables, Chapter 6 exclusively focuses on anticipation. It illustrates the types of anticipation found in the data analysis and discusses how they can be related to previous research on anticipation on prediction.

Finally, the original experiment design was to carry out individual in person sessions with the participants. However, since the study was carried out during Covid-19, due to the restrictions in place it was not possible to organise in-person sessions and the data collection was carried out online using Zoom. This allowed for the use of RSI (remote simultaneous interpreting) as a tool rather than as the main focus of research.

¹ Baekelandt and Defrancq (2020) defined it as the ability of an experiment to replicate real world conditions.

Chapter 2: Literature review

2.1 Simultaneous interpreting and language-pair specificity

Several authors (Riccardi 2005, Al-Khanji, El-Shiyab and Hussein 2000, Zanetti 1999, Donato 2003, Dayter 2021, Liantou 2012, Bartłomiejczyk 2006, Kohn & Kalina 1996) have carried out studies about simultaneous interpreting (SI), with particular focus on the strategies used by interpreters when they face specific challenges that exacerbate the difficulty of their task. Some of the previous studies specifically focus on anticipation (Jörg, 1997; Van Besien, 1999; Wills, 1978; Vandepitte, 2001; Chmiel, 2021; Hodzik and Williams, 2017) to thoroughly analyse this strategy as it has proven to be a useful approach especially when the working languages have a different surface structure, e.g. a different syntax. In this case, i.e. when interpreters have to tackle syntactic asymmetries, strategies become particularly helpful as they can allow professionals to overcome the language-pair specificities without using too much of their limited processing capacity (Gile, 2009).

However, syntactic asymmetries represent only part of the problem. In fact, although they are challenging, it is important to bear in mind that simultaneous interpreting in itself is already a very taxing activity due to the several tasks to be carried out concurrently. Hence the importance of having strategies and approaches that can help professionals not be overburdened by their task. For this reason, it is necessary to first analyse simultaneous interpreting in order to have a better understanding of all the different tasks involved, which will serve as a basis to explain why language-pair asymmetries represent a significant hurdle and the need for interpreters to be strategic in their approaches.

2.2 Models of simultaneous interpreting

Simultaneous interpreting is widely known, both inside and outside the research community, as a complex and cognitively taxing activity. Previous studies have analysed simultaneous interpreting thoroughly and have highlighted how SI carries a high cognitive burden (Setton, 1999; Seeber, 2011). Unlike consecutive interpreting or liaison where the interpreter is not called to produce their output while still listening to the input in the source language, in SI interpreters are required to continue the production of the target-language translation while receiving source-language input. The simultaneity that is characteristic of this task does not allow the interpreter to only focus on the input or the output, they have to divide their (limited) attention between the two at all times. Moreover, most of the time, interpreters start their target-language output before they

have heard the full utterance in the source language, which causes an added burden and uncertainty, and forces interpreters to find approaches to tackle this difficulty.

Based on this, simultaneous interpreting should not be regarded as one task or activity, but rather as several concurring tasks.

2.2.1 Effort Model (Gile, 2009): the tasks performed by a simultaneous interpreter

In order to better understand the cognitive load involved in simultaneous interpreting, and even more how it can be exacerbated when tackling language specificities that are different in the two working languages involved, it is important to analyse each component that is part of this task. Gile created an Effort Model (Gile, 2009), which provided a detailed account of simultaneous interpreting by dividing the activity of SI into four main tasks, which the author defines as efforts. These efforts are to be carried out by the interpreter at the same time:

- Listening and analysis effort (L): it is not entirely clear how much of the input the interpreter needs to analyse before starting the production in the target language, but it is generally assumed that interpreters should at least understand the logic of the sentence. Owing to its nature, this effort is not automatic. It begins with the interpreter hearing the acoustic features of the input, but interpreters cannot listen passively as they need to compare the incoming input with the information stored in their long-term memory in order to be able to transform the auditory input into words. When applied to head-final sentences in German, it is clear how this effort becomes more daunting. Although interpreters can still hear the source language and analyse the incoming input, when the sentence is head-final the interpreter lacks the most semantically relevant element, i.e. the verb, and this negatively impacts their ability to analyse the incoming utterance and grasp its meaning. One of the possible responses to this would be the choice to focus most of the attention on this effort in order to make sure they have all the necessary information, which might result in not having enough processing capacity to maintain a balance among all the efforts. On the other hand, interpreters can decide to anticipate the source language verb, in order to continue with their translation and avoid an excessive burden on their working memory.
- Production effort (P): similarly to the previous one, the production effort is not automatic. The interpreter needs to start from their mental representation of the message to be uttered in the target language and plan how they want to

deliver it based on different aspects such as the context, the target language audience etc. In addition to the effort of planning, interpreters also need to monitor their target-language output. Interpreters constantly allocate some of their processing capacity to self-monitoring, as they need to control what they are communicating in the target language. Self-monitoring allows them not only to make sure that their output was correctly planned and that what they want to communicate is being expressed as they intended in the target language, but also to identify any mistakes and correct them. However, in case of an incorrect translation, the interpreter will have to resort to an open self-correction, openly stating that they made a mistake and correct themselves using sentences such as ‘the interpreter meant...’ (Lozano-Argüelles and Sagarra, 2021). If we apply this effort to an interpretation carried out between syntactically different languages, it is evident how the production of a target language sentence with a completely different structure compared to the source language one amplifies the difficulty that the interpreter will have to face. This happens because the interpreter needs to reorganise the sentence elements to be sure that the translation respects the natural syntax of the target language. Moreover, when a syntactically important element is only found at the end of the sentence, while planning the output the interpreter is still missing an important part of their target-language utterance and the production effort becomes more complicated.

- Memory effort (M): the short-term memory (STM) is constantly utilised when interpreting, especially in simultaneous interpreting. While in consecutive interpreting it is possible to take notes, in SI the interpreter has to store input words and concepts in their working memory before uttering them in the target language. In order to be able to do this, the information has to remain readily available so that it can be used in the target-language output. Therefore, the information is to be momentarily stored but remains easily and quickly accessible in order for the interpreting task to continue smoothly. There are several conditions that can make this process more difficult, and it is important to underline that STM is not only involved in the processing of the source language input, but also in the production in the target language, as interpreters need to rely on STM to plan the speech in the target language. The strain on the working memory (which results in an increased memory effort) when

working with syntactically different languages is evident. When interpreting from a verb-final language into a verb-initial one, the interpreter stores some of the input information in their working memory while planning their output, unless they want to use anticipation. Amos and Pickering (2020) have proposed a model of prediction according to which when interpreting verb-final sentences from German into verb-initial sentences in English, the interpreter holds pre-verbal information in a buffer before the verb is encountered and this generates an added cognitive load. The amount of information momentarily stored varies depending on the approach chosen by the interpreter. In fact, if they decide to wait to hear the verb before uttering it in the target language, the interpreter might need to store many source-language components, which would ultimately result in an excessive burden on their working memory. However, if the interpreter chooses to anticipate, it is still necessary to store some input information in order to predict what the speaker wants to express in that sentence and anticipate the verb accordingly. In both cases, the interpreter needs to make sure that the memory effort is not excessive, otherwise the attention dedicated both to the input and to their output will be negatively impacted.

- Coordination effort (C): this last effort is necessary to coordinate all the activities to be carried out simultaneously. The tasks that compose simultaneous interpreting are not automated and the appropriate amount of processing capacity has to be dedicated to each task in order to have a balance, hence the need for the interpreter to constantly coordinate all the tasks they have to carry out and make sure they are not allocating too much of their limited processing capacity to one effort over the others. Interpreters can momentarily change their main focus during simultaneous interpreting, as there are instances where one effort is receiving more attention. For instance, if an interpreter cannot think of the translation of a word (in which case they would focus more on production, although for a very brief moment) or if something of the input is unclear (e.g. low-quality audio or an accent that is difficult to understand). However, these instances can only be temporary as otherwise the balance among all the efforts would be lost.

In order for SI to run smoothly, as shown by Gile (2009), in each phase or “effort” the total available processing capacity has to be equal or greater than the processing

capacity requirements. When the requirements are greater than the processing capacity available to the interpreter, saturation occurs, which prevents the interpreter from allocating the necessary attention to each step of the task (Gile, 2009). When this happens, the interpreter reaches a cognitive overload, i.e. a situation where their cognitive skills are overburdened, and they are not able to carry out the simultaneous interpretation task as effectively as they normally would. The consequences of a cognitive overload can be several and different, such as an increase of omissions because the interpreter is not able to keep pace with the source language speech and omits some information from their output, or errors such as incorrect translations or a target-language production that is not as high-quality as it would be.

Gile's model (2009) has provided a schematic and clear account of simultaneous interpreting and starting from the breakdown of SI into different and concurrent efforts, it is clearer how simultaneous interpreting is cognitively taxing. However, this model has received some criticism, specifically for its view of omissions. Anthony Pym (2009) underlined how it would be incorrect to consider every omission as equally important and, more specifically, to consider every omission to have a significantly negative impact on the target-language rendition. In fact, although omitting parts of the source-language text is not a generally advisable approach, Pym underlined how it is essential to make some distinctions when analysing omissions. During the communication act, the author deems it necessary to carry out a risk assessment to be able to distinguish two kinds of omissions: low- and high-risk². The former is part of a general economy of time management, i.e. elements or information that are not as important in order to convey the concept that the speaker wants to express, therefore omitting this type of information would not have such a negative impact on the communication. On the other hand, high-risk omissions, as evident from how they are labelled, bear more serious consequences in terms of the completeness of the message, hence they have a negative impact on the communication. The latter is the type of omission that should be avoided in simultaneous interpreting, as they modify the message of the speaker negatively.

Starting from Gile's Effort Model, Kilian Seeber (2011) proposed a slightly different model for simultaneous interpreting: the cognitive load model (CLM). This new model focuses specifically on the cognitive load involved in simultaneous interpreting and addresses the linguistic asymmetries that can exacerbate it. The CLM fills a gap left by Gile's effort model that did not specifically address the cognitive load. Since the focus

² The concept of risk in simultaneous interpreting will be addressed in more detail in Chapter 5.

of the present investigation is a language-specific asymmetry existing between English and German, it is important to include Seeber's model in the analysis.

2.2.2 Cognitive Load Model (CLM. Seeber, 2011): the cognitive load involved in simultaneous interpreting

This model takes into account the cognitive load arising from concurrent tasks. Seeber and Kerzel gathered evidence suggesting that German verb-final structures impose a higher cognitive load compared to German verb-initial structures when interpreted into English (Seeber and Kerzel, 2011).

Moreover, another important aspect of this model is that, since simultaneous interpreting is a real-time combination of a language comprehension and language production, both the input and the output are accounted for together in different stages of the model. Seeber (2011) breaks down the tasks into their demand vectors:

1. P- perceptual auditory verbal processing of input and output. This corresponds to Gile's listening effort. The difference is that Gile mainly considers the listening of the input (i.e. of the source speech) while Seeber (2011) in his model links the input to the output and provides a clear analysis of how these two elements cannot be considered as separate in simultaneous interpreting, because the features of the input inevitably influence the interpreter's output. Tackling a German sentence in the source language affects the interpreter's output production in English due to the syntactic differences existing between the two languages.
2. C- cognitive-verbal processing of input and output. This corresponds to the analysis effort but, again, Gile considers mainly the input while Seeber includes the output production in this step. Moreover, there is a difference in the consideration of the analysis in the two models. While Gile includes the input analysis in the listening effort (i.e. L = listening and analysis), Seeber separates analysis from listening. The author underlines how both the input and the output have to be processed both at a cognitive and at a verbal level. Although the cognitive strain was accounted for in Gile's model, as the author underlines how important it is for an interpreter that the processing capacity is equal or greater than the requirements, Seeber's model clearly states that the incoming information has to be processed cognitively and verbally both in the input and in the output.
3. R- verbal-response processing of output: this would correspond to Gile's production effort, as it focuses on the interpreter's output in the target language.

4. I- interference: i.e. the interference caused by the simultaneous processing of overlapping tasks. (which can be seen as the condition requiring Gile's coordination effort).

5. S- storage: it reflects the load generated by the storage in the working memory of constituents prior to their integration and/or production (it corresponds to Gile's memory effort). When analysing this step of the model in relation to head-final sentences to be translated into a head-initial language, if the interpreter chooses to wait before uttering the components in the target language the storage time becomes greater, and with it the cognitive load increases.

The Cognitive Load Model provides a clearer account of the cognitive load that interpreters face, as even in the stages where the interpreter is deemed to be mainly listening to and analysing the input, the author always mentions how approximately the same process is simultaneously valid for the output as well. Demand vectors of both the original input and the interpreter's production are accounted for, and they provide a more detailed analysis of the cognitive load.

Another important aspect of this model is that, unlike Gile's, which only quickly addresses the issue of syntactic asymmetry in simultaneous interpreting, it gives great importance to this particular condition. Seeber (2011) in his CLM model illustrates how the overall cognitive demands are affected by different combinations of sub-tasks, and the interpreter, when given the choice, will opt for a strategy that reduces the overall cognitive processing demands. In this regard, the author underlines how important it is not only to find general strategies that would allow the interpreter to slightly decrease (or at least manage) the cognitive load, but also that it is paramount to be able to rely on other language-specific strategies, i.e. ad-hoc tools useful to tackle syntactic asymmetries. This approach served as a starting point for the present research. This study is based on the concept that language specificities have an impact on the interpretation, hence interpreters need strategies specifically to tackle language-pair specificities, i.e. approaches they can rely on when facing specific features of the language pair involved. When a simultaneous interpreter tackles the head-final structure of German and has to readjust it to a head-initial structure in English, they need strategies to avoid an excessive cognitive burden.

In order to assess what are the language-specific strategies that interpreters can rely on, it is essential to define language specificity and how this aspect has been analysed and defined so far in the research community.

2.3 Language-pair specificity

The term language-pair specificities refers to linguistic features specific of two working languages. When found in simultaneous interpreting, these characteristics of the two working languages might require ad-hoc approaches. An example of language-pair specificity would be specific syntactic structures that represent an added difficulty for the interpreter. In fact, the interpreter would have to find ways to overcome this in the comprehension phase, grasp the meaning of the utterance and, consequently, restructure to some extent the target language sentence to build a structure that reflects the target language syntax.

In the research community there have been two main points of view with regard to language-pair specificity: that of the Paris school, chiefly represented by Danica Seleskovitch, and the view of the “bilateralists” (Setton, 1999). The latter was used as a starting point for the present investigation as this approach maintains the idea that language-specificities and, in general, the languages involved in the SI task have an effect on the difficulty of the interpretation, hence confirming that it is necessary for interpreters to find ad-hoc approaches and strategies.

2.3.1 *The Paris school*

The Paris school takes its name from the main representatives of this theory, Danica Seleskovitch and Marianne Lederer, pillars of the *École supérieure d'interprètes et de traducteurs* in Paris. The perspective of the Paris school is based on the theory that simultaneous interpreting is not an activity that merely involves the translation of languages. In fact, Seleskovitch (1986) starts by considering the interpreting task as a translation of meaning, namely the *sens* of what has been uttered by the speaker. The author states that interpreters have to be able to grasp the sense of the source language sentence, the speaker's *vouloir dire*, and they have to be able to translate this into the target language. Based on this approach, provided that interpreters have an adequate language level that allows them to understand what is being expressed by the speaker in the source language, they are able to extrapolate the sense from the verbal representation of the message and then translate this into the target language. In this case, once the interpreter has understood the meaning of the utterance, this is detached from its linguistic form, hence the languages involved in the interpretation do not have a significant influence on the interpretation task, as the interpreter overcomes the linguistic form and focuses on the meaning. This interpretation is a clear account of the main goal of SI, in the sense that interpreters do not have to carry out a mere *mot à mot* translation of the

source language, i.e., an exact rendition of the single words uttered by the speaker in the source language. Instead, interpreters analyse the source-language sentence and grasp the true meaning of it, and then transpose this in the target language.

If we apply this theory to the sentences that are the subjects of this research, i.e. head-final negative sentences, it remains true that the interpreter would need to translate *le sens* of the utterance, but the most semantically relevant element would only be available at the end of the sentence. When the non-finite verb and its negative particle are found at the end of the sentence, it takes time for the interpreter to understand the full meaning of the utterance, as two key elements are uttered at a later stage. In this scenario, an interpreter has two choices: they can either use anticipation, if they are confident about their prediction (Amos and Pickering, 2020), or they can wait to hear the source-language constituents before uttering them in the target language. Despite these choices being different, they both involve a risk: while the former exposes the interpreter to the risk of an incorrect anticipation (and the only solution would be an open self-correction), the latter takes a toll on the interpreter's working memory, as they need to store more information before translating, hence increasing the memory effort (Gile, 2009). However, neither scenario would be as relevant if German and English had the same syntactic structure. Although there are other difficulties involved in simultaneous interpreting that could force the interpreter to adopt specific approaches, when referring strictly to linguistic features such as syntax, if the two languages shared the same syntax interpreters would not need to restructure their output in the target language.

For this reason, notwithstanding that interpreters translate meanings and not only words (Seleskovitch, 1986), it seems not possible to maintain that the language pair involved in the interpretation has no influence on the difficulty of the task, because in order to understand the meaning of an utterance the interpreters has to first analyse the incoming input and the analysis has to start from the linguistic representation of the message.

This point of view found an opposition in the studies carried out by the “bilateralists”³ (Setton, 1999), i.e. authors who underline how differences between working languages, in particular syntactic asymmetries, have a paramount role and exacerbate the difficulty of the interpretation. This point of view is the basis of the present study, as the aim of the research is to analyse how interpreters face negation in German,

³ Their point of view is also called the ‘information processing theory’ by Donato (2003)

which is a language-specificity that can increase the difficulty of simultaneous interpreting by adding a further cognitive load on the interpreter's processing capacity.

2.3.2 Language specificity and its impact on simultaneous interpreting

According to the proponents of the Information-Processing Theory (Donato, 2003), the linguistic surface of the source message never entirely disappears. Therefore, factors linked to the surface structure of the languages involved, such as syntactic asymmetries, play a paramount role in the performance of the interpreter, because facing these hurdles increases the processing capacity requirements (Gile, 2009).

Since the focus of the present study is one specific linguistic feature considered as a factor that increases the difficulty of simultaneous interpreting from German to English, i.e., negative sentences where the negative particle is placed at the end of the sentence, this point of view on language-specificity is the point of departure of the present research. Moreover, although German is often used as a source language when focusing on language specificities, language-pair specificities do not apply solely to German and English. In the research community, particular attention was given to language-pair specificity and how it affects the performance of simultaneous interpreters, and several languages were considered. This is already visible if we consider all the studies carried out using a specific language combination or language feature, rather than analysing only the interpreting task in general: Wang and Gu (2016) analysed the effects of language-pair specificity in simultaneous interpreting from English to Chinese. The two languages have a different structure, and the author underlines how language-pair specificity is one of the variables that need to be considered when analysing the interpreting performance as well as the elements that can affect it.

Among the contributions made by Gile to research in simultaneous interpreting, some studies take into consideration the interpretation between languages where the specific features of the languages involved appear to impact the interpreter's performance. Gile (2011) analysed errors, omissions, and infelicities in broadcast interpreting, and the interpreters who took part in the study interpreted from English into different target languages, namely French, German, and Japanese. The outcome of his analysis suggests that simultaneous interpreting from English into Japanese may be cognitively more taxing than working into German or French because the asymmetries between English and Japanese are more significant compared to English and the other European languages considered (Gile, 2011:214). This conclusion shows that specific language pairs ultimately have an effect on the performance of an interpreter.

A further study on how language-pair differences, in particular syntactic differences, have an impact on simultaneous interpreting, was carried out by Uchiyama (1992), who analysed the effect of syntactic differences in English-Japanese interpreting, with particular attention to adjectives. Once again, the starting point of the study was the recognition of language-specificities and their impact on simultaneous interpreting.

Another study that aims at analysing the differences in interpreting performance arising from the language pairs involved is that carried out by Donato (2003). The objective of the author was to investigate whether and, if so, to what extent “the language-pair involved in the interpreting process determines the choice of the strategies adopted by the interpreter during simultaneous interpretation” (Donato, 2003:101), i.e. to assess the real role of language-pair specificities in simultaneous interpreting, and its effect on the choice of strategies. In her research, the author analyses the use of strategies in two simultaneous interpreting tasks, one from English into Italian and the other from German into Italian. The subjects involved were 20 students who had passed at least their SI exam from German or English into Italian and were asked to interpret simultaneously the source text, which was a speech that had been pre-recorded by a native speaker. The outcome of her investigation has corroborated the hypothesis that interpreting strategies are different depending on the language pair involved. The subjects who participated in the experiment were divided in two groups according to their source language, and the author found differences in the use of strategies. One of the main differences was the use of anticipation: while the German group used to anticipation in 49 occurrences, the English one only used it five times. A further difference is that the German group mostly resorted to anticipation when tackling verb-final structures, while the English group anticipated “a lexical unit and not a verb” (Donato, 2003:127). This proves how ad hoc approaches are needed depending on the language pair involved.

A further investigation on how linguistic features represent an added difficulty, and one that once again uses German, is that carried out by Bevilacqua (2009), who analysed simultaneous interpreting from Dutch and German to Italian. He focused on the position of the verb in Germanic languages and simultaneous interpreting, mentioning the word order of these languages as one of the most problematic features in simultaneous interpreting. In fact, the syntactic complexity has forced student interpreters to develop

suitable strategies⁴ to manage their limited cognitive resources as a key for a quality performance (Moser-Mercer, 1997:259 cited in Bevilacqua, 2009).

From previous studies, it is evident that several researchers analysed language-pair specificities and particularly the hypothesis that they affect the performance in SI. This proves that carrying out a SI when the working language have contrasting features is ultimately more taxing.

One of the languages that is often considered in the investigations on the effects of language-pair specificities is German. Several researchers have used German as a source language (Donato, 2003; Van Besien, 1999; Bevilacqua, 2009; Wills, 1978; Jörg, 1997, Hodzik and Williams, 2017) because of its particular syntactic structure and, mostly, due to how different it can be from that of other languages, such as English, French or Italian, i.e. head-initial languages. Although German has other specific features that distinguish it from other European languages, such as case-marking, the main focus of this research is the syntax in German, as it is what makes head-final negative sentences particularly daunting in SI.

2.4 Negation and other specificities of the German-English language pair

Although the differences between English and German are significant regardless of the direction of the interpretation, the focus of the present investigation was simultaneous interpretation from German to English, to underline the difficulties of having German as a source language. Although interpreting from English into German would still require some adjustments in the interpreter's output, when hearing a verb-initial sentence in English the interpreter would have all (or most of) the information needed to plan and utter their output. Moreover, the subjects involved in the core experiment of the present study all have English as A language, and the experiment set-up was designed to respect the professional norms of several organisations (e.g. OECD) stating that interpreters translate simultaneously into their A language.

There are several asymmetries between English and German that need to be considered when they are paired in simultaneous interpreting.

2.4.1 German word order

The subject-object-verb (SOV) word order is often regarded as the most difficult feature when interpreting simultaneously from German (Bevilacqua, 2009), especially in a

⁴ The findings of the present investigation can be useful specifically for interpreting teaching, as knowing how professionals tackle certain hurdles can be used to help students develop their own approach.

language such as English which has a different order (**subject-verb-object**), and which therefore relies on the verb to appear sooner in the sentence. However, the German word order is rather free. In fact, there are examples of German sentences where the finite verb is the main (and only) verb in the sentence and it is placed immediately after the subject, hence featuring a **SVO** word order.

Example (taken from Angela Merkel's speech at the sitting of the European Parliament on 8th July 2020):

Die Aufgaben vor uns sind gewaltig, und sie verlangen gewaltige Anstrengungen. Sie brauchen eine parlamentarische Auseinandersetzung, sie brauchen politische Vermittlung, sie brauchen kulturelle Übersetzungen in die verschiedenen Länder und Regionen.

[The tasks ahead of us are enormous, and they require enormous efforts. They demand parliamentary debate, they demand political coordination, they demand cultural translations into the various countries and regions]

This is an example of a SVO word order in German. This kind of syntax does not pose particular problems during simultaneous interpretation, because the interpreter will not have to restructure the source sentence. Instead, she can focus on the interpretation process and translate the constituents of the sentence as she hears them, because they will be translated in the target language (English, in this case) preserving the same structure.

The example also shows another characteristic German feature: in declarative main clauses, the finite verb appears in second position. However, due to the highly flexible word order, almost any element can stand in the first position (Stocker, 2012) as long as the verb occupies the second place.

It is useful to think about the first and second element of the sentence as “ideas”: the first idea may be the subject, the object of the verb etc., while the finite verb is the second idea (Stocker, 2012). It is helpful to adopt this definition because the first “idea” can be expressed by more than one word, so we can state that the first idea can be almost any component, while the second one must be the finite verb.

[...] *in order to conclude an agreement in autumn, **which** will then have to be ratified by the end of the year.*]

Causal clause:

[...] **weil** wir Europa nachhaltig wandeln müssen [...]

[...] **because** we need to realise a sustainable change in Europe [...]]

Conditional clause:

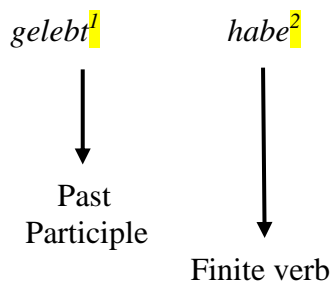
[...] **wenn** es auf dieser Grundlage innovative Antworten auf die Herausforderungen des Klimawandels und der Digitalisierung gibt [...]

[...] **if** there will be innovative responses to the challenges of climate change and digitalisation [...]]

The above examples show that in all subordinate clauses the verb stands in the last position. However, if there are two verbs in the same subordinate clause, the finite verb and a non-finite verb (such as a past participle or an infinitive), the finite verb is the last of the sentence, preceded by the non-finite verb.

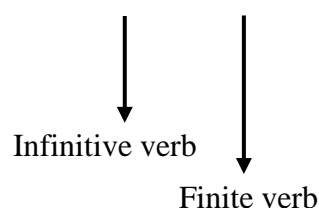
Examples (taken from Angela Merkel's speech at the sitting of the European Parliament on 8th July 2020):

Für mich, die ich fünfunddreißig Jahre meines Lebens in einem System der Unfreiheit



[For me, who lived for thirty-five years in a system of lack of freedom.]

[...] weil wir Europa nachhaltig wandeln¹ müssen² [...]



[...] *because we need to realise sustainable change in Europe.*]

Word order does not only mark subordinate clauses, but also main clauses which contain the so-called “verbal brace” (Bevilacqua, 2009) or “verbal bracket” (Stocker, 2012).

2.5 German verbal bracket

The term ‘verbal bracket’ refers to the structure where the finite verb comes in the second position as it normally would in main clauses, while all the non-finite verbs stand in the final position. In this case, we could refer to the word order as S-finite verb-O-V (Bevilacqua, 2009), as the non-finite verb, which contains the information that is most semantically relevant, only comes after all the complements. The finite verb is useful as it expresses the grammatical categories of person and number (Bevilacqua, 2009) and everything that comes after the finite verb is referred to as Mittelfeld (midfield). Especially in simultaneous interpreting, the longer the midfield, the more challenging the comprehension and, consequently, the rendition in the target language will be.

Examples (taken from Angela Merkel’s speech at the sitting of the European Parliament on 8th July 2020):

1. Verbal bracket composed by the finite verb + the infinitive:

Viele Bürgerinnen und Bürger konnten von ihren geliebten Menschen aufgrund der strengen Quarantäneregeln nicht einmal Abschied in der letzten Stunde nehmen

[*Many citizens could not bid farewell to their loved ones in their last hours due to the strict quarantine rules.*]

2. Verbal bracket composed by the finite verb + the part participle:

Die weltweite Coronavirus-Pandemie hat auch in Europa Menschen hart und unerbittlich getroffen.

[*The global Coronavirus pandemic hit harshly and relentlessly everyone in Europe too.*]

The previous examples show how the verb in final position is not a prerogative of solely the subordinate clauses. In main clauses, where there is a verbal bracket, the most important semantical element, that is the non-finite verb (whether this is a past participle or an infinitive), occupies the final position in the sentence. When this structure is

encountered in SI one of the possible approaches is to wait for more information and to translate the verbal bracket once fully uttered in the source language, hence having to wait for the non-finite verb, or to gain more context to be confident enough to take the risk of anticipating it. Although an extremely rich midfield would entail a further delay of the verb, all the elements present in the midfield provide more context, more semantically significant elements that allow the interpreter to have a clearer idea of what the speaker wants to convey even before they have uttered the final verb.

The examples reported above show how marked the differences between English and German can be. Although they are both Germanic languages, there are several asymmetries between them that make simultaneous interpretation more difficult, as the interpreter will have to carry out some adjustments to adapt the source language structure (whether we consider English or German as a source language) to the target language one. This task is already difficult in written translation or in non-simultaneous types of interpreting, such as dialogue or consecutive interpreting. It becomes more daunting if applied to simultaneous interpreting, where the time constraints exacerbate the difficulty of the task by allowing interpreters only a few seconds to reformulate the sentences in the target language.

Moreover, there is one further aspect that must be considered when analysing simultaneous interpreting from German: negation. While the asymmetries between German and English already make it difficult to simultaneously translate a positive sentence, it is even more complicated when the interpreter has to constantly bear in mind that the verb they are waiting for, and that will only come at the end of the sentence, might be preceded by a negative particle.

2.6 Negation

Negation is considered a pragmatically universal feature (Triyono et al., 2020), in the sense that all languages have a way of expressing negation. In fact, according to Miestamo (2008 cited in Triyono et al., 2020), no language has been found that does not express negation at all. However, the fact that negation can be found in all languages does not imply that every language utilizes the same ways of expressing it.

Some authors (Jörg, 1997; Wilss, 1978) underline how a valuable way of overcoming the syntactic asymmetries between German and English is to use anticipation, i.e. to utter a verb (or any component) in the target language before the interpreter has been exposed to it in the source language (Hodzic and Williams, 2017). However, studies so far have taken into consideration only sentences where the verb was

in its positive form (Bevilacqua, 2009; Van Besien, 1999; Jörg, 1997; Wilss, 1978). To date, there is no study on syntactic asymmetries in simultaneous interpreting or anticipation that focuses exclusively on head-final negative sentences. The choice of negation as main feature that shows the syntactic asymmetries between German and English shows the originality of this research. The focus of this study is what happens when the syntactic asymmetry which causes the verb to be at the end of the sentence hides an ambush: the negative particle placed at the end of the sentence with the non-finite verb. If the interpreter is not mindful of this possible scenario, they might anticipate a verb in its positive form and then find out, as the sentence unfolds in the source language, that the speaker was going to utter a negative particle. In this case, the only solution would be self-correction, which would make the mistake clear and visible to the target language audience. An open self-correction is not a particularly negative scenario, but it is not the outcome that interpreters seek and, generally, interpreters produce an output when they are confident that they understood the meaning, because they want to avoid having to correct themselves.

There are two types of negation, and these two types are present both in German and in English: sentence negation and constituent negation. The former consists in the negation of the whole sentence, while the latter is manifested by negating only one component of the sentence.

Example of sentence negation:

John has no money

John hat kein Geld

Example of constituent negation:

John does not have the money

John hat das Geld nicht

Once established that both languages have both types of negation, it is now useful to analyse how negation is expressed in German and in English and identify the differences to assess their impact on simultaneous interpreting. Triyono et al. (2020) in their study found that the most used negation particle is *nicht*. This is the negative particle considered in the present study, as the focus is on syntactic negation, i.e. the negation expressed by using syntactic means (Jäger, 2008). The lexical negation, that is the one carried out by utilising some derivation affixes such as *-los*, *-dis* in German or *-less*, *-un* in English is

not considered here because this kind of negation should not pose particular issues in simultaneous interpreting, while syntactic negation represents a challenge because it is an important part of the syntactic asymmetries to tackle. For the same reason, the present research will not consider the negative indefinite phrases (indefinites), e.g. *niemand* in German, *no one* in English. The negative particle *nicht*, which expresses the syntactic negation object of the present study, is placed right before the element it negates, whether this is a predicative adjective:

Examples taken from Stocker (2012):

Italienisch zu lernen ist **nicht** einfach

*It is **not** easy to learn Italian*

Or the non-finite verb:

Wir haben den Film **nicht** gesehen

*We have **not** seen the movie*

Sie hilft mir **nicht**

*She does **not** help me*

Although the sentences in German are not too long, it is evident that the position of the negative particle can become a hurdle. As shown by Gile (2009), simultaneous interpreters have to carefully distribute their processing capacities among the concurrent efforts they are asked to complete, and Seeber (2011) showed that there is a significant cognitive load involved in all the steps of the process. This is true for any type of simultaneous interpreting, as the concurrent tasks remain virtually the same regardless of the languages are involved. However, working with syntactically asymmetrical languages entails the need to restructure or adjust the sentence syntax in the target language, namely shifting from a verb-final to a verb-initial structure. The need to reorganize sentence components adds a further effort in the production step (Gile, 2009). Moreover, the negation-final sentences also add pressure on the comprehension phase: the interpreter needs to wait until the end of the sentence to hear the negation, without which the meaning of the sentence would be the opposite; or use the information available to anticipate it.

This added difficulty amplifies the challenge(s) of interpreting simultaneously from German into English.

Once established that the compound *nicht + non-finite verb* is found at the end of the sentence, the difficulty in tackling and overcoming this condition when there are several elements between the finite verb and the *nicht + non-finite verb* is evident. Normally, in positive sentences, the interpreter would be able to use this “distance” to their advantage by focusing on the elements that are in between, such as adjectives or adverbs, to exploit their meaning and treat them as pieces of a puzzle, which would allow the interpreter to anticipate the verb before it is uttered. However, when the sentence hides a syntactic negation, anticipation might not be easy or the most used solution. For this reason, it is useful to recall the strategies that interpreters can make use of, and the data analysis of the present study (detailed in Chapters 5 and 6) will reveal which one(s) is(/are) the most used approach(es) by SI to tackle head-final negative sentences.

2.7 Interpreting strategies to tackle language-pair specificities

Several language(-pair)-specific strategies can be identified (Donato, 2003; Bevilacqua, 2009) when interpreters work with German as a source language, and any strategy can become language-specific when it is used to overcome a language-specific issue. However, previous research tends to focus mainly on the following strategies:

- Anticipation – which was the main focus of the research
- Waiting
- Stalling
- Segmentation
- Changing the order

Although most of these strategies are useful not only when interpreting from German but also from other source languages, they are particularly relevant when working with syntactically different languages, and it is worth examining them in more detail, starting with the one that is the main focus of the research: anticipation.

2.7.1 Anticipation

This strategy has drawn particular attention in the research community, in fact it has been the focus of several researchers (Jörg 1997, Van Besien 1999, Wills 1978, Vandepitte 2001, Chmiel, 2021, Hodzik and Williams, 2017). Although different forms of anticipation have been identified, anticipation is generally defined as the interpreter’s production in the target language of an element that is yet to be uttered by the speaker in

the source language (Hodzick and Williams, 2017). This can be due to different factors, for instance if the interpreter has an in-depth knowledge of the speaker and of the communication context, they can anticipate what is about to be said; or if the speaker is using fixed phrases such as collocations (e.g., pay the bills) the interpreter can exploit their linguistic knowledge to anticipate one or more elements. Although the terminological difference between prediction and anticipation will be discussed in more detail in Chapter 4 and 6, in order to avoid any confusion it is necessary to briefly address it. In this regard, the present study will use the terminology proposed by Hodzick and Williams (2017), which distinguishes prediction from anticipation and defines the former as expectations regarding linguistic input that are created ‘online’ during language process, while an anticipation is a case where an interpreter makes a prediction and decides to act on it (Amos and Pickering, 2020). Based on this however, we can argue that prediction and anticipation are not two completely separate entities. In fact, interpreters would first create expectations regarding the source language input, and once they are sufficiently certain of their prediction they can proceed with an anticipation.

Depending on what triggers anticipation, two main categories have been identified:

1. Linguistic anticipation: aside from the above-mentioned example of collocations, linguistic anticipation is possible due to the probabilistic nature of speech (Bevilacqua, 2009), e.g., in English after an article there is a high chance that there will be a noun or an adjective. Knowing these rules allows interpreters to save some processing capacity and reduce uncertainty in the phase of speech comprehension.

2. Extralinguistic anticipation: this kind of anticipation relies on the interpreter’s general knowledge that can be related to the speaker, the communicative context and to the world in general⁵. For instance, if an interpreter was supposed to work during a conference about the US presidential election of 2020, when hearing “Donald Trump’s opponent” they would know that the speaker was referring to Joe Biden even before hearing his name. However, a clear distinction between linguistic and extralinguistic anticipation would be difficult to attain in the present investigation. From the data analysis alone it would be possible to speculate on the possible cues that triggered anticipation, but it would be a hypothesis rather than a certain evidence. On the other hand, it might be

⁵ Although redundancy will be addressed in more detail in Chapter 4, it is worth noting that subjective redundancy seems to be one of possible sources of extralinguistic anticipation, as subjective redundancy refers to the fact that the same utterance has different levels of redundancy for different hearer’s based on their background knowledge.

possible to use self-reporting from the participants, but once again it could not be used as hard evidence, because it would be difficult for them to clearly remember what cued anticipation at any specific moment of their interpretation. Thus, in the current study, no attempt was made to distinguish between linguistic and extralinguistic anticipation. Instead, anticipation is considered as a product of one or both these two conditions, hence the need to recall them.

As anticipation has been widely analysed in the research community, further subcategories of this strategies have been identified. Marianne Lederer (1980, cited in Vandepitte, 2001) proposes a distinction between pure anticipation and freewheeling, in which pure anticipation occurs when the interpreter translates a word before the speaker has uttered it in the source language. An example of anticipation was identified in the simultaneous translation of the speech that Angela Merkel has given before the European Parliament during the plenary session on the 8th of July 2020 (all the examples that follow are taken from the same speech)

Example:

Europa wird nur Europa bleiben, wenn es auf dieser Grundlage innovative Antworten auf die Herausforderungen des Klimawandels und der Digitalisierung gibt und sich seiner Verantwortung in der Welt stellt.

[Europe will remain itself only if, on this basis, there will be innovative responses to the challenges of climate change and digitalisation and if Europe assumes her responsibility in the world.]

Interpreter's translation - Europe will only be safeguarded if we offer innovative responses to the challenges of climate change, digitalisation, and our responsibility in the world.

In the above extract, the interpreter translated “offer” (14:15:49) two seconds before the Chancellor uttered the corresponding verb (*gibt* – 14:15:51) in the source language. This excerpt is also useful to prove that the distinction between linguistic and extralinguistic anticipation is not as clear in practice as it is in theory, and that anticipation could be an outcome of both conditions. In this case, the interpreter can predict the verb “offer” because she heard the word *Antworten* (responses), which would be a linguistic anticipation as the cue would be the high probability that the noun ‘responses’ is associated with a verb such as offer or provide. However, the anticipation can also be

triggered by the communication context and by the ideas that the speaker has expressed before this sentence, hence the interpreter can foresee that she will say that Europe needs to provide these responses. The interpreter can also anticipate the verb based on her knowledge of the speaker and her intentions and make a prediction based on extralinguistic cues. On the other hand, she heard the Chancellor say “es” and then “innovative Antworten”, therefore she knows that “es” is often used in the expression “es gibt” (there is) and she has enough linguistic and extralinguistic information to anticipate the verb. This is to prove that it is necessary to bear in mind that both linguistic and extralinguistic cues are at play during the anticipation process, but the choice of the one that is overpowering and is the major trigger of anticipation is a too subjective and personal choice that the interpreter makes in the moment, and as such it cannot be included in the present investigation with enough objective certainty.

Instead, freewheeling occurs when the interpreter utters a word in the target language either at the same time as the speaker in the source language or so soon after that it can only be the outcome of an anticipation process, and the interpreter only listens to the speaker to monitor whether the anticipation was correct or not.

Therefore, the difference between pure anticipation and freewheeling lies in timing, as they are both the result of an anticipation process, which means that the input is analysed almost in the same way: the interpreter relies either on their own background knowledge or on context to decide that they have enough information to anticipate a constituent, but in case of pure anticipation the constituent is uttered by the interpreter before the speaker. Instead, in case of freewheeling, it is uttered in the target language at the same time as the speaker in the source language (or very soon after).

We might argue that one of the reasons why the timing of these two kinds of anticipation is different lies in the complexity of the sentence to translate, which results in the interpreter requiring more time to be confident enough to anticipate and perform a freewheeling rather than a pure anticipation.

Example:

Für mich, die ich fünfunddreißig Jahre meines Lebens in einem System der Unfreiheit gelebt habe, war die Einschränkung dieser Rechte in der Pandemie eine Entscheidung, die mir unendlich schwergefallen ist.

[For me, who lived for thirty-five years in a system of lack of freedom, it was extremely difficult to make the decision of restricting these rights during the pandemic.]

Interpreter's translation - Now, for me personally I spent 35 years of my life in an unfree society, and so restricting rights during the pandemic really was a very difficult decision for me.

In the above abstract, the interpreter translates "I spent" at 14:4:30-14:14:31, and the Chancellor utters the equivalent German verb "gelebt habe" at the exact same time. This means that the interpreter had already decided what verb could fit in that sentence and translated it as the speaker was uttering it in the source language. Both freewheeling and pure anticipation are therefore the result of a prediction process, but the timings of this process can change. If applied to head-final negative sentences, it is evident that the interpreter is under a higher cognitive stress due to not having heard the full verbal bracket and, although they can still create expectations and predict the meaning of the utterance, they might need more time and more input information before being certain of their output, hence they might resort to freewheeling instead of pure anticipation. It is important to underline that, based on their definition, the choice between freewheeling and pure anticipation appears not to be deliberately made by the interpreter, in the sense that interpreters choose to anticipate, but the different timings deriving from the online conditions of their performance are more relevant for the theoretical research rather than for practice. Therefore, an interpreter will choose to anticipate, and then in the data analysis researchers are able to distinguish between freewheeling and pure anticipation.

Van Besien (1999) introduces another type of anticipation, which he labels structural anticipation and consists in anticipating constituents with syntactic elements. Starting from this definition, Van Besien (1999) proposes two kinds of structural anticipation, both aimed at postponing the moment when the verb will have to be uttered in the interpreter's output: the first kind is carried out by changing the order of the constituents, while the second type consists in inserting a phrase such as "if it turns out that", "we will have to establish that". What is interesting in this strategy is that, although it is called by the author an "anticipation", it does not result in the interpreter's utterance coming before the speaker's. The structural anticipation, similar to Donato's (2003) reformulation strategies (e.g. changing the order of the elements, that will be analysed in section 2.7.5 of this chapter), buys some time so that the interpreter can either wait for the verb or can have more information before anticipating it.

Another similarity lies between Van Besien's (1999) concept of "structural anticipation", reached by uttering a neutral phrase, and stalling (Seeber and Kerzel, 2011).

Both strategies employ the same method to fill a silence while the interpreter is waiting for more input to start their output. These similarities between strategies analysed by different authors, which were given different names, show that sometimes researchers focused greatly on rather rigid classifications of strategies, proposing different labels for the same actions that have the same purpose and the same outcome. It is worth underlining that these classifications are not as useful in practice as they show that great effort was made to focus on strategies but only in theory, while when analysing the real performance of interpreters it is not easy to draw a clear line between the different strategies used. To this end, the present research aims at providing an account of the approaches taken by simultaneous interpreters and to use the existing scholarship in order to complement the practical experience. Theoretical approaches to strategies were used as the basis to describe and analyse the actions made by professionals, while underlining where necessary that theory and practice sometimes differ.

Example 1-1st kind of structural anticipation:

Herr Präsident, sehr geehrte Frau Kommissionspräsidentin, liebe Kolleginnen und Kollegen im Europäischen Parlament, meine Damen und Herren! Es ist mir eine Freude, zu Beginn der deutschen Ratspräsidentschaft vor dem Plenum des Europäischen Parlaments zu sprechen.

[President, Commission President, dear colleagues of the European Parliament, Ladies and Gentlemen! I am glad to be giving a speech to the plenary of the European Parliament at the beginning of Germany's Presidency of the Council of the European Union]

Interpreter's translation - President, Commission President, honourable members. I am here in the European Parliament ladies and gentlemen, and it is my great pleasure to address the chamber at the start of Germany's Presidency of the Council of the European Union.

An example of the first kind of structural anticipation can be found in the abstract above, where the interpreter changes the order of the source language sentence elements in order to postpone the moment of inserting the verb.

Example 2- 2nd kind of structural anticipation:

Die höchste Priorität der deutschen Ratspräsidentschaft ist es, dass Europa geeint und gestärkt aus der Krise kommt.

[The main priority of Germany's Presidency of the Council of the European Union is for Europe to come out of the crisis stronger and more united.]

Interpreter's translation - The top priority in the German Presidency will be unity in Europe to ensure that Europe emerges more united from the crisis.

In this example, the interpreter adds “to ensure that” which is not present in the source language, and this addition gives her more time to receive input information before uttering the verb. The interpreter says “to ensure that” at 14:20:46, only less than a second after the Chancellor pronounces the verb “kommt” (14:20:45). In this case, the interpreter has already decided that she wants to stall until she hears the verb, and therefore produces a phrase that is well fitted in the communication to wait for the verb. Although the production of “to ensure that” comes almost at the same time as the verb in the source language, it is evident that the interpreter had decided to insert that phrase before the Chancellor said the verb. Ghelly Chernov (2004) claims that extralinguistic (but also linguistic) anticipation, i.e. anticipation based on the context, is possible only if the context has a certain level of redundancy, and that redundancy is what makes SI possible. Since the present investigation focuses on head-final negative sentences specifically, it was useful to assess whether redundancy has an influence on how interpreters tackle them and, if so, to what extent this influence is relevant in their choice of strategies, hence the inclusion of redundancy as one independent variable. Based on Chernov's definition (2004), an initial assumption might be that anticipation takes place more (or even, exclusively) in sentences that are high redundancy⁶, while it can be hypothesized that interpreters use other approaches such as waiting for low-redundancy sentences. For this reason, the impact of redundancy levels was assessed not only in relation to anticipation but compared to all the strategies used.

Anticipation will be the main focus of Chapter 6, but for now it is important to underline that, while anticipation remains a very useful strategy in interpreting, the choice of focusing on it in the present investigation was made to have a better understanding of this strategy specifically when applied to head-final negative sentences. Negation might

⁶ The criteria that were used to consider the sentences high or low redundancy will be addressed in detail in Chapter 4

change the use of this strategy and, specifically, how often interpreters make use of it. Including head-final negative sentences as main focus of the material could also reveal the consequences of an incorrect anticipation or that when tackling this type of sentences incorrect anticipations occur more frequently.

2.7.2 *Waiting*

The name of the strategy perfectly describes what the interpreter does, i.e. waiting (in silence) for more input before starting their output in the target language. This means that the information that the interpreter is being exposed to is stored in their working memory until they start uttering their translation in the target language.

As underlined by Seeber and Kerzel (2011), the main positive aspect of this strategy is that, for a few seconds, there is a pause from the concurrent comprehension and production with a consequent (temporary) cognitive ease. On the other hand, all the information received needs to be stored in the working memory which, as is well-known, only has a limited capacity and an overload could cause the “spillover effect” (Seeber and Kerzel, 2011)⁷.

If we consider the strategy of waiting applied to head-final negative sentences, putting momentarily aside the simultaneity that characterizes the task, it would be helpful to wait in order to have more information and also give the chance to the speaker of uttering the negative particle. Of course, for the reasons explained above, applying this strategy in simultaneous interpreting is not so easy and, despite it appearing to be helpful momentarily, it might have negative consequences. For instance, when taking into consideration the fact that the interpreter should not lag too far behind the speaker, in case they wait too long in silence they might not be able to keep pace with the source-language speech and find themselves forced to omit information. If this happens, the interpreter might resort to high-risk omissions (Pym, 2009), i.e. they might exclude from their output information not based on their relevance or importance for the completeness of the message, but mainly to save time. This would happen due to a cognitive overload (Seeber, 2011) because the working memory would be under too much stress and the interpreter would not be able to allocate the appropriate attention to the other efforts (Gile, 2009). However, these collateral effects apply only to cases where the interpreter has waited too long; pausing the production for a few seconds during SI does not affect the quality or

⁷ A situation where the cognitive load is momentarily alleviated, but this temporary relief leads to a “considerable increase in cognitive load downstream” (Seeber and Kerzel, 2011:229)

accuracy of the message and, most likely, will not cause a significant strain on the working memory, provided that the silent pause only lasts for a few seconds.

An example of waiting can be found in the simultaneous interpretation of the speech that Angela Merkel has given before the European Parliament during the plenary session on the 8th of July 2020 (all the examples that follows are taken from the same speech):

Viele Bürgerinnen und Bürger konnten von ihren geliebten Menschen aufgrund der strengen Quarantäneregeln nicht einmal Abschied in der letzten Stunde nehmen.

[Many citizens could not even bid farewell to their loved ones in their last hours due to the strict quarantine rules.]

Interpreter's translation: Many citizens (-----) were not able to visit loved ones because of strict quarantine rules, bid farewell to them as they passed.

When the German chancellor starts with "Viele Bürgerinnen und Bürger" ("many citizens") the interpreter starts translating but at that point the speaker has not uttered enough information in the source language for the interpretation to continue, as the predicate in this sentence is found at the end. For this reason, the interpreter translates "many citizens" but then waits for 5 seconds in silence as she is waiting for more constituents to start translating. This is an example of a low-risk use of this strategy: the interpreter does not wait for every single constituent of the source language to be uttered before she starts translating, she pauses for a few seconds to have a bit more context to carry on with her interpretation.

Although waiting will be analysed in more detail in Chapter 5, in relation to the results from the data analysis, it is worth noting how waiting was identified in the present research. It is normal for the interpreter to have a few seconds of *décalage* from the speaker, and waiting was not identified based on the length of silence, but rather on when it was found. In the example above, when analysing the audio recording of the interpretation, it was clear that the interpreter had suddenly paused their output and was waiting for more information. Although these pauses would not be perceived as disruptive or unnatural by the target audience, in the audio analysis it was clear that the interpreter was using a pause for cognitive reasons (Zellner, 1994) rather than as a natural break in the sentence.

2.7.3 *Stalling*

This strategy is similar to waiting, in the sense that both seek to buy some time to gather more information before starting their output in the target language. The difference between waiting and stalling is that the former results in a few seconds of silence, while the latter consists in producing a neutral padding (Seeber and Kerzel, 2011) that does not add any new information as it has only the aim of filling a silence.

The use of this strategy has the effect of lengthening the ear-voice-span (EVS) and, unlike waiting, there is also a cognitive load involved because, while when using waiting the production is paused so that the interpreter can focus on the Listening and Analysis Efforts (Gile, 2009) and/or the planning of the output (Seeber, 2011), in case of stalling the interpreter produces a neutral padding, the production of which results in a cognitive load that will be added to the comprehension and memorization of information in the working memory. Therefore, stalling presents the disadvantage of overloading the working memory but without the benefit of pausing the production and being able to mainly focus on the comprehension process. However, the main benefit of stalling when compared to waiting is that the target audience does not hear the silence from the interpreter, and the addition of the neutral padding makes the target-language output smoother for the target audience.

Once again, it might be useful to resort to this strategy when translating head-final negative sentences, as it would give the interpreter the chance to hear the full chunk (or most of it) in the source language and then utter when they are certain of the positive or negative form of the verb. However, the same applies to the use of waiting: the interpreter might lag too far behind the speaker, and this would ultimately affect their translation and possibly put them in a position where they are no longer able to translate that chunk at all.

Example:

Für mich, die ich fünfunddreißig Jahre meines Lebens in einem System der Unfreiheit gelebt habe, war die Einschränkung dieser Rechte in der Pandemie eine Entscheidung, die mir unendlich schwergefallen ist.

[For me, who lived for thirty-five years in a system of lack of freedom, it was extremely difficult to make the decision of restricting these rights during the pandemic.]

Interpreter's translation - **Now**, for me **personally**, I spent 35 years of my life in an unfree society, and so restricting rights during the pandemic **really** was a very difficult decision for me.

In this abstract, Chancellor Merkel only says “Für mich” (“for me”) and it takes her 68 milliseconds, while the interpreter translates “now, for me personally”, she adds “now” and “personally” which can be considered an example of stalling. The utterance of the interpreter lasts 1 second and 52 milliseconds. In this case, the interpreter might have chosen to add these two elements to the utterance while waiting for more context, as the sentence features a relative clause, i.e. a dependent clause, and the interpreter is aware that in such clauses the verb will come only at the end. Although these additions cannot be considered exactly an example of neutral padding, they still serve the scope of stalling, i.e. filling a silence with a non-committal output (Bevilacqua, 2009) while waiting to have enough information/certainty to utter in the target language.

This extract contains two examples of stalling, the second one being the addition of “really” (“really was a very difficult decision for me”). The word “really” to emphasize the concept that the speaker wanted to express and the brief silence that follows last in total 1 second and 93 milliseconds. At that point Merkel had already completed the sentence, hence it could rather be considered as an example of stalling while the interpreter was planning their output. This second example shows that stalling is not only a strategy related to the source speech aimed at buying time while waiting for more information, but it can also be considered as a strategy that allows the interpreter to plan how to translate a specific source language word without having to pause. Although stalling can be considered similar to additions as the interpreter is including in their outputs something that was not present in the source-language version, the addition is aimed at filling a silence, hence it is categorized as stalling. Based on this, we can argue that in interpreters’ performances there might be several examples of stalling, as what we normally qualify as additions might not have been added exclusively for stylistic or personal choices made by the interpreter, but rather as additions made to buy some time either to better analyse the input or to plan the output.

Both waiting and stalling can be considered as strategies opposed to anticipation. In fact, the former strategies aim at buying some time and have as main disadvantage the load on the working memory, while when using anticipation interpreters are easing the burden on their working memory as they do not need to store as much information. Moreover, with anticipation interpreters take the risk to act on their prediction of meaning without waiting to hear in the source language what they are producing in the output. These strategies all entail different risks, i.e. lagging too far behind the speaker in case of waiting and stalling and acting on an incorrect prediction in case of anticipation. The data

analysis will reveal what was the approach used mostly by interpreters, hence what strategies appeared to be most used when tackling head-final negative sentences.

2.7.4 Segmentation

Segmentation⁸ can also be referred to as chunking - Setton 1999; Seeber & Kerzel, 2011; Kohn & Kalina 1996 - or saucisssonnage - Ilg 1978 cited in Setton 1999). This strategy consists in dividing the input into chunks that will then be produced in the target language. Goldman-Eisler (1972/2002) has identified 3 types of chunking: identity, fission, and fusion.

1. Identity: the chunk begins in the target language as it is uttered in the source language; from its definition, it appears difficult to use in head-final negative sentences as the interpreter could say the first part of the sentence, which contains the finite verb but not the (negative) non-finite one, hence the translation would lack the most important semantic information that would only be obtained after hearing the non-finite verb.
2. Fission: the interpreter starts as the chunk is being uttered in the source language, before it comes to a pause; this type of segmentation could possibly be used but, even in this case, the interpreter might risk translating an auxiliary verb and then a chunk made up of only several complements before being able to say the actual verb, the non-finite verb, found at the end of the sentence.

Example:

Nur dann wird Europa, auch in einer sich rasant verändernden globalen Ordnung, souverän und verantwortungsvoll seine eigene Rolle einnehmen können.

[Only then will Europe be able to adopt her role confidently and with responsibility even in a rapidly changing global order.]

Interpreter's translation - Only in this way (1) will Europe (1) cope with the lightning speed of change and ensure its sovereignty and responsibility and fully live up to its role.

This extract can be considered as an example of both identity and fission: the German Chancellor starts her utterance in the source language at 14:12:00 with "Nur dann wird Europa" and the interpreter starts saying "only in this way" at 14:12:00, therefore she

⁸ It was important to include segmentation as a strategy in the literature review due to its importance when tackling language specificities. However, although segmentation will be considered when analysing the data from the pilot studies in Chapter 3, it will not be present in the data analysis, and the reasons will be explained in detail in Chapter 4.

says that small chunk at the same time as the utterance in the source language. Goldman-Eisler (1972/2002) hypothesized that a possible unit that can be defined as a chunk is the predicate phrase (although the smallest possible step a translator can lag behind is one word). It is however difficult to detect cases of identity when translating from German if we follow this conception of chunk because of the syntactic asymmetries existing between German and English.

Moreover, after “this way” the interpreter pauses for 1.43 seconds before saying “will Europe” and then pauses again for 0.64 seconds. These smallest pauses create a lag of a couple of seconds compared to the original speech, but the interpreter keeps uttering other chunks in the target language as the Chancellor is uttering them in the source language, which is a clear example of fission.

3. Fusion: the interpreter decides to store two or more input chunks in the working memory and then starts their output. This last type of segmentation might be helpful for head-final negative sentences as it would allow the interpreter to store some chunks before uttering them. However, we also need to consider that it would carry the same risk as waiting or stalling: the interpreter might overburden their working memory.

Example:

Wie die meisten von Ihnen habe auch ich die direkten Begegnungen mit Menschen, die Gespräche von Angesicht zu Angesicht vermisst,

[Like most of you I've missed the direct encounters with people, the face-to-face dialogue]

Interpreter's translation – Like many of you I have missed the direct in person contact, this is my first trip since the pandemic started

In this example, the German chancellor starts her sentence with “wie die meisten von Ihnen” at 14:10:39 and concludes with “vermisst” at 14:10:46 and the English interpreter starts with “Like many of you” at 14:10:45, which means that the interpreter had to store the chunks before starting to translate them.

If we consider the three types of segmentation identified by Goldman-Eisler (1972/2002) and apply them to head-final negative sentences, we could hypothesize that the most useful one would be fusion. In case of identity, the interpreter would need to start in the target language the segment as it is uttered in the source language, which cannot be possible due to the syntactic differences between German and English. This is visible because while the above example can be considered an example of identity, the

chancellor says “Nur dann **wird Europa**” [my emphasis] and the interpreter starts in the target language at the same time but leaves out the finite verb. At this point, since this finite verb is only useful to indicate the future tense, it might have been useful for the interpreter to wait a few milliseconds to understand whether a non-finite verb was going to be uttered after the subject.

If applied to head-final negative sentences, we could argue that segmentation in general could be extremely helpful if the interpreter has enough information and room for manoeuvre to utter even chunks made up of complements while waiting to hear the verb and its negative particle. However, in the data analysis it might be difficult to clearly distinguish segmentation from other strategies, such as short waiting or keeping a short *décalage*.

2.7.5 *Changing the order*

This strategy, which falls into Donato’s (2003) category of reformulation strategies, can be considered as a particularly useful tool when having German as work language.

Example:

Herr Präsident, sehr geehrte Frau Kommissionspräsidentin, liebe Kolleginnen und Kollegen im Europäischen Parlament, meine Damen und Herren! Es ist mir eine Freude, zu Beginn der deutschen Ratspräsidentschaft vor dem Plenum des Europäischen Parlaments zu sprechen.

[President, Commission President, dear colleagues of the European Parliament, Ladies and Gentlemen! I am glad to be giving a speech to the plenary of the European Parliament at the beginning of Germany's Presidency of the Council of the European Union.]

Interpreter’s translation - President, Commission President, honourable members. I am here in the European Parliament ladies and gentlemen, and it is my great pleasure to address the chamber at the start of the German Presidency.

In this case the interpreter might have changed the order of the different chunks of the source-language utterance because this way she could wait for the Chancellor to utter the verb or, at least, to give more information to start the translation. Therefore, the interpreter postponed the translation of *zu Beginn der deutschen Ratspräsidentschaft*, [*at the start of Germany's Presidency of the Council of the European Union*] and said in the meantime “it is my great pleasure to address the chamber” and says, “address the chamber” (at

14:10:39-14:10:40) just as the Chancellor ends her utterance with the verb “sprechen” (14:10:38).

If we apply it to head-final negative sentences, we can see how, by changing the order of the constituents, the interpreter will still utter source-language constituents in the target language, rather than having to store them in the working memory, and changing the order would allow them to stall and hear the source-language verb (and its negative particle) before uttering them in the target language. However, it is worth noting that the use of changing the order is not exclusively a product of linguistic differences, and this is true for the other strategies analysed. In fact, they are defined as language-specific strategies because they are particularly useful when working with languages that have different surface structures, but the use of these strategies can also be dictated by a choice that the interpreter makes in the moment which is linked to their personal preference in terms of strategies or other subjective factors. Therefore, changing the order (as well as anticipation, waiting etc.) can be found even when interpreters are working between syntactically similar languages, as they are not useful and used extensively to tackle language asymmetries.

2.8 Conclusions to be drawn from the current literature on strategies

The literature review has revealed that a great attention has been dedicated in the previous research to the strategies adopted by interpreters in simultaneous interpreting. The strategies encountered in the analysis of the current literature were used as a basis to analyse the data for the present experiment, but with some changes. First of all, the objective of this investigation was to shed light on professionals’ approach to head-final negative sentences, i.e. to show what they do *in practice* so that practice can be useful for future research. However, practice can be different, or at least less specific than theory. For instance, we can argue that fission (Goldman-Eisler 1972/2002) is similar to other strategies identified, for instance changing the order (Donato, 2003) as the interpreter would start the chunk as it is uttered in the source language and then change the order of the constituents in order to maintain a short *décalage*. It could also be applied to instances of anticipation, as the interpreter would anticipate a constituent in order to not lag behind the speaker, hence starting their output before the source language utterance has come to a pause. Therefore, the scope of the present research is to change the attention from terminological excess and move towards a more practical assessment of the strategies used by professionals, which was used to complement the theoretical approaches identified thus far.

Based on this, although previous strategies were used as a basis for the data analysis, it was sometimes difficult to clearly distinguish between two similar strategies when analysing the performances of the interpreters, as the lines between strategies are much clearer in theory than they are in practice.

For this reason, the present research does not intend to further complicate the distinction of strategies and approaches, nor to prescribe what strategies future interpreters should use, but rather to shed light on current approaches taken by professionals. However, although some of these strategies might be difficult to clearly identify in the data analysis, it was important to analyse them in the literature review as the research is based on the theory that language specificities have an influence on the interpretation, hence require ad hoc strategies, and from this derives the need for completeness.

The following chapter will focus on two pilot studies that were implemented in the research design in order to thoroughly test the methodology chosen for the core experiment. In particular, they were necessary to test the experiment set-up as well as whether the data collection and analysis methods were appropriate for the type of investigation.

Chapter 3: Testing method and material

3.1 Pilot studies

An experimental approach was necessary for the present research, as it allows for the inclusion of variables and the control of experimental conditions to ensure that the object of the study can be properly analysed. Previous authors too chose experimental approaches to analyse different phenomena in interpreting (Bevilacqua, 2009; Donato, 2003; Amos et al., 2022; Chmiel, 2021; Lozano-Argüelles et al. 2020 and 2023). However, the methodology had to be tested to assess its validity and feasibility, especially in terms of data collection and analysis methods. Initially, only one pilot study had been included in the research design, as it was deemed sufficient to unveil potential challenges, as well as to understand to what extent the set-up chosen was appropriate for the present type of analysis and research. However, two separate pilot studies had to be carried out in the end because for the first pilot study the participant had been informed that the focus of the research would be head-final negative sentences, and this might have influenced their performance. For this reason, a second pilot study was organised, and the participant of the second pilot study was unaware of the exact focus of the analysis.

The basic set-up for the pilot studies mirrored that of the core experiment: both sessions took place entirely online, both to respect the Covid-19 restrictions in place in 2021 and to facilitate the subjects' participation, as taking part online meant that they did not have to physically travel to the location of the experiment. Moreover, during Covid-19 all events took place online, therefore this mode was not perceived as a disruptive factor that could potentially affect the performance. In fact, although working remotely was not uncommon before the pandemic, the use of RSI (remote simultaneous interpreting)⁹ grew exponentially during Covid-19 because of the impossibility of organising meetings in person, from which derived the need to rely on technology (Saina, 2021). RSI was therefore used as an instrument to be able to conduct the present research and preserve its experimental design¹⁰. Previous studies have been conducted on RSI where the interpreter was located in a different place compared to the audience and the speaker, for instance in a hub (Saina, 2021). However, requesting participants to work from a hub could have been restrictive, as not all of them had access to one, hence they could work from home.

⁹ Defined the use of communication technologies in order to have access to an interpreter located elsewhere (Braun, 2015)

¹⁰ Although this will be addressed in more detail in Chapter 7, the present

In terms of testing the data collection, the pilot studies were included in the research to ensure that the remote recording worked properly and that, when analysing the audio recordings, it was possible to hear both the source language and the target language speech. This allows to have the two tracks aligned, which was of primary importance to analyse strategies, specifically anticipation. Moreover, it was essential that the audio sharing during the meeting was smooth and of high quality so that participants did not have issues with their source speech, and it was necessary to ensure that the recording device used (a voice recorder) was sensitive enough to record clearly every sound.

3.2 First pilot study

The text chosen for the first pilot study was a speech delivered by the former Federal Chancellor Angela Merkel to the European Parliament in Brussels on 8th July 2020 on Germany's Presidency of the Council of the European Union 2020¹¹. Due to its length, it was not possible to use the entire text. The initial portion of the text was therefore selected and manipulated to add head-final negative sentences, as it is the introduction of the speech that gives enough information on where the discourse was delivered and on what occasion. Moreover, selecting a central portion of the text might have caused a disruption as it would have been unnatural not having an introduction. This is a further (key) difference between the two pilot studies which resulted in a change of the experiment set-up. The initial intention was to use manipulated source speeches in order to achieve a high occurrence of the type of sentences that were the object of the analysis. However, after using this approach in the first pilot study, two issues arose. First, the main argument of this research is that it is necessary to analyse strategies used to tackle head-final negative sentences, as this type of sentences naturally occurs in German. Using manipulated texts might have implied that this phenomenon is not as common in German, hence the need to fabricate it. Secondly, the issue with manipulating the speech (though for the first pilot study it had been proofread by a German native speaker) was that it could still sound unnatural. Experimental research designs run the risk of resulting too distant from real working conditions, i.e. of having a low ecological validity (Baekelandt and Defrancq, 2020), and having a source speech that had been altered would have included this risk. Instead, using original material ensures that the experiment reflects real working conditions, as the participants could have been asked to interpret one of the

¹¹ <https://www.eu2020.de/eu2020-de/aktuelles/reden/rede-kanzlerin-merkel-eu-parlament/2365836>

speeches used. Therefore, the first pilot study was of great importance not only to know that the participant(s) should not be aware of the exact scope of the analysis, but also because it proved the need to change the type of material to use as source speech both for the second pilot study and for the core experiment.

In order to avoid excessive modifications to the text, the sentences that were amended for the first pilot study express the same intention as in the source speech, the only difference is that in the original discourse the sentence was in the positive form. The sentences were amended as follows (the first sentence “O:” is the original one; the sentence below “M:” is the manipulated sentence):

1.

O: Die Aufgaben vor uns sind gewaltig; und sie verlangen gewaltige Anstrengungen.

[The tasks ahead of us are enormous; and they require enormous efforts.]



M: In diesem historischen Moment sind die Aufgaben vor uns aufgrund der weitreichenden Folgen der Pandemie **nicht** leicht, und sie verlangen gewaltige Anstrengungen.

[In this historic moment, the tasks ahead of us are not easy because of the consequences of the pandemic, and they require enormous efforts.]

2.

O: Nur dann wird Europa auch in einer sich rasant verändernden globalen Ordnung souverän und verantwortungsvoll seine eigene Rolle einnehmen können.

[Only then will Europe be able to fulfil its role confidently and with responsibility even in a rapidly changing global order.]



M: Nur dann wird Europa auch in einer sich rasant verändernden globalen Ordnung **nicht** zurückbleiben.

[Only then will Europe not remain behind even in a rapidly changing global order.]

3.

Q: Viele Bürgerinnen und Bürger konnten von ihren geliebten Menschen aufgrund der strengen Quarantäneregeln nicht einmal Abschied in der letzten Stunde nehmen.

[Many citizens were not even able to bid farewell to their loved ones in their final hours due to the strict quarantine rules]



M: Viele Bürgerinnen und Bürger konnten von ihren geliebten Menschen aufgrund der strengen Quarantäneregeln in der letzten Stunde **nicht** Abschied nehmen.¹²

[Many citizens could not bid farewell to their loved ones in their last hours due to the strict quarantine rules.]

4.

Q: Zusätzlich zu den Sorgen um ihre Gesundheit und die Gesundheit ihrer Familien ist bei vielen Bürgerinnen und Bürgern so auch noch die Angst um ihre wirtschaftliche Existenz dazugekommen.

[In addition to the concerns about their health and that of their families many citizens were also worried about their financial security.]



M: Zusätzlich zu den Sorgen um ihre Gesundheit und die Gesundheit ihrer Familien ist die Angst vieler europäischer Bürgerinnen und Bürgern um ihre derzeitige und künftige wirtschaftliche Existenz **nicht** zu vernachlässigen.

[In addition to concerns about their health and that of their families, the fear of many citizens regarding their current and future financial security is not to be overlooked.]

5.

Q: Dafür brauchen wir eben mehr denn je die Orientierung an den Grundrechten, zugleich mehr denn je die wechselseitige Unterstützung und den gemeinschaftlichen Zusammenhalt.

[For this reason, now more than ever we need to be oriented towards basic rights, moreover we need more than ever mutual support and communitarian cohesion.]



M: Dafür brauchen wir eben mehr denn je die Orientierung an den Grundrechten **nicht** zu verlieren, zugleich mehr denn je die wechselseitige Unterstützung und den gemeinschaftlichen Zusammenhalt.

¹² This is an example of sentence that may sound fabricated. Although the proofreader accepted this sentence because they were aware of the specific phenomenon that was to be analysed, this modification makes is sound less natural than the original version.

[For this reason, we need more than ever not to lose our orientation to the basic rights, moreover we need more than ever mutual support and communitarian cohesion.]

6.

O: Wir haben miteinander gelernt.

[We have learnt together]



M: Wir haben miteinander gelernt und die Wichtigkeit des Vertrauens an unseren Fähigkeiten, an der Zusammenarbeit und die Hoffnung auf eine bessere Zukunft **nicht** verloren.¹³

[We have learnt together, and we have not forgotten the importance of having faith in our skills and in cooperation, and the hope of a better future.]

7.

O: Europa hat all diese Krisen überstanden, weil am Ende allen bewusst war, was unverzichtbar ist: die Grundrechte und der Zusammenhalt.

[Europe has overcome all these crises, as in the end everyone knew what was essential: basic rights and solidarity.]



M: Trotz der Schwierigkeiten ließ sich Europa von den mehreren und verschiedenen Krisen **nicht** aufhalten, weil am Ende allen bewusst war, was unverzichtbar ist: die Grundrechte und der Zusammenhalt.

[Despite the difficulties Europe did not stop in front of the several and different crises, because in the end everyone knew what was essential: basic rights and solidarity.]

8.

O: Die Grundrechte sind das erste, was mir in dieser Ratspräsidentschaft am Herzen liegt.

[Basic rights are the first thing that is important to me during this Council Presidency.]



M: Ich wird sowohl während der Laufzeit der deutschen Ratspräsidentschaft als auch in der Zukunft die Wichtigkeit und die Unerlässlichkeit der Grundrechte **nicht** außer Acht lassen.

¹³ This sentence was intentionally made longer so that the length of the middle field could be challenging.

[Both during Germany's Presidency of the Council of the European Union and in the future, I will not neglect the importance and the essential nature of basic rights.]

9.

Q: Aber dafür brauche ich Sie.

[But for this I need you.]



M: Dafür wird nur mein Engagement und die Anstrengungen aller einzelnen Mitgliedstaaten **nicht** genügen.

[For this, my commitment and the commitment of the member states alone will not be enough.]

10.

Q: Aber wir wollen Europa nicht nur kurzfristig stabilisieren – das wäre zu wenig.

[But we do not want only short-term stability for Europe – that would not be enough.]



M: Aber wir wollen für Europa eine kurzfristige Stabilisierung **nicht** – das wäre zu wenig.¹⁴

[But we do not want a short-term stability for Europe – it would not be enough.]

In most of the examples above, the negative particles referred to the non-finite verb, namely sentences 2, 3, 4, 5, 6, 7, 8, and 9. Instead, in sentence 10 the negative particle referred to the finite verb *wollen* (want), while in sentence 1 the negative particle was associated with the adjective *leicht* (easy). However, in all cases, the negative particle *nicht* appeared late in the sentence.

The edited text was then reviewed by a German native speaker (who was aware of the goal of the experiment) to ensure that the head-final negative sentences did not sound too artificial or unnatural. Following the review, the same native speaker read the text and recorded themselves, so that the recording could be used as source speech for the pilot study. Before being presented to the participant for the pilot study, the speed of the

¹⁴ The natural negative particle in German would have been 'keine' based on how the sentence was structured. However, since only the negative particle 'nicht' was going to be part of the analysis, the sentence was amended in order to have the *nicht* in the final position. Once again, this sentence might appear too manipulated and unnatural. Having sentences too manipulated would not only be an issue because the experiment would appear too fabricated, but also because having a structure that seems unnatural would make it harder for the participant to form predictions.

recording was adjusted using Audacity v. 2.4.2. to obtain an input rate of 90.26 words per minute. A slow speech rate was deliberately maintained as the participant in the first pilot study was a student who had not yet completed their MA in interpreting, therefore a higher speech rate could have been more challenging for them. Although there is not a universal definition of high or low speed in simultaneous interpreting, it is widely agreed in the research community that a speech rate under 130wpm is optimal (Gerver, 1969/2002; Seleskovitch and Lederer, 1984 cited in Rosendo and Galván, 2019). Moreover, the input speech rate did not have to be greatly manipulated, as the natural speech rate of the speaker was rather slow.

The manipulation of the recording, as well as the results from the first pilot study, unveiled the necessity of including the variables of speed and redundancy. Although they were not included in the pilot study set-up as its use was mainly to test the practical feasibility of the data collection and analysis, the inclusion of redundancy and speech rate would have had an effect on the results¹⁵. For instance, a higher speech rate could have resulted in an increase in omissions, especially since the participant had not completed their MA in interpreting yet and had no experience of interpreting. On the other hand, if redundancy had been included as a variable, the participant might have used different strategies in high redundancy and low-redundancy sentences.

Aside from confirming the feasibility of the data collection and analysis methods, the most relevant and impactful conclusion to be drawn from this first pilot study was the need to use authentic material rather than manipulated texts¹⁶. While it remains true that adding head-final negative sentences was useful as it increased the occurrence of the element to be analysed, it also appeared to be too artificial. Moreover, as discussed in Chapter 2, simultaneous interpreting is already a cognitively taxing activity (Seeber, 2011), being asked to interpret a speech that does not sound natural might have resulted in participants having to spend a few extra seconds to use their processing capacity in order to understand the sentences if they appeared artificial. This could also have had a negative impact on their ability to make predictions. For this reason, the source speeches for the second pilot study as well as for the core experiment were not manipulated in terms of content, they were speeches containing precisely the type of sentences to be analysed.

¹⁵ It will be clear from Chapter 5 and 6 to what extent speed and redundancy influence the performances of participants.

¹⁶ The type of manipulation intended is the one where the context of the text is artificially changed. For the core experiment the texts had to be manipulated to make them shorter as they were too long, but the content remained original.

Finally, it should be noted that after the session, the participant was asked to provide some feedback regarding the speech. In particular, they were asked whether some parts of the speech, specifically the head-final negative sentences included, sounded too artificial and unnatural. The participant stated that the whole speech including those sentences sounded natural and that it was not evident that they had been manipulated. This could be due to the fact that during their performance, the student was not particularly focused on how natural the source speech sounded, but rather was focusing on their task. Moreover, only some sentences of the speech had been manipulated and only a few of them sounded artificial, therefore the participant might not have noticed them excessively because it was only a few sentences. Nonetheless, this was changed for the second pilot study and, most importantly, for the research experiment, as having a source speech that sounds too artificial would have had a negative impact on the research.

3.2.1 Set-up

The session for the first pilot study (as that set up for the second pilot study and the core experiment) was carried out online using the platform Zoom, which was found to be widely used during the pandemic (Przepiórkowska, 2021; Frittella, 2021). When setting up a meeting, Zoom allows users to enable a language interpretation function that simulates how SI takes place at in-person conferences. The participant was assigned the role of the interpreter and the meeting had two different channels, a German channel and an English one. As the student was the interpreter, they had to select English on their screen, so they were able to listen to the original recording in German and translate in English, and the person who had selected the English channel would only hear the translation, as shown in the figures below.

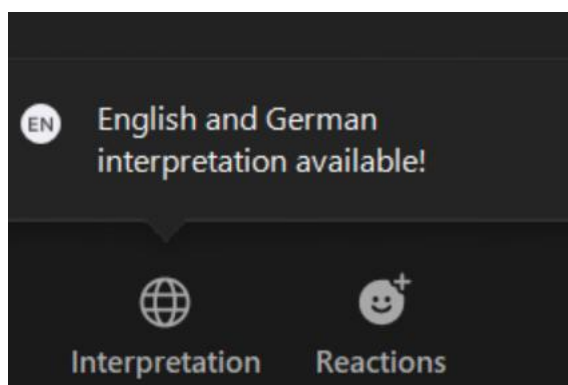


Figure 1- Language interpretation

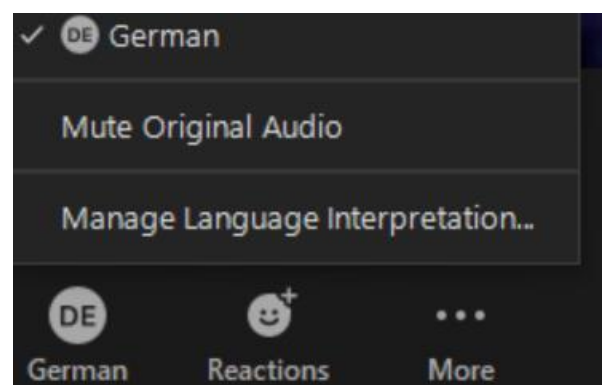


Figure 2 – Language channels

Figure 1 shows what an audience would see once the language interpretation was activated during the meeting, while figure 2 shows the different language channels to choose. Figure 2. was included as it also shows the option to mute the original audio, which was never selected during the study in order to be able to hear the original audio in the background, which would ultimately allow an effective alignment of the source and target speeches.

In order to be both on the German and on the English channels it was necessary to join the meeting twice using two different laptops: one was connected to the German channel where the German recording of the source speech was shared, while the other was connected to the English channel in order to listen to and record the translation in English. The interpretation in English was recorded on a single-track recorder¹⁷. The recording of the interpretation started a couple of seconds before the German track was shared, because some recorders start with a delay of a couple of seconds after pressing the record button, hence the recording had to start slightly in advance to be sure not to miss anything from the translation. The completed recording was then fully transcribed and anonymised.

Since the focus of the experiment was the head-final negative sentences, these were extrapolated to be analysed separately¹⁸. The student was informed at the beginning of the experiment that the rest of their output would not be analysed. They had also been informed in advance of how the experiment was going to be carried out and that their performance would be recorded, transcribed, and anonymised.¹⁹

At the end of the session the participant was asked to provide feedback in relation to the source speech, for instance they were asked to comment on how the experiment was conceived and carried out. They confirmed that the setting did not seem unnatural, as during the previous two years everything had taken place online. Further feedback was requested to properly assess the set-up, this time in relation to the delivery of the source speech: the student was asked whether it was disruptive not being able to see the speaker, and they advised that only having the audio input without the video was not a problem.²⁰ It must be underlined that at the time of the study the participant was studying conference

¹⁷ The set-up including the way the sessions were carried out and recorded remained the same for the second pilot study as well as for the core experiment.

¹⁸ This was the same also for the second pilot study and the core experiment

¹⁹ As per guidelines of the ethics committee, all the participants of both pilot studies and the core experiment had been previously informed of how the sessions would be carried out, i.e. that they would be audio recorded and that the results would be fully anonymised.

²⁰ The same question was asked to the participant of the second pilot study as well as to the subjects that took part in the core experiment.

interpreting remotely, as the classes had to be organised online because of Covid-19 restrictions, hence the remoteness of the set-up as well as only having the audio input rather than video and audio were not perceived as disruptive conditions as they were used to both. Moreover, there have been previous experimental studies where participants only received auditory stimuli, such as Fan et al. (2022).

3.2.2 Participant

A further difference between the (first) pilot study and the main experiment lies in the participants. While for the main experiment the participants were professional interpreters, for this pilot study the participant was one student. The student was enrolled at the University of Leeds and were at the end of the MA in Interpreting and they were studying interpreting in German to English. They had not had their assessment on interpreting yet, however they had in the final weeks of the interpreting modules. Although this might seem to be a significant difference, the pilot study was mainly carried out to test the set-up and methodology, none of which would have been influenced by the degree of experience of the subject involved. Therefore, although the performance of a student is clearly different from that of a professional, the difference in participant's expertise does not affect the experiment set-up as such.

Previous research has shown the importance of training and expertise, and how the initial learning stages of interpreting require a more conscious control of the strategies used, as well as their execution, the chunking of information and the access to the knowledge stored (Moser-Mercer, 2010). This controlled processing in novice interpreters requires high efforts, resources and is very sensitive to task load and stressors.²¹ In addition to this, while some studies have shown that interpreting experience and/or training have a positive impact on the interpreter's ability to make predictions, such as Özkan et al. (2023) and Lozano-Argüelles and Sagarra (2021), other studies found no evident effect of experience and/or training on the ability to make predictions, i.e. Chmiel (2021) and Amos et al. (2022). However, since some of the studies found that training and expertise have a positive influence on the performance of interpreters and since a comparison between students and professionals was not included in the present investigation, only professionals were included in the core experiment, hence the second pilot study was carried out by a professional.

²¹ This further proves how including a fast input rate might have negatively impacted the participant's performance, as it would have increased their cognitive load.

3.2.3 Results

The data analysis of the two pilot studies was different from that of the core experiment. In each pilot study there was only one participant, hence it was simpler to analyse single sentences and this type of analysis also ensures a greater sample. For the core experiment, although all translations of all head-final negative sentences were analysed, not all of them were included in the discussion of results (Chapter 5 and 6) as it was not functional to the scope of the analysis. The main goal was to analyse all the strategies used and identify any trends in this regard, particularly in the use of anticipation, therefore it was not necessary to discuss in detail every single translation provided by the participants.

The in-depth analysis of the student's performance follows, and it includes the original source sentence (indicated with S:) and the student's translation (indicated with T:). This analysis, which is sentence-specific, mirrors the analysis carried out for the core experiment, and clearly shows how the sentences were analysed, what was the focus and how the different strategies were determined. In fact, the pilot study acted as a guide for how to approach the analysis of the data. It was necessary to include a sentence-specific analysis for the pilot study as only the performance of one participant was available, while for the core experiment (which includes several participants) a few sentences were extrapolated from the data and used as examples of all the strategies. Therefore, the analysis the follows was used to assess the data analysis methods and how the interpreter performance was examined. Although this will be addressed in more detail, the sentence-specific data analysis carried out for the pilot study showed the difficulty in identifying segmentation (and the different kinds of segmentation analysed in Chapter 2) and distinguish it from other strategies.

**S: In diesem historischen Moment sind die Aufgaben vor uns aufgrund der
#1 weitreichenden Folgen der Pandemie nicht leicht [...]**

01:08:173

[In this historic moment, the tasks ahead of us are not easy because of the consequences of the pandemic [...]]

**T: At this historic moment, the serious consequences of the pandemic mean
our task is not easy [...]**

01:12:385

The student reorganized the elements of the sentence and postponed the verb²². One of the factors that can influence this choice is the uncertainty as to whether the verb was going to be positive or negative. The student was aware that the text hid some negative sentences with the negative particle at the end of the sentence as they had been informed before the session, and the ‘safer’ strategy²³ was to wait before uttering the verb and avoid the risk of translating a verb in its positive form and then having to correct the translation to insert a negative particle. In effect, they said “not easy” at 01:12:385, 4 seconds after hearing “nicht leicht” in the source speech (at 01:08:173).

The choice of postponing the verb could fit into two different categories or types of strategies analysed so far: chunking and changing the order. In the first case we could consider this an example of chunking (both of fission and of fusion, as defined in Chapter 2) because the student divided the sentence into two chunks, which allowed them to postpone the moment when the verb was going to be uttered. The first was centred on the reason why “our task is not easy”, i.e. “At this historic moment, the serious consequences of the pandemic mean” and the second one being “our task is not easy”. Of course, the first chunk could not exist without the second as it would not be complete, but they added the verb “mean” which was not present in the source speech, and which has created a connection between the two chunks “the serious consequences of the pandemic” and “our task is not easy”.

On the other hand, this is an example of changing the order (Donato, 2003): they placed the “serious consequences of the pandemic” in the second position after “at this historic moment” and translated the verb at a later time. For this reason, this sequence can be considered both an example of chunking and an example of changing the order. This proves how the difference between the strategies that interpreters use exists mostly in theory, while in the practice the boundaries are much more nuanced. As discussed in Chapter 2, the clear distinctions between strategies appear to exist more in theory than in practice, as sometimes, such as in this instance, it is not easy to clearly distinguish one strategy from another. Although the present study specifically addresses anticipation in SI, it is meant to provide a *practical* account of the use of this strategy rather than

²² The verb was highlighted in yellow in the source and target sentences

²³ The concept of ‘safety’ and in the use of strategies, i.e. the one that carries less risk and how this is a personal evaluation will be addressed in more detail in Chapter 5.

focusing on over-theorising or proposing a rigid description of anticipation. Theory was used as an instrument to complete and enrich practical approaches.

#2 S: Nur dann wird Europa auch in einer sich rasant verändernden globalen Ordnung nicht zurückbleiben

02:14:212

[*Only then Europe will not remain behind even in a rapidly changing global order.*]

T: Only then will Europe be able to stay ahead²⁴ in a rapidly changing world

02:14:337

In this instance, the student omitted the negative particle from their output and transformed the sentence into a positive one. This strategy falls into Donato's (2003) reformulation strategies and is defined a morphosyntactic transformation, i.e. the "transformation of a subordinate clause into a main clause, **of a negative clause into an affirmative clause**" (Riccardi, 1999:172 cited in Donato, 2003:107). The use of this strategy was necessary as the student uttered the verb before being exposed to the negation in the source text. Resorting to a morphosyntactic transformation resulted in a translation that is smooth and seamless, which makes it more desirable than having to openly correct themselves²⁵: the sentence was rearranged so that the positive verb could be suitable. Moreover, this example could be considered proof that other strategies can be chosen instead of anticipation. The student said "will" at 02:14:337, at the same time as the speaker of the original speech said "nicht zurückbleiben" [*not remain behind*]. Although this is not an anticipation of the verb, uttering the finite verb entails committing to a certain translation with the verb in its positive form, and they had to resort to a plausible translation to include the finite verb that had been uttered while still reflecting the original meaning of the source sentence. This approach however carries the risk of increasing the interpreter's processing capacity, as they needed to focus on what translation would be the most

²⁴ In this instance, the interpreter's performance presents a semantic difference compared to the original speech. In fact, the meaning of the source sentence was that Europe will not *remain behind*. However, these discrepancies will not be the focus of the research as the aim was not to focus on right or wrong translations, but rather on the general approach used.

²⁵ As discussed in Chapter 2, in some cases the only option for the interpreter is an audible self-correction such as 'the interpreter meant...'. (Lozano-Argüelles and Sagarra, 2021)

appropriate considering that they had already committed to a positive sentence by structuring the sentence with a positive finite verb.

Therefore, the student had heard the first part of the sentence and thought they had enough information to translate the verb, or possibly thought that uttering the verb would have saved some processing capacity as the first part of the sentence was already dense with information (“Nur dann wird Europa auch in einer sich rasant verändernden globalen Ordnung [...]” – only then, even in a rapidly changing global order [...]). Although there is clearly a subjective component to the choice of a strategy²⁶, if the student had not said “will”, there would have been no need to change the verbal bracket to the positive form.

#3 S: Viele Bürgerinnen und Bürger konnten von ihren geliebten Menschen aufgrund der

02:48:214

strengen Quarantäneregeln Abschied in der letzten Stunde nicht nehmen.

[Many citizens could not bid farewell to their loved ones in their last hour due to the strict quarantine rules.]

T: Many citizens had to say goodbye to their loved ones alone due to the

02:51:257

strict rules of the pandemic [...]

In this sentence, the student uttered the finite verb after hearing it in the source speech (“konnten” 02:48:214 – “had to” 02:51:257) but then realized that the speaker was going to add a negative particle to the non-finite verb that was part of the same verbal bracket as the finite verb “konnten” [*could*]. Once again, they uttered in its positive form but then became aware that it was not correct and used a similar strategy to the one used before, that is to change something in the translation to make the verb fit in the sentence and to still respect the intention of the speaker: they added “alone”. Although the goal of the manipulation of the sentence in the target language was the same as the one in the previous example, i.e. correcting a mistake without resorting to an open self-correction, this translation is slightly less smooth than the previous one. In effect, “say goodbye to their loved ones alone” is not quite as natural as the sentence in the source language “could not bid farewell to their loved ones”. For this reason, while the

²⁶ Which will be included in the factors that are at play when choosing a strategy, discussed in Chapter 5

translation is not entirely natural and seamless, the interpreter still managed to provide a target language output which, although it changes the original intention of the speaker, conveys the idea that people were not able to say goodbye to their loved ones. The audience would not have the perception that the interpreter was correcting an incorrect prediction of the sentence as they did not resort to an open self-correction.

#4 S: Zusätzlich zu den Sorgen um ihre Gesundheit und die Gesundheit ihrer Familien ist die Angst vieler europäischer Bürgerinnen und Bürgern, um ihre derzeitige und künftige wirtschaftliche Existenz

nicht zu vernachlässigen

03:45:030

[In addition to the concerns about their health and that of their families', the fear of many citizens regarding their current and future economic condition is not to be overlooked.]

T: In addition to worries about health of them and their families many European citizens are afraid about the economic future, and they do not

03:45:523

want to neglect this

The first element that is clearly visible in this sequence is that the student's translated version has some differences compared to the original sentence: the original meaning was that the fear of many citizens about their current and future economic conditions should not be neglected, while in the translation the student said that "they" do not want to neglect this, hence making the citizens the subject of the sentence. Although this is a distortion of the original meaning, the negative particle and the negative nature of the sentence were maintained in the translation, which makes it a successful translation of the structure as the negative nature of the sentence was translated, although the translation had a significant semantic difference. In this instance, the student said "Many European citizens" at 03:42:531 and did not utter the verb immediately after. One of the factors that could have influenced this choice is the awareness that in the two previous instances the verb was translated too soon and then the speaker uttered a negative particle in the source text. Therefore, the student waited a couple of seconds to have enough information and be sure that the verb related to "die Angst" [*the*

fear] was not negative; they heard “nicht zu vernachlässigen” in the source speech at 03:45:030 and translated “are afraid” at the exact same time (03:45:523).

Moreover, the order of the elements was slightly changed as rather than saying “the fear of many European citizens” they said, “many European citizens” and paused to be sure of the verb linked to “the fear”. This translation could potentially be considered as an example of chunking (again, fission or fusion) like the one in the first negative sentence: the original sentence was one, while in the translation the student created two sentences linked by the conjunction “and”. Another difference was the subject: while in the original sentence it was the fear, in the translation the subject was “the citizens”. This change allowed the student to translate the first chunk “In addition to worries about health of them and their families many European citizens are afraid about the economic future” and then add a negative sentence to respect (although not completely) the meaning of the speaker “and they do not want to neglect this”.

As in the first example, this translation shows how the boundaries between chunking and changing the order are not so well-defined, hence the exclusion of chunking from the data analysis in the core experiment. Constantly underlining that chunking and changing the order or chunking and other strategies are very similar would not have been helpful and would have represented an unnecessary use of theory, i.e. the need to include chunking at all costs when this strategy was not functional to the scope of this analysis. To some extent, we could affirm that the best strategies especially with head-final negative sentences are the ones that allow interpreters to commit the least to a specific meaning and that enable to still maintain a certain room for manoeuvre²⁷.

#5 S: Dafür brauchen wir eben mehr denn je die Orientierung an den Grundrechten nicht zu verlieren [...]

06:37:264

[For this reason, we need more than ever not to lose our orientation to the basic rights [...]]

²⁷ This hypothetical conclusion was drawn based on the pilot study, but it was confirmed by Interpreter #7 (as will be discussed in Chapter 5) as they specifically said they choose the strategy that allows them to commit the least so they can modify and adjust their translation as they hear more input elements.

T: We need orientation in order not to lose sight of our basic freedoms more than ever 06:39:512

In this instance, the student uttered the verb “not to lose sight” only after having heard its counterpart in the source language. In fact, in the source language speech “nicht zu verlieren” was uttered at 06:37:264 and the student translated “not to lose sight” at 06:39:512. They waited to hear the verb in the source speech before uttering it in the target language. The result of this approach was that the student avoided uttering a verb at the incorrect form and then having to rearrange the translation around it, although the meaning of the utterance was slightly modified.

#6 S: Wir haben miteinander gelernt und die Wichtigkeit des Vertrauens an unseren Fähigkeiten, an der Zusammenarbeit und die Hoffnung auf eine bessere Zukunft nicht verloren. 08:10:547

[We have learnt together, and we have not forgotten the importance of having faith in our skills and in cooperation, and the hope of a better future.]

T: We’ve learnt with others, and we have trusted others to cooperate, and we haven’t lost hope of a better future 08:12:482

As in the previous example, the student uttered the verb only a couple of seconds after hearing it the source language: “nicht verloren” was said at 08:10:547 while the translation was uttered at 08:12:482. This instance (as well as the previous one) could not be considered an example of freewheeling. Although the translation was uttered only a couple of seconds after hearing the verb in the source language; the student had time to hear the original verb and plan a translation for it, hence it does not appear to be a result of an anticipation process. Once again, the participant chose to resort to waiting to tackle this sentence. Both in this sentence and in the previous one waiting was used successfully, as the interpreter could benefit from the momentary pause of production and focus on comprehension (Seeber and Kerzel, 2011) and, since the waiting times were not too long, they were able to successfully translate the sentence in the target language. When discussing waiting times in the present investigation, a waiting time that is too long is not measured (only) in terms of seconds, but rather in

relation to the target language rendition. As underlined by Seeber and Kerzel (2011), waiting for too long may cause a spillover effect, i.e. when the working memory is overburdened and the interpreter might omit some information from their target language output, or omit the whole sentence if they are lagging too far behind. Instead, when waiting is used successfully such as in this case, the participant can focus on the comprehension effort (Gile, 2009) and then start their output in the target language, without lagging too far behind the speaker²⁸.

#7 S: Trotz der Schwierigkeiten ließ sich Europa von den mehreren und verschiedenen Krisen nicht aufhalten [...]

8:23:104

[Despite the difficulties Europe did not stop in front of the several and different crises [...]]

T: Despite the difficulties Europe didn't hold back during these crises [...]

8:22:357

In this case, the student once more waited to hear the verb before translating it. They translated “despite the difficulties” and said difficulties at 08:22:357, then paused briefly and said “Europe” at 08:24:145, one second after hearing the verb “nicht aufhalten” (08:23:104) in the source language. Therefore, in this case as well, the student waited to hear the verb before translating it in the target language. This shows how waiting a couple of seconds, as the participant has done in the two sentences before this one as well, proved to be an approach they felt comfortable with²⁹. In fact, as the participant was a student, the choice and control of strategies was much more conscious compared to professionals (Moser-Mercer, 2010), and since this approach proved to be successful in the two preceding sentences, they kept resorting to waiting. Moser-Mercer (2010) underlined how controlled processing in novices, while being effortful, allows for adaptation to the task at hand and supports the rapid acquisition of skills. Moreover, since interpreting cannot rely exclusively on controlled processes, the repeated practice allows novices and students to acquire automatic processing and reduce the cognitive load. In this case, the student has adopted the same

²⁸ This was possible due to the low input rate. As the data analysis of the core experiment will show in Chapter 5, waiting is used significantly less when the source speech is delivered at a faster rate.

²⁹ The subjective aspect that is involved in the use of strategies will be addressed in more detail in Chapter 5, along with the other factors that feature in the choice and use of strategies

approach over three sentences which proved successful in all of the three because it allowed them to provide their target-language translation, and it was a safer approach³⁰ compared to anticipation. Therefore, the repeated use of the same strategy, can be traced to Moser-Mercer's (2010) model as it shows that the interpreter adjusted their approach to the context (i.e. a slow speech rate and the presence of possible negations at the end of the sentences) and chose to resort to waiting in several sentences.

#8 S: Ich wird sowohl während der Laufzeit der deutschen Ratspräsidentschaft als auch in der Zukunft die Wichtigkeit und die Unerlässlichkeit der Grundrechte nicht außer Acht lassen

11:07:624

[Both during Germany's Presidency of the Council of the European Union and in the future, I will not neglect the importance and the essential nature of basic rights.]

T: During the German EU council presidency and in the future,

I will (2) not forget the importance of our basic rights

11:06:981 11:08:024

In this excerpt the student reorganized the elements in the output and postponed the moment of uttering the subject and therefore the verb. The translation started with the chunk “during the EU council presidency and in the future” and they translated “will” one second after the speaker said “**nicht** außer Acht lassen”, and at 11:08:024 the student added “not”. Reorganizing the elements allowed them to postpone the moment of placing the subject and the verb so that they could have more input information (including hearing the verb). Once more, this strategy proves to be effective when translating these sentences, as it allowed the interpreter to avoid committing to a specific meaning or verb before being certain of what the verb was and whether it was in the positive or negative form.

#9 S: Dafür wird nur mein Engagement und die Anstrengungen aller einzelnen Mitgliedstaaten nicht genügen

12:52:048

³⁰ The concept of ‘risk’ will be analysed in detail in Chapter 5

[For this, my commitment and the commitment of the member states alone will not be enough.]

T: I will show commitment, my commitment and the commitment of other

12:52:193

European states will not be enough though

In this example, the student slightly changed the structure of the sentence while still managing to convey the same intended meaning of the sentence in the source text. They uttered the verb “will show” at 12:52:193 and at the same time (12:52:048) heard the source language verb “nicht genügen” [*not be enough*]. Therefore, the student committed to a specific meaning as they believed they had enough information to anticipate the verb. In terms of elements that could be exploited in this sentence in order to predict the message, “mein Engagement” [*my commitment*] can be used to shape a message in the interpreter’s mind and using linguistic inference (Chernov, 1994) it can be linked to the possible verbs that might follow the noun Engagement, such as ‘show’ or ‘demonstrate’. One of the possible factors that might have led the student to choose this translation was the high redundancy of the utterance, which could be considered both an objective redundancy (based on what had been said so far) and a subjective redundancy (as the student was aware of the role of the Chancellor at the time and of the importance of her role in the EU, and had therefore thought that Dr Merkel was going to underline that she will show her commitment).³¹

However, after uttering the verb the student realized that the meaning of the sentence was not the one predicted and added a small chunk to reflect the original meaning: my commitment will not be enough though, hence they needed to add ‘though’ as a repair³². This could be considered, to some extent, an example of an incorrect anticipation, or rather an incorrect freewheeling. In fact, the student uttered the verb ‘show’ as the speaker was finishing their sentence in the source language. It would appear that the student had predicted a meaning of the utterance in their mind and decided to act on it, but then they were exposed to the full negative verb in the source language and had to resort to a repair in

³¹ This further shows how redundancy needs to be included in the core experiment as it can influence the performance of the participants.

³² To avoid any terminology confusion, Kohn and Kalina (1996) used the term repair to refer to open self-corrections made by interpreters. Here ‘repair’ is used to indicate an attempt made by participants to, literally, repair an incorrect translation. In the analysis it was found that these repair was often carried out through an addition (e.g. ‘alone’ sentence #3 or ‘though’ sentence #9)

order to correct their mistake and provide the same meaning that the speaker intended.

#10 S: Aber wir wollen für Europa eine kurzfristige Stabilisierung nicht

14:35:126

[But we do not want a short-term stability for Europe]

T: But we do not want short term stability in Europe

14:36:012

The student waited for the verb before uttering it in the target language: “nicht” was uttered at 14:35:126 and the student started the sentence “but we do not” at 14:36:012. It is possible to identify a sort of tendency in the strategies used: when the student reached some level of confidence in the translation, they uttered the verb without waiting to make sure whether it was positive or negative. Following this approach, when the verb was negative, they had to readjust the translation to reflect the original meaning and in the passage that followed, they were more careful and waited to listen to the verb in the source language before uttering its translation.

3.2.4 Key observations

The first visible result of the pilot study is that the student has not anticipated the verb in any of the sentences. Although the performance of a student is different from that of a professional, the total lack of anticipation can be considered as a signal that anticipation, when tackling head-final negative sentences, might not be the most used strategy³³. However, it is necessary to put these results in perspective, and to recall the main reason why it was necessary to then carry out a second pilot study. The student was aware of the main goal of the research, i.e. to identify the strategies used to tackle head-final negative sentences and assess whether and how anticipation was used in these sentences. This might have influenced their performance, as they knew there would be some head-final negative sentences and might have used extra caution as a consequence. For this reason, a second pilot study was carried out.

What was most interesting in the lack of anticipation was the student’s perspective. When asked whether they thought they had used anticipation, their answer was ‘of course, it’s impossible not to use anticipation when interpreting from German’,

³³ This hypothesis will be addressed and further developed in Chapter 6

and yet they had never used it. This could indicate that not only the performance, but also the awareness of what strategies are used may differ between students and professionals, as a student obviously has less experience, and their approach might be more based on a trial and error rather than on a more thoughtful understanding of what strategies are the most suitable to them.³⁴ However, it is worth noting that only the head-final negative sentences were analysed, therefore the participant might have used anticipation in other portions of the speech that were not included in the data analysis.

The pilot study proved the necessity of variables, the main one being the source speech input rate. In several cases, the interpreter waited to hear the verb in the source language, which might have not been possible or necessary if the source speech had been delivered at a faster speed. If the speech were faster, possibly the student would not have had to wait because they would have heard the source language verb and its negative particle sooner. On the other hand, if the speech were even slower, the student might not have been able to wait because they would have had to wait too long to obtain all the information, and this might have resulted in several (disruptive) silent pauses.

However, it is useful to have a clear picture of the main strategies found and their frequency: chunking and changing the order; morphosyntactic transformation; addition to repair, which in this instance is considered the addition of an element in the target language when the student realised that they had committed too soon to a meaning which did not reflect the original meaning of the sentence, as the verb was supposed to be at its negative form; and waiting.

³⁴ The process that leads to the choice of strategies will be addressed in more details in Chapter 5, and the main focus of the present investigation was not to create a new model of training or to critique the current training programs. However, it is worth noting that anticipation is widely assumed to be the best strategy when interpreting from German, hence a student declared that it is impossible not to use anticipation even when, in retrospect, they never used it.

Strategies used - first pilot study

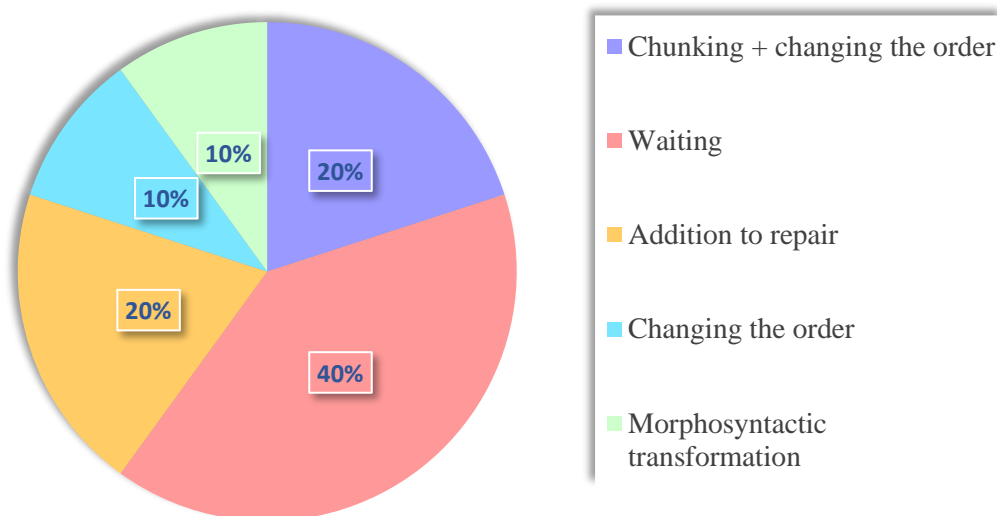


Figure 3 – Strategies used in the first pilot study

From figure 3, it is clearly visible that the strategy that was mostly used was waiting.³⁵ The use of this strategy would have undoubtedly been influenced by the variable of speed³⁶, as it would have either been more evident in case of a much slower speech, or possibly it would not have been used at all in case of a faster speech.

After waiting, the most used strategies were chunking in combination with changing the order of the elements in the target language (20%) and addition to repair (20%). It is interesting that the student used addition to repair only twice, and that in both cases the use of this strategy was (preceded and) followed by the use of a different strategy. One possible explanation for this alternation is the awareness that an addition required more processing capacity and, right after a repair, the student seemed to decide that it was better to wait to hear the verb, whether this was done by silent waiting or by changing the order of the elements to postpone the moment of uttering the verb.

³⁵ Although these results are of the performance of a student, waiting being the main used strategy is a result obtain in the core experiment as well, as will be discussed in Chapter 5.

³⁶ This hypothesis will be confirmed by the results of the core experiment, discussed in Chapter 5

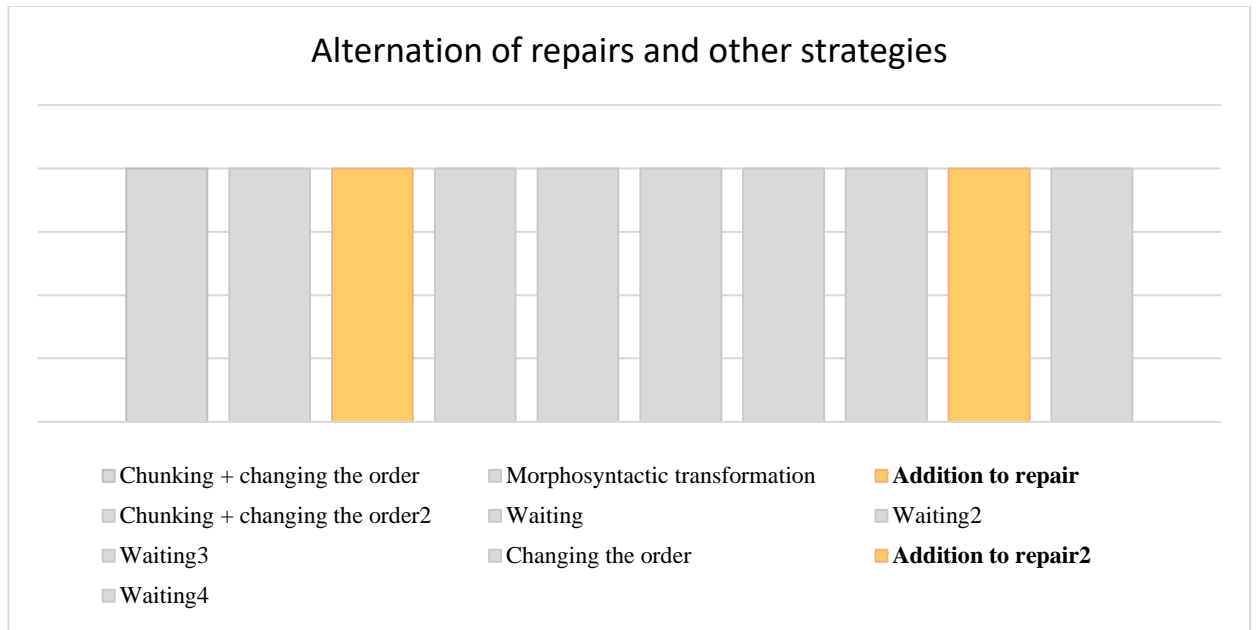


Figure 4 – Alternation of repairs and other strategies in the first pilot study

In figure 4 the other strategies have been greyed out in order to focus on the repairs and on the alternation between these and the other approaches taken. In the first sentence the student does not need to use repair as they used different strategies to avoid uttering the verb too soon, while the second sentence cannot be considered an example of repair because the interpreter simply modified the verb from a negative to positive, they did not need to add anything to adjust their translation. This appears to have happened because the first two sentences appeared rather soon in the speech, i.e. soon after the initial briefing where it was explained that the focus of the study would be head-final negative sentences. Therefore, the student was aware that there were going to be some head-final negative sentences and did not translate the verb until they knew whether it was going to be positive or negative. Thereafter, they might have felt confident enough when translating the third sentence and placed the verb immediately, but then had to find a way to readjust the translation based on the actual meaning and what had been uttered in the source language until that point.

It is worth noting that, immediately after realising they had to resort to a repair or readjustment, the participant often decided to wait to place the verb and used waiting (three times, i.e. it accounted for 40% of the strategies used) and changing the order both on its own and in combination with chunking. Towards the end of the speech, in Sentence #9, the student had to resort to repair once more as they relied on the (subjective and objective) redundancy and translated the verb “will show”. However, they soon became aware that the verb was going to be different and that it was going to be negative. This

shows how the variable of redundancy seems to play a role in the choice of which strategy to use, hence the need to include it in the core experiment. The participant translated the verb in the target language because they had a clear understanding of what the meaning of sentence was going to be and therefore chose not to wait and to act on their prediction. If the sentence were not redundant, at least not objectively redundant, possibly the student would have chosen a different strategy which would have allowed them to receive more information before committing to a meaning. This analysis of how the strategies changed from one sentence to another will not be included in the core experiment for every single participant, as it was possible here because there was only one subject. However, the change of strategies shows how the participant changed their approach and tried to adjust it to the context, which ultimately proves that it is difficult to state that only one strategy is mainly used for this type of sentences. The student constantly readjusted and adapted the use of strategies to the incoming information and source speech to ensure to choose the one that felt most suitable for the specific sentence or moment in the speech.

The key conclusion to be drawn from the first pilot study is that this methodology does not pose any particular hurdle and can be used for the main experiment. Organising the experiment remotely, hence resorting to remote simultaneous interpreting (RSI), was not perceived as disruptive and was not an issue for the data collection. In fact, the quality of the audio recording of the performance was high so that both the source language speech and the interpretation were clearly audible, and the audio track shared as source speech was appropriate for the interpretation as the audio was clear as well. This ultimately showed how RSI was an important resource for the present investigation for research purposes, as it allowed to preserve the experimental design at a time when it was not possible to meet in person. Moreover, as will be evident from Chapter 5, RSI allowed to increase the number of participants by recruiting subjects based in different locations, as they could connect from their home without the need to travel. Therefore, the present research unveils the benefits of RSI for research purposes, especially for early career researchers, as it allows to increase the number of participants and is well suited for the data collection. In addition to this, Zoom offers the opportunity to record meetings, which can be useful to researchers whose analysis is focused on the interpreter's or the speaker's non-verbal cues, because they would be able to record the meeting and have access to that recording for their analysis without necessarily needing a secondary recording device.

Moreover, this pilot study confirmed the need to include independent variables (speed and redundancy) in the core experiment in order to obtain results that are as

accurate as possible, as the phenomenon to be analysed will be observed in different scenarios.

Finally, this pilot study proved that it would be better not to disclose the exact focus of the analysis, as the participants might adjust their approach(es) accordingly. Although it is not possible to know with certainty to what extent knowing the scope of the research has influenced the student in this first pilot study, not disclosing that the study is specifically on head-final negative sentences allows participants to have a more spontaneous approach and to not have expectations about each sentence, knowing there might be a *nicht*.

Therefore, while this first pilot study has shown that the overall experimental set-up was viable, a second pilot study was organised in order to test two changes to the arrangement: the material was not manipulated to add head-final negative sentences, and the participant (as the subjects who took part in the core experiment) was told only that the research investigated the strategies used by professional interpreters when interpreting simultaneously from German.

3.3 Second Pilot study

The aim of the present research is to prove that it is necessary to focus on head-final negative sentences as a particular linguistic specificity that naturally occurs in simultaneous interpreting from German. To this end, it seemed more functional to use original material where this phenomenon naturally occurs, as this is the type of material that interpreters will be faced with when working. Aside from the material, the second difference was the subject. The participant of the first pilot study was a student, while this second pilot study was carried out with a professional interpreter, which mirrors the type of participants included in the core experiment.

The set-up remained the same: the session was organised on Zoom with the language interpretation function enabled. It is worth noting that the participant had previously worked as an interpreter remotely, specifically on Zoom, hence they were comfortable with the set-up³⁷.

³⁷ The student who took part in the first pilot study was used to remote interpreting as well. Moreover, although this will be analysed and explained in more detail in the following chapter, the participants in the core experiment had previous experience of working remotely as well, because the sessions with them took place in 2022 therefore the shift to RSI due to the pandemic had already happened.

3.3.1 Material

The source speech used for the second pilot study was a speech delivered by the German President Frank-Walter Steinmeier at the ceremony marking the 75th anniversary of the start of the Nuremberg Trials in Nuremberg on 20 November 2020. The oral speech was compared to the official transcription available on the Bundespräsident website³⁸, and it was found that the transcription is almost identical to the version delivered by Steinmeier, with the exception of a few elements common to oral delivery, such as repetition. In the first sentence that will be object of the analysis, for example, the President said “meine Damen und Herren” (ladies and gentlemen), which is not reported in the written version of the speech and is therefore missing from the official translation. This particular speech was chosen because it contains eleven head-final negative sentences³⁹. Although this speech lasts 20 minutes, most of the speeches where this kind of sentences appear are quite longer, lasting about 30-40 minutes.⁴⁰ Therefore, this speech was chosen as it presented a high occurrence of head-final negative sentences without being too long.

As in the first pilot study and in the main experiment, the participant only had the audio input, as the written speech had been recorded by a German native speaker (who is also an interpreter). Although the student in the previous pilot study confirmed that this was not a problem, the participant of the second pilot study suggested that they would have preferred to see the speaker as they are used to having not only the audio but also the visual input. This feedback was taken into consideration and was included to reflect the reality of the interpreter’s perception, however it is not uncommon to only have the audio input especially when interpreting remotely. While not ideal, during an online conference speakers often share their screen, in which case the interpreter would be able to see the screen sharing but would lose the view on the speaker. This can sometimes happen at in-person assignments as well, in cases where the interpreting booth faces the audience rather than the speakers (e.g. at the ILO in Geneva). It is worth noting that this setting is not ideal as interpreters lack visual cues when they cannot see the speaker, however the good quality of the audio input ensured clear comprehension and compensated for the lack of visual input.

Moreover, after the core experiment (which will be the focus of Chapters 5 and 6), the participants had been asked whether it was a problem for them not having a visual

³⁸ <https://www.bundespraesident.de/SharedDocs/Reden/DE/Frank-Walter-Steinmeier/Reden/2020/11/201120-Festakt-Nuernberg.html>

³⁹ The speech is made up of 121 sentences, counted as sentences with full stops.

⁴⁰ In order to prevent fatigue, the speeches chosen for the main experiment had to be edited in order to be approximately 15 minutes long.

input, and many underlined that, although they usually prefer it, it was not a problem in this scenario because the audio quality was good, and it compensated for the lack of visual input.

As for the first pilot study (and the core experiment), the only parts of the material that are object of the analysis are the eleven negative sentences. While this research does not claim that the results are representative of the whole interpreting population, the focus of the analysis was on head-final negative sentences as a particular language specificity. In fact, the research does not propose generalised conclusions such as that anticipation is not a useful strategy, but rather attempts to move away from the opposed generalization, that is that anticipation is the best or most used strategy when interpreting from German. The objective of this research was to bring forward some examples where anticipation, while still remaining a valid strategy, might not be the most used one.

3.3.2 Participant

The participant of the second pilot study was a professional interpreter with more than 20 years of experience and was recruited through AIIC (International Association of Conference Interpreters). They have German as A language and English as B language. During the discussion, the interpreter explained that it is not a problem for them to interpret from German into English, and that they even prefer working in this direction. However, after the session the interpreter underlined how they are more used to working in the field of industry rather than in the political field. This is another reason why they are more used to seeing the speaker, as they would usually work at business meetings where both speakers tend to have their camera on.

As in the first pilot study (and in the core experiment), the participant was not given the speech beforehand. One week before the session they were informed that they would be asked to interpret a speech delivered by the German President at the ceremony marking the 75th anniversary of the start of the Nuremberg Trials in Nuremberg on 20th November 2020. This information was shared with the participant in order to reflect real-life conditions⁴¹, hence enhancing the ecological validity of the set-up (Baekelandt and Defrancq, 2020). Before an assignment interpreters would at least be informed of the speaker they are going to interpret for, the occasion where the speech will be delivered and the general topic(s) of discussion. Although they could have found the speech, they confirmed that they had not searched if before the session and, even if they had, they did

⁴¹ Normally interpreters would at least be aware of the speaker they are interpreting for and the occasion where their assignment is taking place

not know that the focus would be on head-final negative sentences, therefore they would not have known what to search for exactly. This was confirmed during our discussion after the interpretation, as the participant said if they had known beforehand the scope of the analysis they would have searched for the speech and marked the head-final negative sentences. Instead, since they were unaware of the focus of the investigation, they did not search the speech before the session.

As for the first pilot study (and for the core experiment), the session was an individual session with the participant during which two laptops were used so that one was connected to the German channel and the other to the English channel.

3.3.3 Negative sentences

The sentences that follow were taken from the speech transcription and are identical to Steinmeier's delivery. For each German sentence there is a gloss translation in brackets and the official translation provided on the official Bundespräsident website⁴²:

#1 Meine Damen und Herren, viele Orte, an denen dieses Unrecht geschehen war, kannte man vor 75 Jahren noch nicht.

[ladies and gentlemen, many places where these criminal acts took place were not yet known 75 years ago]

Many of the places where these criminal acts took place were not yet known 75 years ago.

#2 Regierungsverantwortliche und hohe Staatsbeamte sollten sich für ihre verbrecherischen Befehle nicht länger hinter der völkerrechtlichen Immunität verstecken, [...]

[government officials and senior civil servants should no longer hide behind immunity under international law for their criminal orders [...]]

Those in government office and senior civil servants who had issued heinous orders were no longer to hide behind immunity under international law, [...]

#3 Ohne den Hauptkriegsverbrecherprozess in Nürnberg gäbe es den Internationalen Strafgerichtshof in Den Haag heute nicht.

⁴² <https://www.bundespraesident.de/SharedDocs/Reden/DE/Frank-Walter-Steinmeier/Reden/2020/11/201120-Festakt-Nuernberg.html>

[without the trial of the major war criminals in Nuremberg there would be no International Criminal Court today]

There would be no International Criminal Court in The Hague today without the main Nuremberg war trial.

#4 Ohne die Beharrlichkeit von Menschen wie Fritz Bauer und seiner wenigen Mitstreiter wäre es vermutlich nicht dazu gekommen.

[without the perseverance of people such as Fritz Bauer and his small number of associates this would probably not have come about]

Without the perseverance of people such as Fritz Bauer and his small number of associates this would probably not have come about.

#5 Die Vereinigten Staaten und Russland sind dem Internationalen Strafgerichtshof nicht beigetreten, [...]

[the United States and Russia have not joined the International Criminal Court [...]]

The United States and Russia have not joined the International Criminal Court, [...]

#6 Manche hochfliegende Hoffnung hat der Internationale Strafgerichtshof bisher nicht erfüllen können.

[some lofty hopes are yet to be fulfilled by the International Criminal Court]

The International Criminal Court has yet to fulfil some lofty hopes.

#7 [...] diese Botschaft von Nürnberg ist eben nicht folgenlos geblieben.

[...] this message from Nuremberg did not remain without consequences]

[...] and this lesson learned in Nuremberg certainly had an impact.

#8 Ohne Nürnberg wären Kriegsherren aus Serbien, Kroatien oder aus Ruanda wegen Massenmord, Folter und Vergewaltigung nicht bestraft worden; [...]

[without Nuremberg, warlords from Serbia, Croatia or Rwanda would not have been punished for mass murder, torture, and rape [...]]

Without Nuremberg, warlords in Serbia, Croatia or Rwanda would not have been held to account over mass murder, torture, or rape [...]

#9 [...] würde auch Völkermord heute nicht als Straftat geahndet.

[...] *even genocide today would not be prosecuted as a crime*]

[...] nor would genocide be prosecuted as a crime.

#10 Ohne Nürnberg gäbe es kein Weltrechtsprinzip und könnten nationale Gerichte nicht gegen Völkerrechtsverbrechen vorgehen.

[*without Nuremberg, there would be no principle of universal jurisdiction and national courts would be unable to take action against violations of international law*]

Without Nuremberg, there would be no principle of universal jurisdiction and national courts would be unable to prosecute those who have violated international law.

#11 Es kann die Macht nicht immer überwinden, [...]

[*it cannot always overcome power [...]*]

It cannot always overcome power, [...]

The above sentences were chosen because they are considered challenging in simultaneous interpreting. The analysis of these sentences shows that the challenges linked to the head-final negative sentences naturally occur in speeches and, unlike the first pilot study where the sentences had been manipulated, an analysis of why the following sentences are challenging ultimately reveals that the phenomenon to be analysed is present in real-life speeches and can be an added difficulty in simultaneous interpreting for different reasons, which are detailed as follows.

1. Meine Damen und Herren, viele Orte, an denen dieses Unrecht geschehen war, kannte man vor 75 Jahren noch nicht.

[*ladies and gentlemen, many places where these criminal acts took place were not yet known 75 years ago*]

In this sentence, the negative particle nicht, which refers to the verb “kannte man” [*were known*], is found at the end of the sentence. This sentence would be challenging in simultaneous interpreting as the verb carrying the semantic information already appears rather late, and the negation of the verb is the very last element of the sentence.

2. Regierungsverantwortliche und hohe Staatsbeamte sollten sich für ihre verbrecherischen Befehle nicht länger hinter der völkerrechtlichen Immunität verstecken, [...]

[government officials and senior civil servants should no longer hide behind immunity under international law for their criminal orders [...]]

In this case the negative particle *nicht* appears rather late in the sentence, after the finite verb “sollten” [*should*]. Moreover, after the negative particle there are other elements of the sentence and the non-finite verb, to which the negation refers, is found only at the end of the sentence.

3. Ohne den Hauptkriegsverbrecherprozess in Nürnberg gäbe es den Internationalen Strafgerichtshof in Den Haag heute nicht.

[without the trial of the major war criminals in Nuremberg today there would be no International Criminal Court]

As in the first sentence, in this case the negative particle *nicht* is the last element present, while the finite verb it refers to is (as always) in the second position.

4. Ohne die Beharrlichkeit von Menschen wie Fritz Bauer und seiner wenigen Mitstreiter wäre es vermutlich nicht dazu gekommen.

[without the perseverance of people such as Fritz Bauer and his small number of associates this would probably not have come about]

Although the negative particle refers to the non-finite verb as in the second sentence, it is placed immediately before the verb. In this case the finite verb itself appears rather late, soon followed by the *nicht* and the non-finite verb. This sentence might be less challenging as the interpreter might be able to translate the first chunk “Ohne die Beharrlichkeit von Menschen wie Fritz Bauer und seiner wenigen Mitstreiter” [*without the perseverance of people such as Fritz Bauer and his small number of associates*] and soon after they would hear both the finite verb and the non-finite negative verb. However, this approach would ultimately confirm that with this kind of sentences anticipation might be a risk and interpreters possibly prefer not to commit to anticipating a verb before. The challenge of the negative particle appearing at the end of the sentence just before the non-finite verb appears in sentences 5 and 6 as well.

5. Die Vereinigten Staaten und Russland sind dem Internationalen Strafgerichtshof nicht beigetreten, [...]

[the United States and Russia have not joined the International Criminal Court [...]]

6. Manche hochfliegende Hoffnung hat der Internationale Strafgerichtshof bisher nicht erfüllen können.

[the International Criminal Court has not yet been able to fulfil some lofty hopes]

7. [...] diese Botschaft von Nürnberg ist eben nicht folgenlos geblieben.

[...] this message from Nuremberg did not remain without consequences]

Although in this sentence negation still appears at the end with the non-finite verb, the midfield (Bevilacqua, 2009; i.e. the field between the finite and the non-finite verb) is extremely short. This would most likely make the head-final negation less challenging as the interpreter could manage the *décalage* in order to hear the whole verbal bracket before translating.

8. Ohne Nürnberg wären Kriegsherren aus Serbien, Kroatien oder aus Ruanda wegen Massenmord, Folter und Vergewaltigung nicht bestraft worden; [...]

[Without Nuremberg, warlords from Serbia, Croatia or Rwanda would not have been punished for mass murder, torture, or rape [...]]

This sentence represents a perfect example of how, by increasing the midfield, the simultaneous interpretation becomes more daunting. The finite verb is uttered soon, while the negation and the non-finite verbs are found at the end of the sentence, after the list of countries where the warlords' crimes would remain unpunished and after the explanation of what these crimes could be. In this case, an interpreter might decide to plan the sentence differently and place this reference to the warlords at the beginning of the sentence without translating the finite verb. This would allow them to include the full verbal bracket in their output only after hearing it in the source language.

9. [...] würde auch Völkermord heute nicht als Straftat geahndet.

[...] even genocide today would not be prosecuted as a crime]

This sentence is visibly shorter than the previous one, but in this case the negation appears almost at the centre of the sentence, followed by a noun and the non-finite verb. Therefore, although the finite verb appears soon (it is in fact at the beginning of the sentence), an interpreter would most likely wait to have more information to utter the non-finite negative verb.

10. Ohne Nürnberg gäbe es kein Weltrechtsprinzip und könnten nationale Gerichte nicht gegen Völkerrechtsverbrechen vorgehen.

[without Nuremberg, there would be no principle of universal jurisdiction and national courts would be unable to act against violations of international law]

As in some of the previous examples, in this sentence the negative particle is not the last element of the sentence. It appears slightly later compared to the finite verb, and it is part of the verbal bracket “könnten...nicht...vorgehen”. [*would be...unable to...act*]. The negative particle ‘*nicht*’ is then followed by the specification of what the national courts should act against, and at the end of the sentence there is the non-finite verb.

11. Es kann die Macht nicht immer überwinden, [...]

[it cannot always overcome power]

In this case as well the midfield is not too long, therefore an interpreter might lengthen the décalage and only translate the verbal bracket only after hearing the negation and the non-finite verb it refers to.

3.3.4 Results

After the interpretation, there was a brief discussion with the interpreter about the strategies they used or that they often use when interpreting. As hypothesized, they explained that the choice of a strategy varies depending on the speaker, their speech rate, and several other factors. In relation to the present conditions, the interpreter underlined that the speaker did not have a high speech rate. In fact, in their opinion the speech rate was rather slow, and the speaker always had the same pace, hence the interpreter would find themselves increasing the décalage rather than anticipating the verb or other elements of the sentences, while in other instances they would have normally used anticipation as a strategy. This is reflected in the analysis of their performance. In fact, in some cases the décalage was about one full sentence, hence the interpreter had time to listen to the full sentence while finishing the interpretation of the previous one. In this case, the use of a specific strategy to tackle negation was not as necessary, as they were naturally lagging behind the speaker and in several cases the speaker had already uttered the whole sentence including the negation when the interpreter was just starting the interpretation of that sentence. Therefore, the approach used in these instances has here been labelled as finishing the translation of the previous sentence (FTPS). The definition of ‘strategy’ adopted in this research is that of a goal-oriented action, and it appears that everything interpreters do is intentional and goal-oriented, therefore it would have not been accurate

to states that in these instances the interpreter *did not use any strategy*. The strategy used was FTPS⁴³.

Moreover, as for the analysis of the interpreter's translation, it is useful to underline that the object of the present investigation is how they tackled the negative sentences analysed. Therefore, any incomplete or inaccurate translations will not be addressed in too much detail. In some cases the translation was slightly different from the original sentence, but these elements will not be taken into account as much in the present analysis because the goal is not a quality assessment of their interpretation, but rather an account of their approach(es) in terms of strategies.

The source sentence is marked with S: and the translation with T:.

#1

S: Meine Damen und Herren viele Orte, an denen dieses Unrecht geschehen war, kannte man vor 75 Jahren noch nicht.

02:34:374

Natürlich: Auschwitz, Buchenwald, Theresienstadt, Sachsenhausen, Dachau, viele andere, ja.

[ladies and gentlemen, many places where these criminal acts took place were not yet known 75 years ago. Of course, Auschwitz, Buchenwald, Theresienstadt, Sachsenhausen, Dachau and many others were known]

T: There were many places where all this injustice happened, Buchenwald,

02:33:981

Auschwitz, Theresienstadt, Sachsenhausen, Dachau. Many of these places were unknown.

Although it is possible to identify multiple strategies in the interpreter's rendition, the main one used in this instance was **waiting**⁴⁴. The interpreter translated "ladies and gentlemen" at 02:29:432, then waited in silence for 4 seconds which give the chance to the President to finish the sentence and utter the verbal bracket, and as the speaker was saying "noch nicht" [*not yet*] the interpreter started their translation (at 02:33:981) with "there were many places". They waited for the speaker to finish the sentence before continuing their output. This is the strategy that was used specifically to tackle the head-final negation.

⁴³ This strategy will be addressed in more detail in Chapter 5.

⁴⁴ Since the waiting time was too long, however, the end result was a compound omission. See chapter 4 section 4.2.2. for the definition of 'compound omission'

However, if we take into consideration only the English translation, we can identify other strategies⁴⁵. The first and most evident one is the morphosyntactic transformation, i.e. the “transformation of a subordinate clause into a main clause, of a negative clause into an affirmative clause” (Riccardi, 1999:172 cited in Donato, 2003:107). In effect, while the original sentence was in the negative form “were not yet known”, the interpreter conveyed the same meaning by translating the verb at the positive form “were” and express the speaker’s intention through the adjective “unknown”. Moreover, the interpreter changed the order of the elements in their interpretation. In fact, they began their translation with a reference to the places where the injustice take place, and then proceeded to list some places that were mentioned by the speaker in the following sentence.

#2

S: Regierungsverantwortliche und hohe Staatsbeamte sollten sich für ihre verbrecherischen Befehle nicht länger hinter der völkerrechtlichen Immunität

07:44:492

verstecken, [...]

07:47:063

[government officials and senior civil servants should no longer hide behind immunity under international law for their criminal orders [...]]

T: so former officials were no longer able to hide behind immunity

07:44:695

07:47:702

This sentence is a further example of the use of **waiting** as a strategy. Although when the President began this sentence, the interpreter was still translating the previous one, they used waiting to tackle negation. In this instance, the interpreter began the translation with “so former officials” as they heard “nicht länger“ [*no longer*] in the source speech (at 07:44:492). However, in this case negation was found in the middle of the sentence, while the non-finite verb was present as the last element. Therefore, the interpreter did not to risk with an anticipation, possibly because they needed more information about what the speaker wanted to communicate in that sentence. In effect, the interpreter translated “were no longer” as they heard “verstecken” [*hide*] (at

⁴⁵ As will be addressed in more detail in Chapter 5, in the interpreters’ renditions of one chunk it is sometimes possible to identify several strategies, but the main focus will remain the strategies specifically used to tackle head-final negative sentences in order to not over complicate the discussion.

07:47:063) in the source speech. The interpreter did not commit to the translation of the finite verb without having a clear idea of what was the non-finite verb that carried the semantic information of the verbal bracket.

#3

S: Ohne den Hauptkriegsverbrecherprozess in Nürnberg gäbe es den

09:28:257

Internationalen Strafgerichtshof in Den Haag heute nicht.

[without the trial of the major war criminals in Nuremberg today there would be no International Criminal Court]

T: Without the Nuremberg trials we wouldn't have the International Criminal

09:31:483

09:34:532

Court in the Hague

In this instance, the strategy used by the interpreter is segmentation. More precisely, fission (Goldman-Eisler, 1972/2002). The speaker started the sentence “Ohne den Hauptkriegsverbrecherprozess in Nürnberg“ [without the trial of the major war criminals in Nuremberg] at 09:281 and the interpreter started their translation only a few seconds later (09:31:483). They started their translation before the speaker had finished the sentence in the source speech, or before he had come to a pause. The interpreter then uttered the verb “wouldn't have” at 09:34:532, right after they heard the “nicht” in the source speech.

#4

S: Ohne die Beharrlichkeit von Menschen wie Fritz Bauer und seiner wenigen Mitstreiter wäre es vermutlich nicht dazu gekommen.

10:12:274

[without the perseverance of people such as Fritz Bauer and his small number of associates this would probably not have come about]

T: We owe this to Fritz Bauer and his colleagues. If it hadn't been for him

10:14:411

Germany wouldn't have this kind of approach.

In this instance, the interpreter once again resorted to segmentation, although in a different way. Although there is only one sentence in the source speech, in the sense

that the sentence is not divided in the middle by a point or a pause made by the speaker, the interpreter organised the translation in order to create two different sentences. They first translated the chunk referred to Fritz Bauer and his colleagues and then, after hearing “nicht” at 10:12:274, the interpreter started the second chunk “if it hadn’t been for him” at 10:14:411. This allowed them to translate the first chunk and save some processing capacity to focus the attention on the verbal bracket.

#5

S: Die Vereinigten Staaten und Russland sind dem Internationalen

12:56:732

Strafgerichtshof nicht beigetreten, [...]

13:02:365

[*the United States and Russia have not joined the International Criminal Court [...]*]

T: the US have not ratified the international criminal courts and other states

13:02:054

haven’t either

In this instance, the interpreter was finishing the translation of the previous sentence⁴⁶. The speaker started his sentence with “die Vereinigten Staaten” [*the United States*] at 12:56:732 and concluded with “nicht beigetreten” [*have not joined*] at 13:02:365 and the interpreter started their translation with “the US” at 13:02:054. This cannot be considered an example of waiting or stalling because they did not wait in silence, because they finished the translation of the previous sentence (FTPS) at 13:01:782 as when the President had finished his sentence.

#6

S: Manche hochfliegende Hoffnung hat der Internationale Strafgerichtshof bisher

16:04:424

nicht erfüllen können.

16:09.822

[*the International Criminal Court has not yet been able to fulfil some lofty hopes*]

T: but the international criminal court has in some cases not been able to live up

16:11:371

⁴⁶ FTPS will be described in more detail in Chapter 5. It is considered a consequential strategy, that is a strategy that is the consequence of an earlier approach of the interpreter, but that is still worth noting as it is what allowed them to tackle the sentence with the negation at the end.

to its promise

As in the previous example the *décalage* was greater, as the interpreter finished the translation of the sentence preceding this one at 16:10:263. The speaker instead had started this sentence with “manche hochfliegende Hoffnung” [*some lofty hopes*] at 16:04:424 and finished the sentence at 16:09:822. The interpreter began their translation at 16:11:371, therefore they used **FTPS**.

#7

S: [...] diese Botschaft von Nürnberg ist eben nicht folgenlos geblieben.

[...] *this message from Nuremberg did not remain without consequences*

T: ----

This sentence was entirely omitted by the interpreter; therefore it is not possible to analyse it as it is missing from the target speech. In this passage, the interpreter was keeping a rather long *décalage*, which can be considered as an influential factor on the omission. The interpreter might have omitted this sentence in order to not lag too much behind the speaker, which would have made it more difficult to keep the pace and might have resulted in further omissions.

#8

S: Ohne Nürnberg wären Kriegsherren aus Serbien, Kroatien oder aus Ruanda wegen Massenmord, Folter und Vergewaltigung nicht bestraft worden; [...]

17:12:398

[*without Nuremberg, warlords from Serbia, Croatia or Rwanda would not have been punished for mass murder, torture, and rape [...]*]

T: Without Nuremberg warlords from Serbia, Croatia and, Ruanda would not

17:14:624

have been taken to court for crimes against humanity

This is a further example of **segmentation** (more precisely, fission, as defined by Goldman-Eisler, 1972/2002). The President started his sentence at 17:03:212 and concluded with “nicht bestraft worden” [*not have been punished*] at 17:12:398, while the interpreter started the chunk in the target language at 17:07:273. The translation started right after the speaker began the sentence in the source speech, before it came to an end or to a pause. This way, the interpreter could lag only a few seconds behind the speaker, enough to make sure to hear the verb before uttering it in the target

language. The President said “nicht” at 17:12:398 and the interpreter translated “would not” at 17:14:624. In the translation, changing the order was necessary to respect the normal English syntax: the non-finite verb comes at the end of the sentence and the interpreter did not anticipate it, hence they could not utter the finite verb. They had to store the finite verb in the working memory and translate “would not have been taken to court”, that is the entire verbal bracket after hearing its counterpart in the source language.

#9

S: [...] würde auch Völkermord heute nicht als Straftat geahndet,

17:19:227

[[...] *even genocide today would not be prosecuted as a crime*]

T: Or genocide would not be a crime

17:19:473

As in some previous examples, the strategies used in this case was **FTPS**. The interpreter started the translation of this sentence with “or” at 17:19:473, when the speaker was saying the sentence that will follow. Therefore, at this point they had already heard the full sentence.

#10

S: Ohne Nürnberg gäbe es kein Weltrechtsprinzip und könnten nationale Gerichte nicht gegen Völkerrechtsverbrechen vorgehen.

17:24:081

[*without Nuremberg, there would be no principle of universal jurisdiction and national courts would be unable to take action against violations of international law*]

T: without universal international law the courts could not take individuals to

17:25:063

17:31:425

court

Once again, the interpreter used **FTPS**. The speaker began this sentence at 17:19:381 and uttered the negation at 17:24:08, while the interpreter started the translation “without universal international law” at 17:25:063, when they had already heard the negation in the source speech and said “could not” at 17:31:425.

#11

S: Es kann die Macht nicht immer überwinden, [...]

19:46:347

[*it cannot always overcome power, [...]*]

T: it cannot always overcome power [...]

19:50:413

This final sentence is a further example of **FTPS**. While “nicht immer überwinden“ [*not always overcome*] is heard in the source speech at 19:46:347, the interpreter started the translation of this sentence at 19:50:413 when they were just ending the translation of the previous sentence.

3.3.5 Observations

The first evident result that emerges from the data analysis, which is coherent with the results of the first pilot study, is the lack of anticipation. In fact, in none of the examples cited did the interpreter anticipate the verb. This result was predictable even before the analysis of their performance, because the interpreter had already explained that, due to the speaker’s speech rate and regular pace, they were able to increase the *décalage* rather than having to use anticipation. Therefore, it was possible for them (in many cases) to hear the full sentence (or most of it) before starting the translation.

Secondly, it appears that in most of the cases the interpreter simply did not need another strategy specifically used to tackle negation as they were finishing the translation of the previous sentence (5 occurrences, i.e. 46%). After FTPS, the strategies used were segmentation (3 occurrences, 27%) and waiting (2 occurrences, 18%). One of the negative sentences was missing from the interpreter’s translation, most likely because they were lagging behind the speaker, and they omitted the sentence for lack of time.

Strategies used

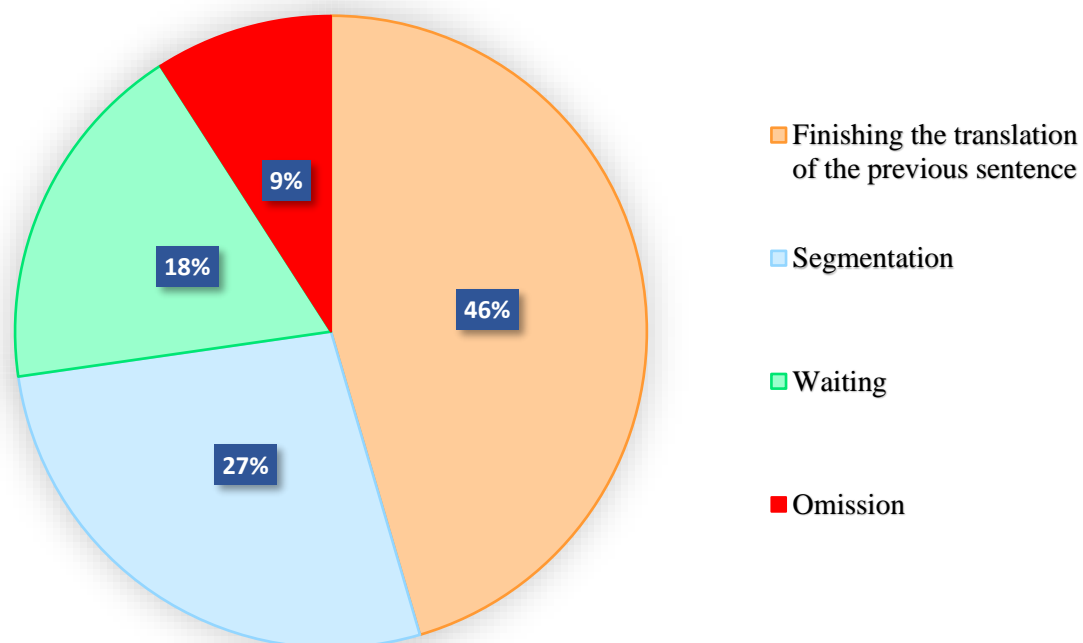


Figure 5 – Strategies used in the second pilot study

What emerged from the second pilot study is in accordance with the results of the first pilot study: although anticipation is an extremely valuable strategy when interpreting between syntactically different languages, it might not always be the most natural (or comfortable) choice for interpreters, and this observation appears to still be relevant even if the performance of a professional is clearly different from that of a student. As far as the changes for the second study were concerned, in the second pilot study the interpreter did not know that the focus was head-final negative sentences, hence the (lack of) use of anticipation could not be influenced by the expectation that a head-final negative sentence would be present. Although the interpreter declared that they usually use anticipation, the data analysis shows that, when the risk related to (an incorrect) anticipation can be avoided, the interpreter prefers to hear the full sentence, or at least most elements of the sentence and translate them as they hear them in the source language. It must be said that this choice is not entirely free of any risks. In fact, even in cases where the speaker has a regular pace and their speech rate is not too high, the main risk of increasing the *décalage* would be to lag too far behind and having to omit entire chunks of the original speech for lack of time, as it happened in sentence 7.

This shows how the choice of strategies not only depends on the speech that needs to be interpreted but is often influenced or dictated by what feels safe(r) for the interpreter. In this case, it is possible to see how the interpreter felt more confident lagging a bit more

behind the speaker and waiting to utter her translation, as it is visible from the graph below.

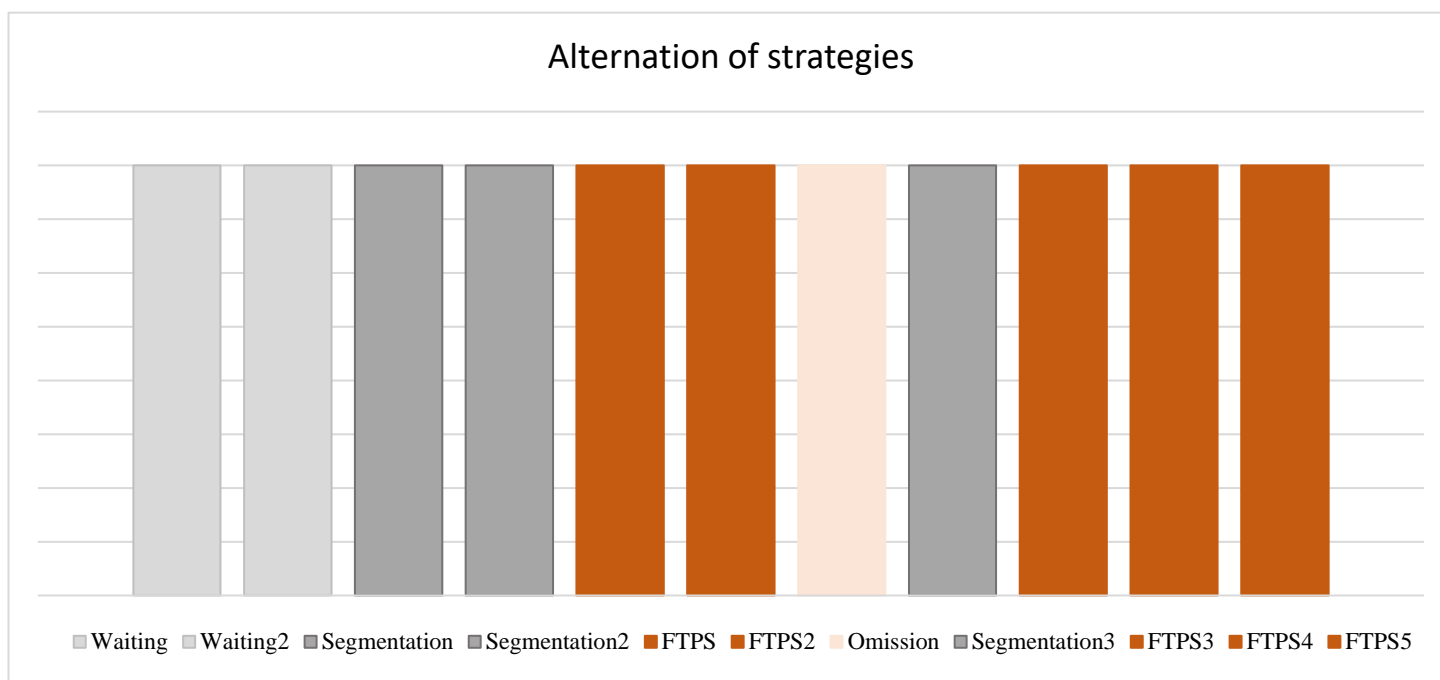


Figure 6 – Alternation of strategies in the second pilot study

From how the strategies are alternated we can hypothesize that at the beginning the interpreter was waiting only a few seconds or was using to segmentation. Afterwards, as they were getting accustomed to the source speech, they noticed that the speech rate and pace were regular and not too fast (which they stated clearly in the discussion at the end of the session), and possibly resorted to the strategy they felt more comfortable with, i.e. lengthening the *décalage*, which allowed them to listen to the whole sentence or most of it while finishing the translation of the previous sentence. However they later had to omit a sentence, most likely because the *décalage* was too long, and for the following sentence they used again segmentation (*fission*) to reduce the *décalage*. Afterwards they used FTPS again, which seems to indicate that it is the strategy that they felt more comfortable using, and they always tended to go back to it.

3.4 Conclusions

There are several conclusions to be drawn from the two pilot studies. First, they showed that the experiment set-up, i.e. an online Zoom session, is not perceived as disruptive, most likely because they were organised at a time where this was the only way meetings could take place and interpreters had to get used to it. Moreover, Zoom was widely used as a platform during the Covid-related restrictions (Przepiórkowska, 2021; Frittella,

2021). One element that could be perceived as potentially disruptive to the interpreter was not being able to see the speaker, as the participant in the second pilot study underlined that it is different from what they are used to. However, this is something that sometimes happens both online and at in-person events, for instance when at a conference venue the interpreters' booths are placed behind the speakers. Nevertheless, this feedback was taken into consideration. The choice of having only the audio input was made because the audio tracks in the core experiment had to be manipulated to have a certain speech rate, and manipulating a video would have resulted in a far less smooth outcome.

Moreover, the pilot studies provided an initial and partial answer to the question of how anticipation is used to tackle head-final negative sentences. They showed that, when the conditions are favourable, interpreters might rely on other strategies that reduce the risk of having to resort to open self-corrections. However, this aspect needed to be analysed in more details and with a greater sample size, hence the need to have more than one participant for the core experiment.

This second pilot study was particularly useful as it showed the importance of using authentic material and that it is better not to fully explain the focus of the investigation to the participant(s), as this might influence their performance and alter the results. Both pilot studies also proved the need to include the two independent variables of speech rate and redundancy, as including them has enabled to provide a more complete answer to the research question. The two variables included in the core experiment will be the main focus of the following chapter.

Chapter 4: Methodology

4.1 Variables in the experiment set-up

The set-up designed for the present investigation includes both independent and dependent variables. The independent variables are the elements that are hypothesized to have an effect on the use of anticipation, and the dependent variable is the use of anticipation which was analysed both on its own and in correlation with the two independent variables.

The pilot studies carried out confirmed the need for independent variables in the research design, as their inclusion will allow to provide a more comprehensive answer to the main research question concerning the use of anticipation. Moreover, any result related to anticipation itself can be considered as only a relative result as it might change once the two independent variables are included. These are redundancy, as understood and described by Chernov (2004), and the input speech rate.

4.2 Redundancy

The term “redundant” will not be used as synonym for “unnecessary”, but rather to indicate something that could be predicted by the hearer; in this case, the interpreter. It is important to underline how redundancy is not a feature that is to be found exclusively in interpreting settings. In fact, although the levels of redundancy vary depending on the type of speech to be interpreted, redundancy is one of the “essential features of language” (Bazzanella C., 2011:251).

This feature becomes especially helpful in simultaneous interpreting, as the interpreter can use it to formulate expectations about the unfolding portions of the speech, and these expectations allow to make predictions accordingly. In fact, prediction is an important aspect of simultaneous interpreting. As highlighted by Chernov (1994), 70% of the time when interpreters are listening to the source speech they produce utterances in the target language. Since in simultaneous interpreting interpreters cannot pause the production to focus on the source language input (at least not for more than a few seconds) without falling behind the speaker, their production relies on prediction at different stages, otherwise they would lag too far behind the speaker to the point where it would be impossible to keep their pace. This is particularly true when interpreters are working with a language pair with different surface structures, especially a different word order. In fact, one of the factors that was chiefly thought to influence prediction mechanisms in simultaneous interpreting are the differences in the syntactic structure of the languages involved (Gile 1992, 2009; Jörg 1997; Wilss, 1978 cited in Hodzic and Williams, 2017).

Taking into consideration the German-English language pair, interpreters need to exploit the information they are receiving in order to formulate predictions about the parts of the sentence that are yet to be uttered by the speaker. For instance, when confronted with long SOV (subject-object-verb) sentences, interpreters can make use of the information available (e.g. information already given by the speaker in previous parts of the speech or information that interpreters can extrapolate from their background knowledge) to predict what has not been uttered yet and reduce their *décalage*.

However, as underlined by Amos and Pickering (2020), simultaneous interpreters could make inaccurate predictions and if that happens, the cognitive energy required to revise the prediction made would cause an additional stress on their processing capacity as most likely they would not only need to correct the single (incorrectly) predicted word, but they might also have to design a new planning for the whole sentence or utterance. This might be the case if the interpreter becomes aware too late that the sentence has a negative non-finite verb and they had planned their translation in the positive form, which would be in contrast with the speaker's intention. In this case, if the interpreter decided to act on their prediction and utter the verb in the target language, it would either be necessary to resort to an open self-correction or the interpreter would need to adjust the affirmative sentence to ensure that they are expressing the same concept that the speaker meant. In this scenario, the interpreter would use a morphosyntactic transformation (Riccardi, 1999:172 cited in Donato, 2003:107).

For this reason, when an interpreter is unsure about the unfolding sentence, they could use other strategies to buy some time and verify whether their prediction was correct or not. Therefore, even in case the interpreter decides not to use anticipation, formulating expectations and making predictions about the unfolding portions of the speech is extremely important, even when using waiting or changing the order, and it is almost inevitable. Making predictions seems to be a crucial part of simultaneous interpreting and it takes place almost constantly even in normal communication.

4.2.1 The role of prediction in communication

The reason prediction is important in simultaneous interpreting is because it was found to be an important feature also in normal language comprehension. In fact, exploiting different features of the communication in order to be able to formulate expectations and predictions about what the speaker is about to say is a process that takes place even in regular everyday communication and that is carried out by most people unconsciously. Zanetti (1999) underlines how usually listeners analyse the message to the extent that is

necessary for them to formulate expectations about its meaning, and these expectations become the guidelines of comprehension. She underlines how this hypothesis is also supported by Marslen-Wilson's (1989, cited in Zanetti 1999) cohort model: according to this model, listeners recognize words acoustically presented before they are complete. The first syllables are related to the cohort of potential candidates present in the listener's mental lexicon and as more information is added, the number of candidates decreases until the listener can find the only one that is the exact match⁴⁷. Chernov (1994) also states that the "process of language comprehension is based on a purely human capacity for making inferences" (Chernov, 1994:141). The author underlines how the ability of making inferences about what the other person is about to say or the concept they want to express is what enables not only simultaneous interpreting as a complex activity, but language comprehension in general. Chernov (1994) in fact states that what is inferred by the hearer during communication is related both to the meaning of the utterance and to the parts of the discourse that have already been produced.

Prediction in language comprehension is considered as a result of top-down language processing strategies: during language comprehension, the prior context of the communication as well as the background knowledge of the listener are progressively compared to the incoming sensory cue and they undergo a bottom-up process (Marslen-Wilson 1975; Tyler & Marslen-Wilson 1982, cited in Hodzik and Williams, 2017).

Hodzik and William (2017) took into consideration verb-final German sentences. They set up an experiment where one group of participants was tasked with the simultaneous interpretation of such sentences while another group was asked to perform a shadowing task (i.e. a task where the subject is listening to a speaker, and they repeat in the same language what the speaker says; they shadow the speaker by producing an output that is the exact repetition of the input in the same language). Although the authors recorded a higher occurrence of anticipation in the performance of the interpreters as opposed to the shadowers, they found that both groups of participants during the processing of unfolding parts of the speech were relying on semantic information to build expectations about the German sentences with the non-finite verb at the end of the sentence. In the example below (taken from Hodzik and William, 2017) the English translation of German words was placed following the German original word order rather

⁴⁷ In this case 'exact match' refers to the prediction of a word and not to an 'exact match' for a translation.

than adjusting the translation to the English syntax in order to show the different surface structure of the two languages:

Obwohl er kein Geld hatte, war er entschlossen, in Oxford zu studieren.

Although he no money had was he determined in Oxford to study.

Da das Studium zu teuer für ihn war, musste er von der

Because the studies too expensive for him were had to he from the

Universität finanzielle **Unterstützung verlangen**.

university financial support request

('Although he did not have any money he was determined to study in Oxford. Because the studies were too expensive for him, he had to **request** financial **support** from the University.')

The above example was inserted by the authors in their experiment as a condition of constraining context. The analysis of results showed that in conditions where there was a higher-level of contextual information subjects were able to produce their output faster. The authors also compared semantic information as source of prediction to transitional probabilities and found that while the latter may not lead to prediction during simultaneous interpreting, semantic information present in the context as a whole certainly plays an important role in prediction processes.

Based on this, it is clear that probability anticipation is an essential feature of language comprehension, and consequently of simultaneous interpreting. Of course, it is necessary to discuss how the factors involved in the communication play a role in the ability of making predictions. For instance, if a hearer is listening to an unknown speaker discussing about an unknown subject, even if they tried to rely on the context of the communication and the portions of the speech already uttered, prediction would require a greater effort compared to having an everyday conversation with a known speaker on a subject that is well known to both. If we take into account the second scenario, in which two people are having a conversation about a subject that both are well acquainted with, making predictions about unfolding portions of the speech would happen almost naturally.

Another study with focus on prediction during language comprehension is that carried out by Pickering and Gambi (2018). The authors discussed how prediction occurs at all linguistic levels during language comprehension and underlined how prediction is an important mechanism for language comprehension, as well as for perception and

cognition in general. In their study, Pickering and Gambi (2018) introduce the concept of prediction-by-production, which seems particularly relevant for simultaneous interpreting as well. The authors argue that comprehenders predict using their own production system, i.e. they covertly imitate the linguistic form of the speaker's utterance and construct a representation of the communicative intention that underlies. The central claim of this new theory is that comprehenders use the same mechanisms that they use for language production, hence the mechanisms they use to predict are the ones they would use if they were producing the utterance themselves, which is what ultimately makes the prediction more accurate and successful. The authors argue that this type of prediction is optional and is not always used, however it seems relevant in simultaneous interpreting as it is an activity during which the interpreter's comprehension and production mechanisms run concurrently (Gile, 2009; Seeber, 2011), hence this type of prediction might be naturally occurring in interpreting.

Prediction was widely analysed in simultaneous interpreting as well, due to the need of interpreters to reduce the time lag by predicting upcoming words. It was found to be particularly useful when the surface structure of the two languages involved is different, and a sentence-final element of the source language has to be translated into a sentence-initial structure (Chmiel, 2021). Amos et al. (2022) reported the results of a study carried out using eye-tracking which focused on prediction during simultaneous interpreting. Their aim was to investigate the time-course of prediction during simultaneous interpreting. The participants in their study were a group of L1 French professional conference interpreters and a group of L1 French professional translators with no training in interpreting. Their predictions were tested using the Visual World Paradigm (VWP): they listened to sentences in English containing a highly predictable word and were asked to simultaneously interpret them in French while looking at a visual scene. The authors found that both groups of participants predicted upcoming language, but none of them pre-activated phonological information associated with the target word. They also found no relevant differences in the prediction patterns within the two groups, ultimately showing that prediction routinely occurs in simultaneous interpreting and seems to be independent of training and experience. Chmiel (2021) obtained similar results which showed that interpreting training and experience did not have a major effect in boosting prediction.⁴⁸

⁴⁸ Prediction will be addressed in more detail along with anticipation in Chapter 6

From the analysis of prediction carried out thus far, it is evident that prediction (leading to anticipation) seems to be common in simultaneous interpreting, and Chernov (2004) even suggested that prediction is what make simultaneous interpreting possible. In fact, Chernov (1994) has outlined a probability anticipation model in which the probability anticipation of the verbal and semantic structure of the oral message in progress is what can explain the phenomenon of simultaneity during SI. Moreover, the author underlined how probability anticipation is a multilevel phenomenon. What is interesting about this model is that it is based on different levels of language rather than on a specific feature of a specific language, e.g. the word order in German, and this implies that it can be easily applied to any language taken into consideration. Chernov (2004) outlines a four-tiered model to describe predictability:

- a- Prosody: sound patterns are perceived/anticipated at the lower tier, and encompass the levels from the syllable to the utterance;
- b- Syntax: the syntactic features are perceived or anticipated at the next tier, which includes the levels of phrase and utterance;
- c- Semantics: the third tier is at the levels of phrase, utterance and discourse and is the pivotal tier of the probability anticipation;
- d- Inferential tier: finally, we find in the author's classification inferential tier. As stated by the author, "all the levels of the probability anticipation mechanism converge on the inferential tier" (Chernov, 2004:171). These four levels of predictability outlined by Chernov can be considered as the different phases of prediction that take place for the interpreter to be able to anticipate. In order to verbally express in the output an element that is yet to be uttered by the speaker in the input, interpreters need to carry out a time-efficient yet thorough analysis of the input to ensure they have the correct information to use an anticipation, otherwise they might anticipate wrongly and have to correct themselves. Therefore, the four tiers identified by Chernov are key to explain the process that is carried out in the interpreter's mind when they are exploiting the input information received until that point in order to formulate predictions of the incoming input and use anticipation if they are reasonably sure of their prediction.

Since simultaneous interpreting is a complex verbal activity chiefly influenced by time constraints and in which the processing time of every information received has to follow an externally controlled pace, the author maintains that it is only possible when the source message has an adequate level of redundancy, as it is the prerequisite for prediction to happen. Other authors however have shown that prediction seems to be

impaired in difficult situations (Ito et al., 2018, analysed prediction in L2), which would ultimately make it unsuitable for simultaneous interpreting as an activity that is complex from a cognitive perspective. However, has shown by other authors, prediction (and anticipation) have several benefits when used in SI (Chernov, 2004; Hodzik and Williams, 2017).

4.2.2 Prediction and redundancy

Chernov (2004) states that in simultaneous interpreting, what can be considered a “necessary and sufficient degree of redundancy” (Chernov, 2004:169) is a redundancy higher than the one we usually find in a given language, as it needs to combine the objective redundancy of a cohesive speech and a sufficient degree of subjective redundancy of the discourse for the interpreter. The author states that simultaneous interpreting, and comprehension, have to rely on a certain level of redundancy in order to be successful. Otherwise, the whole comprehension could be impaired, which would result in an unsuccessful simultaneous interpretation.

The author has taken into consideration several political speeches, some of which were delivered in English, while for other texts the original Russian version and their English translation were analysed. Chernov has identified different levels, sources, and types of redundancy and the several classifications were useful to identify the different types of redundancy that were considered as part of the “redundancy” independent variable in the present study. Although other authors have focused on contextual constraints or transitional probability as sources of anticipation (Hodzik and Williams (2017)), redundancy as analysed by Chernov is a broader concept, hence it was chosen as the basis for the inclusion of redundancy in the experiment design.

First of all, it is necessary to distinguish two main kinds of redundancy depending on whether an utterance or a speech is *objectively* redundant or whether its redundancy is based more on the hearer than on the actual parts of the message, which Chernov (2004) labelled as *subjective* redundancy (the one depending on the hearer).

Objective redundancy relies entirely on the features of the message and was defined by Miller (1963 cited in Chernov, 1994) as:

- 1- the iteration of message components
- 2- their interdependence

Both elements entirely rely on the message, they do not depend on its recipient, and can therefore be defined as factors of objective redundancy, as any hearer would notice that the message components are iterated and that they are interdependent. On the other hand,

subjective redundancy relies entirely on the recipient of the message (i.e. the interpreter in SI). The definition of subjective redundancy is that the same utterance will not be equally redundant for all recipients. This happens because subjective redundancy is the product of the recipient's background knowledge, which allows them to exploit the redundancy perceived and formulate expectations and inferences accordingly. Chernov (2004) states that comprehension truly begins when the hearer is able to make inferences based on part of the message already communicated by exploiting the incoming information and relating it to the different sources of inference.

In the present study, the independent variable of redundancy will only include *objective* redundancy. Objective redundancy can be found in the texts chosen, specifically in the sentences that will be analysed, and as an objective element it can be analysed and controlled as a variable. Instead, considered that subjective redundancy depends on the hearer, it would not be simple to clearly assess with a high degree of certainty to what extent the sentences are subjectively redundant for each interpreter. The inclusion of subjective redundancy in the study design would not have allowed for an objective and precise investigation of its effects on the performances of participants, as it would have had a high degree of inter-subject variability. The participants in the core experiment are experienced conference interpreters and the topic of the speech was provided to them before the experiment, hence the pre-experiment conditions were the same for everyone and they all had the same possibilities of increasing the subjective redundancy of the speech by researching the topic. Taking into account subjective redundancy, considered how the experiment was designed, would mean investigating to what extent the topic was known to each single interpreter and the results of the study would have been too fragmented depending on every single case. For this reason, the "redundancy variable" was objective redundancy of the speeches chosen as this condition was the same for all the interpreters.

Moreover, it is necessary to take into consideration the type of speeches or texts that are often the object of simultaneous interpretation: political speeches. As underlined by Chernov (2004), political speeches tend to have a higher redundancy compared to other types of speeches. One of the features of many speeches delivered by politicians is their attempt to "persuade" their audience or to make clearer their point of view on a specific issue using rhetoric. Repetition is undoubtedly one of the main "attention-getters" (Tsakona, 2009:85) that politics use in their speeches. It is often used to persuade the audience while underlining the speaker's point of view. Through repetition of the same

word or of the same concept, the speaker is able to emphasize either their perspective in general or a particular aspect of an issue that they would like their audience to focus on. The kind of repetition that is carried out by the same speaker is defined by Bazzanella (2011) as “monological repetition”, i.e. when the speaker repeats themselves during their intervention. In particular, one of the figures of speech that is often utilized is parallelism, defined as the “re-occurrence of syntactical and lexical similarities, and it is employed across or inside sentences or even inside clauses and phrases” (Cuddon, 2012 cited in Kazemian and Hashemi, 2014:1182).

Based on this, it becomes evident that the extensive use of rhetoric in political speeches is the key feature that makes them more redundant compared to other types of speeches. For instance, a doctor who is simply explaining the findings of a research to their colleagues and wants to present objective data does not need to resort to as many figures of speech (such as repetition, parallelism, anaphora, metaphor etc.) in their delivery, or even if they do, they often use them to better explain their point of view, rather than to persuade their audience.

However, the use of rhetoric was not analysed or underlined in the present study, as its result was to increase the objective redundancy of the speech, and this is what was analysed to assess its influence on the interpreters’ performance. Whether a speaker decides to clarify something that had already been said or wants to convince their audience, the result will be a high level of redundancy, which is what can ultimately influence interpreters. For this reason, the material of the present study was political speeches as they carry the higher level of objective redundancy.

When analysing objective redundancy, Chernov (2004) identifies different factors of redundancy:

1. Semantic agreement: it is one factor of redundancy in an utterance, i.e., the combination of words semantically.

Ex. (taken from the State of the Union Address by President von der Leyen at the European Parliament Plenary, 16/09/2020)

Without any doubt, there is a clear need for Europe to take clear positions and quick actions on global affairs.

2. Co-reference: it is a factor of redundancy at the level of the discourse, i.e. the repetition of units of the message over longer chunks of discourse that all have the same reference, therefore they are all related to the same entity.

Ex. (taken from the State of the Union Address by President von der Leyen at the European Parliament Plenary, 16/09/2020)

A virus a thousand times smaller than a grain of sand exposed how delicate life can be. It laid bare the strains on our health systems and the limits of a model that values wealth above wellbeing. It brought into sharper focus the planetary fragility that we see every day through melting glaciers, burning forests and now through global pandemics. It changed the very way we behave and communicate – keeping our arms at length, our faces behind masks. But people want to move out of this corona world, out of this fragility, out of uncertainty.

3. Semantic government (also defined semantic valency): it indicates a semantic dependency. The semantic government is an element of interdependence at the level of the utterance, i.e. the relationship of dependency that is created when the governing word determines the appearance of certain word(s) with an appropriate meaning (Chernov, 2004:33)

Ex. (taken from the State of the Union Address by President von der Leyen at the European Parliament Plenary, 16/09/2020)

This is the moment the EU stepped up to lead the global response. With civil society, the G20, WHO and others we brought more than 40 countries together to raise 16 billion euro to finance research on vaccines, tests and treatments for the whole world.

4. Contextual semantic constraints: as defined by Chernov, “when the verb of the main clause expresses a positive/negative value judgement about the proposition in the complementary clause, all words expressing value judgement in it must also contain positive/negative semantic components” (Chernov, 2004:38).

Ex. (taken from the State of the Union Address by President von der Leyen at the European Parliament Plenary, 16/09/2020)

One of the most courageous minds of our times, Andrei Sakharov – a man so admired by this House - always spoke of his unshakeable belief in the hidden strength of the human spirit.

Based on Chernov’s concept of redundancy, it is clear how redundancy is an essential aspect not only of anticipation or simultaneous interpreting, but of speech comprehension

in general. The reason it is so important, whether we are referring to objective or subjective redundancy, is because the higher the redundancy, the higher the predictability of the text (Chernov, 1994). We could therefore define predictability as the consequence of redundancy, hence the inclusion of redundancy as a variable in the research design, as the hypothesis is that high redundancy will lead to prediction, which might in turn lead to anticipation when interpreters act on their predictions.

Predictability allows the hearer to make inferences and, consequently, to anticipate some parts of the speech. Inferences are extremely valuable in simultaneous interpreting, as we could see them as the necessary step before actual anticipation. For the present study, it is helpful to identify the different kinds of inference as in the analysis of the material it will be underlined how some sources of inference might be helpful or misleading for the interpreter.

4.2.3 Inferences

The primary source of the inference allows to identify different types of inferences. Chernov (1994) identified four main types of inferences: linguistic, cognitive, situational, and pragmatic. Although anticipation has been analysed thoroughly as a strategy (Jörg, 1997; Van Besien, 1999; Wills, 1978; Vandepitte, 2001; Hodzik and Williams, 2017), Chernov focuses particularly on the object of the interpretation, i.e. the source speech, and analyses the main condition(s) necessary for anticipation to occur (redundancy) as well as the steps that lead to anticipation. Moreover, it is generally assumed that anticipation can take place when the interpreter is confident enough about what the speaker is about to say, and Chernov provides an extremely detailed analysis of how the interpreter can be sure, what elements they can exploit to reach this level of confidence.

Chernov's point of view was adopted to understand more clearly to what extent interpreters need the speech to be redundant, and how this influences their choice of a specific strategy, especially anticipation. For this reason, the source speeches used in the present study were carefully selected to ensure the presence of both high-redundancy and of low-redundancy sentences. This allowed to shed some light on the importance of the pre-anticipation conditions and factors, one of which being the different types of inference.

The linguistic inference has its source in the verbal form of the message as well as in the "referential component of the semantic structure of the utterance" (Chernov, 1994:142). Although linguistic inference is mainly originated by the verbal form of the message, this cannot be completely separated from its semantic meaning as it also plays

an important role in the linguistic inference. An example of linguistic inference is co-reference, which can be based on what the author defines as “common componential stock”. For instance, after hearing the verb *spend* we can expect that the sentence will feature nouns such as *money* or possibly *time*. The same applies to semantic rules. Chernov cites as an example the sentence *he left Moscow for St. Petersburg*, which implies that *he* is no longer in Moscow and is possibly in St. Petersburg. The semantic structure of the text is important for the linguistic inference, as any part of the semantic structure could serve as source of linguistic inference.

Co-reference is not only important for linguistic inference, it is also considered by the author as one of the basic cohesive features of discourse. In fact, over multiple parts of a discourse there are recurring expressions that have the same reference, i.e. “designate the same entity in the world of discourse” (Chernov, 2004:33), and this continuity is reached by the speaker through the use of synonyms, paraphrases, pronouns etc.

The second type of inference identified is cognitive inference. This type of inference is possible due to our long-term memory, which means that the incoming semantic components are related to subjective elements such as long-term memory and personal knowledge. However, linguistic and cognitive inferences are not that distant. In fact, these two types are often so intertwined that it is extremely difficult to distinguish them. The author uses the following sentence as an example: *she couldn't come because of her mother*, this utterance contains a source of linguistic inference, i.e. her mother being the reason why she couldn't come. However, the reason is rather vague, and it is possible to draw a more specific conclusion when relying on cognitive inference depending on the specific circumstances, e.g. because *her mother came to visit* or *was sick* etc. Therefore, the recipient can make cognitive inferences when an utterance makes sense, and the inference is possible when the hearer is able to relate semantic components of the utterance already produced to their background knowledge.

A further type of inference is the deictic and situational inference. This kind of inference entirely relies on the communicative situation as source of inference. For instance, if a speaker addresses a President saying Mr President, the hearer could make an inference based on the context and establish a reference to the President of a country or of a company.

Finally, pragmatic inference. It is based on the speaker, their social role, and their role in the communication. In order to be able to make this kind of inference, the interpreter has to consider the speaker and their social role based on the semantic content

of the utterances, on their own assumptions and on their knowledge of the communicative situation.

Starting from the classifications proposed by Chernov, we could argue that the first necessary condition to anticipate is a certain level of redundancy. When the source language speech or utterance is highly redundant, there is the consequent predictability that allows the hearer to make inferences. Finally, as a consequence of inferences, the interpreter can make predictions on the unfolding utterance and, if they are confident enough, they can act on these prediction and anticipation can take place (Amos and Pickering, 2020).

Redundancy was used in the set-up of the present investigation to understand its correlation with anticipation. Since the research focuses on anticipation when tackling head-final negative sentences, redundancy was included to assess whether a high redundancy leads the interpreter to anticipate even when tackling head-final negative sentences. The source language speeches chosen were actual speeches delivered in public occasions. Both contain a certain number of negative sentences that were used for the analysis and the sentences found have different levels of redundancy. Some of them were considered as high-redundancy while others were considered as low-redundancy. Of course, these sentences will not be as low-redundancy as some types of source texts such as poetry, but they are considered low or high redundancy taking into consideration the above criteria and also based on their potential to allow interpreters to predict whether the unfolding sentence is positive or negative.

4.2.4 Analysis of the material: the redundancy considered in the experiment

Both speeches chosen for the experiment are high-redundancy speeches as all the political speeches are. However, as the object of the investigation is single sentences inside the speech (negative sentences), and it is useful to understand how redundancy can help interpreters make predictions about the unfolding sentences and would help them understand that the sentence has a verb at the negative form.

One of the main factors of redundancy that was found in the material is co-reference, as well as semantic agreement. This finding is in line with Chrenov's conclusions. In fact, Chernov (2004) underlined that co-reference is one of the main features of cohesion in a text. However, it is yet to be observed to what extent co-reference can be useful in head-final negative sentences.

Although in many cases the recipient (i.e. the interpreter) would in all likelihood be able to formulate predictions about the unfolding sentence, in some instances co-

reference might not be as helpful. For instance, when the speaker decides to express a different point of view on a same topic or element, which is in contraposition with what had been expressed until that point. In such cases, the sentence should be considered high redundancy because of the co-reference, but co-reference might not be used as a tool to formulate predictions on what is about to come, because the sentence where the co-reference is found is expressing something different, although it concerns the same noun or element that had been cited in the sentences before.

However, in such cases semantic government might be a useful source of prediction. In fact, Chernov (1994) underlines how at the level of the utterance, the first aspect of objective redundancy is represented by the iteration of semantic components, i.e. semantic government. Moreover, it was necessary to understand whether interpreters exploit the same cues to trigger a probability anticipation. In fact, in some instances they could rely on the linguistic information of the current utterance, e.g. the use of “*leider*” could lead the interpreter to expect a contraposition with the previous sentence, or they could pay more attention to the semantic information received until that point to understand what the sense of the negative utterance is.

However, what was observed in the analysis of the material chosen for the study, is that although redundancy in the part of the utterance preceding negation (and co-reference) is extremely useful to anticipate a *concept*, to formulate expectations on what will be the general sense of the message that the speaker intends to communicate in that sentence, only in few instances the recipient could have been reasonably confident in predicting and anticipating a head final-negative sentence⁴⁹. If this hypothesis is confirmed by the results of the experiment, it might imply that if the interpreter resorted to anticipation, they might produce a “general” (Jörg, 1997) or “generic” (Bevilacqua, 2009) anticipation, i.e. an anticipation where the interpreter does not produce the exact element in the target language, but rather resorts to an element which is non-committal but allows them to “stay in line with the gist” (Jörg, 1997: 222) both of the sentence in question and of the general speech. Bevilacqua (2009) also underlines how the source of the generic anticipation is often based on the interpreter’s extra-linguistic knowledge (i.e. the subjective redundancy, Chernov 2004). A similar strategy is referred to as “linguistic open-gambit” by Kohn and Kalina (1996), which is the production of forms that are open and generic enough to allow the interpreter to complete or correct them as needed.

⁴⁹ Chapter 6 will focus on a new type of anticipation found in the present investigation, in which the interpreter is able to predict the general meaning or connotation of the utterance, but not to anticipate exact components of the source language sentence.

Moreover, while some sentences can be considered as high-redundancy (i.e. highly predictable), the type of redundancy considered helpful in the present study is the one that allows interpreters to have expectations about the unfolding sentence and to make predictions about the remaining part of the sentence. Although in some cases it might not be possible to predict or anticipate the exact verb at the end of the sentence, interpreters might at least grasp the general sense based either on the linguistic information or on the semantic information received previously, which will help them formulate predictions⁵⁰.

Therefore, in order to define a sentence as low- or high-redundancy, the redundancy considered was not at the level of the whole utterance, but the redundancy in the first part of the utterance, i.e. the part of the sentence before the negative particle or before the non-finite verb, to understand to what extent it proves useful for the interpreters. In case the elements of the sentence preceding the negative clause carry enough semantic or linguistic information, they can be useful to even anticipate a negative verb at its negative form.

To this end, it is useful to analyse the sentences that were object of the investigation to assess which of them can be considered as high redundancy, i.e. helpful to formulate expectations and be able to anticipate the message, and which ones instead might not be as helpful in the present scenario.

First text (original sentence and gloss translation on the left column, official translation taken from the official website⁵¹ on the right column): **Speech by Federal President Frank-Walter Steinmeier in the Apartheid Museum during the state visit to the Republic of South Africa Johannesburg/South Africa, 19 November 2018**

Sentence #1	
[...] als deutscher Präsident muss ich Ihnen nicht davon berichten, [...] [as German President I do not need to tell you]	[...] I do not need to tell you [...]
Low redundancy. In this case, the pragmatic inference could be misleading. In fact, as it allows to draw conclusions based on the role of the speaker, a recipient might expect the President to say something he <i>needs</i> to do, rather than what he <i>does not need</i> to do. Moreover, there is a slight change at the beginning of this sentence as during the first utterance the President focused on Nelson Mandela and how the world would be poorer	

⁵⁰ This will be addressed in more detail in Chapter 6 when analysing pragmatic anticipation

⁵¹ https://www.bundespraesident.de/SharedDocs/Reden/DE/Frank-Walter-Steinmeier/Reden/2018/11/181118-21-Suedafrika-Staatsbesuch.html?cms_submit=Suchen&cms_templateQueryString=Apartheid+Museum+

without him, while in the second utterance he changes the subject and, in order to reiterate the importance of Mandela, he first underlines his role and what his role means in this instance.

It is necessary to remember that pragmatic inference draws on the interpreter's personal knowledge of the speaker and, although this is not part of the objective redundancy, all the participants in the experiment had background knowledge of the speaker as they were informed beforehand of what texts they would be asked to interpret and by whom those speeches were delivered.

Sentence #2

Nur eines konnte das Regime nicht zerstören: [...]
[*there was only one thing that the regime could not destroy*]

There was only one thing the regime could not destroy: [...]

High redundancy. This is an example of how the semantic structure of the previous paragraph can be used as a source for linguistic inference. In fact, in the previous paragraph the President was listing everything the regime destroyed, i.e. "sein Leben, seine Familie, seine Liebe" [*his life, his family, his love*]. The following sentence begins with "Nur eines" [*there was only one thing*] which makes this part of the sentence high redundancy as it marks a clear opposition, and the recipient can expect to hear that only one thing could not be destroyed by the regime.

Sentence #3

Ohne diese Vorkämpfer wären wir nicht hier.
[*without these pioneers, we would not be here*]

Without these pioneers, we would not be here.

High redundancy. In this sentence, both co-reference and semantic agreement can be used as valuable sources of linguistic inference.

In the previous utterance, the President is praising "den Mut und die Zivilcourage derjenigen, die damals für Freiheit und Demokratie gekämpft haben" [*the boldness and civil courage of those who fought at the time for freedom and democracy*]. He is underlining how valuable their effort was, referring to their boldness and civil courage. The semantic agreement is shown in the combination of words "Mut" [*boldness*], "Zivilcourage" [*civil courage*], and "Vorkämpfer" [*pioneers*], which denotes the positive opinion that the President has of these people and their efforts. Vorkämpfer is also an example of co-reference, as the reference is the same as the one of the previous sentence.

Therefore, when hearing the beginning of the following sentence "ohne diese Vorkämpfer" [*without these pioneers*], the hearer can expect that, since they brought so many positive values, their absence would inevitably bear negative consequences.

Sentence #4	
Doch wollen wir bei alledem nicht vergessen, [...] <i>[however, in all of this we do not want to forget]</i>	All of this notwithstanding, we must not forget [...]
<p>Low redundancy as there is a change of reference. In fact, in the previous utterance the President is referring to an element that unites both Africa and Germany: their constitutions. He is underlining the positive aspects of both constitutions and how they can be considered to be among the best and most progressive of the world. However, he then decides to continue by mentioning the elements that allowed to register a positive turn in their history. Therefore, when hearing “doch” [<i>however/all of this notwithstanding</i>], a recipient would expect that there is a contraposition, a change compared to what has been said so far, but this does not include any clues as to whether what will follow will be positive or negative.</p>	
Sentence #5	
Ohne multilaterale Zusammenarbeit können wir die großen globalen Aufgaben nicht lösen. <i>[without multilateral cooperation, we cannot solve the major global issues]</i>	Without multilateral cooperation we will not be able to master the major global challenges.
<p>High redundancy. As in the above example where the President was underlining the importance of the pioneers, in this case he put the emphasis on the importance of cooperation in the previous utterance. Therefore, when hearing “ohne multilaterale Zusammenarbeit” [<i>without multilateral cooperation</i>] a recipient can expect that something negative would follow, based both on the redundancy caused by the co-reference and on the semantic agreement.</p>	
Sentence #6	
Leider sieht das heute bei weitem nicht jeder mehr so. <i>[unfortunately, today not everyone sees things this way anymore]</i>	Unfortunately, by no means everyone still sees things this way.
<p>Low redundancy as the reference is not the same as the previous utterances. In fact, while earlier the President was underlining how important it is to cooperate, he then concludes saying that not everyone sees things this way. Although this is the conclusion of the reference made to the importance of cooperation, the President changed reference and, in this sentence, he refers to the fact that not everyone agrees on this, which is not an easy conclusion to predict. However, “Leider” [<i>unfortunately</i>] might make the interpreter expect an opposition to the previous sentence.</p>	

Sentence #7	
<p>Auch hier in Südafrika ist die Diskussion um die Vergangenheit nicht abgeschlossen, [...] <i>[even here in South Africa, the discussion about the past is not concluded]</i></p>	<p>I know that here in South Africa, too, the discussion about the past has not been concluded, [...]</p>
<p>Low redundancy. In this case co-reference could be misleading, or at least not as useful to formulate expectations on what the speaker means. In fact, after the references made to every country's past, the President states that in Africa as well the discussion about the past is not concluded. However, an interpreter might expect a sentence in the positive form, expressing for instance how in Africa as well the discussion about the past is crucial, is important etc. Instead, the President decides to underline how the discussion is not concluded. Therefore, an interpreter in this case cannot rely on co-reference to predict that the sentence will have the verb at the negative form.</p>	
Sentence #8	
<p>[...] sind die Wunden längst nicht alle verheilt. <i>[by no means are the wounds all healed]</i></p>	<p>[...] by no means all the wounds are healed.</p>
<p>High redundancy. In this case, the interpreter can expect to hear a negative sentence based on semantic agreement. This sentence is the continuation of the concept expressed in the previous sentence, where the speaker stated that the discussion about the past is still ongoing. Therefore, when hearing the noun "Wunden" [<i>wounds</i>], the interpreter can expect that the wounds are not healed, or possibly that the wounds are not forgotten, or any other verb in the negative form. It is unlikely that the President would say that the wounds are healed, as in the previous sentence he expressed how the discussion about the past is still ongoing.</p>	
Sentence #9	
<p>Rassismus, Antisemitismus und Fremdenfeindlichkeit sind auch in Deutschland nicht überwunden. <i>[even in Germany racism, antisemitism, and xenophobia have not been overcome]</i></p>	<p>Racism, anti-semitism and xenophobia have not been overcome in Germany either;</p>
<p>High redundancy. This sentence comes after a reference made by the President to how diversity is evident in our societies and how it has led to hatred and brutalisation. The semantic information present in the previous utterances can help the interpreter formulate a prediction about the current utterance. Although the interpreter can hardly anticipate the verb <i>überwunden</i> [<i>overcome</i>], they can exploit the semantic information to formulate a linguistic inference and expect that</p>	

the nouns racism, antisemitism, and xenophobia will have a negative connotation in the sentence.	
Sentence #10	
[...] das ist im wiedervereinten Deutschland nicht anders. <i>[it is no different in the reunited Germany]</i>	[...] it is no different in the reunited Germany.
High redundancy. This sentence is part of an utterance where the President says “Das ist bei Ihnen so, und” [<i>that is true here in South Africa, and</i>], therefore the recipient can expect that it is the same in other countries as the two parts of the utterance are linked by ‘and’. If the President wanted to make a juxtaposition between the situation in Africa and that in Germany, he would have linked the two sentences with a conjunction indicating contrast. Therefore, based on this information, the recipient can make a linguistic inference and expect that the President will say that the situation is the same in Germany. In this case, they might not expect the concept to be expressed as a negation, i.e. “nicht anders” [<i>no different</i>], but they could likely anticipate by expressing the verb in its positive form and state that the situation “is the same”, which is expressing the same concept as “it is no different”.	
Sentence #11	
Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen – beileibe nicht alle Antworten. <i>[because we in Germany, as you realise from my brief remarks, certainly do not have all the answers]</i>	Because, as you will have realised from my remarks here, we in Germany certainly do not have all the answers.
Low redundancy. The change of reference in this case might mislead the interpreter. In fact, while in the previous paragraph, the President is underlining the challenges but also the achievements in Africa, he then proceeds to make a reference to the situation in Germany. The interpreter might think that the President simply wants to create a comparison and describe the same situation in Germany, while instead he introduces a negation underlining that in Germany "we don't have all the answers".	
Sentence #12	
In jenem Jahr 1990, als Mandela zum ersten Mal nach Deutschland kam, haben ihn beileibe nicht alle als Freund gesehen. <i>[in 1990, when Mandela first came to Germany, by no means everyone regarded him as a friend]</i>	Back in 1990, when Mandela came to Germany for the first time, by no means everyone regarded him as a friend.

<p>High redundancy. The interpreter in this case can use the semantic information available in the previous paragraph, where the President is underlining that there has not always been willingness to understand and work together. To continue this concept, the President makes a reference to when Mandela came to Germany. Since this is the continuation of the concept expressed in the previous utterance, the interpreter can expect that the President is about to attribute a negative connotation to a particular aspect of that visit. In fact, he then proceeds to state that “haben ihn beileibe nicht alle als Freund gesehen” [<i>by no means everyone regarded him as a friend</i>].</p>	
Sentence #13	
<p>Leider haben wir die Jahre danach nicht immer genutzt, [...] [<i>unfortunately, afterwards we have not always made use of the years</i>]</p>	<p>Unfortunately, we have not always made use of the years since then [...]</p>
<p>As in the previous example where the President started a sentence with “leider” [sentence #6], it will be interesting to see whether this sentence is highly redundant or not for the interpreter. In fact, if we take into consideration the semantic information expressed in the previous paragraph and the factor of co-reference, we can consider this a low-redundancy sentence. While in the previous paragraph the President is mentioning how Mandela had been “welcomed” [<i>empfang</i>] by his predecessor and how Africa and Europe would be united by a “shared future” [<i>gemeinsame Zukunft</i>], therefore attributes positive connotations to their relations, he then proceeds to specify that they haven’t always made use of years. This change both in the reference and in the connotation of the sentence makes it not as redundant in this case.</p>	

Second text (original sentence and gloss translation on the left column, official translation taken from the official website [bundesfinanzministerium.de](https://www.bundesfinanzministerium.de) on the right column): "**Ein starkes, ein souveränes, ein gerechtes Europa liegt in unserem ureigenen Interesse**" (“It is in our own interest to ensure that Europe is strong, sovereign and fair”, keynote speech delivered by former Minister of Finance Olaf Scholz on 28th November 2018 at Humboldt University in Berlin⁵²).

Sentence #1	
<p>Diesen Satz kann man gar nicht oft genug wiederholen. [<i>this sentence cannot be repeated often enough</i>]</p>	<p>That is a sentence that cannot be repeated often enough.</p>

⁵² <https://olaf-scholz.spd.de/aktuelles/detail/news/europarede-an-der-humboldt-universitaet-berlin/28/11/2018/>

<p>This sentence could be seen both as high-redundancy and as low-redundancy. On one hand, only by hearing "Diesen Satz kann man" [<i>this sentence can</i>], the recipient would possibly not be able to predict what the speaker wants to say. However, when opening the speech by underlining that Europe is the most important national concern, the hearer would imagine that this is an important topic for the speaker. It is in fact the topic of the whole speech, and as such the sentence where the speaker has introduced it must be important. Therefore, any recipient would be able to formulate a prediction or expectation that the sentence that has just been said is undoubtedly important, and for this reason this sentence is considered as high redundancy.</p>	
Sentence #2	
<p>Diese Hoffnung hat sich nicht erfüllt, [...] [<i>this hope has not been fulfilled</i>]</p>	<p>Unfortunately, these hopes have not been fulfilled.</p>
<p>Low redundancy. Although this sentence is a continuation of the concept expressed before, i.e. the view that people had after the cold war, it would be difficult for the interpreter to anticipate the conclusion of the sentence, i.e. that this hope did not become a reality. The speaker used rhetoric in this instance, he decides to generate an image of hope and then underline how it did not turn into a reality. Only after hearing the beginning of the sentence, the interpreter might think that speaker could say that this hope was widespread at the time, or that this hope has been what all the countries have worked towards. Instead, the Minister decides to use this sentence to mark a contraposition between what was expected, based on the semantic information expressed in the previous sentence, and what happened. This sentence would have been more redundant if the speaker had started with an adverb such as "leider" [<i>unfortunately</i>].</p>	
Sentence #3	
<p>Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment nicht zu. [<i>many European citizens do not trust the EU on such political debates</i>]</p>	<p>Many European citizens do not believe that the EU is capable of such political debates.</p>
<p>This sentence is low-redundancy because there is a change of reference. In the previous portion of the speech the European Union was the main subject, and the speaker was relating it to the challenges it needs to face and what it needs to do in order to tackle them. In the present sentence he changed reference and focused the attention on the citizens' view of the European Union. Although the object of the citizens' (lack of) trust remains the EU, based on the semantic information present in the previous paragraph it would not be easy for the recipient to predict what the speaker will say.</p>	
Sentence #4	
<p>Damit stellen wir den Steuerwettbewerb nicht ein [...] [<i>in this way we are not ceasing tax competition</i>]</p>	<p>Our aim is not to do away with tax competition, [...]</p>

<p>Low redundancy. In this portion the Minister is addressing the issue of taxes and underlining how it is necessary to have an international minimum level of taxation. By starting the sentence with reference to “Steuerwettbewerb” [<i>tax competition</i>], the recipient might believe that the speaker is about to underline the need to focus on tax competition to tackle this particular aspect or possibly to call into question the tax competition. It would not be easy for the recipient to anticipate the negative verb, especially after hearing the importance of having an international minimum level of taxation.</p>	
Sentence #5	
<p>[...] diese Möglichkeit dürfen wir bei aller Zuversicht nicht aus den Augen verlieren [...] [<i>despite being confident, we cannot lose of sight this possibility</i>]</p>	<p>but we should still be aware of the possibility that we might not [...]</p>
<p>This sentence is high-redundancy due to co-reference. In fact, the Minister is underlining how they expect to agree on a specific plan by 2020 but then says "sollte es [...] bis 2020 nichts werden" [<i>should this not happen by 2020</i>] and then starts the negative sentence with diese Möglichkeit [<i>this possibility</i>]. Since the speaker has just said that there is a chance that this target is not met by 2020, the recipient can predict that the message of the sentence starting with diese Möglichkeit is that it is a real possibility. Although they might not be able to predict the negative verb, they can most likely expect that the speaker wants to stress the possibility of not reaching this goal.</p>	
Sentence #6	
<p>Es geht also nicht um Transferzahlungen [...] [<i>we are not talking about transfer payments</i>]</p>	<p>Here, we are not talking about transfer payments [...]</p>
<p>Although this sentence is used by the speaker to clarify what he meant by “Kredite” [<i>loans</i>], it cannot be considered as high redundancy as it does not simply add information that could be predicted based on semantic or linguistic information obtained by the previous portion of the speech. The speaker here decides to briefly interrupt what he was expressing, i.e. how this specific system would benefit the EU, to clarify that he is not referring to “Transferzahlungen” [<i>transfer payments</i>], but to “Kredite”. Therefore, the recipient could hardly predict this specification. Moreover, if we look closely at the part of the sentence preceding the noun [“es geht also nicht um” – <i>we are not talking about</i>], it would be almost impossible to predict the noun that follows.</p>	
Sentence #7	
<p>Mit dem Schutz der EU-Außengrenzen dürfen wir die EU-Staaten nicht allein lassen, [...] [<i>we cannot leave EU countries alone in the protection of the external borders</i>]</p>	<p>EU countries that have an external border shouldn't have to shoulder this responsibility alone. [...]</p>

<p>High redundancy. In this sentence, the linguistic and semantic information provided in the previous utterance helps to formulate a prediction. In fact, in the previous portion of the speech the speaker is underlining how we need to take joint responsibility for our external borders. Therefore, when he starts the sentence with a focus on the protection of external borders, the hearer can imagine that the speaker is about to say that this is a common responsibility or that it must be put in place by all the member states. After hearing “dürfen wir die EU-Staten” [<i>can we, the member states</i>], we can imagine that he is about to say that, since it needs to be a common effort, we cannot leave the EU countries alone.</p>	
Sentence #8	
<p>Ohne sichere Außengrenzen kann die grenzenlose Bewegungsfreiheit innerhalb Europas, die sich aus dem Schengen-Abkommen ergibt, nicht funktionieren. [<i>without secure external borders, the unrestricted freedom of movement within Europe, that is a consequence of the Schengen Agreement, cannot work</i>]</p>	<p>Without secure external borders, the unrestricted freedom of movement within Europe that is a consequence of the Schengen Agreement doesn't work.</p>
<p>High redundancy. Both the linguistic and the semantic information would help the recipient to formulate expectations about the unfolding sentence. After hearing how important the protection of the external borders is, we can expect that “Ohne sichere Außengrenzen” [<i>without secure external borders</i>] we would have negative consequences. In particular, the speaker then mentions one of the elements that benefits the most from secure external borders, i.e. “grenzenlose Bewegungsfreiheit innerhalb Europas” [<i>unrestricted freedom of movement within Europe</i>]. Therefore, based on the semantic information previously received and on the fact that he mentions one of the elements for which secure external borders is crucial, we can easily expect a causal relationship: without secure external borders, unrestricted freedom of movement could not happen (or would not work).</p>	
Sentence #9	
<p>Es geht dabei nicht um den Schutz vor Migration, [...] [<i>it is not about protection from migration</i>]</p>	<p>The important thing here is not protection against migration, [...]</p>
<p>This can be considered a high-redundancy sentence as this is the continuation of the concept that migration has to be accepted. When hearing “es geht dabei” [<i>the important thing here</i>] we might expect that the speaker wants to continue the sentence by underlining that migration is not something that should be feared or that people should be closed towards. Although by simply hearing “es geht dabei” the interpreter might not expect that the important thing is not protection against migration, they might be able to predict that this sentence will continue and expand the concept of needing to accept migration.</p> <p>One element of redundancy in this sentence would be that the “Schutz” [<i>protection</i>] is referred to migration, which had just been mentioned at the end of the previous utterance as what has to be accepted.</p>	
Sentence #10	

<p>Die meisten Flüchtlinge in der Welt finden sich im Übrigen nicht in Europa, [...] <i>[moreover, most of the refugees in the world are not located in Europe]</i></p>	<p>Incidentally, most of the refugees in the world are not located in Europe, [...]</p>
<p>Low redundancy. This sentence is an example of how co-reference might be misleading. Although the speaker is still focused on refugees and how it is important for the EU to act responsibly, in this sentence he expresses a different concept. In the previous portion of the speech he underlined how the EU needs joint policies with their neighbouring countries on how to handle refugees and then proceeds to underline how now Spain and Greece need help in managing refugees. Therefore, when hearing "die meisten Flüchtlinge in der Welt finden sich" <i>[most of the refugees in the world are located]</i> the recipient might expect that they are located in Europe after hearing how Europe needs to show a joint effort to tackle this situation; or at least might expect a statement on where most refugees are located. Instead, the former Minister decides to underline that they are not located in Europe. This sentence could be an example of a case where anticipation based on the semantic information received, as well as based on the background knowledge, might mislead the interpreter.</p> <p>In fact, being aware of the refugee crisis and knowing that this is an extremely important topic in the EU, a recipient would expect a statement about where they are located, possibly in Europe. In this case, if the interpreter was to utter the verb before hearing the negative sentence, it would be difficult to change the planning of the sentence as it would not be possible to say "are located in..." because it is not the kind of information that the speaker provides. He only tells where they are not located. If the interpreter started the sentence with "are located in", they possibly would need to wait in silence for a few seconds to allow the speaker to finish the following sentence and clarify where they are located. Only at that point the interpreter would be able to resume their translation by adding the information that was initially missing in order to respect the speaker's intentions.</p>	
<p>Sentence #11</p>	
<p>Und damit meine ich ausdrücklich nicht finanzielle Großzügigkeit. <i>[and I am expressly not talking about financial generosity]</i></p>	<p>Here, I am expressly not talking about financial generosity.</p>
<p>Low redundancy. Here again co-reference doesn't help to predict a negative verb. After underlining how generosity is important, the speaker proceeds to say he is not talking about financial generosity. However, when hearing "und damit meine ich" <i>[and I mean]</i>, a recipient might expect that the speaker simply wants to specify what he means by generosity. Instead, he specifies what he doesn't include in the generosity he is talking about: financial generosity.</p>	

What is evident from the sentences above is first of all that the main type of possible inference considered is linguistic inference as defined by Chernov (2004). Moreover, it is evident how semantic and linguistic sources of inference are often extremely hard to clearly separate. Moreover, the high redundancy of sentences might not

necessarily mean that the interpreter would be able to exactly anticipate the verb of the sentence. In fact, the type of redundancy considered (i.e. at the level of the phrase and the utterance) is what allows a recipient to formulate certain expectations by relating the first words of a sentence, in this case the part immediately before the negation or before what the negative particle refers to, and to relate them to the previous portion(s) of the speech already been uttered by the speaker and processed by the interpreter. In such cases, the interpreter might have enough information to formulate an expectation at least about the general connotation of the unfolding sentence⁵³. For instance, if a speaker is mentioning the positive aspects of the work done, when hearing a sentence beginning with “without this” it would be fairly smooth to predict that the lack of this positive element just mentioned would have negative consequences. This type of prediction can be considered a middle stage between the complete lack of inference caused by a low-redundancy sentence and the anticipation of an exact word or verb. This could be considered as the condition that allows the interpreter to use either a linguistic open-gambit form (Kohn and Kalina, 1996) or possibly to a general (Jörg, 1997)/generic (Bevilacqua, 2009) anticipation⁵⁴. It is the phase where the interpreter has enough information to grasp at least the general connotation or the attitude of the speaker towards something but not enough information to anticipate exactly what the speaker will say about it. For instance, when in the first text the President mentioned racism, antisemitism and xenophobia and related them to Germany, a recipient might grasp the general concept that these issues are still relevant in Germany or are still one of the challenge to face. As underlined by Gambi and Pickering (2018), prediction routinely happens in language comprehension at different levels, and listeners can predict different aspects of what they are about to be exposed to, including aspects of meaning. Regarding this example, most likely an interpreter would not take the risk to anticipate a verb as the sentence could end in several different ways, but there is a high probability that they would be able to formulate expectations about how the speaker perceives these three elements. Therefore, they would have enough information to understand that these are an issue and that they are treated as such by the speaker, despite possibly not having enough certainty to anticipate that the verb is “nicht überwunden” [*not overcome*].

⁵³ This is precisely what seems to happen in case of pragmatic anticipation (which will be the focus of Chapter 6), that is the interpreter being able to predict the gist of the unfolding utterance.

⁵⁴ Or, as explained in Chapter 6, a pragmatic anticipation

4.3 Speed

The second variable taken into consideration for the present investigation is speed, i.e. input speech rate in simultaneous interpreting. As previously underlined, simultaneous interpreting is a taxing activity from a cognitive perspective for several reasons: multiple efforts (Gile, 2009) have to be carried out concurrently and, moreover, the interpreter does not have control over the speed at which the source language speech is presented. Simultaneous interpreting takes place at an externally controlled pace, which can represent an added difficulty in some cases. For this reason, several authors (Li, 2010; Rosendo and Galván, 2019; Shlesinger, 2003; Pio, 2003; Barghout, Rosendo and García, 2015; Gerver, 1969/2002; Barik, 1971; Meuleman and Van Besien, 2009; Lee, 1999; Dose, 2020;) have focused, although with different perspectives, on speech rate in simultaneous interpreting. Although speed was widely considered as a factor influencing simultaneous interpreting, there is no standardised definition of a “fast” input speech or a “slow” or “medium” speech rate. In fact, the different scholars who focused on this topic have considered different delivery rate ranges as fast, moderate, or slow.

In order to address speed in simultaneous interpreting, it is necessary to define how this is measured. Although some authors (Li, 2010; Pio, 2003) have measure speech rate in simultaneous interpreting using the syllables per minute, the input speech rate is usually measured in words per minute (wpm). Wpm was the measure used in the present investigation.

4.3.1 *Speech rate: words per minute (wpm)*

Since there is no standard definition in literature of how many wpm a “standard” speech has, there is also no specific recommendation of what the speech rate should be. In fact, in early research, scholars (Gerver, 1969/2002; Seleskovitch and Lederer, 1984 cited in Rosendo and Galván, 2019) considered a range between 100 and 130 wpm as an optimal speech rate for simultaneous interpreting. When interpreting a speech having the above-mentioned speed, it was usually thought that the interpreter was able to sustain the speaker’s pace and that speed would therefore not represent an added hurdle.

Rosendo and Galván (2019) considered a speech range that is not very dissimilar, in fact they considered less than 120 wpm as a moderate delivery rate, which could be compared to what Gerver (1969/2992) considered “optimal”. Moreover, the authors clarify what in their opinion is a high delivery rate, i.e. from 150 wpm. Pio (2003) considered in her investigation a slow speech, read at approximately 108 wpm, and a fast one, approx. 145 wpm, while Shlesinger (2003) for her experiment used texts read at two

different delivery rates: 120 and 140 wpm. Other authors have considered other input rates, for instance Meuleman and Van Besien (2009) considered 184 wpm as “fast delivery”.

Barghout, Rosendo and García (2015) took into consideration the actual speech rate that interpreters are usually confronted with when working at conferences. In fact, it is important to underline that speed can also change based on the type of speech: usually impromptu speeches have a lower speech rate as the speaker often pauses during the speech; instead, written speeches read by the speaker are often faster⁵⁵. The authors randomly selected twenty sample speeches taken from the 16th session of the Human Rights Council. They found that the highest delivery rate was 188.57 wpm, and the lowest one was 106.44 wpm. They considered 149.12 wpm as the average speed. This already proves that, although the recommended speech delivery rate in early research was lower, especially in conferences nowadays the mean delivery rate is faster. This perspective is extremely useful as it proves how it is not at all infrequent for interpreters to cope with a speech where the delivery rate is rather high. Based on this, the authors decided to use three different delivery rates in their experiment: 120, 160 and 200 wpm.

Dose (2020) considered less than 130 wpm a slow input rate, while the medium speech rate ranged from 131 wpm to 160 wpm and over 160 wpm was considered a fast input rate.

From previous studies it emerges that there is not a consensus about what speech rate can be considered slow, medium, fast, or even “recommended” or “advisable”. An extremely important aspect that was extensively analysed in literature is how speed is related to the performance of interpreters and, more specifically, whether it has a positive or a negative impact. In this regard, it is helpful to refer to previous research on the effects of speed on simultaneous interpreting.

4.3.2 How speed influences simultaneous interpreting: literature review

The input speech rate has always been considered as an influent factor in simultaneous interpreting, as it has a significant impact of the performance of interpreters, specifically when the speech rate is considered fast. In fact, a high speech rate is often defined in previous research as an element that interpreters have to “cope with” (Rosendo and Galván, 2019) or even as the “arch enemy of simultaneous interpreters” (Li, 2010). This

⁵⁵ As will be discussed in Chapter 5, one of the participants of the core experiment underlined how they usually prefer impromptu speeches as when speakers read out a written text they tend to have a faster delivery rate.

perspective is widely accepted in research as a high speech rate means that the information is communicated faster, which in turn entails that more information has to be processed by the interpreter in a short time. In this scenario, the normal (limited) time available to an interpreter to process the input is further reduced, and this could lead to a spillover effect (Seeber and Kerzel, 2011⁵⁶), in which case the interpreter is receiving too much information and struggles to convey it in the target language.

Seleskovitch (1978, cited in Lee, 1999) underlined that not being able to work at one's own speed is one of the most difficult constraints imposed on simultaneous interpreters. When the delivery in the source language is fast, interpreters can either process information more quickly or decide to omit portions of the speech in the target language text for the sake of time. Based on this, previous research focused on input speech rate has specifically analysed what is its relationship with the quality in interpreting, and a recurrent connection analysed was that between a high speech rate and the occurrence of omissions in the interpreter's output.

Barghout, Rosendo and García (2015) addressed the influence of speed on omissions in simultaneous interpretation. In their investigation, professional interpreters were asked to simultaneously interpret three speeches from English into French read at three different delivery rates: 120, 160 and 200 wpm. In the analysis of results, more omissions (of redundant information) were detected at higher speech rates, which seems in line with Barik's statement (1971) that when the delivery rate of the source speech increases the interpreter has to resort more frequently to omissions. Omissions of redundant information seem to have the features of the low-risk omissions identified by Pym (2009), i.e. the ones are related to time management, and which do not have a significant impact on the accuracy or completeness of the output as the interpreter is not omitting essential information. This therefore seems to confirm that when the delivery rate of the source speech increases interpreters omit redundant information, possibly for the sake of time and to avoid lagging too far behind the speaker.

Gerver (1969/2002) carried out an experiment to investigate the effects of the source language presentation rates on the performance of simultaneous interpreters. To this end, the author chose a French speech and changed the presentation rate at specific intervals in order to have an input speech of 95, 112, 120, 142 and 164 wpm. The participants were all professional interpreters and were divided into two groups, one group was asked to simultaneously interpret the speech into English, while the other was

⁵⁶ See definition in Chapter 2, Section 2.7.2

shadowing. The analysis of results proved that the subjects who were interpreting omitted more phrases and longer passages, and these omissions were directly influenced by the presentation rate⁵⁷. The experiment showed that the ear-voice-span was greater for interpreters: while shadowers could increase their output rate as the input speech rate increased, interpreters seemed to maintain a stable output pace, which made them lag further behind the speaker as the source language rate increased. Moreover, as interpreters in Gerver's (1969/2002) experiment tended to omit, substitute and correct phrases rather than words, a possible conclusion that can be drawn is that interpreters work with larger units compared to shadowers. Therefore, the effect of the increasing input rates was that interpreters were lagging further and further behind and made more errors.

Another author who focused on omissions is Barik (1971). He analysed in detail omissions, additions, and errors of translation. For his investigation, the author selected participants with different proficiency levels in simultaneous interpreting (professionals, students, and amateurs) and the material used included recordings of several passages to be translated which represented different types of materials, i.e. spontaneous, semi-prepared and fully prepared material.

In order to better analyse omissions, the author also focused on the different kinds of omissions found in his investigation and provided different classifications of omissions, depending on what caused it: skipping omission (omission of a single word or short phrase, of minor importance); comprehension omission: (it occurs when the interpreter cannot understand or interpret a part of the text); delay omission (due mainly to the delay of the interpreter; one instance of this kind of omission was found in the second pilot study when the participant omitted a whole sentence because they were lagging behind the speaker); compound omission (when the interpreters combine elements from different clause groupings by omitting some elements, and therefore the original meaning of the sentence is altered⁵⁸). This strategy was found in the data analysis of the second pilot study. Although it wasn't a strategy specifically used to tackle head-final negation, in this case the participant had combined two separate clauses of the input speech, which resulted in an alteration of the original meaning. While the speaker in the source language said "Meine Damen und Herren viele Orte, an denen dieses Unrecht geschehen war, kannte man vor 75 Jahren noch nicht. Natürlich: Auschwitz, Buchenwald,

⁵⁷ These findings are in line with the results of the core experiment, which will be discussed in Chapter 5. A causal relation was found between the input rate and the occurrence of omissions.

⁵⁸ This type of omission was identified in the data analysis of the core experiment and will be addressed in Chapter 5.

Theresienstadt, Sachsenhausen, Dachau, viele andere, ja.“ [*ladies and gentlemen, many places where these criminal acts took place were not yet known 75 years ago. Of course, Auschwitz, Buchenwald, Theresienstadt, Sachsenhausen, Dachau and many others were known*], the interpreter translated this passage as “There were many places where all this injustice happened, Buchenwald, Auschwitz Theresienstadt, Sachsenhausen, Dachau. Many of these places were unknown.”. This is an example of compound omission, as the participant of the second pilot study, after their performance, underlined how they decided to lengthen the *décalage* because the input speech rate was not too high. However, by doing so, they sometimes found themselves lagging too far behind the speaker and having to omit some information. Although Barik (1971) did not specifically focus on the effects of presentation rates, he concluded that the measures of omissions were directly linked with the source language rate and that, therefore, the faster is the input rate, the more interpreters tend to omit from the original speech.

Pio (2003) analysed the link between the source text speech rate and quality in simultaneous interpreting. The author included in her investigation both students and professional interpreters, in order to understand to what extent the source language speech rate influences their performance and whether they have different reactions to this peculiar condition. The author used two different texts for the experiment, one was read at a slow rate (108 wpm) while the other one was considered a fast delivery (145wpm), and they were both speeches delivered by the former German chancellor Gerard Schröder and participants were asked to interpret them from German into Italian. At the end of the interpretation, participants were asked to fill in a questionnaire to evaluate their performance and specifically to express whether or not the input rate had an impact on their delivery. The results of the experiment were analysed in terms of equivalence of meaning in the source and target texts and the delivery fluency. As speed will be taken into consideration in the present study to assess to what extent it influences the strategies used by interpreters, only the former criteria of Pio’s study is relevant.

In order to evaluate the equivalence of meaning the author provided different categories of errors: omissions, substitutions, defined by the author as “the change by means of synthesis or paraphrasing of one or more clauses, and their subsequent replacement with completely new ideas.” (Pio, 2003:75). This change can also result in contradictions or misinterpretations, additions and Logical-Time Sequence Errors which were defined as interpreter’s errors concerning the logical relation among clauses, phrases or sentences of the source text in the target text. This particular criterion was also chosen

to assess the interpreter's ability to respect the time sequence of the information presented in the source text). Results revealed that the error category that is mostly influenced by speech rate is omissions. In fact, the author underlined how omissions in the interpreters' performance can be seen as a direct result of high source language delivery rate.

Although one of the most expected consequences of a high delivery rate is an increase of omissions, some authors chose to focus on other aspects that could be affected by a high speech rate, for instance, ear-voice-span.

Rosendo and Galván (2019) investigated the influence of speech rate on EVS (ear-voice-span) and on target speech accuracy. The material chosen was one medical speech that the subjects, i.e. novice and professional interpreters, were asked to interpret from English into Spanish. The text was divided in three parts: the first and the last parts were delivered at a moderate speed (under 120 wpm) while the second part was delivered at a high speech rate (over 150 wpm). The authors found that, although speed has no significant impact on EVS, the target speech accuracy both for novice and for expert interpreters was better in case of moderate delivery rate (under 120wpm). The authors also found that some segments were omitted and, although omissions were more frequent for novice interpreters, expert interpreters too omitted some segments in the parts delivered at a high rate. Therefore, the results of their investigation show that a high speech rate has a negative impact on the accuracy of the target language speech.

Other authors instead chose to focus on the type of strategies that interpreters use when they are faced with a high delivery rate. Meuleman and Van Besien (2009) investigated how syntactic complexity and speed of delivery influence the performance of professional interpreters. The authors wanted to assess what strategies interpreters used to cope with these extreme speech conditions, e.g. whether they would resort to segmentation or tailing⁵⁹. For their investigation, the authors selected professional interpreters who were asked to interpret two passages (one with a high input speech rate of 184wpm and the other containing complex syntactic structure) from French into Dutch. Their findings showed how most interpreters, when confronted with a high delivery rate, chose tailing rather than segmentation.

The investigation made by Dose (2020) came to a different conclusion. The author analysed a corpus of 60 speeches delivered at the European Parliament and examined the strategies chosen by professional interpreters working from English into German when

⁵⁹ As defined by Dose (2020), tailing leads to a formal similarity between source language and target language

they were confronted with a slow (less than 130wpm), medium (131-160 wpm) and a high delivery rate (more than 160wpm), with particular focus on their rendition of the English *-ing* clauses. The author analysed in particular whether interpreters made use of form-based strategies (such as tailing, i.e. strategies that “lead to a formal similarity between source language and target language” Dose, 2020:116) or meaning-based strategies (for instance segmentation, i.e. strategies based mainly on the meaning, which lead to a formal difference between the source language and the target language). Her investigation showed that omissions are more frequent at higher input rates, as found by other authors (Pio, 2003; Barghout, Rosendo and García, 2015; Barik, 1971) and that interpreters have a slight preference for meaning-based strategies at higher speech rates (which is in contradiction with Meuleman and Van Besien, 2009). However, the statistical analysis of the results reveals that the differences among interpreters concerning their preference of meaning-based rather than form-based strategies or vice versa are not directly caused by the difference in the speech rates, and that interpreters do not have a particular preference towards one type of strategy to tackle specific speech rates.

While several authors analysed how the increasing speech rate has a direct impact on omissions or errors made by interpreters, Shlesinger’s (2003) research on the effects of the source language presentation rate has a different focus. In fact, the author starts from the hypothesis that recalling an information is easier if less time elapsed between hearing the information in the source language and its reconstruction in the target language, although her second hypothesis seemed to be in contradiction with the first one, i.e. that retrieval of target language items from long term memory was expected to be more difficult at higher presentation rates.

The author carried out an experiment with professional interpreters who were asked to interpret texts from English into Hebrew, read at different rates, i.e. 120 and 140 wpm. She focused specifically on the interpretation of multiple adjectival modifiers, which required a modification in the target language, and whether the rendition would be better at a higher or a lower delivery rate.

The results of Shlesinger’s investigation show that interpreters, in this specific experiment setting, performed better at higher speech rates because, according to the author, having a fast input rates means that the relevant source language item has less time to “decay” (Shlesinger, 2003:45) in the interpreter’s memory.

4.3.3. *Speed in the present investigation*

Speed was an important variable in the present investigation, and the approach taken was similar to Shlesinger's (2003). The author approached the input speech rate from a different perspective, underlining how a more sustained speech rate is not always negative as the input information are stored in the working memory for less time compared to a slower speech. Although the focus of the present study is different compared to Shlesinger's (2003) investigation, the hypothesis that was be tested was that possibly, when facing head-final negative sentences, a slower speech rate could be more daunting than a faster one. There is no doubt that the delivery rate of the input speech can be considered an added difficulty in some cases, but for the present study a "sustained" speech rate was hypothesized not to be a negative element.

In fact, since the focus of the investigation are head-final negative sentences, when confronted with such a peculiar syntactic structure a slow speech rate could ultimately represent a hurdle. When interpreting a speaker whose speech rate is slow, an interpreter would possibly have to make more pauses and would necessarily have to use strategies to cope with the presentation rate because in a head-final sentence the most important information will be uttered by the speaker rather late. For this reason, the hypothesis to be tested using speech rate as a variable was that a sustained (not too high) speech rate when tackling head-final negative sentences is more useful than a slower rate.

Moreover, speed was included to assess whether and, if so, how it change the use of strategies for interpreters, specifically the use of anticipation. For instance, when the speech rate is slower, interpreters might decide to lengthen their *décalage*, as in the pilot study, in order to hear the full sentence before uttering its correspondent translation. However, this might expose them to a risk of having to resort to unplanned but necessary omissions because they cannot keep pace with the speaker. On the other hand, a faster speech rate might entail for interpreters to be able to shorten the *décalage* and possibly use other strategies to keep the pace with the input speech and to still provide a cohesive and linear translation. The initial expectations regarding the use of anticipation and speed was that anticipation would be more frequent in the slower speech, as interpreter might decide to anticipate instead of waiting and lengthening the *décalage*. The same causal relationship was hypothesized to exist between anticipation and the fast speech: a faster speech rate would entail that the head-final negative verb would be uttered sooner in the sentence, hence interpreters would not need to use anticipation as often in the fast speech.

Furthermore, the speeches taken for the present experiment are both written to be read, i.e. a category of speeches that is usually faster than impromptu speeches.

Since this investigation focused on a specific syntactic element to be translated from German into English, the words per minute chosen were similar to Dose's (2020) investigation.

As for the slow speech, it was presented to interpreters with a speech rate of 100 wpm. The reason for this is firstly because it is approximately the same speech rate present in the second pilot study (103,05 wpm) and it was interesting to see whether more interpreters used the same strategies as the interpreter who took part in the pilot study when translated a speech that was rather slow, i.e. lengthening the *décalage*, waiting etc. If that was the case and most of the interpreters used similar strategies, it would ultimately prove that, when translating from German into English specific syntactic structures, i.e. head-final negative sentences, interpreters who are confronted with a slow speech decide to choose the safest option and lengthen the *décalage*. Undoubtedly, this strategy has its risks, the main one being falling too far behind the speaker and having to omit some information to keep apace⁶⁰. On the other hand, lengthening the *décalage* might give interpreters more confidence before uttering the translation in the target language as they would be certain of what the speaker wants to communicate in the source sentence.

As for the other speech, it was useful to have a faster input rate to assess whether interpreters' strategies change significantly with the increase of the speech rate. However, it would have been counterproductive to have an input speed that is too fast, as it might ultimately have led to omissions and errors from interpreters in case they could not keep pace with the speech rate. Especially because the structure that was the focus of the analysis is found at the end of the sentence, and interpreters might have found it difficult to cope with a high speed speech where they could not rely on the lengthening of the *décalage* too much while, at the same time, were not able to utter the input elements in the target language as they are perceived in the source language due to the negative verb being at the end of the sentence. For this reason, a speech rate of 140 wpm, considered by Dose (2020) a moderate speed was used for the second text.

Since speed had to be manipulated, although the texts chosen were original political speeches written to be read, they had to be recorded by a German native speaker so that the recording could then be manipulated using Audacity v. 2.4.2 to obtain the speed needed for the experiment. The program Audacity was used also by Hodzik and Williams for their investigation (2017).

⁶⁰ As seen in the second pilot study

Finally, a clarification is necessary. While in previous research speech rate was analysed particularly in relation to quality in interpreting or to the use of omission as a strategy, the present investigation has different perspective. In fact, although omission is a strategy that interpreters can sometimes use to eliminate redundant information, the main focus of the present study is how interpreter approach head-final negative sentences. The inclusion of speed was necessary to find a more complete answer to the focal research question: whether and how anticipation is used when translating German head-final negative sentences. In this regard, it was relevant to assess whether in the slow speech interpreters decide to use anticipation so that their *décalage* is not too long, or rather if they make the same choice as the interpreter from the second pilot study and decide to wait because they possibly do not want to face the risk of an incorrect anticipation.

Therefore, speech rate will not be analysed to assess how it influences the quality in simultaneous interpreting, or specifically whether it corresponds to an increasing in omissions and errors from the interpreters. It will be considered mainly to understand whether interpreters use anticipation when the speech rate is slower and, on the other hand, whether the use of any strategy is not necessary when the speech rate is faster, because the interpreter can hear the head-final negative element sooner and can therefore translate it soon after hearing it in the source language. The latter hypothesis could possibly confirm Shlesinger's (2003) view on high speech rate, i.e. that interpreters perform better when translating a fast speech because they do not need to store the information received in their working memory for too long, as they can translate it in the target language soon after hearing it in the source language.

4.4 Experiment overview

The participants of the study were all professional interpreters who were already working before Covid-19. The sessions with them carried out between April and September 2022, so the participants had already experience of RSI before taking part in the experiment. This was useful as they had a clear perception of how interpreting assignments worked before the pandemic and how the work conditions changed, but they were already (to different extents) accustomed to this change so that working remotely for the sake of the research was not disruptive. They were all professional simultaneous interpreters who had English as A language and German either as A or as B language and were all recruited through the websites of professional associations there were part of, such as AIIC, as was the case for the participant in the second pilot study. The subjects were nine in total. The least experienced interpreter had 5 years of experience while the most experienced had

43 years of experience, with an average of 17.5 years (and a median on 10 years of experience). The same participants were asked to simultaneously interpret both speeches. They had not been given the written texts in advance, they knew the title of the speeches, the speakers, and the general topics. This information was provided before the sessions⁶¹, but the notice period varied depending on when they confirmed their availability, i.e. if the meeting time and date were agreed in advance, they were given the general information about the speeches approximately a week before the session. Instead, if they confirmed their availability only two or three days before, then they received the contextual information with less notice. However, it was clarified that this information was provided exclusively in order to simulate real-life working conditions, as interpreters would normally be aware at least of the speaker and the general communication context. Ultimately, all the interpreters declared that, for the sake of spontaneity, they did not search the speeches ahead of the session.

One of the performances had to be excluded from the data analysis, namely that of Interpreter 1, Speech B. During the session, the interpreter mentioned that they were able to hear their own voice in the background and asked to plug earphones into the laptop connected to the English channel so that it would not be disruptive to them. However, a clear audio was essential for the data analysis, and in the said example the interpreter's translation was audible but it was not possible to hear the source speech in the background, hence it would not have been possible to be absolutely certain of the alignment of the source and the target language audio recordings. For this reason, a ninth interpreter was contacted to fill this gap. This resulted in nine performances for Speech A and eight performance for Speech B.

4.5 Set-up

The set-up mirrored that of the pilot studies. Moreover, analysing the interpreter's performance during an online interpreting task was found to be a common feature in previous research (Hodzik and Williams, 2017; Meuleman and Van Besien, 2009; Rosendo and Galván, 2019). Each session was individual and lasted approximately 45 minutes to an hour, depending on whether the interpreter decided to take a break. Moreover, after the two interpretations, they were asked a few questions about their perception on use of strategies. This time was also used to collect feedback about the methodology: they were asked whether it was a problem not being able to see the speaker

⁶¹ The same pre-session information was provided to the participants in the pilot studies to mirror real-life conditions.

and whether, in general terms, they particularly like (or do not like) remote simultaneous interpreting. Some interpreters provided feedback spontaneously as well, and this feedback was taken into consideration.

One aspect that was thoroughly addressed was the lack of visual input, as participants were asked to interpret an audio recording with no video. While interpreting without video is not ideal, since speech rate was one of the controlled variables to be analysed (alongside redundancy), it was necessary to manipulate the input tracks (using Audacity v. 2.4.2), and the manipulation of a video might have resulted in a less smooth source speech compared to a manipulated audio. All the participants were previously informed the visual input would not be available. What helped in the set-up was a good audio quality that could compensate for the lack of video, as confirmed by the participants. Moreover, the main issue when interpreting without video is the lack of non-verbal cues (Ziegler and Gigliobianco, 2018), which could influence the performance as an overall. However, since the syntactic aspect was the main focus of the research, i.e. how interpreters tackled head-final negative sentences and to what extent they use anticipation, the set-up without the video was not considered a hurdle or an element that could greatly influence the results of the analysis. Interpreters were assessed for how they tackled head-final negative sentences, the overall quality of their performance was not addressed or analysed, hence lacking the visual input (while having a good audio-quality) was not an issue.

The participants had already been made aware that they were going to be asked to interpret an audio recording without seeing the speaker. During the session they were also informed that they could either have their camera on or turn it off, this would not have made any difference for the data analysis as only the audio recordings of their performance were going to be analysed. The option not to have their camera on was provided to make the interpreters feel as comfortable and as close to their normal work conditions as possible.

4.6 Source texts

Speech A was originally delivered by the President of Germany Frank-Walter Steinmeier during his visit to the Apartheid museum in South Africa on 19th November 2018 and it focused mainly on Nelson Mandela and his legacy, as well as several points that unite South Africa and Germany. Speech B was originally delivered by the German chancellor Olaf Scholz (Minister of Finance at the time of the speech) at the Humboldt University

on 28th November 2018 with focus on the European Union, particularly the aspects to work on.

Both speeches contained a number of head-final negative sentences: Speech A had 13 head-final negative sentences (6 low redundancy and 7 high redundancy) while Speech B had 11 head-final negative sentences (6 low redundancy and 5 high redundancy). The redundancy variable was present in both speeches approximately in the same measure while speech rate was tested separately in the two speeches, Speech A was read at 100wpm and Speech B at 140wpm. The order of presentation of the two speeches was randomized. They were recorded by a German native speaker and both speeches lasted 15 minutes so that interpreters would not be fatigued, especially because previous research on remote interpreting found that turns should be shorter than in-person assignments as interpreters perceive the on-site fatigue sooner (Moser-Mercer, 2003). The written source speech texts were analysed to ensure they contained a high number of head-final negative sentences. The text was slightly edited to eliminate repetitions and to ensure that it would be 15 minutes long. After editing, the texts were reviewed by a language expert to ensure that they were still coherent and cohesive, and they were then recorded by German native speakers.

Finally, both speeches were political speeches that discussed generic topics, i.e. they were not technical speeches such as medical or scientific speeches that contained technicalisms or words or expressions specific to a certain field of expertise. As such, the difficulty of the speech in terms of a linguistic perspective was low.

Chapter 5: Findings

5.1 Introduction to the data analysis: a few clarifications

The present chapter includes the main findings of the experiment in terms of strategies used and whether the variables had an impact on the choice of strategies except for anticipation, which will be the focus of the following chapter (Chapter 6). As discussed in Chapters 3 and 4, the pilot studies revealed the necessity of including variables, hence the strategies have been analysed on their own and in reference to speed and redundancy. The discussion of results concerning the two variables however has been presented in two different ways. While redundancy has been analysed separately both in relation to anticipation and in relation to all the other strategies, speed was analysed and referenced throughout the discussion of strategies, specifically waiting and omission, as it was more natural to mention the possible impact of speed while discussing the single strategies rather than having a separate discussion

Except for the one interpretation where a technical issue was found (interpreter 1, Speech B), all the performances of the participants were transcribed. The transcription was carried out manually on a Word document, no system or program was used to transcribe. All the target language outputs of the interpreters were transcribed as a text, mainly for two reasons: firstly, only the rendition of head-final negative sentences was analysed, while the rest of the text was not part of the data analysis. Secondly, the most-used transcription system (i.e. the one introduced by Jefferson) is normally used to analyse pauses, hesitations and other phenomena pertaining to oral speeches. This would have been beyond the scope of the investigation. A slight hesitation has been mentioned in some cases in the data analysis in order to clarify how those were considered in terms of strategies, i.e. if it appeared that the interpreter hesitated because they were unsure of their output or because they were waiting for more information. However, the analysis of these aspects of orality was not part of the investigation, hence the performances were transcribed as normal text. The only element of Jefferson's transcription system used was its transcription of pauses, which have been indicated in brackets and in numbers, representing the duration of the pause in seconds. Moreover, all the timings have been indicated using minutes, seconds, and milliseconds (mm:ss:ms).

The main challenge of the transcriptions, or rather the aspect that was most time-consuming and where the highest accuracy was necessary, was to time accurately when interpreters heard and then uttered the verbs and negations, as the timings would be indicative of whether it was an anticipation or not. However, the transcriptions were analysed without any biases and the selection of the single sentences occurred solely

because those were the sentences that were syntactically adequate for the data analysis. Moreover, in order to avoid any biases or to avoid incorrect generalisations, the performances were never assessed in terms of quality. The quality of an interpretation depends on several factors, none of which was part of the data analysis or the scope of the investigation. Therefore, the selection of single sentences was necessary and did not influence the results or the process of the data analysis. In some cases, it was clearly mentioned what the interpreters had said before the specific sentence analysed, in order to contextualize the strategy they used.

The main research question of the present investigation aims at providing a better understanding of the use of anticipation by interpreters tackling head-final negative sentences from German into English. However, the data collected was analysed not exclusively to investigate the use of anticipation, but also to assess what strategies were used by the participants to tackle head-final negative sentences. One of the objectives of the study, which guided the data analysis and the presentation of results, was to provide students and novice interpreters with examples of what are the strategy(or strategies) that interpreters use for this kind of sentences.

Based on the review of anticipation in current literature (see Chapter 2), it was established that anticipation is often regarded as a helpful strategy in simultaneous interpreting especially between syntactically different languages (Jörg 1997, Van Besien 1999, Wills 1978, Vandepitte 2001), hence the focus on anticipation and on whether it is the most used (not *the best*) strategy when interpreting from German into English. The present discussion will not focus on or entail judgments or assertions as to what strategy is *better* than another or what strategy *has to be used*. The goal is to present and discuss the data so that interpreters' performances can show whether the strategy they used allowed them to successfully provide⁶² a target language output or not. For instance, if an interpreter used waiting, and then had to omit some information because they were lagging too far behind the speaker, this can be considered an unsuccessful approach as the strategy used had a negative impact on the rendition. The end goal of the interpretation is to translate the speaker's message in the target language and translate it in a way that is appropriate to the target audience, and the strategy (or strategies) considered to be successful will be the one(s) that allowed the participant to reach this goal.

⁶² 'Successfully' is here is not used as a measure for quality but to indicate that the strategy used allowed interpreters to continue with their translation and overcome the syntactic hurdle, i.e. a strategy that led to a positive outcome

Moreover, the data analysis showed how interpreters tend to have a personal style that applies to the strategies they use as well. Some interpreters feel more comfortable waiting in order to not commit to a translation too soon, whereas others prefer to anticipate or keep a shorter *décalage* to avoid the risk of lagging too far behind the speaker. Gile (2009) underlined how there are different factors that make interpreters prefer one strategy instead of another.

5.2 Interpreting strategies: what they are and what are their defining elements

Starting from the overarching definition of strategy adopted in the present research (see Chapter 1), that is of on-site approaches that interpreters take and that are intentional and goal-oriented, one clarification is immediately necessary regarding ‘intentionality’. Interpreters choose their approach to a specific segment or difficulty in a matter of seconds. In fact, if the choice of a strategy was not – to some extent – automated or unconscious, it would represent a further cognitive effort and would therefore become another task rather than a helpful tool, because simultaneous interpreters obviously do not have the time to stop and think about what strategy they would like to use at a given moment⁶³. However, this does not mean that the use of a strategy is not intentional. Wheatley and Wegner (2001), when analysing the automaticity of action, underlined how a skill acquisition starts as a ‘laboured, conscious learning’, i.e. as a conscious action that requires effort. When applied to strategies, it is clear how student interpreters, when presented with an interpreting task and the strategies that they can use, have to learn how to use them and make a conscious effort to use anticipation or waiting in specific portions of the speech. However, after consistent and frequent practice, this skill becomes more automatic and unconscious (Wheatley and Wegner, 2001). Kohn and Kalina (1996) underline how the automation of strategic processes plays a crucial role, as it is only if the routine decision processes are to some extent automatic that the interpreter will have enough processing capacity left. When students are taught simultaneous interpreting, they learn how to use strategies and they can understand which one works better for them as initial learning stages require more conscious control and selection (Moser-Mercer, 2010). Once the learning stage is concluded, professional interpreters are theoretically aware of what strategies they prefer or tend to avoid using, but during their performance their choice is almost automatic and unconscious, while always intentional. This does not

⁶³ It is important that future students are aware that the time to test different strategies will be during training, but in a professional assignment they have to have an idea of what the available strategies are and apply them quickly

mean that this process is always successful, as sometimes interpreters change their approach if one strategy does not lead to the expected outcome, but the whole process is intentional, nonetheless.

Once established how the term strategy is used in the present research, it is necessary to analyse the factors that influence the decision to use one strategy rather than another in order to provide a better definition of the concept of ‘strategy’. Although the use of strategies is fluid, in the sense that interpreters can use several strategies for the same segment and can change their approach if they find it unsuitable, there seem to be some factors that determine the choice of strategies. These factors can be divided in two categories, that is objective and subjective factors. The categorisation is necessary in order to pay the right attention to subjective factors as well.

Several authors have previously analysed different factors, considered objective in the present analysis, that can influence the performance of interpreters and, consequently, the use of strategies, such as language pair or input rate (Bevilacqua, 2009; Gerver, 1969/2002; Barik, 1971; Meuleman and Van Besien, 2009; Lee, 1999; Dose, 2020; Wills, 1978; Jörg, 1997). These findings are similar to the results of the present data analysis, especially in relation to speed, which seems to have a great impact on performance. However, the interpreters’ decision to opt for one strategy rather than another is also guided by subjective factors which inevitably carry a high level of interpersonal variability, despite being closely related to the objective ones. Before analysing in detail the objective and subjective factors, a clarification is necessary: the factors that were analysed in the present research are only the ones that arose from the methodology and the experiment set-up. In fact, one example of subjective factor can be the interpreter’s strategies to prepare for a conference (analysed by Gile, 2009) but in this case, the interpreters took part in the experiment without any preparation. An example of objective factors, the ones that depend on the communication context, could be the accent of the speaker if they are not native speakers of the language they are using, but in this case the source speeches were read by two different people both having German as A language.

5.3 Objective factors

Language-pair (syntactic structure of the languages involved): the influence of language pair on the interpreter’s performance was thoroughly addressed in the previous chapters. Wills (1978) underlined how simultaneous interpreting is language-specific, meaning there are objective factors i.e. language-related, or text-related. However, it is useful to

recall how these influence the interpreting task. Some authors have sustained that the language pair involved in interpreting should not be a problem, provided that interpreters have an adequate command of both languages. This is because interpreters translate meaning and not words (Paris School, Seleskovitch, 1986). Nonetheless, we cannot deny that the linguistic aspect plays an important role and that the linguistic shell of a message cannot be entirely forgotten. Although professionals have a high command of their working languages, interpreting between languages that do not have many differences in terms of syntax does not require a cognitive effort as high as interpreting between syntactically different languages (Seeber and Kerzel, 2011). This inevitably influences the choice of strategies. A few examples from the data analysis follow:

Speech B Interpreter #5 – sentence 3 (waiting + omission)

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment
04:00:378

nicht zu.

[*many European citizens do not trust the EU on such political debates*]

Many citizens (1) th- they (3) believe that the EU is too weak in order to come in order

04:01:285

to tackle the most important challenges.

If the German structure had been different and the interpreter had immediately heard ‘Many citizens do not believe that’ they would have been able to maintain the same syntax and proceed with their translation. Instead, the interpreter had to wait to have more information because they could not replicate the source language syntax.

Speech A – Interpreter #1 - Sentence #11

Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen –
13:04:927

beileibe nicht alle Antworten.

13:11:927

[*because we in Germany, as you realise from my brief remarks, certainly do not have all the answers*]

[sighs] (5) you will realise from my brief remarks that we in Germany don't have all

13:05:937

13:10:844

13:14:640

the answers either

In the above example, the interpreter first sighed, then waited 5 seconds before starting their translation. The structure of this sentence is not simple because of the parenthetical clause, and once again the syntax of the source language makes it more complicated. In fact, in the German version the speaker said ‘wir in Deutschland haben’ [*we in Germany have*] with the finite verb in the positive form, while the non-finite verb along with the negation are at the end of the sentence. It would not be possible to maintain this type of syntactical structure in English, hence the need to translate the parenthetical clause first and then translate the full verbal bracket at the end.

There are several examples in the data analysis showing that, although interpreters do not rely solely on the linguistic aspect when translating as they have to translate the meaning, the language pair is extremely relevant as proven by previous authors (Donato, 2003; Bevilacqua, 2009; Gile, 2011; Wang and Gu, 2016), and working with syntactically different languages is cognitively more taxing (Seeber, 2011).

Moreover, since the speaker is an essential part of the communication context, they can impact the performance of interpreters. One factor that can influence the choice of strategies is the interpreter’s knowledge of the speaker⁶⁴. Interpreters are generally aware of the person they will interpret for, and in this sense, it is important for them to know, at least approximately, what are the views of the speaker. For instance, a professional interpreting President Biden, will know that his ideas will be different from the ones of Donald Trump, and this can help them in their performance and can influence the choice of what strategy to use. In cases where the interpreter does not have all the information from the source language yet, they can try to anticipate if they have enough knowledge of the speaker to know what their point of view will be. In this sense, knowing the speaker can help them anticipate what they want to communicate. However, it is important to underline that this carries a risk, and that interpreters usually would act on a prediction only if they are reasonably certain (Amos and Pickering, 2020).

The speaker’s input rate can have a significant impact on the choice of strategies as well. Previous research has shown how the source speech rate can cause an increase in omissions, additions, errors etc. (Pio, 2003). These results are coherent with the findings of the present research. In fact, the difference in strategies used in Speech A and Speech B shows how the source language input rate impacts the performance of interpreters. More omissions were found in Speech B because interpreters sometimes had to omit information in order to not lag behind the speaker. On the other hand, waiting as a strategy

⁶⁴ This in Chernov’s model (2004) is a source of pragmatic inference

was used more in Speech A because a slower input rate allows the interpreter to pause their production and wait for a few seconds in order to receive more input information before continuing. Although waiting entails the risk of lagging too far behind the speaker, this risk is reduced when the input speech rate is not too fast as it is likely that the interpreter will be able to use this strategy to gain more information and will then be able to catch up with the speaker afterwards.

5.4 Subjective factors

Risk and risk assessment have been already addressed in the literature (Gile, 2021; Pym, 2009) as they are part of simultaneous interpreting. Although we can argue that any kind of interpretation carries a risk, the risks in simultaneous interpreting seem to be greater. For instance, one of the risks involved in liaison interpreting could be an excessive burden on the interpreter's working memory, in which case they might not remember one piece of information from the source language. One of the risks of consecutive interpreting instead could be that, when the interpreter is reading their notes during their rendition in the target language, they notice that their notes are incomplete or unclear, which ultimately affects their output. However, in these cases the interpreter can ask the speaker to fill in the void and repeat the information that is missing or not clear. Instead, in simultaneous interpreting, it is much more difficult for the interpreter to communicate with the speaker and ask to clarify or repeat.

A speaker with a high speech rate produces more words per minute, in which case the interpreter needs to adopt approaches to carry on with their interpretation without losing too much information and without lagging too far behind. Some interpreters may decide to omit information that do not particularly impact the meaning, while others might increase their speech rate to mimic the speaker's. On the other hand, a speaker with a slow speech rate might force interpreters to reorganize the speech to some extent in the target language in order to have a more fluent pace. With regard to German, this could be achieved by anticipating the verb at the end of the sentence to provide a more coherent structure; otherwise the interpreter might choose to wait to hear the full sentence. This happens when the speaker has a slow speech rate (as per results from the data analysis of Speech A), because a slow input rate means that even if the interpreter uses waiting, they will be able to then translate the full sentence without lagging too far behind⁶⁵.

⁶⁵ Unless the waiting time is too long and the interpreter is no longer able to keep pace and has to omit a sentence, as was the case for the participant in the second pilot study (see Chapter 3).

All these are widely accepted approaches but not all interpreters choose the same. Although interpreters are aware of the risks of simultaneous interpreting, both because of their professional experience and because during the interpreting training they become aware of the risks, the concept of risk is subjective. For instance, an interpreter who is used to always use waiting or chunking, will consider anticipation as a strategy that has a higher risk of making a mistake, and will therefore choose to use strategies accordingly. On the other hand, an interpreter who is used to keeping a shorter *décalage*, might consider waiting to be riskier. Previous research (Gile, 2001; Pym, 2009) along with the data analysis in the present study have shown that interpreters are very aware of risks and choose their approach accordingly. Risk assessment was included in the subjective factors because, although the risk often depends on objective factors, the assessment and decision about whether an approach can be considered high risk or low risk seems to depend on the interpreter, hence risk assessment is closely linked with the personal style/preference of the interpreter.

The importance of interpreters' personal style, or rather to what extent it influences their performance, is self-explanatory. It is revealed not only in their use of strategies, but in every step of the interpreting task. In effect, if we were to take the same portion of speech and ask 10 interpreters to translate it, unless it is a scientific or technical language, we would obtain different translations. One word or expression often has several correspondents in another language, and interpreters can choose the one they believe to be most appropriate. In the same way, since the use of strategies is part of the approach that interpreters take, each interpreter can decide to use different strategies because they find some of them more suitable than others. For example, Interpreter #7 after their performance revealed that they rarely anticipate because anticipation carries a high risk of making a mistake (i.e. they make a decision after running a personal and subjective risk assessment). Instead, what they do is uttering the least-committal word they can think of, and as they receive more information from the speaker, they refine their translation and eventually provide the exact correspondent. This approach shows how this interpreter prefers not to commit too soon. On the other hand, interpreter #2 advised that the strategy they tend to use the most in general is anticipation. They explained that the reason they use anticipation is partly because of their job. They work for the European Patent Office and when interpreting, if they pause the translation even for a few seconds, the target language audience will make this known by saying 'I am not getting any translation'. This interpreter provided this information before the session, which shows

how their job has influenced their personal style, as they tend to use anticipation more in general even in other communication contexts. A further feedback received by one of the participants, Interpreter #3, seems to be completely opposite to the statement by interpreter #7. In relation to the use of anticipation, Interpreter #3 stated that they use anticipation and then if their prediction was wrong they simply make a correction. This perspective has an important significance in the present study, and in interpreting studies in general. The difference in the perspectives expressed by three interpreters who were tasked with the simultaneous interpretation of the exact same speeches and were asked their opinion on the exact same strategy, effectively shows how the choice of strategies is personal. This therefore confirms that it would be difficult (and, in fact, not necessarily helpful), to prescribe the use of a certain strategy, or label one approach as the *best* or the one that interpreters *should* use. The use of strategies has a significant inter-subject variability.

The interpreters' personal style or preference in terms of strategy is evident when analysing the results of the experiment: if strategies (and risk assessment) only depended on objective factors, all the participants would have used the exact same strategies because the objective factors were the same for them all.

Subjective factors are particularly relevant for students and novice interpreters: it would be helpful for them to be aware that finding what strategy works best for them in specific circumstances is the result of a process of trial and error. Based on this, it would be useful for them to learn the different strategies under the necessary guidance while still remembering that no approach is imposed to them, and that they need to use time during training to assess which one(s) they feel more comfortable with, and they find most helpful.

5.5 Strategies used

The pie charts that follow show all the strategies used both in Speech A and in Speech B. They include their occurrence expressed in percentage and the different strategies have been assigned different colours on the chart in order to have a visual representation of how much the various strategies were used. The charts have been included firstly to provide an understanding of the occurrence of all the strategies, and they have been reported in other passages of Chapters 5 and 6 when discussing single strategies so that the single strategies could be put in perspective and against the background of the occurrence of all the strategies used.

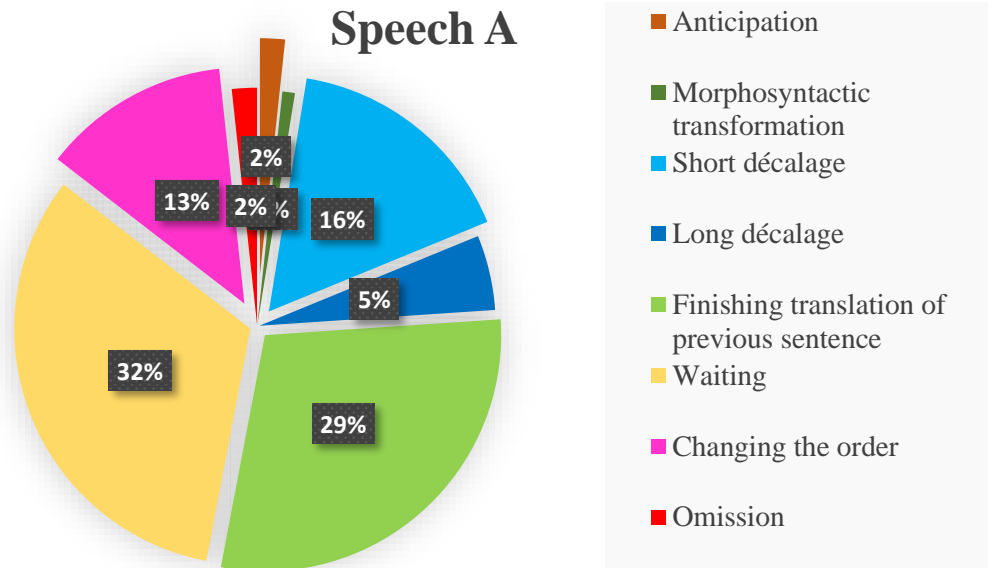


Figure 7 – Strategies used in Speech A

Total utterances analysed in Speech A: 114. There should have been 117 utterances, but Interpreter #5 had connection issues, and 3 utterances are missing from the data sample as they were inaudible. Total strategies used: 117 (in three cases two strategies were used in the same sentence, namely waiting, and changing the order)

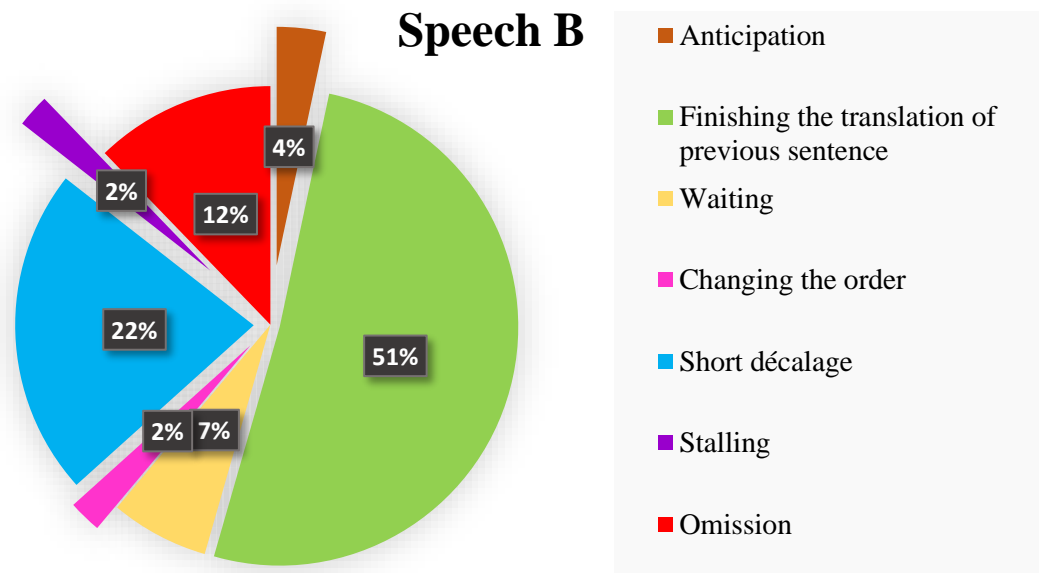


Figure 8 – Strategies used in Speech B

Total utterances analysed in Speech B: 88. Total strategies found: 90. In two cases omission was found along with another strategy (once with waiting and once with FTSPS) The first evident conclusion to be drawn from Figure 7 and Figure 8 is that a variety of strategies was used. This first result can be considered as a proof that the choice of a

strategy, although it must happen quickly, depends on a combination of factors and not only the source speech, as previously mentioned. Although these strategies were used to tackle the same type of sentences, i.e. sentences with negation at the end, several approaches were adopted by the interpreters, which indicates that the choice of a strategy is caused not only by the source text. The subjective aspect in the use of strategies was also addressed by Donato (2003). The author observed that, in her investigation, different strategies had been used by the participants in the same portion of text. This shows how professional interpreters, as a result of their experience, develop an instinct as to which strategy might be more useful to them at a given moment. In fact, Interpreter #8 confirmed that, when working from German, if the sentences are very long, they decide to resort to chunking when they think that the long sentence is becoming difficult to process for their working memory.

The purpose of this investigation is to shed light on all the strategies used and the ones that might reveal more useful, without forgetting that novice interpreters and students need to find the best strategy that works not only for the text or the moment but also for themselves. It is therefore necessary, in order to support future interpreters, to have a clear idea of what the strategies available are and how/when they can be used, so that they will then be able to make them their own and use them where appropriate. As underlined by Wills (1978), only factors that have been systematized can be taught and learnt and, with specific focus on risky strategies such as waiting or omissions, student interpreters need to familiarize with these strategies and become aware of their potential as well as their limitations.

A comparison between the strategies used in the two speeches reveals that, although their occurrence varied (greatly, in some cases), the strategies used are approximately the same, with the exception of some that are present in a speech and completely absent in another speech, for instance long *décalage* which was found in Speech A and was never used in Speech B, or stalling which was used in Speech B but never during the interpretation of Speech A.

Strategy	Occurrence in Speech A	Occurrence in Speech B
Anticipation	2	3
Morphosyntactic transformation	1	/
Finishing the translation of the previous sentence (FTPS)	34	46
Waiting	38	6
Changing the order	15	2
Short décalage	19	20
Long décalage	6	/
Stalling	/	2
Omission	2	11

Figure 9 – Summary of all the strategies used in the two speeches

The first evident result, which will be discussed in more detail in Chapter 6, and which seems to be in line with the results of the two pilot studies, is that anticipation was scarcely used. The main research question of the present investigation was whether and how anticipation would be used to tackle head-final negative sentences, and it appears that it was not the most used strategy nor one of the most used. The strategies that interpreters seemed to gravitate towards are the ones that allow them to hear the source language verb or sentence before uttering it, such as FTPS or waiting. In addition to the scarce use of anticipation, what was revealing was the type of anticipation used, which was not identified in previous research and is relevant not only for the results of the present investigation, but also for interpreting studies in general as the use of anticipation in this research provided a better understanding of this strategy. The type of anticipation found, as well as how anticipation was used and when, will be the focus of the following chapter.

A further result that is evident from Figure 9 and is in contrast with the analysis of the two pilot studies is the absence of segmentation. Segmentation was defined in Chapter 2 as it is a strategy found useful when working with syntactically different languages, and it was initially included in the analysis of the two pilot studies. However, it was difficult to distinguish between segmentation and other strategies, for instance changing the order and long or short décalage. Although it remains a useful approach, from the data analysis it appeared that interpreters almost always used some form of segmentation, as they often started their translation before the source language sentence

had come to an end. Rather than a specific strategy used in some sentences, with the exception of omission and FTPS, it appeared that segmentation was used almost constantly by interpreters, hence it has not been included in the data analysis of the core experiment to tackle head-final negative sentences. It can be considered as a general approach used by most interpreters in the present investigation, rather than a single strategy used specifically to tackle negation or only under certain circumstances.

Figures 7 and 8 show that the two strategies that were most frequently used, although in different measures in Speech A and B, are FTPS and waiting. However, one of them can be considered a consequence more than a strategy. In fact, when interpreters were finishing the translation of the previous sentence⁶⁶, they were not actively using this as a strategy to tackle negation; it was a consequence of something else that had occurred in a previous portion of the speech. For instance, if the interpreter had a longer *décalage* earlier in the speech or they used waiting, this would have caused them to lag behind the speaker enough to hear the full negative sentence, or most of it, before their translation. This in some cases means that the interpreter had heard the negation before uttering it in the target language, hence FTPS for the purpose of this study was categorised as a consequential strategy.

Nonetheless, these instances were included in the data analysis as FTPS is still what allowed the participants to tackle head-final negative sentences and, although it is not the primary or main strategy used specifically for negation, their performance depended on the fact that they were finishing the translation of the previous sentence. For instance, FTPS meant that interpreters did not have to use anticipation in those cases and did not have to take the risk of an incorrect anticipation. Although FTPS is the result of an approach that interpreters had in previous portions of the text, which have not been analysed, this strategy can still reveal an important aspect that helps to answer the main research question.

Moreover, a further clarification is needed. It might appear that FTPS and (involuntary) omissions cannot be considered as strategies because in the first case the interpreter has already heard the sentence or most of it, while in the second case the interpreter appears to not have tackled the sentence at all and seems to have skipped it. In case of FTPS the interpreters still translated in the target language the head-final negative sentence, and they were able to do so because they were finishing the translation of the previous sentence. As the results have shown, in cases where interpreters were not

⁶⁶ As already noted in the pilot studies, Chapter 3.

finishing the translation of the previous sentence, they had to use other strategies, such as waiting or a short *décalage*, or anticipation. Instead, when FTPS occurred, the interpreter did not have to use any other strategy, so FTPS takes the place of another strategy. Based on this definition, FTPS can be defined a consequential strategy, i.e. an approach which is the consequence of other strategies used in previous portions of the speech. Kohn and Kalina (1996) underlined that despite the individual definition of the single strategies, strategies of different types and levels interact to a large extent. If we apply this principle to FTPS, we can see how FTPS can be considered a consequential strategy as it is the result of the interaction with the strategy used in previous portions of the speech (e.g. waiting or long *décalage*). Moreover, speed will be analysed in more detail later, and the occurrence of FTPS might be revealing in understanding to what extent speech rate influenced the performance of participants.

Instead, in case of omissions, although the interpreter did not translate the specific sentence, even involuntary omissions are part of the strategical approach that interpreters have. Kohn and Kalina (1996) underlined how interpreting is a type of communication that has a strategic nature in the sense that is goal-oriented and intentional. In effect, everything interpreters do in their performances seems to be goal-oriented: the goal is to provide a correct translation for the words they are hearing in the source language. Strategies are tools that should make the task slightly less challenging. In this sense, it is undeniable that strategies are intentional, because the intent of the interpreter using a specific strategy is to reach their goal, which is common to all interpreters: to provide a correct translation and to make sure that the requirements imposed by their task do not overburden their processing capacity (Gile, 2009).

Based on this definition, and since everything interpreters do is strategic (Kohn and Kalina, 1996), we have to argue that all the approaches used to carry out their task are strategic. Hence anticipation is a strategy and so is waiting, stalling etc. Omission has been defined as a strategy in the previous literature (Pym, 2009), and it consists in the absence of a specific source language segment or word in the target language, i.e. the interpreter does not translate it. Omitting redundant information has several positive aspects: first of all, it allows the interpreter to save some time and processing capacity, which would have otherwise been used for the translation; it also makes the sentence less redundant in the target language, while still delivering the message that the speaker wanted to convey. In this sense, omissions can be useful to interpreters. However, this strategy has several downsides, which is why it is normally presented to students only as

an emergency strategy. First of all, although sometimes interpreters might omit redundant information, omissions still represent a modification of the original speech, even when they have a very limited effect on the accuracy of the message. Moreover, in his analysis of omissions as a strategy, Pym (2009) explained how interpreters carry out a quick risk assessment to understand whether the information they want to leave out would have a major impact on the message. This could ultimately overburden their processing capacity as they would be focused on whether or not omission is acceptable in a specific circumstance. For these reasons, omission is presented to students as an emergency strategy, while still underlining that it is not advisable to resort to omissions as they are a modification of the source speech. Moreover, it would be useful to help students understand what kind of omissions are high and low risk, so that if they find themselves in the situation of having to omit information, they will at least be able to understand what information would have the least negative impact if omitted.

There is also another reason why interpreters might choose to resort to omission, which is the reason at the basis of the ‘involuntary’ omissions, i.e. when the interpreter is faced with a hurdle in the source language, which can be a word they do not understand, a syntactic structure that makes the sentence more complex or other similar issues. In this case, this strategy has a more significant impact on the target language. The target language audience might not notice that there was an omission (unless the interpreter did not finish the sentence), but if analysed in comparison with the source language speech, the target language message will most likely be incomplete. This kind of omission has been defined by Kalina (1998, cited in Donato 2003) ‘evasion’, which is the deletion of a ST segment as a deliberate choice by the interpreter to evade the problem⁶⁷.

This type of omission would still be mentioned to students so that they know that in situations where there is a problem they cannot overcome, rather than wasting too much time waiting to find a solution and reaching a point where they will have to omit or distort further portions of the speech, it is better to resort to evasion.

Based on what has been said so far about omissions, it is clear that, like waiting, anticipation etc, this is an actual strategy, as is every decision that interpreters make during their performance (Kohn and Kalina, 1996). However, this specific strategy will

⁶⁷ Some of the omissions found in the data analysis could be trace back to this category of evasion, however it would not be possible to be certain that one of the participants omitted some source-language information in order to evade a problem, hence they will be referred to as omissions in the discussion of results

be part of the data analysis just to show what interpreters did, but it is different from the other strategies as, when resorting to omissions, interpreters did not translate the negation.

5.6 Waiting

Waiting was used 38 times in Speech A (read at 100wpm) out of 114 utterances and only 6 times in Speech B (read at 140wpm) out of 88 utterances. This significant discrepancy is related to the speech rate, as speed was the main difference between the two speeches (while the general topic, the non-technical nature of the speech and the presence of both high-redundancy and low-redundancy sentences were virtually the same). Moreover, some studies on speed and its effect on professional interpreters (Meuleman and van Besien, 2009; Barghout and Garcia, 2015) concluded that the spontaneous reaction of interpreters who are facing a high speech rate is to be closer to the speaker in terms of EVS and reduce the time lag as the speed increases. They have defined this strategy “tailing”. The data gathered is coherent with this approach, as interpreters used waiting in only 6 instances when faced with a high speech rate.

The predominant use of waiting as a strategy in Speech A is an important datum that can help provide an answer to the main research question. Anticipation allows interpreters to not wait for information. The initial hypothesis related to anticipation and speech rate was that anticipation would be particularly useful when working with a lower speech rate, as a slower speed means that the non-finite verb and the negation are heard later in the source language, and instead of waiting or using other strategies, an interpreter can decide to anticipate the head-final element once they have enough information. In addition to this, it was hypothesized that anticipation would be less used in Speech B because a higher speech rate meant that the interpreter would be exposed to the full sentence sooner without having to use to anticipation as much. However, the data analysis revealed the opposite. The strategy most used in Speech A is waiting, i.e. a strategy diametrically opposed to anticipation: the interpreters in these instances have decided not to take the risk of an anticipation and to wait instead to have all the necessary information before continuing (or starting) their translation. The concept of risk and how it is perceived by the interpreters will be a recurrent feature in the data analysis, as it seems to be one of the elements that lead interpreters to choose one approach over another, and this was evident from the data analysis but was also confirmed by the participants at the end of the session. However, when addressing strategies, it is immediately necessary to remember that none is entirely risk free. Waiting entails the risk of lagging too far behind, anticipation entails the risk of providing an incorrect translation and having to resort to

an open correction (Lozano-Argüelles and Sagarra, 2021) etc. What is interesting is that the risk-assessment mentioned by Pym (2009) seems to be carried out by interpreters not only in relation to omissions, but in relation to the use of any strategy in general. For instance, in the cases where interpreters resorted to waiting, they chose this strategy over anticipation which entails that (though the use of a strategy is almost automatic and unconscious) anticipation to them represented a greater risk. If we compare the two types of risk involved: lagging too far behind the speaker would force an interpreter to resort to omissions, but if the target language text is coherent and cohesive a target language listener would not know that the interpreter omitted a source language information. On the other hand, if an interpreter openly corrects themselves, it is clear to the target audience that they have made a mistake. This shows that the first type of risk seems to have consequences mainly (if not only) on the interpreter themselves, because they would be the only person involved in the communication to know that they waited too long, whereas the second risk has consequences on the interpreter who needs to correct themselves and on the audience who are aware that the interpreter made a mistake.

5.6.1 Reasons for waiting and how it was identified in the data analysis

The reasons for waiting can be different and they belong to the interpreters who chose to (or found themselves in the position of *needing to*) use this strategy, but generally an interpreter waits because they are unsure of what the speaker wants to communicate and are waiting for more input (Seeber and Kerzel, 2011). The main advantage of this strategy is that, while very briefly, there is a pause from the concurrent efforts of production and comprehension (Gile, 2009): the interpreter can focus on comprehension (or the planning of their output) with a consequent cognitive ease. However, this is generally true when the waiting time is not too long. Otherwise, the interpreter has to store more information in their working memory, which could ultimately result in a “spillover effect” (Seeber and Kerzel, 2011) because the momentary cognitive relief would lead to an increase in the cognitive load downstream (Seeber and Kerzel, 2011), hence burdening the short-term memory (Bevilacqua, 2009).

As for the way in which waiting was identified, it is important to underline that interpreters normally wait before starting their translation, there is a natural ear-voice-span (EVS) or *décalage* which can vary between interpreters. Some professionals only wait one second or even less (e.g. interpreter 2 started their translation of the sentence #2 in Speech A at 01:42:392 when the original sentence started at 01:41:856) while others might be more comfortable with a longer EVS. However, during the analysis of the

performances, it was quite clear when waiting was used as a strategy to have more information, rather than as a natural pause, because the interpreters did not pause at a significant point in the sentence, to give emphasis to something, they suddenly stopped their output production. Bevilacqua (2009) analysed different strategies when interpreting from Germanic languages and focused also on the EVS, that he defined as the distance between the acoustic perception of the input and the moment when the interpreter starts their translation. The author underlined how this strategy, while entailing the risk of overburdening the short-term memory, can be used to improve the comprehension of the source text. By increasing EVS, comprehension improves, and misunderstandings are less likely, but excessive burden on short-term memory created by a long EVS can lead to omissions (Bevilacqua, 2009).

The difference between normal pauses and waiting in the present study was not identified based on the length of time, because in some cases the strategy of waiting was found when the interpreter had only paused for a second, but it was evident that the pause was unnatural because they had suddenly stopped. In this regard, a clarification regarding the concept of ‘unnatural pause’ is necessary. There can be different reasons why a speaker pauses during a speech, but the kind of silent pauses (Mead, 2000) that are referred to as ‘unnatural pauses’ in the present analysis are the ones that have a cognitive origin (Zellner, 1994). According to Goldman-Eisler (1968, 1972 cited in Zellner, 1994:46) a pause is the external reflection of a cognitive process that is part of speech production. In this regard, the aim of the pause is that of having additional time to plan output. In the examples that were defined ‘unnatural pauses’ it seems that the interpreters suddenly became aware that they needed more time before continuing with their translation, which is what Zellner (1994) refers to as the hypothesis that the speech has raced ahead of cognitive activity and the pause reflects the time that is needed for the cognitive planning to catch up. Moreover, as underlined by Grosjean and Deschamps (1975, cited in Zellner, 1994:47) in their investigation on pauses in French, it seems that pauses occur more frequently when the communicative task is more complex. Based on this, having established that simultaneous interpreting is a complex communicative task and that the sentences analysed in the research are particularly challenging, it becomes clear how pauses were not just natural pauses, used for rhetorical purposes or at natural syntactic breaks of the utterance, but rather pauses that originated from cognitive processes.

For instance, in case of Speech A - Interpreter 3 - sentence #12:

In jenem Jahr 1990, als Mandela zum ersten Mal nach Deutschland kam, haben ihn
 13:42:972

beileibe nicht alle als Freund gesehen
 13:51:113

[in 1990, when Mandela first came to Germany, by no means everyone regarded him as a friend]

In 1990 when Mandela came to Germany for the first time (1) not everyone saw him as a
 13:44:451 13:50:783 13:52:032

friend.

In this case, the interpreter started their translation in the target language one second after hearing the source language sentence and translated “not everyone” less than a second after hearing “nicht alle”. By looking at the graphic analysis of this sentence, it might be natural to think that the interpreter was only respecting the normal décalage that is proper to simultaneous interpreting. However, during the analysis of the audio recording of their performance, it became evident that the interpreter had abruptly stopped after saying ‘for the first time’ because they were waiting to receive more input information. This abrupt pause would not have been perceived as disruptive by a target language audience. The target language sentence is linear and sounds natural, therefore when the pause is defined abrupt in the analysis it is not intended to say that it would have been a disruption in a real-life situation, it is meant to underline that the pause was used strategically by the interpreter, which makes it one of the possible approaches to adopt (in lieu of anticipation) when faced with a head-final negative sentence. This sentence would have been the perfect candidate for an anticipation, especially because the interpreter started their production in the target language very soon after hearing the beginning of the sentence in the source speech. They could have used anticipation and translated the full verbal bracket into the target language. Instead, they stopped after ‘for the first time’ and waited before continuing their production in the target language.

5.6.2 Waiting times and examples

Different waiting times were identified both in Speech A and in Speech B:

Speech A													
Interpreter	Sentence												
	1	2	3	4	5	6	7	8	9	10	11	12	13
#1		2s	1s	3s		2s	2s		1s		5s	3s	
#2				3s	2s	1s							2s
#3												1s	
#4											4s	8s	1s
#5	1s			1s			1s				6s	2s	1s
#6	1s	1s					2s			2s		2s	
#7		2s		3s	3s								
#8							3s				1s		
#9			1s	2s	3s					5s	1s,2s,1s	2s	

Figure 10 – Waiting times in Speech A.

Average waiting time: 2,25s⁶⁸

Speech B												
Interpreter	Sentence											
	1	2	3	4	5	6	7	8	9	10	11	
#2												
#3												
#4			3s									
#5			1s; 3s;									
#6			1s;2s									
#7		2s							2s			
#8												
#9					4s							

Figure 11 – Waiting times in Speech B

Average waiting time: 2,25s

Although the average waiting time of the two speeches is the same, the higher occurrence of this strategy in Speech A includes some single instances where the interpreter waited for longer, e.g. for 6 or 8 seconds, while these examples of longer waiting times are absent

⁶⁸ The average takes into consideration 40 instances of waiting. In fact, there were 38 occurrences of waiting, but Interpreter #9 used waiting 3 times in Sentence #11 and these 3 times were counted as three separate waiting times in order to have an accurate average. The same was done for interpreters #5 and #6 in Sentence 3 Speech B – total occurrences of waiting in Speech B were 6 but 8 waiting times were considered for the average.

in Speech B. The examples where the waiting times were longer once again confirm how interpreters chose one risk over the other. These instances of high waiting time entail a high risk of overburdening the short-term memory, but the interpreters still chose to wait instead of resorting to anticipation, which shows how the risk of an incorrect anticipation can be considered (by some interpreters) greater than that of lagging too far behind the speaker..

Notwithstanding the risk of lagging too far behind the speaker when using waiting, this strategy has mostly been used successfully:

Speech A - Interpreter 2 - sentence #4

Doch wollen wir bei alledem nicht vergessen

04:25:159

04:26:828

[however, in all of this we do not want to forget]

Despite all that we should not forget

04:29:753

Speech B – Interpreter #6 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment.

03:59:994

[many European citizens do not trust the EU on such political debates]

Many citizens (2) for many of the citizens they are also concerned about the EU

04:01:024

In this case the interpreter tried to keep a very short *décalage*, in fact they started their translation only a second after hearing the sentence in the source language. However, they did not have enough input elements to continue and finish their translation and had to pause in the middle of the sentence for 2 seconds in order to wait for more information. Kohn and Kalina (1996) found that interpreters sometimes tend to wait to receive more information on the basis of a bottom-up effort. Interpreters receive input information through the source speech, but sometimes the input they have received, i.e. the words uttered by the speaker in the source language until that point, are not enough

to grasp the meaning of the whole utterance and translate it accordingly. For this reason, they sometimes wait in order to complete their bottom-up process, focusing on the single words incoming from the source speech to understand the whole utterance or sentence and translate it in the target language.

In this case waiting was not the initial strategy, the main strategy would have been a short *décalage*, but the interpreter soon became aware that this strategy was not the most appropriate for this sentence and decided to resort to waiting. When a strategy does not lead to a satisfactory result, interpreters might try to use another (Kohn and Kalina, 1996). This is a further example that allows to provide a more complete answer to the main research question that is supported by the data collected. The first approach of the interpreter was to keep a shorter *décalage*, and they could have used anticipation to continue with a short *décalage*. Instead, the interpreter waited, because waiting appeared to be the strategy that would lead to the best outcome. Once again, despite the conditions being ‘perfect’ for the interpreter to use anticipation, they opted for another strategy. These examples show how, although anticipation remains a strategy as useful as all the others, interpreters often opt for other strategies.

This sentence is also an example of the choice to focus only on the strategy specifically used to tackle the difficulty posed by the source language syntax, which is part of the approach taken in this study to not overtheorize or overcomplicate the discussion about strategies. In fact, the interpreter translated the source sentence “*Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment nicht zu*“ [‘*Many European citizens do not trust the EU on such political debates at the moment*’ or, less literally, ‘*Many European citizens do not currently believe that the EU is capable of such political debates*’] with ‘many citizens are also concerned about the EU’. This can be considered an example of approximation (Gile, 1995 cited in Donato, 2003) which involves replacing a segment with a more general or superordinate term or chunk of speech or ‘nearest possible’ solution (Kohn and Kalina, 1996). However, this is not specifically a strategy that the interpreter used to tackle negation, but rather a strategy or an approach used in relation to the meaning because the interpreter had already heard “nicht zu” when they translated “they are also concerned about the EU”. The participant did not choose this solution to compensate for the lack of (or the delayed) input information and for this reason this strategy will not be included in the strategies used for the sake of not over-theorizing the strategies or over-analysing every single action that participants did.

Further examples of successful waiting⁶⁹ are:

Speech B – Interpreter 7 – sentence #2

Diese Hoffnung hat sich nicht erfüllt,
 02:40:532 02:41:725

[*this hope has not been fulfilled*]

And the hope that arose in the aftermath did not last unfortunately
 02:42:112

The interpreter started the sentence only after they heard the full phrase in the source language. Therefore they chose to use waiting as a strategy because they deliberately waited to hear the full source language element before starting their translation. It is not a case where the interpreter was finishing the translation of the previous sentence, they chose to wait.

Speech A – Interpreter 5 - Sentence #1

als deutscher Präsident muss ich Ihnen nicht davon berichten,
 00:25:395 00:27:238

[*as German President I do not need to tell you*]

As the President of Germany I know (1) that I have nothing to tell you
 00:28:392

The interpreter had a short *décalage*, but they stopped their translation after “I know” to hear the non-finite negative verb before continuing with the translation. In this case, there is a slight change in the expression of negation. In fact, while in the source language the speaker used a syntactic negation⁷⁰ (Jäger, 2008), the interpreter used in the target language the negative indefinite “nothing” (nichts). As in one of the previous examples, the interpreter could have kept a short *décalage* and used anticipation instead of waiting, but instead they waited to have more information before continuing with their interpretation.

⁶⁹ ‘successful’ in relation to waiting or other strategies was used to refer to an approach that allowed interpreters to tackle the cognitive load imposed by the syntax and provide a complete translation in the target language. In case interpreter resorted to waiting and then had to omit entire chunks of the speech, the use of waiting would not be labelled as ‘successful’.

⁷⁰ See Chapter 2 for the definition of the different kinds of negation

Waiting can also be used by interpreters not because they are waiting for more information from the source speech, but to pause the production while they plan their output, even if they have already heard the full sentence:

Speech A – Interpreter #8 – sentence 7

Auch hier in Südafrika ist die Diskussion um die Vergangenheit nicht abgeschlossen
07:08:614 07:11:994

[even here in South Africa, the discussion about the past is not concluded]

South Africa's history is ongoing
07:16:143

In this case waiting was used along with morphosyntactic transformation, which is a strategy identified by Riccardi, (1999:172 cited in Donato 2003:107) and consisted in transforming a negative sentence into a positive one. Most likely, the interpreter's working memory was overburdened because they had been waiting a long time to translate this sentence, and they were becoming aware that they had waited too long and that they were running the risk of having to omit some information. This case is interesting as the interpreter, while waiting in silence to hear this sentence, hadn't finished the translation of the previous one. In fact they said:

Each people must learn from its past and (4) take this forward (2)
07:03:745 07:08:529 07:12:946

In this case waiting was used not only to tackle negation, but also because the interpreter was planning how to continue their translation without lagging too far behind.

5.6.3 Change of approach: waiting used with other strategies

The approach to strategies can change if the first one chosen is revealed not to be the most appropriate. In several instances the interpreters have started their translation relying on one strategy but then they had to resort to a different one.

For instance:

Speech A – Interpreter #1 – Sentence #11

Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen –

13:04:927

beileibe nicht alle Antworten.

13:11:927

[*because we in Germany, as you realise from my brief remarks, certainly do not have all the answers*]

[sighs] (5) you will realise from my brief remarks that we in Germany don't have all

13:05:937

13:10:844

13:14:640

the answers either

The interpreter finished the translation of the previous sentence at 13:05:683 and waited 5 seconds before starting their translation. In this case, a combination of two strategies was found, the first being waiting. However, when the interpreter started the translation, they changed the elements of the sentence and started with “das bemerken Sie an meinen kurzen Ausführungen” [*you realise from my brief remarks*] in order to postpone the moment of uttering the verb in the target language. Therefore, the interpreter used waiting followed by changing the order of the elements (Donato, 2003), because the second part of the verbal bracket, i.e. the negation, is at the end of the sentence, and they could not have maintained the same syntactic structure in their translation. At this point, as in the previous examples, the interpreter had two choices: changing the order, as they have done, or use anticipation. The anticipation would have allowed them to translate *haben* and anticipate the negation before hearing it in the source language. However, this approach would have entailed the risk of an incorrect anticipation which can only be followed by an open self-correction. Instead, changing the order and translating the incidental sentence first was a safer approach as it allowed the interpreter to translate the part they had heard, and they only had to store the finite verb ‘haben’ in their working memory.

Moreover, changing the order in this case seems to be a valid alternative as it has more benefits compared to waiting. In fact, when interpreters wait in silence, the burden on their working memory increases, and they also have a longer *décalage* because after the silent pause they will have to translate the sentence they previously heard (while the speaker will continue with their speech). Instead, changing the order in this case allowed the interpreter to keep a shorter *décalage*. For this reason, changing the order seems to be a helpful strategy that conjugates the advantage of anticipation (having a short *décalage*

and not overburdening the working memory) while being safer than anticipation, as the interpreter when changing the order is still only translating elements to which they have already been exposed in the source language.

Speech B – Interpreter #5 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment

04:00:378

nicht zu

[*many European citizens do not trust the EU on such political debates*]

Many citizens (1) th- they (3) believe that the EU is too weak in order to come in order

04:01:285

to tackle the most important challenges

In this excerpt, the interpreter first opted for a short *décalage*, starting the translation of the sentence only a second after the original sentence had begun in the source language. Subsequently, they had to wait because they did not have enough information to continue. Since this speech is relatively fast, waiting entails the risk of losing more information, which then led the interpreter to omit this sentence and continue with the translation of the following one. This type of omission is what Barik (1971) refers to as compound omission, that is when the interpreter combines different elements from different clauses by omitting some parts of the sentences.

This is a perfect example of how difficult it is to universally state that one strategy is the best one to use in a given context. The choice of a strategy must be made in a fraction of a second by the interpreter, and this process is not smooth and unilateral as sometimes interpreters change their approach and use a different strategy. This also shows how interpreters constantly rely on self-monitoring during their production effort (Gile, 2009): they need to ensure that their approach was correct, whether it is a specific strategy they used or the translation of a source language element.

5.7 FTPS (finishing the translation of the previous sentence)

This strategy, similarly to waiting, can be considered as an opposite approach compared to anticipation. However, it must be noted that FTPS removed the need to resort to anticipation (or any other strategies), because the advantage that interpreters had from FTPS was that they had either all the elements or enough information from the source language sentence in order to continue their translation. Therefore, FTPS is a

[*by no means are the wounds all healed*]

And the wounds created are not yet healed

07:19:524

In this last example, the interpreter was not actively translating the previous sentence, they heard this sentence in silence. However, they had not yet translated the sentence immediately before this one, so they were focused on the previous sentence. This is why this can be considered an example of finishing the translation of previous sentence, because even if in this moment they were not actively uttering the translation, that is what they did immediately after they heard this sentence, proving that their mental capacity was focused on planning the translation of the previous sentence.

Speech B

Interpreter #9 – sentence 2

Diese Hoffnung hat sich nicht erfüllt,

02:41:610

[*this hope has not been fulfilled*]

But that is not the case

02:44:652

The interpreter finished the translation of the previous sentence at 02:44:325, immediately before starting the translation of the current segment, hence they had heard the full negative verbal bracket before uttering it in the target language.

Interpreter #5 – sentence 4

Damit stellen wir den Steuerwettbewerb nicht ein

06:21:918

[*in this way we are not ceasing tax competition*]

We will not enter into tax competition

06:23:093

The interpreter was finishing the translation of the previous sentence (06:23:031s) and when they started the output of the current sentence, they had already heard the negation. Although this consequential strategy was often found in Speech A, i.e. 34 times, representing 29% of the strategies used, in Speech B its occurrence is higher,

and it is accountable for 51% of occurrences (it was used 46 times). The main cause for this difference seems to be the speech rate, and it will be addressed in more detail throughout the chapter.

5.8 Other strategies

While waiting and FTPS were the most used by interpreters, it is worth analysing the other strategies used to have a clear understanding of all the approaches taken by professionals to tackle head-final negative sentences.

5.8.1 Short décalage

This strategy was used a few times by the participants (19 times in Speech A and 20 in Speech B) and it is diametrically opposed to the most used strategy, i.e. waiting. The short décalage depends on the management of the ear-voice-span and the instances where the EVS was short were defined in the present as research short décalage. Bevilacqua (2009) mentioned that the EVS, here referred to as short décalage, is an alternative strategy to anticipation or segmentation and underlined how there is no precise theory on how to manage the EVS as it is a subjective choice of the interpreter (Bevilacqua, 2009:7).

However, although short décalage and waiting are completely different, they have a common goal: wanting to avoid risks, although in different ways. When interpreters try to have a short décalage, they avoid the risk of lagging too far behind the speaker as they translate the elements almost as they hear them. This way, they avoid the risk of overtaxing their working memory as they do not need to store as much information because all the elements are translated rather quickly. On the other hand, when interpreters choose to wait, it is because they do not have enough information and they want to be sure of their translation before uttering it, so they decide to wait.

In case of short décalage, the main benefit is that they can translate the sentence almost as it is being uttered in the source language and it is a more linear translation where they do not need to change the order of the elements or modify the sentence as much. Interpreters seemed to use short décalage when they were fairly certain that the translation of the sentence would be linear and, when it was not, they resorted to other strategies but, once again, not to anticipation. We can argue that when short décalage is initially used as a primary strategy but then the interpreter finds that it is not the correct approach, anticipation is one of the least helpful strategy to use instead. The realization that interpreters need more information before continuing their translation entails that they are uncertain of how the sentence will unfold, i.e. they do not have the required certainty to

use an anticipation. Hence, they have used other strategies that felt safer as they allowed them to receive more input information before continuing with their translation, or in order to reorganize the sentence in the target language. This strategy was used by the interpreters in the following sentences:

Speech A

Sentence	Interpreters								
	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									

Figure 12 – Short *décalage* in Speech A

Interpreter #2 - sentence #1

als deutscher Präsident muss ich Ihnen nicht davon berichten

00:19:062

00:22:094

[as German President I do not need to tell you]

and as a President of Germany I don't have to tell you

00:20:773

00:23:156

In this instance the interpreter kept a very short *décalage*, barely more than a second. This allowed them to translate the elements of the sentence as they were uttered in the source language, and no further strategy was necessary as the interpreter was able to translate the sentence linearly.

Interpreter #2 - sentence #2

Nur eines konnte das Regime nicht zerstören

01:41:851

01:43:657

[there was only one thing that the regime could not destroy]

Only one thing was something which the regime could not destroy

01:42:393

01:45:682

The interpreter started their sentence in the target language less than one second after hearing the beginning of the sentence in the source language. No other strategy was necessary as the interpreter had already heard the negative verb in the source language before uttering it in the target language. The English structure is longer than the German source sentence, hence the interpreter needed more time to utter their translation and heard the corresponding verb in the source language. In this case, what happened is similar to FTPS and opposite to anticipation. Both in FTPS and in this example, the interpreter was exposed to all the sentence elements in the source language before having to place them in the target language, they did not need to wait for or anticipate anything as they already have all their pieces and need to utter them in the target language.

Interpreter 3 -sentence #2

Nur eines konnte das Regime nicht zerstören:

01:40:593

01:42:815

[there was only one thing that the regime could not destroy]

Only one thing could not be destroyed by the regime

01:41:942

01:44:249

Interpreter #4 - sentence #9

Rassismus, Antisemitismus und Fremdenfeindlichkeit sind auch in Deutschland nicht

08:40:092

08:46:091

überwunden

[even in Germany racism, antisemitism, and xenophobia have not been overcome]

Racism antisemitism and xenophobia are also issues that remain in Germany

08:41:194

08:46:688

Interpreter #6 - sentence #3

Ohne diese Vorkämpfer wären wir nicht hier.

03:28:052

03:29:963

[without these pioneers, we would not be here]

Without these ehm preceding struggles we wouldn't be here today

03:29:316

03:31:961

Most of the time, when interpreters start their translation soon after the sentence started in the source language it is because they believe that they have enough elements to continue and finish the target language sentence (or chunk). This explains why in some sentences none of the interpreters used a short décalage, i.e. in sentences:

#4 (low redundancy)

Doch wollen wir bei alledem nicht vergessen, [...]

[however, in all of this we do not want to forget]

#5 (high redundancy)

Ohne multilaterale Zusammenarbeit können wir die großen globalen Aufgaben nicht lösen.

[without multilateral cooperation, we cannot solve the major global issues]

#7 (low redundancy)

Auch hier in Südafrika ist die Diskussion um die Vergangenheit nicht abgeschlossen, [...]

[here in South Africa, too, the discussion about the past is not concluded]

#10 (high redundancy)

das ist im wiedervereinten Deutschland nicht anders

[it is no different in the reunified Germany]

#11 (low redundancy)

Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen – beileibe nicht alle Antworten.

[because we in Germany, as you realise from my brief remarks, certainly do not have all the answers]

#13 (low redundancy)

Leider haben wir die Jahre danach nicht immer genutzt, [...]

[unfortunately, since then we have not always made use of the years]

Most of these sentence (4 out of 6) were low-redundancy sentences. In some cases, e.g. in case of sentence #11, they also had a (even more) complicated syntax which prevented the interpreters from maintaining a short *décalage* and translating the sentence by uttering elements in the target language as they heard them in the source language. The fact that most of these sentences were low-redundancy sentences might indicate that interpreters, because of the low level of redundancy, did not feel comfortable enough starting their translation very soon after hearing the source language sentence because they were not able to reach an adequate level of certainty in the prediction of the meaning.

Another aspect to underline is that interpreters #1, #5 and #8 never used short *décalage* as a strategy. Although they could have used it, it might not have been in line with their personal style or not have been the strategy they felt most comfortable with, so it was never used by them during their interpretation of the sentences analysed. Instead interpreter #3 used short *décalage* 6 times and waiting only once. This suggests that they feel more comfortable having a short ear-voice-span and being closer to the speaker in order to minimize the effort on their working memory. This hypothesis was when Interpreter #3 advised that they usually use anticipation and, if their prediction was incorrect, they correct themselves as needed. Their approach shows that they prefer to hand a shorter *décalage*, whether through using short *décalage* or anticipation, and the risk of providing an incorrect output which will need to be rectified is not as relevant for them.

Speech B

Sentence	Interpreters							
	2	3	4	5	6	7	8	9
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

Figure 13 – Short décalage in Speech B

The only interpreter who never used this strategy in Speech B is Interpreter #4. This finding as well as the analysis of the other strategies found in their performance suggest that this interpreter wanted to be certain before uttering a translation, which sometimes caused them to omit entire sentences because they did not manage to keep pace with the speaker. In fact, they only resorted to waiting, omissions and finishing the translation of the previous sentence. This analysis can be revealing of the personal style of the interpreter: the strategies found and the complete lack of the use of the short décalage are coherent and might indicate that, especially in this instance, with a speech that was delivered at a high speech rate, the interpreter did not feel comfortable starting their translation until they had enough information to make them reasonably sure that their interpretation was correct.

Moreover, as it was the case for Interpreter #3, the feedback collected from the interpreter at the end of the session is coherent with the data analysis: interpreter #4 underlined how several elements of the input speech were distracting to them, hence they found it difficult to keep pace and, even more, to make predictions on the unfolding sentence, as much of their processing capacity was affected by what they considered distractors. First of all, the order in which the speeches were presented: the interpreter

was asked to interpret Speech B first and Speech A afterwards, as the order of the two speeches was randomized (for all the subjects). The speeches were never referred to as Speech 1 and 2 in the invitation e-mail, and all the participants were only informed they were going to be asked to interpret 2 speeches. The general topics of the speeches were also provided in the email. They were not even aware that one was going to be faster and one slower, they only had the titles of the speeches and the general topic. However, since Speech A was mentioned first in the e-mail, Interpreter #4 found it distracting to interpret Speech B first. Secondly, although in the invitation e-mail it was clearly stated that they were going to interpret the audio recording of the speeches, the interpreter was confused by the fact that the original speaker was a man (Olaf Scholz), but the speech had been pre-recorded by a woman. Finally, the interpreter underlined that when they work, they request the speeches to be as spontaneous as possible, not read out. From their final remarks it is clear that the interpreter did not feel entirely comfortable interpreting this speech, which can have contributed to their choice of avoiding risking a translation if they were not entirely sure. Interpreter 4 also tended to be as close to the source speech as possible, avoiding anticipations, short décalage or any other strategy or style that would entail a further risk. However, it is worth noting that none of the other participants expressed issues with the read-out nature of the speech. Only Interpreter #3 mentioned a few days after the session that they had been expecting a man's voice and not a woman's. Aside from this example, although in different measures, all the interpreters used short décalage as a strategy.

Interpreter #9 – sentence 8

Ohne sichere Außengrenzen kann die grenzenlose Bewegungsfreiheit innerhalb

11:42:314

Europas, die sich aus dem Schengen-Abkommen ergibt, nicht funktionieren.

11:48:726

[without secure external borders, the unrestricted freedom of movement within Europe, that is a consequence of the Schengen Agreement, cannot work]

If the EU doesn't have an outer border then we can't – then we can't have free

11:44:861

11:49:392

circulation of people inside our border

The interpreter started their translation of the sentence very promptly, and then they had some hesitation as they were hearing the negative verb in the source language.

Interpreter #8 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment
09:35:900
nicht zu.

[many European citizens do not trust the EU on such political debates]

Many citizens do not believe that the EU is capable of such debates
04:02:115

In some cases the décalage is so short that is even less than a second:

Interpreter #5 – sentence 10

Die meisten Flüchtlinge in der Welt finden sich im Übrigen nicht in Europa,
13:08:896

[moreover, most of the refugees in the world are not located in Europe]

Now most of the refugees are not in Europe
13:09:631

Interpreter #5 – sentence 11

Und damit meine ich ausdrücklich nicht finanzielle Großzügigkeit
15:26:143

And here I am not speaking about financial generosity
15:26:936

Interpreter #3 – sentence 8

Ohne sichere Außengrenzen kann die grenzenlose Bewegungsfreiheit innerhalb
11:41:184

Europas, die sich aus dem Schengen-Abkommen ergibt, nicht funktionieren
11:48:014

[without secure external borders, the unrestricted freedom of movement within Europe, that is a consequence of the Schengen Agreement, cannot work]

Without secure borders leaving the EU we have to see that this is something that

11:42:955

would not be able to work without anything else.

11:48:859

This is as an example of an interpreter who started the translation shortly after hearing the beginning of the sentence in the source language, but then discovered that they did not have enough elements to continue or conclude their output. In this specific case, the translated version does not convey the same meaning as the original sentence.

A second strategy could be identified in the present example: stalling. The interpreter added “we have to see that”, which was not present in the source language, most likely because they did not have enough elements to continue without making an unnatural pause mid-sentence. When adding a neutral segment such as “we have to see that” they have not added any significant information that was not uttered by the speaker, but they gave themselves the chance to buy some time (literally, to stall) to hear more input chunks before continuing with the translation. For this reason, this instance can be considered an example of short *décalage* as the primary strategy, but then the interpreter resorted to stalling to continue with and conclude their translation. Short *décalage* used with other strategies

There are other examples where short *décalage* was the initial choice of the interpreters but then they discovered that it would not have been the best strategy for that sentence and had to change their approach.

Interpreter #5 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment

04:00:378

nicht zu.

[many European citizens do not trust the EU on such political debates]

Many citizens (1) th- they (3) believe that the EU is too weak in order to come in order

04:01:285

to tackle the most important challenges

In this case, the interpreter first opted for a short *décalage* and started the translation of the sentence only a second after the original sentence had begun in the source language. Subsequently, they had to wait because they did not have enough information to

continue, therefore they resorted to a silent pause for cognitive reasons (Zellner, 1994). However, since the input speech rate was fast, waiting entailed the risk of losing more information, which then led the interpreter to omit this sentence and continue with the translation of the following sentence.

Interpreter #6 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment.

03:59:994

[many European citizens do not trust the EU on such political debates]

Many citizens (2) for many of the citizens they are also concerned about the EU

04:01:024

As in the previous example, the interpreter started their translation only a second after hearing the sentence in the source language. However, they then had to pause in the middle of the sentence in order to wait for more information. Therefore, as in the previous example, the interpreter chose another strategy because the first one did not lead to the desired outcome (Kohn and Kalina, 1996).

It is worth noting that this sentence has a low redundancy because there is a change of reference, which makes inferences more difficult. In fact, although this was only found in two interpreters and it is not enough to represent a recurrent pattern, both the interpreters mentioned tried to have a short *décalage* but had to change their approach on the same sentence, that is sentence #3. Short *décalage* entails a higher risk as a strategy because when the interpreter discovers that it was not the correct approach, by that point they have already started their output and have to resort to other strategies. However, these other strategies, can never entail anticipation, because the basis of anticipation has to be certainty. A professional interpreter must be confident of what the speaker wants to communicate, otherwise (successful) anticipation is not possible. Despite both being a risk, short *décalage* is still safer than anticipation because it is a matter of time management. The interpreter does not run the risk of providing an incorrect translation because they have not uttered anything that they have not heard in the source language yet, and in the worst-case scenario they will make a silence pause or stall until they have more information to continue.

5.8.2 *Changing the order*

This strategy, which was used in different ways, can be very helpful when tackling head-final negative sentences, as it allows an interpreter to translate some parts of the sentence, while postponing the moment of uttering the verb.

A clarification is necessary before continuing the analysis of this strategy: from the above description, it might seem that it is the same as chunking, as the interpreter is translating a chunk of the sentence in order to free some processing capacity rather than waiting and translate the sentence all at once. However, the reason why here this tendency is defined as changing the order is because while chunking is used in long sentences in order to divide them into smaller chunks, changing the order in the present analysis was used also in shorter sentences (e.g. sentences #7 and #10 in Speech A). Some interpreters slightly changed the elements in the sentence in order to postpone the finite verb until they were certain of what the non-finite verb was, and they were able to translate the full verbal bracket. Translating the finite verb without the non-finite verb would not be possible in English, but these instances were highlighted as the interpreters might have used anticipation, but instead they decided to postpone the moment of uttering the finite verb. Once again, the sentences where changing the order was used, might have been the right candidate for an anticipation. The interpreter had heard the finite verb in the source language, and they had the chance of anticipating the non-finite verb and utter the full verbal bracket in the target language after hearing the finite verb. However, this would have been a risk because the non-finite verb could have been linked to a negation, in which case the interpreter would have needed to either anticipate it correctly in the negative form or correct themselves in case they anticipated it wrongly in the positive form. In both scenarios, anticipation was a great risk, while changing the order was a safer strategy.

Changing the order was used more frequently in Speech A (15 times) than Speech B (2 times). The higher frequency of this strategy in Speech A shows that speed has a great influence on the use of strategies: when the input rate is slower, interpreters have more room for manoeuvre and can reorganize the elements in the target language. When the speech rate is faster, coping with the delivery rate seems to be the main priority, and interpreters have less time and processing capacity available to reorganize the sentence or to resort to other strategies that would require more time and effort.

Speech A

Interpreter #1 - sentence #11

Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen –
13:04:927

beileibe nicht alle Antworten.
13:11:927

[*because we in Germany, as you realise from my brief remarks, certainly do not have all the answers*]

[sighs] (5) you will realise from my brief remarks that we in Germany don't have all
13:05:937 13:10:844 13:14:640
the answers either.

The interpreter finished the translation of the previous sentence at 13:05:683, then waited 5 seconds and started their translation. In this case, a combination of two strategies was found, the first being waiting. However, when the interpreter started their translation, they changed the elements of the sentence and started with “das bemerken Sie an meinen kurzen Ausführungen” [*you realise from my brief remarks*] in order to postpone the moment of uttering the verb in the target language.

The same combination of strategies for this sentence was used by Interpreter 8:

Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen –
beileibe nicht alle Antworten.
13:09:013

[*because we in Germany, as you realise from my brief remarks, certainly do not have all the answers*]

In Germany, and you will see this (1) from what I've said, do not have all the answers
13:10:695

The interpreter waited for one second before continuing the translation, and they also changed the order slightly by postponing the moment of uttering the verb of the main sentence and translating the incidental clause first.

Interpreter #2 - sentence #7

Auch hier in Südafrika ist die Diskussion um die Vergangenheit nicht abgeschlossen
 07:11:563 07:14:761

[even here in South Africa, the discussion about the past is not concluded]

Here in South Africa too the discussion about the past is not over
 07:13:054 07:17:115

In this instance, the interpreter had a very short décalage, they kept close to the source language and translated the elements almost as they heard them. However, the interpreter uttered the finite verb “is” only after hearing the negation in the source language. Being able to change the order of the elements and postpone the moment of uttering the verb allowed them to have a shorter décalage.

Interpreter #3 - sentence #10

das ist im wiedervereinten Deutschland nicht anders
 09:53:193 09:55:034

[it is no different in the reunited Germany]

And in unified Germany it's no different
 09:54:361 09:56:742

In this abstract, the interpreter has slightly changed the order of the elements. They started with “in unified Germany” and postponed the moment of uttering the finite verb, as they were unsure about the meaning of the sentence. They decided not to risk an anticipation or a linear translation and decided to postpone the moment of uttering the finite verb until they were sure of the meaning.

Interpreter #5 - sentence #5

Ohne multilaterale Zusammenarbeit können wir die großen globalen Aufgaben nicht
 04:59:273 05:04:137
 lösen

[without multilateral cooperation, we cannot solve the major global issues]

Without multilateral cooperation (1) the large challenges which we face today could not
 05:01:782 05:06:100
 be resolved

Once again, the interpreter postponed the moment of uttering the finite verb in order to maintain a short *décalage*. This allowed them to translate “the large challenges” and only insert the negative verb after hearing it in the source language.

	Interpreters								
Sentence	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									

Figure 14 – Changing the order in Speech A

Speech B

Interpreter #8 – sentence 8

Ohne sichere Außengrenzen kann die grenzenlose Bewegungsfreiheit innerhalb Europas,
 11:41:514

die sich aus dem Schengen-Abkommen ergibt, nicht funktionieren.
 11:47:263

[without secure external borders, the unrestricted freedom of movement within Europe, that is a consequence of the Schengen Agreement, cannot work]

Without safe external borders the freedom of movement within the EU as per the

11:42:162

Schengen agreement cannot function

11:49:374

Interpreter #5 – sentence 8

Ohne sichere Außengrenzen kann die grenzenlose Bewegungsfreiheit innerhalb

11:40:542

Europas, die sich aus dem Schengen-Abkommen ergibt, nicht funktionieren.

11:481

[without secure external borders, the unrestricted freedom of movement within Europe, that is a consequence of the Schengen Agreement, cannot work]

Because without secure external borders the freedom of movement within Europe

11:41:593

which is laid down in the Schengen agreement will not work

11:48:685

Although this strategy was not widely used in Speech B, it is worth noting that it was used by two interpreters for the same sentence. Despite this sentence being considered to have a high redundancy, it appears to be well suited for this strategy as it is easier to translate “the freedom of movement within Europe” and postpone the verbal bracket without it sounding unnatural. The freedom of movement is the subject of the sentence, therefore changing the order and placing it as the first element makes the sentence sound natural in English and is in line with the English SOV word order. This is an example of a sentence where the high redundancy might have led to an anticipation, but instead two of the participants decided to use changing the order instead.

5.8.3 Morphosyntactic transformation: a possible safety net

Another strategy found in the data analysis was morphosyntactic transformation. In this regard a clarification is necessary: this strategy was found once strictly to tackle negation in Speech A, however interpreters used it multiple times as a “general” strategy, or as a stylistic choice.

Interpreter #5 – sentence 10

das ist im wiedervereinten Deutschland nicht anders.
 09:57:193 10:00:392

[*it is no different in the reunited Germany*]

And is also the and is also the case in the reunified Germany
 09:59:057

This is a perfect example of a case where the morphosyntactic transformation was useful because the alternative would have been an open self-correction: the interpreter kept a short *décalage* in this case and they translated the finite verb in the positive form “is” before knowing that the sentence was going to be negative. This is also clear because the interpreter repeated “and is also the and is also”, which indicated hesitation, because they were stalling while thinking how they could express the concept of the source language without resorting to an open self-correction. In this case, morphosyntactic transformation allowed the interpreter to provide a smooth and natural translation.

Based on this example, morphosyntactic transformation can sometimes be considered anticipation’s safety net. For instance, if the original verb was going to be ‘unify’ and the interpreter anticipated ‘divide’, the only option would have been to openly correct themselves. Instead, specifically in case of head-final negative sentences, in case the interpreter anticipated a verb and then heard it at the negative form, they could change some other elements in the sentence so that the audience would not notice they made a mistake and still communicate the same meaning as the utterance in the source language. In this example, saying ‘it is no different’, which was the translation of the original sentence, is the same as ‘is also the case’, which is what the interpreter said. Both express the same meaning, and since the interpreter translated the finite verb before knowing it was going to be negative, the slight change they made allowed them to continue with their translation without a potential audience noticing that original sentence was negative. This is a clear example of interpreters translating the *sens* (Seleskovitch, 1986) and not single words: it is not as relevant whether a concept is expressed through a negative or a positive form in the source language, as long as the same meaning is communicated by the interpreter in the target language. Hence morphosyntactic transformation can be anticipation’s safety net specifically when tackling negative sentences in the source language. Morphosyntactic transformation can be considered as a strategy that embodies the theory of the Paris School in terms of translating the *sens*. Notwithstanding that if English and German had the same surface structure morphosyntactic transformation

might not be as used because both languages would express negation in the same way, the use of this strategy proves that the essential feature of interpretation is to translate the *meaning* of the utterance. In this case, it is not as relevant whether the *sens* is expressed through a negative or a positive sentence, as long as the speaker's message is communicated in the target language.

Aside from this single instance, morphosyntactic transformation was used in other cases and by other participants when they had already heard the negative verb. On one hand, it is possible that this was a stylistic choice of the interpreters, but on the other hand this might indicate that processing and translating a sentence in the positive form is less cognitively taxing than a sentence at the negative form. That is, when interpreters are working simultaneously and they need to temporarily store in their working memory the meaning of the message, memorizing the concept might be more helpful by focusing on what *happened* rather than on what *did not happen*, which they could then translate in the target language using a morphosyntactic transformation.

In fact, this strategy was used in the following instances:

1. Interpreter #1 – in combination with FTP
2. Interpreter #4 – in combination with FTP
3. Interpreter #4 – in combination with long décalage
4. Interpreter #4 – in combination with short décalage
5. Interpreter #4 – in combination with FTP
6. Interpreter #7 – in combination with short décalage
7. Interpreter #7 – in combination with waiting
8. Interpreter #7 – in combination with waiting
9. Interpreter #7 – in combination with anticipation
10. Interpreter #8 – in combination with long décalage
11. Interpreter #8 – in combination with FTPS
12. Interpreter #8 – in combination with waiting

Morphosyntactic transformation was never used as a strategy to tackle negation in Speech B, but it was used in combination with other strategies in a few cases:

1. Interpreter #3 - in combination with FTPS
2. Interpreter #6 – in combination with short décalage
3. Interpreter #9 – in combination with FTPS
4. Interpreter #9 – in combination with FTPS

Based on the strategies used alongside morphosyntactic transformation, it might be possible to differentiate between a morphosyntactic transformation as a style choice and the use of this strategy because it might have been cognitively easier. It was used in combination with short *décalage* three times in total and once in combination with anticipation. When interpreters are keeping a short *décalage* they can translate the sentence in a rather linear way, because keeping a short *décalage* means they will not need to restructure the sentence as much. At the same time, in these cases the interpreter had heard the negation before translating the verb, therefore it is not a case where they translated the verb at the positive form and then had to resort to a morphosyntactic transformation. For this reason, these can be considered examples of the use of this strategy as a stylistic choice rather than as an actual strategy to tackle an issue.

Speech A

Interpreter #4 – sentence 9

Rassismus, Antisemitismus und Fremdenfeindlichkeit sind auch in Deutschland nicht
 08:40:09208:46:091

überwunden

[even in Germany racism, antisemitism, and xenophobia have not been overcome]

Racism antisemitism and xenophobia are also issues that remain in Germany
 08:41:19408:46:688

In all the other cases, interpreters used morphosyntactic transformation in combination with waiting, finishing the translation of the previous sentence and long *décalage*. In these instances, the interpreter is aware that they need to avoid lagging too far behind the speaker, and they are aware that they need to make an extra effort to remember what was said before while still paying attention to and registering in their working memory what the speaker is currently saying. This might generate an added stress for the interpreter, which then increases the burden on their processing capacity. In these cases the interpreter can memorize the concept of the sentence, and it might be easier for them to detach it from its linguistic structure and when they then have to render it in the target language, they possibly only recall the concept and express it at the positive form rather than the original negative form. As per Seleskovitch's theory (1986) the interpreter needs to render the *vouloir-dire* of the speaker in the target language. When interpreting, interpreters memorize concepts, *le sens*, and it might be easier for the interpreter to memorize what is true or what has taken place (i.e. in the positive form) rather than what is not or has not taken place. Although this research is based on the theory that interpreting between

syntactically different languages is more difficult because of the added cognitive effort involved and that language specificity is a factor that influences the interpretation, as shown by several researchers (Wills, 1978; Kirchhoff 1976/2002; Wang and Gu, 2016; Uchiyama, 1992), the fact that interpreters have sometimes changed the sentence from negative to positive might represent a meeting point between the two approaches. On one hand, if the syntactic structure of the sentence had not been different between German and English, the interpreter could have uttered the target-language sentence without any modification or reformulation. Thus ultimately shows how the languages involved in the interpretation do influence the performance, and the syntactic differences make it more difficult as they require restructuring (Wills, 1978). However, the results show a different aspect: while it is well known that interpreters translate meaning and not simple words, the change of a negative sentence into a positive one might imply that the interpreter had detached the meaning, *le sens*, from its linguistic shell (Seleskovitch, 1986) and memorized what had happened. This might prove that a sentence in the positive form might be cognitively easier to memorize than a sentence in the negative form, hence in their short-term memory the interpreters might have memorized the meaning and then rendered it in the target language in the positive form, because they were focusing on the meaning rather than on its linguistic shell. This would prove that the theory of the Paris School (Seleskovitch, 1986) and that of the bilateralists (Setton, 1999) have some points in common and are not mutually exclusive, but rather can be integrated under certain aspects.

Speech A

Interpreter #1 – sentence 10 (in combination with FTPS)

das ist im wiedervereinten Deutschland nicht anders.

09:54:248

09:57:359

[it is no different in the reunited Germany]

And that's true for reunified Germany

09:56:513

Interpreter #7 – sentence 4 (in combination with waiting)

Doch wollen wir bei alledem nicht vergessen

04:25:175

04:27:348

[*however, in all of this we do not want to forget*]

When we have all of this in mind it's important to remember

04:29:500

Interpreter #8 - sentence 2 (in combination with long décalage)

Nur eines konnte das Regime nicht zerstören

01:38:797

01:40:738

[*there was only one thing that the regime could not destroy*]

Only one thing remained

01:40:896

Speech B

Interpreter #8 – sentence 6 (in combination with FTSP)

Es geht also nicht um Transferzahlungen

11:03:142

[*we are not talking about transfer payments*]

It's also a question of transfer payments

11:06:568

5.8.4 Long décalage – Speech A only

This strategy was only found in Speech A. This datum is important in determining the impact of speed on the use of strategies. When interpreting a speaker with a fast speech rate, one would expect that interpreters cannot use waiting or keep a longer décalage because they would risk losing more information, as the speaker is inevitably saying more words per minute compared to a slow speech. This assumption is confirmed by the data analysis: the absence of this strategy in Speech B proves that none of the interpreters could keep a long décalage because of the speech rate, since the other experimental and textual conditions were the same in the two speeches. Moreover, this is a further example of a strategy that was used instead of anticipation. In the instances where the interpreter kept a longer décalage, they could have used anticipation, but instead they chose to lengthen their ear-voice-span as an approach.

In the instances where it was found, this strategy was differentiated from waiting because from the analysis of the audio recordings it appeared that when it was used the interpreter was keeping a longer décalage as a general strategy, rather than specifically

wait to tackle negation. However, this approach was still what allowed them to tackle head-final negative sentences, hence it was included as a strategy in the data analysis. Moreover, this strategy was used almost exclusively by the same interpreter, that is interpreter 8.

Interpreter 8 - sentence #1

als deutscher Präsident muss ich Ihnen nicht davon berichten,
00:16:938 00:19:501

[as German President I do not need to tell you]

As the German President I am aware that I don't need to tell you
00:19:440 00:22:796

The interpreter seemed to maintain a longer *décalage* as a general strategy or “style”, they did not specifically choose to wait before translating the verb, they were maintaining a longer *décalage* even before this sentence.

sentence #2

Nur eines konnte das Regime nicht zerstören
01:38:797 01:40:738

[there was only one thing that the regime could not destroy]

Only one thing remained
01:40:896

sentence #4

Doch wollen wir bei alledem nicht vergessen
04:22:186 04:24:200

[however, in all of this we do not want to forget]

However we must not forget
04:24:957

sentence #12

In jenem Jahr 1990, als Mandela zum ersten Mal nach Deutschland kam, haben ihn
13:40:484

beileibe nicht alle als Freunde gesehen.
13:48:538

[in 1990, when Mandela first came to Germany, by no means everyone regarded him as a friend]

In 1990 when Mandela travelled to Germany for the first time he was certainly not seen
13:43:193

as a friend by all

sentence #13

Leider haben wir die Jahre danach nicht immer genutzt
14:31:359 14:33:251

[unfortunately, afterwards we have not always made use of the years]

Unfortunately we did not always use the following years.
14:33:995

Only in one case this strategy was found in another interpreter's performance, that is interpreter 4.

sentence #7

Auch hier in Südafrika ist die Diskussion um die Vergangenheit nicht abgeschlossen
07:11:268 07:14:539

[even here in South Africa, the discussion about the past is not concluded]

In South Africa (2) much work remains to be done on memory (1) and on national
memory
07:14:391

The fact that a longer décalage was mainly used by one interpreter shows once again how strategies, despite having a very limited time to choose which one to use, are part of the style of interpreters. Donato (2003) observed that, in her investigation, different strategies had been used by the participants in the same portion of text. This shows how interpreters

develop an instinct as to what strategy might be more useful at a given moment and proves that, as mentioned in the definition of a strategy, subjective factors are as important as objective factors (or even more important) when interpreters decide what strategy they want to use.

5.8.5 Stalling – Speech B only

This strategy was exclusively found in Speech B. The goal of stalling is the same as waiting, i.e. the interpreter needs to receive more information before continuing or starting their translation. The difference lies in how they wait: while in case of waiting the interpreter waits in silence, when stalling interpreters produce a “neutral padding” (Seeber and Kerzel, 2011) which does not add any new information but has only the aim of filling a silence.

Stalling was only found twice:

Interpreter #5 – sentence 7

Mit dem Schutz der EU-Außengrenzen dürfen wir die EU-Staaten nicht allein lassen,
11:28:285

[*we cannot leave EU countries alone in the protection of the external borders*]

When protecting the EU borders **it's important that** we don't leave the EU countries
11:29:275

in the lurch which do have (*inaudible*)

Although the final part of this sentence is inaudible because the interpreter had a technological issue, we can see how at the beginning they wanted to keep a short *décalage* (1 second), but then added “it's important that”. This addition does not modify or add any relevant new meaning compared to the source sentence but allows to buy some time while waiting to hear the full verbal bracket. Although this chunk introduces the concept of the importance of protecting the EU borders, it does not modify the meaning of the original sentence as this is of course an important aspect, otherwise the speaker would not have mentioned it.

This sentence could have been the ideal candidate for an anticipation. The interpreter heard the ‘protection of external borders’ and the verb ‘dürfen’ [*can*] followed by ‘we’ and ‘the EU states’, based on these elements and on what had been

said in previous portions of the speech, the interpreter could have inferred the general meaning of the sentence. It would not have been easy to anticipate the exact verb, but the interpreter could have attempted a general anticipation. It should also be noted that this example is taken from the performance of interpreter 7 and when they were asked about anticipation, they said that they try not to commit too soon because there is always the risk of an incorrect anticipation. Instead, they said they usually produce a neutral verb, a kind of generic anticipation where they utter a verb or a source-language element and then, as they are receiving more information from the source speech, they replace the generic element with the more context-specific one. However, although the interpreter said this is their usual approach, in this case they opted for stalling instead. This is coherent with their personal style as shown in their overall performance, and at the same time it shows the objective and subjective factors at play. On one hand, the approach that this interpreter normally has is coherent with stalling as both are aimed at not committing too soon to a translation in case it reveals to be incorrect. While in case of stalling this is done by adding something that only buys time without modifying or adding anything in terms of meaning of the original message, in case of the regular approach that the interpreter has they produce a target language element, which can be a verb or another component of the sentence, so that they can continue with their sentence structure. This is part of their personal style, i.e. a subjective factor that dictates the choice of a strategy. On the other hand, in this case the interpreter opted for a different approach, and one of the causes could be one of the objective factors such as a higher speech rate, or a particular sentence structure.

Interpreter #3 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment

04:01:258

nicht zu.

04:05:185

[many European citizens do not trust the EU on such political debates]

Lots of citizens do not believe Europe is able to conduct such dialogues and discussions

04:02:965 04:05:382

In this case, the interpreter did not wait in silence: this is a different example of stalling where, by listening to the audio recording of the performance, it is clear that the

interpreter was waiting to hear the complete verbal bracket before uttering the verb. In fact, they paused for half a second after “lots of” and after “citizens” and while they were talking at a sustained pace to keep pace with the speaker, when translating the beginning of this sentence the interpreter was talking slower possibly to buy time hoping to hear the full verbal brace (Bevilacqua, 2009) soon. If we consider the traditional definition of stalling, this might fall into it as the interpreter did not wait in silence, but while stalling is considered the production of neutral material, in this case the interpreter produced only what they heard in the source language, they only slowed down their own speech rate to make sure it would allow them to buy some time and hear the full verbal bracket in the source language.

Stalling was also found as a secondary strategy in the following example:

Interpreter #3 – sentence 8

Ohne sichere Außengrenzen kann die grenzenlose Bewegungsfreiheit innerhalb

11:41:184

Europas, die sich aus dem Schengen-Abkommen ergibt, nicht funktionieren

11:48:014

[without secure external borders, the unrestricted freedom of movement within Europe, that is a consequence of the Schengen Agreement, cannot work]

Without secure borders leaving the EU we have to see that this is something that

11:42:955

would not be able to work without anything else.

11:48:859

The interpreter added “we have to see that” which was not present in the source language, most likely because they did not have enough elements to continue without making an unnatural pause in the middle of the sentence. Adding a neutral segment such as “we have to see that” did not add any significant information that was not uttered by the speaker but gave the interpreter the chance to buy some time to hear more input chunks before continuing with the translation.

For this reason, in this instance stalling can be considered a secondary strategy. Although not every single strategy found in the data analysis will be included, in this case both short *décalage* and stalling can be considered equally important, with stalling being a consequence of the initial short *décalage*.

5.8.6 Omission

Omission was defined in the previous literature as a strategy (Pym, 2009) , and it consists in the lack of translation of a specific source language segment or word in the target language. This can happen for various reasons, Pym (2009) for instance analysed omissions and showed how interpreters sometimes resort to them to eliminate redundant information. He refers to these as low-risk omission (while Kohn and Kalina, 1996 define it ‘deletion’), i.e. the kind of omission that does not have a negative impact on the communication or the message.

Omissions are useful to interpreters. However, omission usually presented to students as an emergency strategy, underlining that it is not advisable to resort to omissions as they are still a modification of the source speech. Moreover, it is necessary to help students understand what kind of omissions are high and low risk, so that if they find themselves in the situation of having to leave out information, they will at least be able to understand what information would have the least negative impact if omitted.

In terms of how and when omissions were found in the present data analysis, they were more frequent in Speech B than in Speech A, which is in line with the findings of previous studies on the correlation between omission and high speech rate (Barik, 1971; Barghout, Rosendo and García, 2015; Gerver, 1969/2002). In Speech A the occurrence of omissions of entire sentences was found in the performance of interpreter 4, and the interpreter was having some difficulties in maintaining the pace of the source language, hence the appearance of omissions. They were not omissions used strategically to eliminate redundant information, i.e. low-risk omissions (Pym, 2009), but rather instances where the interpreter was not able to provide a translation because they were lagging too far behind the speaker, and they preferred to omit the entire sentence in order not to lag further behind.

One example of omission was found in Speech A.

Interpreter #5 – sentence 11

Denn wir in Deutschland haben – das bemerken Sie an meinen kurzen Ausführungen –

13:08:868

beileibe nicht alle Antworten.

13:15:674

[because we in Germany, as you realise from my brief remarks, certainly do not have all the answers]

Because (6) we don't have the response to all of the questions.

13:11:372 13:17:019

The original sentence contains a parenthetical clause, and most interpreters changed the order by translating the parenthetical clause first, so that they could free some space in their working memory and focus on the main clause. The negative particle and the non-finite verb appear after the parenthetical clause, while the subject and the finite verb are placed right before it. Unlike the approach of some other participants, Interpreter 5 after translating 'because' chose to use waiting. However, the interpreter omitted the whole parenthetical clause because otherwise they would have lagged too far behind the speaker. Although in this case omission was a forced choice dictated by the circumstances, this instance could still be considered an example of low-risk omission, as the parenthetical clause is not essential for one to grasp the meaning of the main sentence. In effect, even without the parenthetical clause the target audience can fully understand the message that the speaker wanted to communicate, and they do not have the impression that something is missing.

As for Speech B, omissions were more frequent. In most cases, interpreters have used omissions when they could not keep pace with the speaker. Instead, in other instances, omission was specifically used to eliminate redundant information. In fact, in the example that follows, the interpreter had enough time to translate the sentence, but they chose not to. This led to a reduction in the *décalage* with the speaker, allowing them to keep apace:

Interpreter #5 – sentence 5

diese Möglichkeit dürfen wir bei aller Zuversicht nicht aus den Augen verlieren

[*despite being confident, we cannot lose of sight this possibility*]

The interpreter omitted this sentence in full. They waited in silence and heard the full sentence, but this chunk was not necessary or overly important and it was redundant as the speaker had already said "if this does not happen by 2020". Since translating this sentence would have caused a delay in the translation of the sentence that followed, the interpreter omitted it. While sometimes, when interpreters resort to omission, it is clear that they are finding it difficult to keep pace with the speech, in this case the interpreter sounded calm and chose omission as the approach to tackle this sentence. It was not a consequence, they resorted to what Pym (2009) refers to as low-risk omission: this

sentence was not of vital importance, hence omitting it would not have compromised the general message that the speaker wanted to convey. This is the only example in the data analysis of the sentences in both speeches of (low risk, Pym, 2009) in which omission was used more as a primary approach, a primary strategy, rather than as an emergency strategy used because there were no other options.

Since omissions were more frequent in Speech B than in Speech A, they were found in the performance of different interpreters:

Interpreter	Sentences										
	1	2	3	4	5	6	7	8	9	10	11
#2											
#3											
#4											
#5											
#6											
#7											
#8											
#9											

Figure 15 – Omissions in Speech B

In Speech B, aside from the omission used to eliminate redundant information (i.e. deletion, Kohn and Kalina; 1996), 10 instances of ‘involuntary’ omissions were found, for instance:

Interpreter #2 – sentence 5

diese Möglichkeit dürfen wir bei aller Zuversicht nicht aus den Augen verlieren

[*despite being confident, we cannot lose of sight this possibility*]

The interpreter used waiting in the sentence preceding this one, which caused them to have a longer *décalage*. Moreover, when translating the previous sentence, they sounded uncertain as if they were not sure about how to structure it because the sentence started with “sollte es” [*should this*] and then continued with - ich sage ausdrücklich wider Erwarten – bis 2020 nichts werden [- *I expressly say contrary to expectations – not happen by 2020*]. The interpreter started saying “(2) the fact is I say (2) if (2) things are completed by 2020 we sh- (3) we need to act independently”. It

seems that omission in this instance was the consequence of an issue encountered in the previous portion of the speech, where the interpreter sounded unsure about how to proceed with the translation. This caused them to lag further behind the speaker to the point where, in order to go back to their interpretation, they had to omit the whole sentence. This is not the only example in which omission occurred when the interpreter had a longer *décalage*, whether this was due to waiting or to the fact that the interpreter was finishing the translation of the previous sentence.

Interpreter #8 – sentence 4

Damit stellen wir den Steuerwettbewerb nicht ein

06:21:192

[in this way we are not ceasing tax competition]

The interpreter finished the translation of the previous sentence at 06:24:475, they might have become aware that they were lagging far behind the speaker and omitted this sentence.

Interpreter #5 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment.

04:00:378

nicht zu

[many European citizens do not trust the EU on such political debates]

Many citizens (1) th- they (3) believe that the EU is too weak in order to come in order

04:01:285

to tackle the most important challenges

This is an example of compound omission (Barik, 1971), i.e. the interpreter combined this sentence with the following one ('Sie empfinden die EU als zu schwach, um die wirklich wichtigen Herausforderungen anzugehen' – *they consider the EU too weak to tackle the really important challenges*) and omitted the whole sentence after "many citizens believe that".

Another aspect that is immediately visible from the analysis of omissions is that, while most interpreters had to omit some sentences, namely interpreters 2,5,6,7 and 8, interpreters 3 and 9 never omitted a sentence and interpreter 4 seemed to struggle particularly and omitted several sentences (sentences 1,2,4,5 and 9). In this instance, it

is particularly important to briefly recall the feedback provided by interpreter 4, as it might help understand why they were struggling and had to resort to omissions as much. They mentioned several elements that they found distracting (such as the order of presentation of the two speeches or hearing a woman's voice knowing that the original speech had been delivered by a man), which could explain their difficulties in keeping pace with the speaker without omitting sentences. The stress caused by this fast speech was exacerbated in their case by the elements that they did not expect or that were in contrast with their expectations.

Finally, sentence 4 seems to have been a recurring object of omission. This was the case for interpreters 4, 6, 7 and 8:

Damit stellen wir den Steuerwettbewerb nicht ein
[thereby we are not stopping tax competition]

This (low-redundancy) sentence seems to have been particularly difficult for interpreters and several of them omitted it. It is quite short, and it is possible that interpreters did not manage to finish the translation of the previous sentence in time to translate the current sentence as well. Moreover, since this sentence acts as an introduction or a pre-explanation of what is going to be said afterwards, interpreters might have omitted it because it was considered less important (or, rather, less dangerous to leave out) compared to following portions of the speech.

The results of the experiment were related to the occurrence of the two independent variables, speed and redundancy, to assess to what extent they have influenced interpreters' performances. The influence of speed was addressed throughout this chapter, and it was evident specifically in terms of the different strategies used. For instance, the higher occurrence of omissions in Speech B as the input rate was faster, and the higher occurrence of waiting in Speech A. Aside from these differences dictated by the input delivery rate, the high occurrence of waiting in Speech A (as well as the lower occurrence of anticipation) prove that, even when the delivery rate was faster and interpreters could have used anticipation to shorten the *décalage*, they opted for the opposed strategy, i.e. waiting. However, how anticipation was used in this study will be the focus of Chapter 6.

While speed was included thus far in the data analysis, the influence of redundancy was analysed separately in order not to overcomplicate the presentation of the results. Redundancy had been originally included specifically to assess whether anticipation would be used only (or mostly) in high-redundancy sentences, based on

Chernov's theory on redundancy (2004)⁷². The impact of speed and redundancy on the use of anticipation will be addressed in detail in Chapter 6. However, as for speed, the influence of redundancy was analysed in relation to the other strategies as well.

5.9 The impact of redundancy on the choice and use of strategies

In order to assess the impact of redundancy on the use of strategies, a table follows with all the strategies used by single interpreters in Speech A. The table includes a column that will specify whether that sentence was high or low redundancy.

Speech A

Sentence	Interpreter	Strategy used	High or low redundancy
Sentence 1	1	FTPS	Low
	2	Short décalage	
	3	Short décalage	
	4	Omission	
	5	Waiting	
	6	Waiting	
	7	FTPS	
	8	Long décalage	
	9	FTPS	
Sentence 2	1	Waiting	High
	2	Short décalage	
	3	Short décalage	
	4	Omission	
	5	-	
	6	Waiting	
	7	Waiting	
	8	Long décalage	
	9	FTPS	
Sentence 3	1	Waiting	High
	2	FTPS	
	3	Short décalage	

⁷² Redundancy, inference, and predictability as analysed by Chernov (2004) were addressed in detail in Chapter 4.

	4	FTPS	
	5	-	
	6	Short décalage	
	7	Short décalage	
	8	FTPS	
	9	Waiting	
Sentence 4	1	Waiting	Low
	2	Waiting	
	3	FTPS	
	4	FTPS	
	5	Waiting	
	6	FTPS	
	7	Waiting	
	8	Long décalage	
	9	Waiting	
Sentence 5	1	FTPS	High
	2	Waiting	
	3	FTPS	
	4	FTPS	
	5	Changing the order	
	6	Changing the order	
	7	Waiting	
	8	FTPS	
	9	Waiting	
Sentence 6	1	Waiting	Low
	2	Waiting	
	3	Short décalage	
	4	FTPS	
	5	-	
	6	Short décalage	
	7	FTPS	
	8	FTPS	
	9	FTPS	

Sentence 7	1	Waiting	Low
	2	Changing the order	
	3	Changing the order	
	4	Long décalage	
	5	Waiting	
	6	Waiting	
	7	FTPS	
	8	Waiting	
	9	FTPS	
Sentence 8	1	FTPS	High
	2	Short décalage	
	3	Short décalage	
	4	FTPS	
	5	FTPS	
	6	FTPS	
	7	Short décalage	
	8	FTPS	
	9	FTPS	
Sentence 9	1	Waiting	High
	2	Short décalage	
	3	Short décalage	
	4	Short décalage	
	5	Anticipation	
	6	Short décalage	
	7	Short décalage	
	8	FTPS	
	9	Short décalage	
Sentence 10	1	FTPS	High
	2	Changing the order	
	3	Changing the order	
	4	FTPS	
	5	Morphosyntactic transformation	

	6	Waiting	
	7	Anticipation	
	8	FTPS	
	9	Waiting	
Sentence 11	1	Waiting + changing the order	Low
	2	Changing the order	
	3	Changing the order	
	4	Waiting	
	5	Waiting	
	6	Changing the order	
	7	Changing the order	
	8	Waiting + changing the order	
	9	Waiting + changing the order	
Sentence 12	1	Waiting	High
	2	Short décalage	
	3	Waiting	
	4	Waiting	
	5	Waiting	
	6	Waiting	
	7	FTPS	
	8	Long décalage	
	9	Waiting	
Sentence 13	1	FTPS	Low
	2	Waiting	
	3	Changing the order	
	4	Waiting	
	5	Waiting	
	6	Changing the order	
	7	FTPS	
	8	Long décalage	

	9	FTPS	
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Figure 16 – Table of strategies used in high- and low-redundancy sentences in Speech A

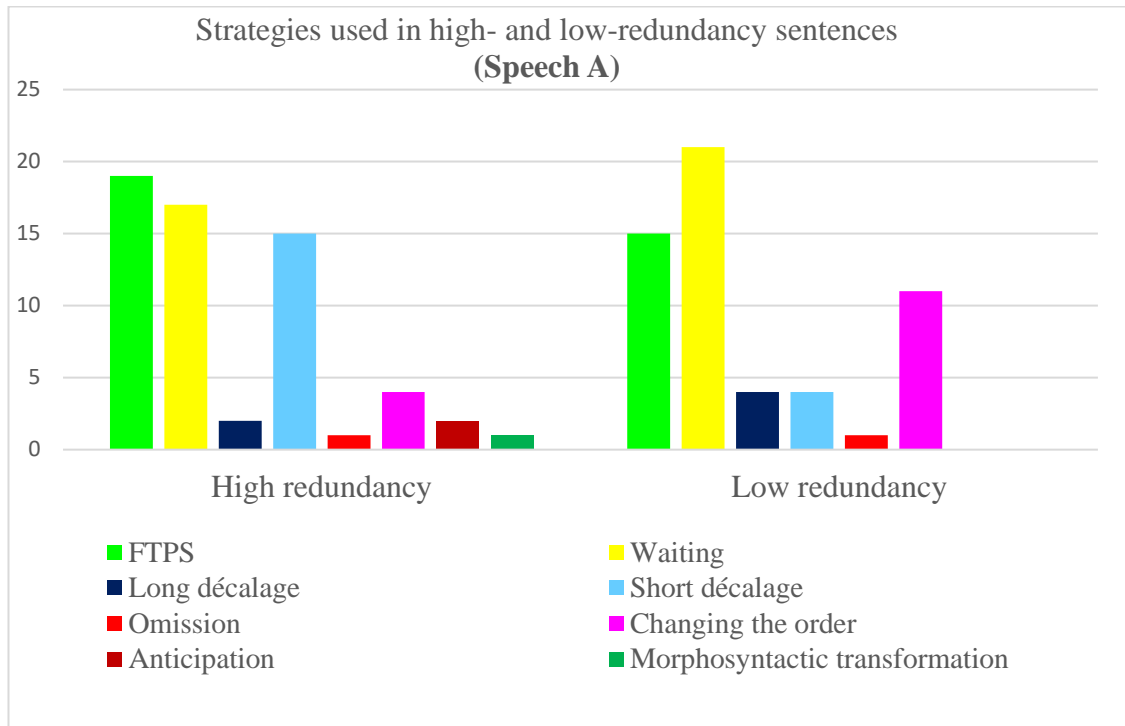


Figure 17 – Graph of strategies used in high- and low-redundancy sentences in Speech A

Based on figures 16 and 17, it appears that some strategies were more affected by the level of sentence redundancy compared to others. The most marked difference was recorded in the use of changing the order and short décalage.

As for changing the order, this strategy was used more in low-redundancy sentences compared to high redundancy ones, respectively 11 and 4 times. This result is in line with the concept of redundancy analysed by Chernov (2004) and used as the basis for the present investigation: when a sentence has a high level of redundancy, it becomes more predictable, hence the interpreter is able to have some expectations on how the sentence will unfold (although this does not necessarily lead to anticipation). In the instances where interpreters used changing the order, they had already started the sentence when they decided to change the order of the source language sentence components. This allowed them to free some working memory while still not committing to one translation. In effect, changing the order helps interpreters to not store too many input information (or components) in their working memory, while still only translating what they have already heard, which eliminates the risk of an incorrect anticipation. Therefore, having a

higher occurrence of this strategy in the low-redundancy sentences shows that when the sentences are not highly predictable, interpreters chose not to take the risk of an incorrect anticipation and to translate the incoming elements giving them a different place in their rendition.

The other strategy mainly affected by the level of redundancy is short *décalage*, which was used 15 times in high-redundancy sentences and 4 times in the low-redundancy ones. The use of this strategy seems to follow the same logics as the occurrence of changing the order: when interpreters are faced with high redundancy (i.e. more predictable) sentences, they are able to shape a possible meaning or message of the sentence in their mind sooner compared to low-redundancy sentences, and when they are confident that they have (or will soon have) all the information needed to continue with their translation, they can keep a shorter *décalage*. Instead, in case of low-redundancy sentences, it is more difficult for interpreters to predict what the speaker will communicate, hence they need more time to process the incoming information before producing their output. For this reason, with low-redundancy sentences it is more difficult to start the target-language translation soon after the sentence began in the source language.

A further strategy that occurred more in low-redundancy sentences (21 times) compared to high redundancy ones (17) was waiting. Although the difference between high- and low-redundancy sentences in the use of this strategy is not major, it is worth noting that waiting was used more in low-redundancy sentences, which seems to further corroborate the conclusion that with low-redundancy sentences interpreters need more time to process the incoming information and they do not have all the necessary tools to formulate a sentence in the target language, hence the use of waiting or changing the order and not of short *décalage*.

Finally, a clarification in terms of the strategies and how they were affected by the variable of redundancy is necessary. FTPS was included in the analysis and in the graph above for completeness, as it was an approach taken by the interpreters and it was considered as a strategy. However, due to its nature, FTPS will not be considered as a strategy influenced by redundancy. FTPS is a consequential strategy in that it is the result of an approach taken by interpreters in previous portions of the speech, i.e. in part of the texts that were not part of the data analysis. Redundancy was assessed specifically in the head-final negative sentences, i.e. the sentences object of the investigation. Therefore, since FTPS is a strategy depending on an approach/strategy taken by interpreters in

previous portions of the speech, it could not have been influenced by the redundancy considered.

The other strategies used by the interpreters did not seem to be particularly influenced by the level of redundancy. In some cases, although interpreters did not all use the exact same strategies, the kind of strategies they use reflects the low (or high) predictability of the sentences. For instance, sentence #9 was high redundancy and some of the strategies used were: short *décalage* (5) and anticipation (1), i.e. six of the nine interpreters were able to predict the meaning of the sentence soon and could therefore resort to anticipation or a short *décalage*. On the other hand, in some instances the interpreters needed more information to continue with their translation due to the low level of predictability of the sentence, e.g. in sentence #7, 4 interpreters used waiting, 2 used changing the order and 1 used long *décalage*; in sentence #11, 3 used waiting in combination with changing the order, 4 used changing the order and the 2 remaining used waiting; and finally in sentence #13, 3 interpreters used waiting, 2 used changing the order and 1 used long *décalage*.

To conclude, it appears that the level of redundancy affected the use of some of the strategies, at least in Speech A. It is worth remembering that Speech A was read at 100wpm, therefore redundancy was the main variable as the input speech rate was not too slow or too fast, and it has in effect been described as ideal speed by some previous researchers (Gerver, 1969/2002; Seleskovitch and Lederer, 1984 cited in Rosendo and Galván, 2019). Therefore, the effect of redundancy is more evident as speed was not a hurdle in Speech A.

Speech B

Sentence	Interpreter	Strategy used	High or low redundancy
Sentence 1	2	FTPS	High
	3	FTPS	
	4	Omission	
	5	Short <i>décalage</i>	
	6	FTPS	
	7	FTPS	
	8	FTPS	
	9	FTPS	

Sentence 2	2	FTPS	Low
	3	Anticipation	
	4	Omission	
	5	Anticipation	
	6	FTPS	
	7	Waiting	
	8	FTPS	
	9	FTPS	
Sentence 3	2	Anticipation	Low
	3	Stalling	
	4	Waiting	
	5	Waiting + omission	
	6	Waiting	
	7	FTPS	
	8	Short décalage	
	9	Short décalage	
Sentence 4	2	FTPS	Low
	3	FTPS	
	4	Omission	
	5	FTPS	
	6	Omission	
	7	Omission	
	8	Omission (FTPS)	
	9	FTPS	
Sentence 5	2	Omission	High
	3	FTPS	
	4	Omission	
	5	Omission	
	6	Short décalage	
	7	FTPS	
	8	FTPS	
	9	Waiting	

Sentence 6	2	FTPS	Low
	3	FTPS	
	4	FTPS	
	5	FTPS	
	6	FTPS	
	7	FTPS	
	8	FTPS	
	9	Short décalage	
Sentence 7	2	FTPS	High
	3	FTPS	
	4	FTPS	
	5	Stalling	
	6	Short décalage	
	7	FTPS	
	8	Short décalage	
	9	Short décalage	
Sentence 8	2	FTPS	High
	3	Short décalage	
	4	FTPS	
	5	Changing the order	
	6	Short décalage	
	7	FTPS	
	8	Changing the order	
	9	Short décalage	
Sentence 9	2	FTPS	High
	3	FTPS	
	4	Omission	
	5	FTPS	
	6	FTPS	
	7	Waiting	
	8	FTPS	

	9	FTPS	
Sentence 10	2	FTPS	Low
	3	Short décalage	
	4	FTPS	
	5	Short décalage	
	6	Short décalage	
	7	FTPS	
	8	Short décalage	
	9	Short décalage	
Sentence 11	2	Short décalage	Low
	3	FTPS	
	4	FTPS	
	5	Short décalage	
	6	FTPS	
	7	Short décalage	
	8	Short décalage	
	9	FTPS	

Figure 18 - Table of strategies used in high- and low-redundancy sentences in Speech B

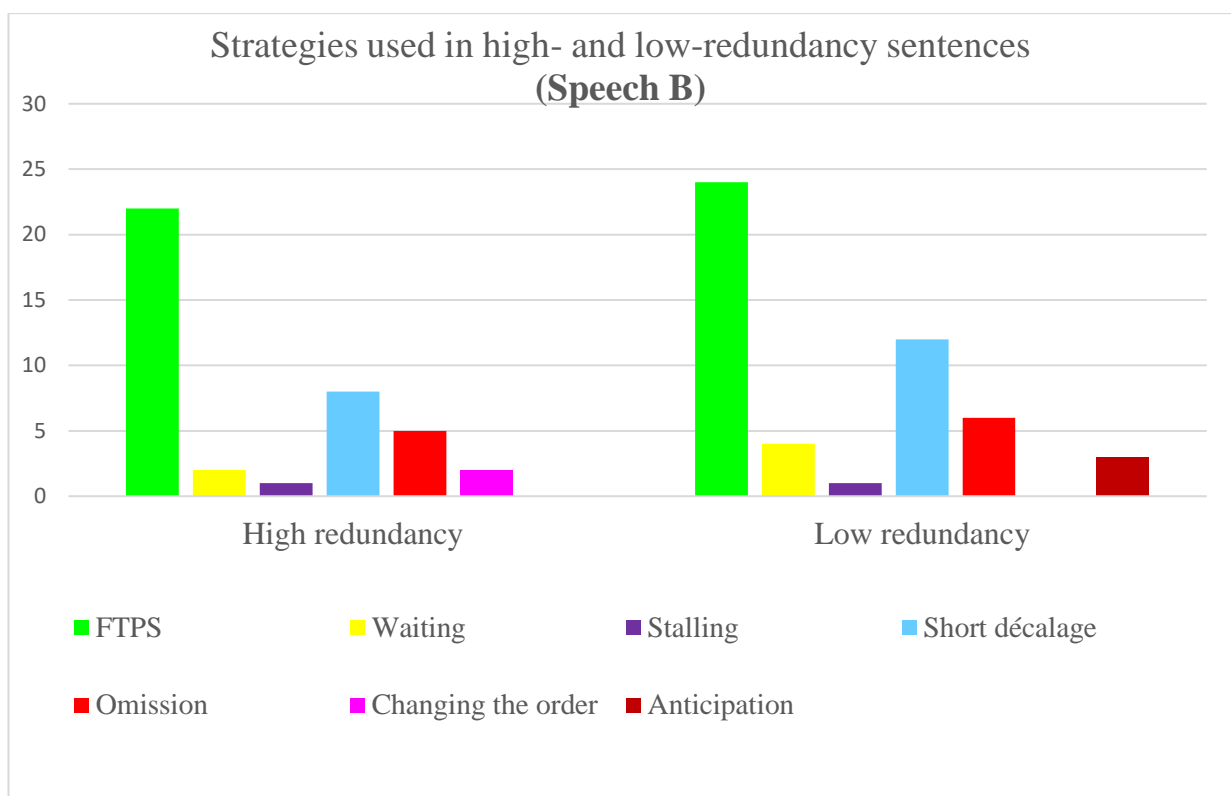


Figure 19 - Table of strategies used in high- and low-redundancy sentences in Speech B

Based on figures 18 and 19, it is immediately apparent that the differences in the choice of strategies was greater for Speech A. As for Speech B, while there are still some differences in the use of strategies, it seems that impact of redundancy is more nuanced. In fact, what is striking is that some of the assessments made for the use of strategies in Speech A, which are based on previous research (Chernov, 1994 and 2004) and on professional norms, seem to not be true for Speech B. For instance, in Speech A changing the order was used more in low-redundancy sentences (as one would expect) because the low predictability does not allow interpreters to continue with their translation as they need more information. Instead, in Speech B, changing the order was used twice in high-redundancy sentences and never in low-redundancy ones. The same happened with short décalage, as it was used 12 times in low-redundancy sentences and 8 times in high redundancy ones. The differences noted are not great, however there seems to be a trend that the use of strategies and the possible reasons behind the choice of a strategy seem to be the opposite compared to Speech A. What is striking about these results is that it seems that in Speech B, speed has overcast redundancy in terms of relevance and effect on the interpreters' strategies. In effect, redundancy was tested in Speech A in an 'ideal environment' (i.e. a low input rate), while in Speech B the high speed rate seems to have

been disruptive and appeared to have a far greater influence on the choice of strategies used.

Based on this, it would appear that redundancy had a more significant impact when speed was not a hurdle as the input rate was lower. Instead, when interpreters had to tackle a higher input rate, it appeared that speed overshadowed redundancy and it was the most impactful independent variable.⁷³

5.10 Discussion of findings

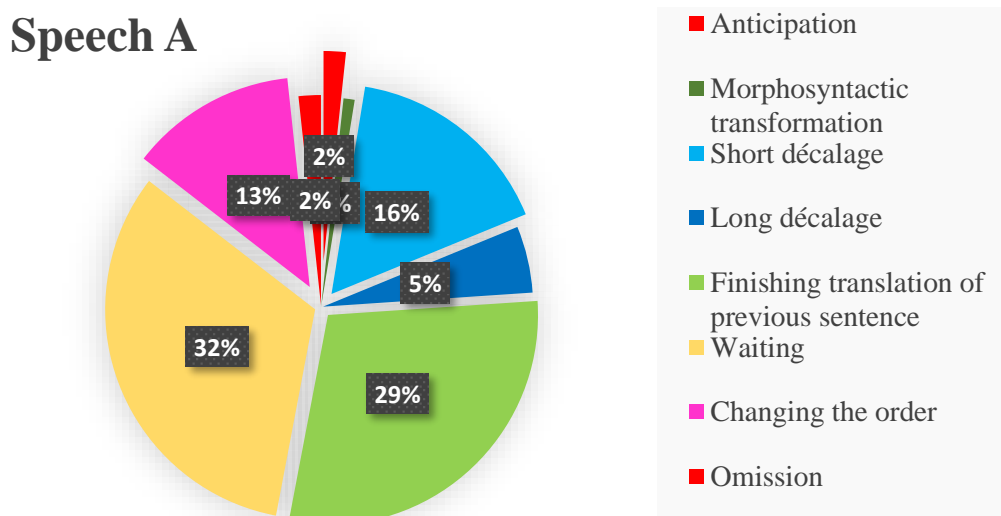


Figure 20 – Strategies used in Speech A

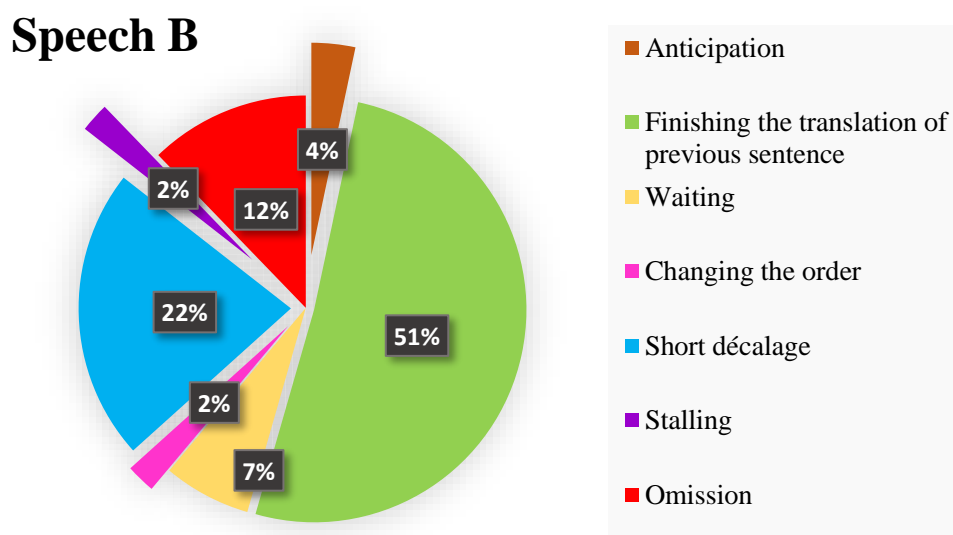


Figure 21 – Strategies used in Speech B

⁷³ Both independent variables will be further addressed in relation to anticipation in Chapter 6

In order to discuss the initial conclusions on strategies, it is useful to briefly recall all the strategies used in the two speeches. The main difference in the use of strategies seems to be the occurrence of waiting, which accounted for 32% of the strategies in Speech A and only 7% in Speech B, and this appears to be a clear effect of speech rate.

Short *décalage* was used more in Speech B than Speech A, respectively 22% and 16%, however the difference is not substantial. Moreover, it appeared to be used more in high-redundancy sentences in Speech A (15 times in high-redundancy sentences versus 4 times in low-redundancy ones), while its occurrence in Speech B did not seem to be greatly influenced by redundancy.

As for FTPS, this consequential strategy was found more in Speech B (51%) than Speech A (29%), which appears to be another consequence of a higher input rate. Omissions and stalling were almost exclusively present in Speech B, while long *décalage* was only found in Speech A. Changing the order was used more in Speech A (13%) than Speech B (2%), and in Speech A it was used more in low-redundancy sentences than in high redundancy ones (respectively 11 and 4 times). This difference, as for short *décalage*, was not as evident in Speech B, where the input speech rate seems to have been the overpowering influence on the choice of strategies. Morphosyntactic transformation was only used in Speech A.

Finally, the few instances of anticipation and the high occurrence of strategies such as waiting or FTPS show how interpreters tend to avoid the risk of an incorrect anticipation.

The data analysed revealed that the choice of a strategy, although it happens quickly and almost unconsciously in order not to be a further burden on the interpreter's processing capacity (Kohn and Kalina, 1996; Gile, 2009), is the result of a series of factors, some of which are extremely subjective. The personal aspect in the choice of a strategy is an important element to underline, as it helps define and discuss strategies, and can also be useful to understand how to include them in interpreters' training. First of all, it would be difficult to state that a strategy is the *best* strategy to use in a given context, as shown by the data analysis. The concept of 'best strategy' can vary depending on what we consider to be the objective of the strategy, whether it is information accuracy, or avoiding an excessive burden on the interpreter's processing capacity, or the strategy that carries the lowest risk of leading to an open self-correction. The scope of this investigation was never to prescribe what strategies interpreters should use or what are the best strategies to tackle head-final negative sentences. The data analysis provides a

comprehensive view of the approaches taken by the participants to tackle head-final negative sentences, specifically how anticipation is used in this context. The experiment has shown that interpreters are aware of the risks that each strategy carries, and some risks seem to be more important than others. The scarce use of anticipation along with the use of other strategies (waiting, changing the order, FTPS), showed how interpreters want to be sure of what the message will be before uttering it in their target language output. The data analysis therefore showed that anticipation was not the preferred approach taken by the participants. Moreover, the strategies used were influenced by the input speech rate and, although in a more limited measure, by redundancy. The source language input rate had a significant impact on the performances and, in this case, on the choice of strategies. For instance, interpreters could not use waiting as much in Speech B because this strategy would have entailed a higher and different risk compared to Speech A: while in a slow speech waiting entails the risk of overburdening the interpreter's working memory, in Speech B interpreters could not use waiting because they would have not been able to keep pace with the speaker if they had. It is also worth noting that usually waiting is used to receive more information, and with a higher input rate the information is received more quickly without having to wait for it. Another clear indication of the impact of speed on the use of strategies is omissions. Omissions were significantly more frequent in Speech B, as found by previous researchers, because a higher input rate forces the interpreter to omit some information in order to keep apace.

In conclusion, the analysis showed that the personal approach in the choice of strategies is an important aspect to be considered and to be taught to students and novice interpreters, so that they can be equipped with all the necessary tools (i.e. strategies) to tackle an interpretation assignment. They also need to have the possibility to try different strategies in order to understand which one is the most suitable for them. Moreover, a preliminary conclusion to be drawn from the data analysis is that anticipation was scarcely used. However, the instances where interpreters anticipated need to be analysed in more detail in order to provide different nuances of this strategy, which will ultimately lead to a better understanding of anticipation in interpreting studies. For this reason, the following chapter will entirely focus on anticipation.

Chapter 6 Rethinking anticipation: type(s) of anticipation found in the data analysis and their implications for research

6.1 Anticipation: the perspective of participants

Before analysing the results, it is useful to present some evidence and feedback from the participants to understand to what extent anticipation is considered the preferred approach when working from German. The first pilot study to test out the methodology was carried out with only one participant (a student), and they were informed of the scope of the investigation. Another pilot study then had to be set up because knowing that the focus of the research was anticipation on head-final negative sentences might have influenced the performance of the participants⁷⁴. For this reason, the subject who took part in the second pilot study (like the participants in the experiment) was only aware that the focus of the study would be the strategies used by interpreters when working from German into English. At the end of the first pilot study, the subject was asked whether they often used anticipation, and their answer was “of course, it is impossible not to use anticipation when working with German”. The data analysis later revealed that they had never used anticipation in that performance, not once. While it remains true that only the ten head-final negative sentences were analysed, since these were syntactically very complicated, if anticipation had been the participant’s preferred strategy, one would be justified in expecting it to be used in at least one of the ten sentences analysed. It is also worth underlining that the participant in the first pilot study was a student, therefore they did not have an extensive experience, and this might have influenced both their performance and use of strategies, as well as their awareness in terms of what strategies they opted for.

Nonetheless, this shows that, it is often taken for granted that the strategy that is mostly used in simultaneous interpreting from German is anticipation. However, based on the data analysis, in this particular scenario (i.e. with head-final negative sentences) anticipation was not widely used. When working as an interpreter, all interpreters (because of good practice) are aware of the risk⁷⁵ of an incorrect translation, which would lead to an open self-correction. In fact, Interpreter #3 underlined that, if they are rather sure of what the speaker wants to say, they will anticipate it and then correct themselves if they are wrong. An open self-correction was found in the performance of interpreter #9 in Speech A, but not following a wrong anticipation. In this instance, the speaker said that

⁷⁴ As addressed in Chapter 3, a further change from pilot study 1 to pilot study 2 is the decision to use authentic material instead of manipulated texts where the head-final negative sentences had been created and added, in order to enhance the ecological validity (Baekelandt and Defrancq, 2020) of the experiment

⁷⁵ Risk assessment was covered in Chapter 4 and was identified as one of the factors that have an impact on the choice of strategy.

the constitution in South Africa was adopted on 8th May 1996, but they had initially translated 1969. Immediately after uttering their translation, the interpreter became aware that their translation was incorrect and corrected themselves saying “the interpreter corrects that was 1996”, which is similar to the correction formula mentioned by Lozano-Argüelles and Sagarra, 2021. Although this self-correction was not caused by an incorrect anticipation, it is used as an example of how interpreters can correct a mistake in simultaneous interpreting. The correction makes it clear to the target audience that the interpreter initially provided an incorrect translation.

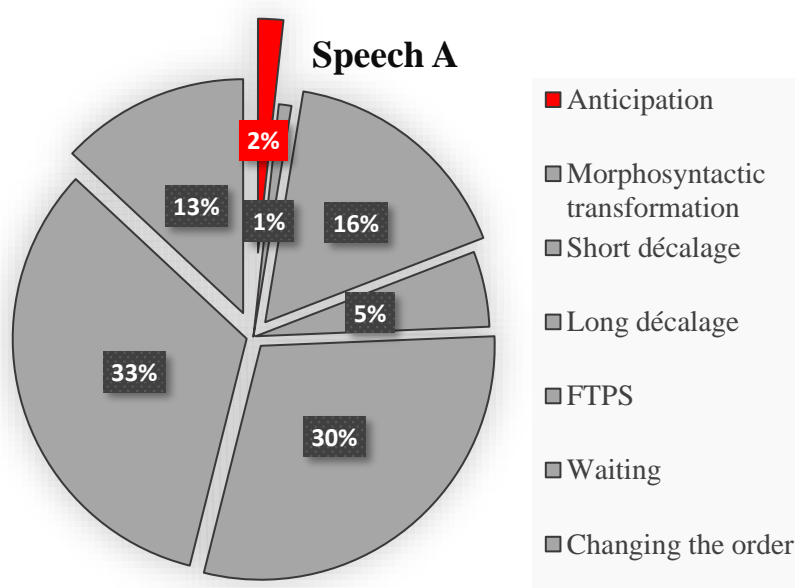
In this regard, it is worth bearing in mind that risk and risk-management were considered by some authors in previous research (Gile, 2021; Pym, 2009:). The definition taken from the literature and adopted in the present investigation is of ‘risk’ as possible negative outcome (Gile, 2021), as this term is mentioned when the interpreter did not want to take a risk, i.e. was unsure about the outcome and the outcome might have been an incorrect translation. Therefore, risk-management, which seems to be important in simultaneous interpreting and which participants seemed to be aware of, encompasses all the approaches taken by participants to avoid adverse outcomes. The interpreters who took part in the experiment seemed to be aware of the risks, and this was also confirmed by Gile (2021), as he underlined how translators (which he used as umbrella term for interpreters and translators) would only opt for a translation decision if they expect it to have a positive outcome. He also clarifies that translators usually consider different courses of action and compare the expected outcomes before choosing one (Gile, 2021:58). One of the courses of action that can help interpreters manage risks in simultaneous interpreting, particularly the cognitive risks deriving from an increased cognitive load when working with syntactically different languages (Seeber, 2011), is the use of strategies⁷⁶. It is important to use this definition as the basis for the discussion of anticipation and the times where interpreters seemed to be risk-averse, as Gile explains how risk-management and cognitive risk can be considered a regular part of the decision-making process in interpreting. This in turn is the reason why one of the participants (Interpreter #7) admitted to being very aware of the risk of an incorrect anticipation and explained that they used different approaches to avoid this risk. The natural risk-averseness of interpreters was confirmed by another of the participants too, namely Interpreter #4. They were commenting on the strategies

⁷⁶ The use of strategies as analysed in previous research was detailed in Chapter 2, along with the thorough explanation of the cognitive load in simultaneous interpreting.

they used and, when discussing anticipation, they remembered ‘jumping in’ at one point and said, “I remember thinking ooh dangerous”.

6.2 The origin of a new form of anticipation: pragmatic anticipation

The data analysis was used to provide an answer to the main research question, which aimed at defining a new understanding of anticipation when used to tackle head-final negative sentences. This new understanding of anticipation however will be useful not only to tackle head-final negative sentences from German into English, but when analysing anticipation in interpreting in general, as it will complement previous literature on anticipation and prediction (among others, Hodzik and Williams, 2017; Pickering and Gambi, 2018; Amos and Pickering, 2020). While the analysis of results is not meant to undermine the importance of anticipation as a strategy in general, the findings confirm that anticipation was not the most used strategy in the present investigation, or even one of the most used. From this we can deduct how anticipation, specifically when tackling head-final negative sentences, was not a particularly helpful or useful strategies to the participants as they barely used it. Even when it was used, different nuances of anticipation were found, some of which do not fit the traditional definition of anticipation. Since its use was analysed in both speeches, between which the only key difference was speech rate, a glance at the strategies used clearly shows what percentage was represented by anticipation, which reveals the relevance of this strategy in the sample analysed.



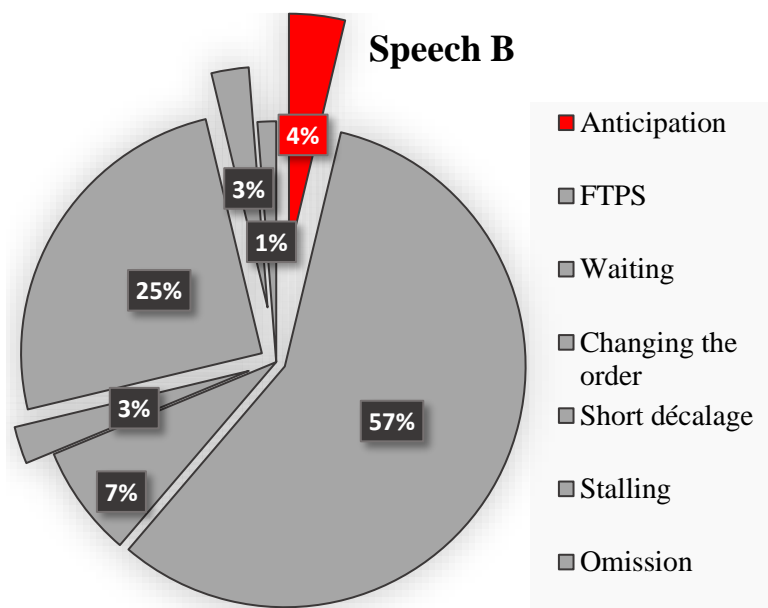


Figure 22 and 23 – Use of anticipation vs. other strategies in Speech A and Speech B

Figures 22 and 23 show that there is not a dramatic difference between the two speeches in the use of anticipation. In fact, it accounts for 2% of the strategies used in Speech A and 4% in Speech B, it was used respectively twice in Speech A and three times in Speech B. This proves that anticipation was not widely used by the interpreters in the sentences analysed, and speed did not seem to have a relevant impact on its use. Both speed and redundancy, the two independent variables, were included to assess their impact on the main dependent variable, i.e. the use of anticipation. As for speed, the initial hypothesis was that anticipation would be used less in the faster speech (Speech B): in the sentences analysed, the unknown element in the source sentence could be either negation or negation and non-finite verb, as they would be found towards the end of the sentence, and with a high speech rate the interpreter would have been exposed to the whole sentence sooner. Furthermore, when a speaker has a faster speech rate, the interpreter inevitably lags behind them because most of the times they will be finishing the translation of the previous sentence when the speaker is uttering the following one. For these reasons, it was hypothesized that anticipation would not have been largely used in Speech B, hence the expected outcome was to find anticipation more in Speech A than Speech B. However, although the data has confirmed that anticipation was not often used in Speech B, it also shown that anticipation (though scarcely chosen) was used in Speech B more than in Speech A. This result therefore questions the initial hypothesis that a higher speech rate

might be helpful with head-final negative sentences. The hypothesis was based on the assumption that a slow speech rate, while it reduces the cognitive pressure on listening and production as interpreters can momentarily pause their output, means that information has to be stored for longer in the short-term memory, hence causing cognitive saturation (Gile, 2009).

Different types of anticipation were found in the data analysis: some of them fit the categories (or definitions) provided in the previous research, but the study also identified a form of anticipation which does not fit the traditional definition of the strategy but, as for freewheeling (Ledered 1980, cited in Vandepitte 2001), is the result of a prediction made by the speaker: **pragmatic anticipation**.

6.2.1 Prediction and anticipation in previous research

The goal of the data analysis was not to overtheorize or overcomplicate the choice of strategies, but rather to provide a comprehensive account of how interpreters perform in practice and what strategies are more used. For this reason, when analysing anticipation in particular, the examples of anticipation found in this investigation were related with the previous research, hence the need to recall the different kinds of anticipation (or, ‘prediction’) found by other researchers.

Anticipation has been widely analysed in research and has attracted the interest not only of researchers in interpreting studies. In fact, it is now clear that listeners have a tendency to predict in different communication contexts, including normal everyday communication, and that prediction is very useful in language comprehension as well (Pickering and Gambi, 2018). Before analysing the current research on prediction and anticipation, it is necessary to proceed with a clarification in order to avoid terminological confusion. To this end, resorting to Hodzick and Williams’ (2017) distinction, anticipation will be used as a term to refer to the actual output of the interpreter in the target language, while the term prediction is used to indicate the expectations that are created online during language processing. Although, as will be explained in section 6.2.2, the anticipation found in the present research does not entail the production of a source language element, it has still been labelled as anticipation because of the linguistic output produced by the interpreter in the target language. In this sense, the anticipation found is considered to be a consequence of the prediction (i.e. of the online expectations that the interpreter had during the comprehension of the source language message), as the interpreter decided to act on their prediction (Amos and Pickering, 2020).

Once established that prediction occurs normally in language comprehension (Gambi and Pickering, 2018), some of the previous studies focused on the effects of training and/or expertise on prediction processes, in order to understand whether simultaneous interpreters predict better after training or after having has experience in SI (Amos et al. 2023, Chmiel, 2021, Lozano-Argüelles and Sagarra, 2021, Özkan et al, 2023) due to the fact that prediction is often used in simultaneous interpreting, with some researchers arguing that it is what make simultaneous interpreting possible (Chernov, 2004).

The study carried out by Özkan et al (2023) investigated individual differences in prediction during language comprehension in professional and student Turkish (A) – English (B) simultaneous interpreters as a result of experience in SI and working memory capacity. Their ability to make prediction was assessed during a visual-world eye tracking prediction task to understand whether the accusative versus the nominative case markers on the initial nous of the sentences could be used as cues to predict the upcoming argument. The authors found that professional interpreters were able to exploit the case marker on the first noun to predict the upcoming argument of the sentence, hence suggesting that experience in simultaneous interpreting seems to have provided an opportunity to train prediction (Özkan et al., 2023), because interpreters constantly rely on strategic prediction when working. These results, which are in line with some of the other studies that follow, confirm the choice of involving professionals for the present investigation rather than students, as professionals might be more used to (hence, trained in) predicting upcoming words or meanings.

These results are in contrast with the investigation carried out by Chmiel (2021), that focused on the influence of interpreter training and conference interpreting experience on anticipation, measured by word-translation latencies in a semantically constrained context. The investigation involved professional conference interpreters as well as interpreter trainees who were being tested both at the beginning and at the end of their training programme. Both groups had to translate words embedded at the end of high- and low-constraint sentences⁷⁷, as well as words appearing in isolation in both directions. In her experiment, Chmiel found that the word-translation latency improved during training, but it is not further improved by professional experience, while

⁷⁷ This condition can be considered similar to the way in which the variable of redundancy was used in the present investigation, i.e. by adding a juxtaposition of high-redundancy and low-redundancy sentences (to use the terminology of Chernov, 1994 and 2004) in order to assess the influence of redundancy on anticipation as well as on other strategies.

anticipation did not improve neither during training nor as a result of experience. The author concluded that no evidence was found to confirm the hypothesis that anticipation improves with training and/or experience.

Other authors who investigated anticipation and prediction found results similar to the ones analysed by Özkan et al. (2023). Lozano-Argüelles and Sagarra (2021) focused on whether monolinguals and adult L2 learners of Spanish with and without interpreting experience use lexical stress and syllabic structures in a word's first syllable to predict its end. The authors found that the participants who had an extensive interpreting experience performed better in terms of predictions. Hodzik and Williams (2017) analysed prediction in two experimental conditions, i.e. shadowing and simultaneous interpreting. 20 advanced students of German (with English as A language) were asked to shadow some German head-final sentences and the same sentences were then interpreted simultaneously by 22 advanced students of German (again, with English as A language) and also by trainees and practising interpreters. The authors then examined contextual constraints and transitional probability⁷⁸. They found that a highly constraining context facilitates the processing of sentence-final verb during shadowing and SI (from German into English) and that context has an effect on anticipation and prediction. The effect of context constraints was found to be significantly higher than that of transitional probability. As underlined by Chernov (2004), the results prove that a highly constraining context is important especially when working with syntactically different languages, hence the inclusion of redundancy as an independent variable in the present study.

Finally, the investigation carried out by Amos et al. (2023) was set up with an eye-tracking study which measured the timing and extent of prediction in students before and after two semesters of training in simultaneous interpreting. Participants were asked to interpret simultaneously some sentences containing a highly predictable word as they viewed a screen showing four pictures, one of which was of a highly predictable object. Prediction was assessed by analysing eye movements to the predictable object. As for Chmiel (2021), this study did not find robust evidence that training influenced the timing or the magnitude of prediction. In fact, Amos et al. (2023) found that students had a strong tendency to predict upcoming words both before and after training.

One first conclusion to be drawn from the aforementioned studies is that 'predictability'

⁷⁸ That is the statistical likelihood of words occurring together in a language (Hodzik and Williams, 2017).

is almost always considered when analysing anticipation, as the degree of contextual constraint (or ‘redundancy’, to use Chernov’s terminology) is essential to analyse anticipation and prediction thoroughly, hence the inclusion of redundancy in the present investigation.

As for the influence of experience and training on the ability to predict, previous studies have provided different answers to this question. However, it must be noted that the assessment of the influence of experience or training on the use of anticipation is not part of the present research design. It was necessary to review the current literature on prediction and anticipation, especially to make a distinction between these two terms as they will both be used to discuss the new kind of anticipation found in the data analysis.

What emerged from previous research is also that prediction is used in language comprehension (Gambi and Pickering, 2018) and that prediction, in fact, improves language comprehension (Amos and Pickering, 2020). However, once established that ‘prediction’ in the present investigation is used to indicate the condition that precedes anticipation, it is useful to resort to previous research that analyses the different levels of prediction, as they will be the basis of the new kind of anticipation found in the present study.

Amos and Pickering (2020) define prediction as a pre-activation of any aspect of an utterance (namely meaning, syntax or sound) that occurs before the comprehender (in SI, the interpreter) hears the utterance. Anticipation is also referred to as predictive production. Finally, previous research has identified a form of prediction that relies on the comprehender’s production system, namely prediction-by-production (Gambi and Pickering, 2018; Amos and Pickering, 2020), which will be the basis for the type of anticipation found in the present investigation.

6.2.2 Pragmatic anticipation: a new kind of anticipation

Although some of the instances of anticipation found perfectly fit into pre-described categories, such as pure anticipation or freewheeling, a different kind of anticipation was found in this study which could not fit into the pre-determined categories. It has some points in common with freewheeling, but it is not quite the same. In fact, both the new kind of anticipation found here and freewheeling do not take the form of the production of the interpreter coming before the production of the speaker, but they both are clearly the result of an anticipation process. However, what distinguishes them is that freewheeling is the production of a constituent of the source language which is uttered in the target language at the same time as its corresponding term in the source language or

soon after, but the main feature is that there is the production of a source language constituent. Instead, this new anticipation found in the present data analysis is the production of an element in the target language that does not anticipate a *constituent* that will be uttered in the source language by the speaker, but rather anticipates the *meaning* (or *sens*, Seleskovitch, 1986) that the speaker has not yet fully expressed in the source language. As underlined by Amos and Pickering (2020), prediction occurs at different levels, including the level of meaning. In the type of anticipation found, interpreters inserted in their target-language output something that made it clear that they had predicted and anticipated the meaning of the utterance. This however cannot be considered a general anticipation, as interpreters did not anticipate a more generic version of a noun or a verb (such as a hypernym or a more generic verb)⁷⁹. In fact, while the anticipation of the exact verb can be the result of a good guess or luck, when interpreters anticipate a *constituent* they might utter a more general verb, but they utter a verb, nonetheless. For instance, rather than the verb ‘resolve’, an interpreter might anticipate ‘tackle’ or ‘address’, but they are still anticipating a *constituent* of the source language. With pragmatic anticipation instead, they are producing an element that shows they have anticipated the meaning (such as ‘unfortunately’), without producing any of the elements that will be uttered by the speaker in the source language. This makes the utterance strategic and intentional

Previous research (Gambi and Pickering, 2018; Amos and Pickering, 2020) introduced the concept of prediction-by-production, i.e. when the comprehender uses their own production system to predict sequentially as if they were completing the speaker’s utterance. This can be easily applied to simultaneous interpreting as interpreters have to constantly plan their output in the target language and, as seen in the Cognitive Load Model (Seeber, 2011) as well as the Efforts Model (2009)⁸⁰, comprehension and production are concurring tasks in simultaneous interpreting. This would confirm that interpreters constantly have their production system active, hence prediction could be carried out through prediction-by-production. This kind of prediction starts with the comprehender covertly imitating the language they encounter, and then they can derive the speaker’s intention (Ito et al., 2018). After this, the comprehender is able to exploit their production system to predict the upcoming information (Gambi and Pickering,

⁷⁹ General (Jörg, 1997) or generic (Bevilacqua, 2009) anticipation is defined in previous research as an anticipation where the interpreter produces an element which is non-committal but allows them to “stay in line with the gist” (Jörg, 1997: 222) both of the sentence in question and/or the speech

⁸⁰ See chapter 2.

2018). This kind of process is what underlies the anticipation found in the data analysis. It is important to clarify that it is a type of anticipation because, prediction is considered here as the expectation formulated by the comprehender related to the upcoming utterance, while anticipation is considered as the verbalization of that prediction.

In some ways, pragmatic anticipation could be viewed as an addition because the interpreter is uttering something that is not present in the source language, therefore they are adding an element in the target language. What distinguishes it from addition, however, is that this addition is only possible because the interpreter has predicted the meaning of the sentence in the source language, hence it is the result of an anticipation process. Interpreters can choose to use additions for different reasons, but usually the addition is based on what the speaker has previously uttered or might be a neutral padding used to fill in a silence (Seeber and Kerzel, 2011). For instance, when one of the interpreters added ‘we have to see that’⁸¹, this addition did not add anything from a semantic perspective to the utterance, but it can have different goals, one of which can be buying time so that the interpreter can receive more input information before continuing with their translation. However, in the new type of anticipation found, the interpreter is clearly adding something that proves that they have anticipated what the meaning or even just the connotation of the utterance will be, i.e. whether it will be positive or negative. I have labelled this **pragmatic anticipation** [my emphasis], so that it can be distinguished from other types of anticipation and so that the name can provide the main element that led to the prediction of meaning: pragmatics. In order to avoid any confusion, it is essential to clarify why it was defined pragmatic anticipation and, more importantly, how it differs from other references to pragmatics that have been made in previous research. In effect, there are already previous mentions in the literature of pragmatics as an important source of prediction (hence, anticipation), for instance Kohn and Kalina (1996) underlined how early anticipation is of major importance and how interpreters need to anticipate strategically, i.e. based on less information that would be considered sufficient in monolingual communication. In order to be able to perform an anticipation with very limited details, interpreters can use pragmatics, which provides them with more information and allows them to anticipate a constituent. The essential part of this definition however is anticipation which is the ‘traditional’ (or ‘pure’) definition of this strategy, with the target language element being uttered before the source language one. Instead, the type of anticipation that is described here is not a pure anticipation that takes

⁸¹ See chapter 5 – Speech B, Interpreter 3, Sentence 8

places based on pragmatic cues, but rather a form of anticipation of meaning or of the message of the speaker that seems to be carried out because the interpreter is able to exploit pragmatic information in order to predict the message of the speaker. Therefore, the origine of ‘pragmatic anticipation’ was the concept of pragmatics as a starting point, and how its different elements seem to have contributed to the anticipatory processes that led to pragmatic anticipation. Pragmatic competence was defined by Bachman (1990) as the knowledge necessary in order to produce or comprehend discourse. If we apply this definition to interpreting, it is not new that interpreters need to have a more comprehensive knowledge that goes beyond the linguistic comprehension, otherwise their interpretation would be a mere *mot-à-mot*⁸². Interpreters need to have the necessary knowledge to comprehend and produce discourse in the target language and, as outlined in the simultaneous interpreting models proposed by Seeber (2011) and Gile (2009), comprehension and production in simultaneous interpreting run parallel and overlap almost constantly. Moreover, Bachman’s definition of pragmatics was chosen as a first starting point for the definition of pragmatic anticipation because it is more comprehensive than, for instance, Chernov’s (2004) definition of pragmatic inference, which relies almost exclusively on the speaker, their social role, and their role in the communication⁸³. While being of primary importance to formulate expectations about the unfolding message, the pragmatic anticipation described in this study is a type of anticipation that can originate from different cues. Bachman’s (1990) definition of pragmatic knowledge includes different competences, such as the illocutionary competence (i.e. the knowledge of how to perform speech acts) and sociolinguistic competence (i.e. the knowledge of the sociolinguistic conventions that govern language use). In his analysis, Bachman (1990) draws a distinction between the pragmatic and the organizational competence, where the former seems to have its roots in extralinguistic elements, while the latter is based on grammar and textual competence. Once again it is useful to apply this definition to interpreting: there are several notions that fall into the category of ‘extralinguistic elements’ and interpreters have to be aware of them in order to provide a more accurate interpretation, but they are also useful to interpreters in their task. In effect, in instances like the ones analysed, the interpreter’s ability to grasp

⁸² This concept was already present in previous chapters, for instance when referring to subjective redundancy as it was clarified that the source of subjective redundancy is the interpreter’s background knowledge, i.e. the knowledge that goes beyond a good language command.

⁸³ The types of inference identified by Chernov were detailed in Chapter 4

information or cues not only from the source speech but also from pragmatic elements entails that they have more tools to tackle the interpretation.

Based on Bachman's (1990) definition of pragmatics, it is clear that pragmatics is an umbrella term that encompasses several elements, every one of which is important and can be useful to interpreters. In order to analyse pragmatics in more details, the above-mentioned definition was complemented by the analysis of pragmatics and discourse carried out by Cruz (2015), in which different factors that contributes to the concept of 'pragmatics' are accounted for and which marks the source of pragmatic anticipation:

1. Interlocutors' identities (gender, age, hierarchical status, profession etc.): this is usually an information that the interpreter should have in advance and can therefore fall into their preparation for an assignment. In fact, for the present experiment, participants were provided with information about the speaker in advance, as they would have been in a real professional situation. Although this factor refers to both interlocutors' identities, in the experiment set-up there was only one speaker, and the participants were translating for a potential audience. This knowledge is useful in all communication contexts and particularly for interpreting it fore-tells the interpreter what the position of the speaker on a given topic could be. If we specifically focus on political contexts (since both speeches chosen as source texts for the experiment were of political nature) the ideology of a speaker can help the interpreter predict what they will communicate. To provide a practical example, during a conference on migration held at the OECD in Paris, almost all of the leaders were stressing how migration can be an asset for host countries, because migrants are an important resource. On that occasion, the only leader who had a very different opinion was Hungary's Prime Minister, who strongly expressed his views on how Hungary does not really need migrants. Base on the communication context alone, and based on previous communications by previous speaker, this intervention could seem disruptive (or even harsh). However, knowing who the speaker was and what their position on the topic was would have helped the interpreter not necessarily anticipating what the Prime Minister was about to say, but it would have provided extra information and allowed the interpreter to know that the Prime Minister's intervention would have expressed a different (in fact, opposed) point of view.
2. The situational context where they interact: once again, this falls into the pre-conference preparation of the interpreter. The participants in the experiment were

informed of what was the occasion where the speeches were originally delivered. Although in case of interpreting the situational context has to be integrated with the knowledge of the speaker in order to understand what the role (or the interactions) of the speaker in that context will be, interpreters know in advance what the context of their assignment will be. Being aware of the situational context helps the interpreter prepare on the topic, as well as understand what is appropriate for the context and what is not, in terms of register and in terms of how ideas are expressed. For instance, it is widely known that political speeches tend to be more redundant (they contain several repetitions, Tsakona, 2009) and more ‘politically correct’. Knowing this in advance would help the interpreter know how to approach their task.

3. The information interlocutors rely on (e.g. beliefs and knowledge about others, interaction etc.). In this category it is necessary to include the interpreters’ background knowledge which may be the result of conference preparation strategies (Gile, 2009). In simultaneous interpreting, this point could be adjusted to ‘the relationship of the speaker with the audience’ and, particularly, the way the speaker interacts with their audience. Depending on the context, the speaker might be trying to convince their audience about something (for instance in case of a speech made during an electoral campaign), while at a lecture or a presentation the speaker might know that they need explain and sometimes even be repetitive in order to make the concept clear to their audience. Being aware of the information that interlocutors rely on helps the interpreter understand what kind of interaction will take place and can give them an initial sense of how the communication will unfold. For the present experiment, interpreters were informed about the speaker and situational context, but this factor was not of major relevance as there was no second interlocutor, aside from a potential audience. However, knowing the speaker and situational context helped participants understand the way the speaker was interacting with the (original) audience.
4. Their goals and purposes when interacting: as in the previous example, knowing the goal of the interaction is important to the interpreter. For instance, generally interpreters can ‘safely’ omit redundant information as they would be classified as low-risk omission (Pym, 2009). However, not all repetitions are equal. Redundancy in political speech is a deliberate strategy, therefore omitting

redundant information would mean providing a message that is pragmatically different (i.e. not complete) because the interpreter would not have respected the original goal of the speaker.

5. Their social relationship: being aware of the social relationship between the speaker and their audience can be beneficial for interpreters as the communication might change depending on whether the audience is composed by people from the 'public' or whether it is made up by the speaker's peers. This factor as well as the goals and purposes of the interaction were covered when the participants of the study were informed of the occasions where the speeches had been delivered and the general topics.

Cruz's description of the different levels or pragmatics was adopted as the basis for pragmatic anticipation as it seems to encompass all possible sources of inference that can lead interpreters to anticipation. Most of the factors listed fall into information that interpreter would have beforehand as they would be part of their preparation for the assignment. It was however necessary to use as a starting point a definition of pragmatics that is as comprehensive as possible because, as in case of subjective redundancy, stating clearly what is the specific element from the subjective sphere that led interpreters to anticipate is almost impossible. This was the reason why subjective redundancy is very important and its relevance was (and will be) stated in the present investigation, but it is not possible to state with an appropriate degree of certainty what subjective factor is responsible for the choices made by interpreters.

If we consider Cruz's (2015) view of pragmatics, interpreters could use one or more of the factors mentioned to perform an anticipation. Hence the new form of anticipation found was here labelled pragmatic anticipation, because the roots of the anticipation of meaning made by the interpreter are in the field of pragmatics, but it is not necessary for the scope of the investigation to state exactly which one of the factors had the biggest impact. It suffices to state that the anticipation of meaning made by the interpreters was possible due to pragmatics.

Cruz's (2015) definition of pragmatics can be related to the different types of inference identified by Chernov (2004). For instance, Chernov identified the cognitive inference, which is made possible by the interaction between the incoming semantic components that (in this case) the interpreter is receiving from the speaker in the source language and the subjective elements that the interpreter is relating the incoming information to, such as the information present in their long-term memory, their previous

knowledge, or the notions they have acquired while preparing for the assignment. Cruz's (2015) pragmatics also entails the sources of what Chernov (2004) described as deictic and situational inference, i.e. a type of inference that can take place based on the information about the communicative situation. Chernov (2004) focuses greatly on inference (and on anticipation) and on what conditions make inference possible, i.e. what different cues of inference can be used in communication, especially by interpreters. In his analysis of inferences he focuses on several types, one of which is pragmatic inference. In this regard, a clarification is necessary to understand how Chernov's pragmatic inference is different from the pragmatic anticipation described here in the findings. The author defined pragmatic inference as the one based on the speaker, their social role, and their role within the communication (i.e. it touches the factors 1, 3, 4 and 5 mentioned by Cruz). In this case, the interpreter has to bear in mind the speaker and their social role and relate them to the semantic content of the incoming utterances, their own assumptions and their knowledge of the communicative situation. This definition of pragmatic inference seems to be more specific as it refers particularly to the communicative situation and the speaker, while in the present investigation in some cases it is not possible to clearly state why the interpreter resorted to anticipation, specifically pragmatic anticipation. The examples cited below will clarify how interpreters sometimes could have relied on the redundancy of the single utterance, or on single elements of the source language, or maybe both, and the definition provided by Cruz (2015) of pragmatics along with Bachman's (1990) are wide but specific enough to be applicable.

Moreover, although Cruz analysed pragmatics in the context of discourse analysis, his description is almost identical to the process in simultaneous interpreting. In fact, the author states that pragmatics conceives communication as a complex activity which is *inferential* as speakers do not always expressly say all they want to communicate, because hearers can use their deductive abilities. These allow hearers to relate the pieces they acquire from analysing the input to perceptible information, e.g. the environment, previous utterances, or their previous knowledge (Cruz, 2015:1). If we apply this description to simultaneous interpreting and consider the interpreter as the hearer, it means that interpreters can sometimes rely on perceptible information to anticipate constituents or, in this case, meanings that have not been uttered yet. Moreover, while Cruz states that communication is inferential as speakers do not always clearly and openly say what they would like to communicate, hence the need to infer, the inferential nature of communication is exacerbated in simultaneous interpreting. In fact, simultaneous

interpreting is a communication that is inferential in the sense described by Cruz, but the simultaneity of the task entails that the interpreter most of the time has not heard the full utterance in the source language when they need to start it into the target language. For this reason, there is a second level of inference that has to take place when the interpreter is receiving incomplete utterances and has to construct them in the target language.

An objection that can be made to the pragmatic anticipation found and defined in the present investigation is that pragmatics can be the source of any kind of anticipation, and this is true. However, pragmatic anticipation had to be distinguished because it is an anticipation of *meaning*: there is no source language component that is uttered before (or almost at the same time as) its corresponding element in the source language. The interpreter performs an anticipation of meaning, they can predict the gist of the sentence, whether it will have a positive or negative connotation or whether or not it is in contradiction with the previous point made by the speaker, and this needed to be recognized and analysed. This new kind of anticipation has to be considered in the future research on anticipation and interpreting strategies as it is the practical consequence of the mental anticipatory processes of the interpreters.⁸⁴

In order to better define pragmatic anticipation it is necessary to use the practical examples of anticipation found and analysed in Speech A and Speech B to understand how and why some were considered pragmatic anticipations.

6.3 Anticipation in Speech A (delivered at 100wpm)

Anticipation was only found twice in the interpretations of Speech A and those two anticipations are very peculiar and do not fall into the category of anticipation as the production of an element in the target language that has not yet been uttered in the source language (Hodzik and Williams, 2017).

Interpreter #5 - sentence #9

Rassismus, Antisemitismus und Fremdenfeindlichkeit sind auch in Deutschland nicht
 08:44:001 08:49:023
 überwunden.

⁸⁴ This can be useful in interpreter training: while interpreters are careful not to provide an incorrect translation, which is the main risk of anticipation, with pragmatic anticipation they are anticipating the general sense of the utterance. This gives them the chance to fill in a silence (instead of waiting for more information) while providing already the target audience with the *sens* (Seleskovitch, 1986) that the full utterance of the speaker will have.

able to predict what the meaning of the full sentence will be, ultimately showing how prediction can take place at different levels, including the level of meaning (Gambi and Pickering, 2018). This prediction can translate into different practical actions, e.g. a short *décalage* when the interpreter already grasped the general concept and they feel confident enough to maintain a short *décalage*, or anticipation. In this case, the adverb “unfortunately” is the outcome of the interpreter’s decision to act on their prediction (Amos and Pickering, 2020). Moreover, while with anticipation interpreters decide to anticipate an element to unburden their working memory (Bevilacqua, 2009), because they are already confident of what the anticipated element (e.g. a verb or a noun) will be, in this case the production of “unfortunately” did not ease the burden on the working memory. It took place because the interpreter had understood the meaning, or rather the connotation of the sentence, and this was reflected in their translation. The addition of ‘unfortunately’ in the current example seems to have been spontaneous, the interpreter knew that the 3 elements mentioned at the beginning of the sentences are negative issues, and the adverb ‘unfortunately’ is a reflection of this. In this case, the addition of ‘unfortunately’ can be considered as a consequence, or rather a product of, prediction by production (Amos et al., 2020; Gambi and Pickering, 2018). In fact, it appears that the addition of unfortunately was made rather spontaneously, which seems to indicate that the interpreter had predicted the speaker’s intention (Ito et al., 2018) and has therefore added ‘unfortunately’. Pragmatic anticipation, while being linked to prediction by production, is different from it as prediction by production happens in normal language comprehension and the production system adjuvates the prediction. With pragmatic anticipation instead, the interpreter already has their production system constantly active because it works at the same time as their comprehension system (Seeber, 2011), and in their production they are inserting an element that makes the prediction of meaning evident. Therefore, pragmatic anticipation only happens at the level of meaning, as the interpreter is not anticipating a source-language constituent. Instead, they are anticipating the meaning or general connotation of the source language utterance.

Interpreter #7 – sentence #10

das ist im wiedervereinten Deutschland nicht anders.

09:56:162

[it is no different in the reunited Germany]

And it is the case for us in Germany

09:56:436

The interpreter said “it is” in the target language as the negation was being uttered in the source language. They transformed the sentence from a negative into a positive one because they had already uttered the positive verb. However, this particular instance is interesting because when an interpreter is unsure about the verb or realizes that the verb was supposed to be different or negative, after translating it in the positive form they might continue with it and resort to a morphosyntactic transformation (Riccardi, 1999:172 cited in Donato, 2003:107), but in their voice a bit of hesitation is evident, as was the case for Interpreter #5’s interpretation of this sentence when they said “and is also the... and is also”. This would be imperceptible to a target language audience but when analysing the recordings (knowing what was happening) hesitation in the interpreter’s voice was evident, which would arise from the realization that the sentence was negative and the awareness that they need to now transform the sentence into a positive one while still communicating the same message that the speaker intended to convey. However, in this case the interpreter continued their utterance with no hesitation. As in case of Interpreter #5, this could be due to the fact that the interpreter had already formed a prediction of meaning in their mind, which in this case took place as freewheeling; they were already confident that the speaker was going to say that the situation in Germany was no different. They had anticipated the concept, hence they were able to seamlessly translate it in a positive sentence into the target language, because they were already confident of what the *sense* (Seleskovitch, 1986) of the sentence was.

This sentence too has a high redundancy, and the utterance that came immediately before contributed to the high redundancy and helped the interpreter predict the meaning. In effect, this extract is part of a sentence where the speaker says “Das ist bei Ihnen so, und” [*that is true here, and*] hence the interpreter can anticipate the general meaning of the sentence. Based on the first part of the sentence and on the coordinating conjunction “and”, the hearer can expect a parallelism between the situation in South Africa and that in Germany, similarly to the use of “auch” in the previous example. So far, these example confirm that high redundancy is helpful for predictions and, consequently, anticipation in simultaneous interpreting.

6.4 Anticipation in Speech B (delivered at 140wpm)

Pragmatic anticipation was found twice in the analysis of Speech B:

Interpreter #5 – sentence 2

Diese Hoffnung hat sich nicht erfüllt,

02:40:754

[this hope has not been fulfilled]

However this hope was not fulfilled

02:39:127

As in the previous example, namely that of Interpreter #5 sentence 9, the interpreter used a conjunctive adverb that proves that they had understood the meaning of the source language sentence. They have anticipated the contraposition between what was expected and what in fact happened, and started their sentence with “however”, similarly to Interpreter #5 who anticipated the meaning with “unfortunately”. When they added ‘however’, the interpreter had only heard ‘diese Hoffnung’ (this hope) in the source language, and at that point they had already predicted the meaning of the sentence. It is, once again, difficult (if not impossible) to state exactly how they could have already anticipated the message as the speaker could have said something different, for instance ‘this hope is still alive’ or ‘this hope has been with us for several years now’, or many other options. Instead, the interpreter anticipated that the sentence was going to have a negative connotation and that the speaker wanted to communicate that this hope had not been fulfilled. The cues for this anticipation could be found in different places, such as the interpreter’s knowledge of the speaker and the communication situation (i.e. the type of pragmatic inference described by Chernov, 2004), but also of the interpreter’s background knowledge. In fact, in the portion of the text preceding this sentence the speaker was recalling past events and how, after the Cold War, people thought they were moving towards a more peaceful multilateral world order. If we only consider this concept, based on our world knowledge, we know that this did not happen. The interpreter could have taken the information from their long-term memory and assumed (or rather, predicted) that the speaker wanted to underline how this hope did not become true. However, they could have also used the information taken from the communication in order to make this predication, for instance knowing that the speaker was advocating for a strong and fair EU, one where basic principles are respected. Based on this, it would be

possible for them to infer that a lot of work is still necessary in this regard, hence the hope for a more peaceful and multilateral world order has not yet been fulfilled.

Therefore, it is not possible to clearly state why anticipation took place. It is important to underline how the production of the speaker, i.e. the addition of ‘however’ at the beginning of the sentence, clearly shows that they had already shaped a meaning of the utterance, i.e. the connotation of the message that the speaker wanted to communicate, before having enough information to anticipate the verb or other constituents of the sentence.

The second instance of anticipation found, while still considered pragmatic anticipation in the present investigation, is the result of freewheeling, as in the second example of anticipation in Speech A:

Interpreter #3 – sentence 2

Diese Hoffnung hat sich nicht erfüllt,

02:40:559

[*this hope has not been fulfilled*]

But this is a hope that did not come true

02:40:918

The interpreter’s production of ‘but’ came almost at the same time as the speaker was uttering the *nicht* in the source language, which means that it was the result of an anticipation process. As for the other examples, this will be considered an example of pragmatic anticipation, because the interpreter had anticipated that the meaning was going to be negative and started their sentence with the conjunction ‘but’ to introduce a contrast.

It is worth mentioning that, although pragmatic anticipation was used by two different interpreters in Speech B, they both used it in the same sentence, i.e. sentence 2. While in the two examples where anticipation was used in Speech A both sentences were high redundancy, this sentence was considered low redundancy based on the reference. In the first analysis of the source speeches, this was considered a sentence where anticipation would have been difficult because of the sudden change of reference. In the previous sentence the speaker was focusing on the EU specifically and on how the EU is a union of values and what were the expectations after the cold war, focusing particularly on peace. Instead, in the current sentence the focus slightly changed from what the EU was valuing to the hope that they had after the Cold War. Despite this sentence being semantically linked to the previous one, only by hearing ‘diese Hoffnung hat’ it would

have been difficult for an interpreter to anticipate how the sentence would unfold, and this assumption remains true. In effect, since both examples are pragmatic anticipation, the interpreter in effect did not anticipate a constituent of the sentence.

However, it would appear that the previous sentence and the interpreters' background knowledge might have given them enough information in order to anticipate the general meaning of the message. The speaker says "eine Zeitlang" [*for a moment*] and, although only by hearing "diese Hoffnung" it is difficult, if not impossible, to anticipate how the sentence will unfold, the fact that two interpreters could use pragmatic anticipation in this sentence shows how both the text-based high redundancy and the interpreters' background knowledge helped them predict the meaning of the sentence⁸⁵. While still not simple to anticipate, the expression *eine Zeitlang* might hint that the thought of a more peaceful word order only lasted a moment because something happened, and the situation changed again. Another explanation is that the interpreter could have relied on a rhetorical tactic of the speaker: introducing what was the initial prediction of how the events would unfold as opposed to what really happened in the end. In this regard, specifically in relation to the redundancy, a clarification is necessary. The kind of redundancy considered as a variable was objective redundancy, not because it is more important than subjective redundancy, but because for the way in which the experiment was conceived and set up, subjective redundancy would have been a difficult element to control. In fact, any information (or sentence) can be variably redundant to different people, and for the present investigation it would not have been possible to clearly state that something was more subjectively redundant to one participant compared to the other. However, it is worth noting that the redundancy levels of the sentences analysed were established considering the criteria for objective redundancy, while interpreters could have resorted to a pragmatic anticipation in this case as a result of a high subjective redundancy rather than an objective one.

The initial hypothesis was that anticipation would be used more in Speech A than Speech B because the former is a slower speech and with a slow input rate interpreters could have used anticipation instead of other strategies (e.g. instead of waiting or changing the order) in order to carry on with their translation even when the necessary source language constituent had not been uttered yet. However, the slightly higher occurrence of anticipation in Speech B has invalidated the initial hypothesis while

⁸⁵ While the sentence-level redundancy was low, the speech had a high level of redundancy, as most political speeches do (Chernov, 2004)

shedding light on another advantage of anticipation: it remains true that in presence of a high speech rate the unknown element at the end of the sentence (in this case, negation) is uttered sooner by the speaker in the source language, however the syntactic difference between the two working languages continues to be an issue and the interpreter has less room for manoeuvre in presence of a high input rate. In effect, in this case an interpreter might choose to use anticipation because they are aware that they need to keep the speaker's pace, which means that they do not have enough time to change the order of the sentence or wait to have more information. Therefore, an interpreter's approach to a higher speech rate might be more inferential as they need to grasp the meaning of the source language utterance more quickly than they normally would. For this reason, interpreters might use anticipation more, whether it is pure anticipation (which allows them to save some time and processing capacity) or pragmatic anticipation, as in this case they are showing that their inferential process has led them to predicting the message that the speaker wants to convey.

Moreover, the main remarkable difference in the analysis of anticipation in Speech A and Speech B is that in Speech B there is an instance of pure anticipation (Lederer 1980, cited in Vandepitte, 2001), which was not found in the analysis of Speech A:

Interpreter #2 – sentence 3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment
04:01:735
nicht zu.

[many European citizens do not trust the EU on such political debates]

Many citizens do not trust the European Union to conduct these debates at present
04:02:168

In this sentence the interpreter said “do not trust” when they had only heard the verb *trauen* [*trust*], therefore they produced an element of the sentence, the negation, that had not yet been uttered by the speaker. This is an example of an actual anticipation, and it is important to address that this happened in a sentence that has a low objective redundancy. This sentence was considered to have a low-redundancy based on co-reference⁸⁶: since the reference had changed, it was hypothesized that it would have

⁸⁶ See chapter 4 for a detailed discussion on the factors that determine the levels of redundancy and how they were considered for the single sentences analysed in this study.

been difficult for an interpreter to anticipate the rest of the sentence. The European Union was the subject of the previous sentence, and the speaker was focusing on the challenges that the EU needed to face. The reference then changed to the citizens and their (lack of) trust in the EU. Due to this change of reference, it would have been difficult to predict what the speaker wanted to express in this sentence. However, when hearing the verb 'trust', the interpreter immediately predicted that the speaker was about to refer to a lack of trust. It is worth mentioning that this interpreter (Interpreter #2), when asked about the most used strategies, reported that they generally use anticipation due to the nature of their work. In fact, they clarified that during interpreting assignments they need to start their translation very quickly, otherwise the target-language hearers will complain that they are not hearing the translation. In this case, their work experience seems to not only have helped them in the use of anticipation but seems to have shaped their approach to strategies in general. This can be considered as further evidence that the choice of a strategy includes subjective reasoning that, due to its nature, varies between interpreters.

The data from Speech B proved that even when working with a high input rate, or possibly even *more* in this case, interpreters rely on anticipation to free some processing capacity and to avoid lagging too far behind the speaker, or because they feel the need to be even more inferential and they can therefore anticipate the meaning of the utterances.

In conclusion, although the new type of anticipation identified differs from the traditional concept of anticipation, it is necessary to analyse it and include it in a new understanding of anticipation, which differs from prediction for the reasons explained (i.e. mainly because prediction is considered in the present study as the step before anticipation). Moreover, the specific focus on anticipation was also to unveil whether this strategy was the most used by professional interpreters and, based on the data analysis (both of the core experiment and of the two preceding pilot studies) we can establish that (with head-final negative sentences) anticipation is not vastly used. In terms of the material analysed, while it is true that interpreters might have used anticipation in other portions of the speech because only the head-final negative sentences were analysed, it is worth noting that in previous research anticipation or prediction were often analysed at the sentence level, for instance in Amos et al., 2023, Chmiel 2021, Hodzik and Williams 2017.

Finally, including redundancy has allowed to provide a more complete answer to the investigation on the use of anticipation, and has mirrored other studies that analysed anticipation in high and low constraint contexts, namely Chmiel 2021, and other studies that focused on prediction or anticipation of highly predictable words, such as Amos et al., 2023. Moreover, the influence of speed was more evident on other strategies (as analysed in Chapter 5) compared to anticipation. While the possible impact of speed on anticipation was addressed throughout this chapter, the impact of redundancy was assessed separately as redundancy was the independent variable initially hypothesized to be the most influential on the use of anticipation.

6.5 Redundancy and anticipation

The choice of including redundancy as one of the two independent variables in the experiment design was dictated by the need to assess whether and how it had an effect on the strategies used by the interpreters, particularly on anticipation. In this regard, Chernov (2004) underlined how a high level of redundancy is extremely important not only for anticipation, but for simultaneous interpreting in general. As mentioned in the literature review, the concept of redundancy was taken from Chernov's work (2004) and the term is used in the present investigation to indicate something that is to some extent predictable, as this would allow the interpreter to shape a meaning of the utterance in their mind. In fact, redundancy is not used as a synonym for repetitive or unnecessary, but rather as a condition that makes the sentence predictable.

Both speeches had some low- and high-level redundancy sentences, and redundancy was assessed using the parameters identified by Chernov (2004)⁸⁷. In order to first understand the impact of redundancy on anticipation specifically it is essential to recall which ones of the sentences anticipated were high and low-redundancy. For the purpose of this analysis, all the instances identified as anticipation will be included, disregarded of the type of anticipation used:

Speech	Sentence	Interpreter	Redundancy
A	#9	5	High
A	#10	7	High
B	#2	5	Low
B	#2	3	Low
B	#3	2	Low

⁸⁷ See chapter 4.

Figure 24 – Use of anticipation in high- and low-redundancy sentences

One preliminary conclusion can be made based on the table above: redundancy does not seem to have had a decisive impact on the use of anticipation, in the sense that anticipation is not only present in high-redundancy sentences. Moreover, based on the results, it appears that anticipation was used three times in a low-redundancy sentence and two times in a high-redundancy one, ultimately proving that anticipation can (and did) take place regardless of the level of redundancy.

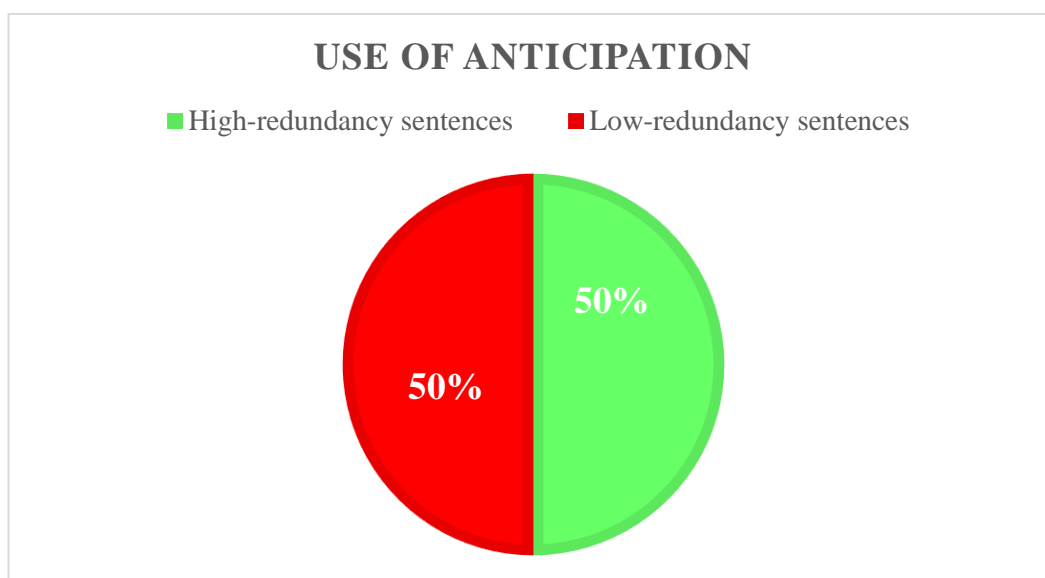


Figure 25 – Graph on the use of anticipation in high- vs low-redundancy sentences

Figure 25 shows that the use of anticipation was identical in the sentences that were low and high redundancy. From the data analysis it appears that anticipation was used three times in low-redundancy sentences, but this is only due to the fact that it was used twice in the same low-redundancy sentence, namely sentence #2 in Speech B, and the two occurrences of anticipation in Speech B were counted as one because they appeared in the same sentence.

This result shows how the sentence-level objective redundancy, while being an important factor in simultaneous interpreting, did not seem to have a major effect on the use of anticipation, and from this we could draw the conclusion that the redundancy considered in the investigation was not a vital condition for the interpreters to be able to anticipate⁸⁸.

⁸⁸ As addressed in Chapter 5, redundancy seems to have been less influential as a strategy compared to input speech rate

However, a clarification is necessary in this regard, in order not to draw incorrect conclusions. As shown by Chernov (2004), redundancy is a condition that has several levels and nuances. First of all, the type of redundancy considered as an independent variable in the present investigation was exclusively objective redundancy. Furthermore, it is essential to underline that redundancy was assessed only at sentence level. The objective of the study was the analysis of single sentences where a suitable form of negation was found (head-final negative sentences) and only these sentences were part of the data analysis. For this reason, only the redundancy of the single sentences was assessed, using the parameters proposed by Chernov (2004). However, as explained by the author, redundancy can be found at different levels and both texts used were high redundancy speeches.

These explanations are necessary to understand that redundancy is a complicated condition that touches upon different levels of the communication and stating that redundancy does not have an effect on anticipation or that redundancy is not essential to anticipate would be an incorrect answer, or rather an answer that only considers part of the issue. It would rather be more accurate to state that, for the specific experiment design that was conceived for the present investigation, where only objective redundancy was considered and where only the specific sentences were part of the data analysis, redundancy did not seem to have a significant impact on anticipation. This is important as it shows how in some circumstances, such as in this case, redundancy does not appear to have a primary role in anticipation, i.e. anticipation can be performed by the interpreters even with low-redundancy sentences. The levels of redundancy were assessed according to different parameters and, in order to better understand the links between redundancy and anticipation, it would be helpful to briefly recall them.

Speech A

sentence #9

Rassismus, Antisemitismus und Fremdenfeindlichkeit sind auch in Deutschland nicht überwunden.

[even in Germany racism, antisemitism, and xenophobia have not been overcome]

This sentence comes after a reference made by the President to how diversity is evident in our societies and how it has led to hatred and brutalisation. The semantic information

present in the previous utterances can help the interpreter formulate a prediction for the current utterance.

Although it would be difficult for the interpreter to anticipate the exact verb *überwunden* [*overcome*], they can exploit the semantic information to formulate a linguistic inference and expect that the nouns *racism*, *antisemitism*, and *xenophobia* will have a negative connotation in the sentence

sentence #10

[...] das ist im wiedervereinten Deutschland nicht anders.

[*it is no different in the reunited Germany*]

This sentence is part of an utterance where the speaker says “Das ist bei Ihnen so, und” [*that is true here in South Africa, and*], therefore the recipient can expect that it is the same in other countries as the two parts of the utterance are linked by ‘and’. As in the previous example, although the interpreter might not be able to fully anticipate how the sentence will end, the information provided at the beginning of the utterance and by the conjunction ‘and’ help the interpreter understand that the speaker will describe a situation in Germany that is very similar to the one just explained in South Africa.

The criteria mentioned above⁸⁹ are coherent with the findings. In sentence #9, the type of anticipation found was freewheeling, but another interesting aspect was the presence of ‘unfortunately’ which ultimately indicates that the interpreter had already grasped the general meaning, or message, of the utterance, before hearing the negation. Similarly, in sentence #10 the interpreter said ‘and it is’ i.e. they expressed the verb in the positive form because they had anticipated the message, i.e. that there was going to be a parallelism between the situations in the two countries. The data analysed in these two instances confirmed that the level of redundancy in these two sentences might have been useful for the interpreter to grasp the meaning of the utterances. It must be said that only two interpreters used anticipation, but if we consider the examples of anticipation rather than the general occurrence of this strategy, we can confirm that redundancy helped in these cases.

⁸⁹ The in-depth description of the criteria can be found in Chapter 4

Speech B

sentence #2

Diese Hoffnung hat sich nicht erfüllt, [...]

[this hope has not been fulfilled]

This sentence was considered low redundancy because, despite being a continuation of the concept expressed in the previous part of the speech regarding what view of the world people had after the Cold War, it would be difficult for a hearer to predict the conclusion of the sentence based solely on objective redundancy.

This could be seen as an example where we can argue that the subjective redundancy of the sentence has helped the interpreters. None of the interpreters anticipated the conclusion of this sentence, hence confirming that they did not have enough elements to anticipate the final portion of the sentence. However, both interpreters who used anticipation in this sentence started the sentence in the target language using some elements that made it clear they had anticipated the meaning of the utterance. One of the interpreters started with ‘but’ and the other with ‘however’, both indicating a contraposition compared to what had been said previously. Since it would have been difficult to use anticipation in this sentence only using the (low) objective redundancy, the interpreters might have resorted to their background knowledge as a source of subjective redundancy to predict the meaning of the utterance. This analysis still confirms that objective redundancy was low and that, consequently, the interpreters could not anticipate. However it also shows how objective redundancy is only partially responsible for the level of predictability of an utterance (or, in this case, a message).

sentence #3

Viele Bürgerinnen und Bürger trauen der EU solche politischen Debatten im Moment nicht zu.

[many European citizens do not trust the EU on such political debates]

Once again, based only on objective redundancy, it would have been difficult for the interpreter to anticipate the ending of the sentence. However, part of the chunk before this one might have been helpful in predicting what the message was going to be. In effect, the utterance right before the sentence, “die schlichte Wahrheit ist” *[the simple truth is]*, seems to have increase the subjective redundancy for interpreter 2. Hearing die schlichte Wahrheit and relating it with the previous part of the speech, where the

speaker was focusing on the challenges that the EU has to face, along with the verb “trauen” (*trust*), allowed interpreter #2 to predict the meaning and anticipate the negation.

In conclusion, specifically in relation to anticipation, redundancy seems to have played a role, although its impact was not overly relevant on the use of anticipation. However, it is worth noting that even in the previous examples that were considered low redundancy (sentence #2 and sentence #3 – Speech B), there were some cues that would have made the utterance more subjectively redundant to certain hearers (or interpreters, in this case).

6.6 Conclusions

The analysis of anticipation to tackle head-final negative sentences has provided several answers to the main research question. In terms of how or when anticipation was used by the participants, it was clear that it was one of the least used strategies. However, the instances of anticipation are further reduced if we only consider the examples of pure anticipation found (i.e. only one, in Speech B).

Moreover, anticipation was analysed also to understand how it was used. The initial expectation was to find some types of anticipation that had been already identified in previous research, such as freewheeling (Lederer, 1980) which was found in Speech B. However, the data analysis revealed a new form of anticipation that had not yet been analysed by scholars and that helps providing a better understanding of this strategy and, in particular, of the prediction processes in interpreting. This is relevant not only for the present study but for interpreting studies in general, as considering only instances of pure anticipation would be reductive. Pragmatic anticipation also proved how the boundaries between prediction and anticipation can sometimes be nuanced, as pragmatic anticipation has features of prediction in that the interpreter can *predict* the meaning of the utterance, and they verbalize this meaning in the target language, as it happens for anticipation.

It was stated at the beginning of the investigation that the goal was to provide an account of practice interpreters’ performances and avoid overtheorizing or complicating the discussion of strategies. However, the instances of pragmatic anticipation could not be neglected as they show a phenomenon that was never found in interpreting studies thus far.

Finally, in terms of the effects of the two independent variables on anticipation specifically, it appears that the use of anticipation did not change dramatically in the

two speeches, or in low or high-redundancy sentences. As addressed in Chapter 5, it would appear that the two variables had an impact on the strategies in general. It is worth noting that the sample size of anticipations was very limited as this strategy was scarcely used, and this might have influenced how evident the impact of the independent variables was.

Chapter 7 – Conclusions

The present research has shed light on the use of strategies by professional interpreters when tackling head-final negative sentences and provided a better understanding of anticipation as a strategy, which is relevant not only under the specific conditions of the present study. The category of ‘pragmatic anticipation’ identified in the study and the findings on how this strategy was used will complement existing studies on prediction and anticipation (Chmiel, 2021; Hodzik and Williams, 2017; Amos et al., 2023; Amos and Pickering, 2020; Gambi and Pickering, 2018). The basis of the investigation was the approach taken by the ‘bilateralists’ (Setton, 1999), i.e. the proponents of the Information-Processing Theory (Donato, 2003), according to whom the combination of language pairs involved in the simultaneous interpreting task has an effect on the difficulty of the interpretation. Seeber (2011) also shown that the cognitive load involved in simultaneous interpreting appears to become greater when there are linguistic differences between the two working languages, specifically different surface structures (such as a different syntax), hence the choice of using German and English for the present investigation. In fact, while they are both Germanic languages, their different surface structure represents a hurdle in simultaneous interpreting. This hurdle is exacerbated in negative sentences, as the negation is found at the end of the sentence, ultimately making the interpretation more difficult.

The first and main research question was how (and how often) anticipation would be used by professional interpreters to tackle head-final negative sentences. The data collected during the core experiment revealed that anticipation was scarcely used by the interpreters. This finding has not been interpreted to negate the idea that anticipation per se is a useful strategy, but rather to underline that it would be incorrect to assume that interpreters always or most often use anticipation when interpreting simultaneously from German into English, and to highlight to what extent the frequency of use of anticipation changes when applied to head-final negative sentences.

The findings were contextualized by providing a more comprehensive and nuanced definition of the term ‘strategy’. In effect, the objective of the investigation was not to provide a certain number of strategies that interpreters ‘should’ use, but rather to shed light on the approaches taken in practice by professionals, as practice and theory can sometimes differ. To this end, the literature review focused on many strategies previously identified by scholars, with specific attention to anticipation and other language-specific strategies, (Donato, 2003; Bartłomiejczyk, 2008; Zanetti, 1999; Bevilacqua, 2009; Van

Besien, 1999; Chmiel, 2021; Goldman-Eisler, 1972/2002). However, the data analysis has proven that it is difficult at times to clearly detect and isolate in practice some of the strategies that had been identified in the theory. For instance, Goldman-Eisler (1972/2002) focused greatly on segmentation, which was included as one of the possible language-specific strategies that interpreters can resort to and was in the data analysis of the two pilot studies. However, when analysing the findings, it was difficult to trace a neat distinction between segmentation and other strategies, and trying at all costs to identify instances of segmentation in the data analysis for the core experiment was beyond the scope of the investigation. For this reason, notwithstanding the importance of segmentation, it was not included as a strategy in the data analysis or the core experiment.

The findings also revealed that there is an undeniable subjective component to interpreters' choice of strategies and that, while all interpreters are aware of the risks involved in simultaneous interpreting (such as lagging too far behind the speaker or providing an incorrect target language output), it appears that the perceived significance of the risks varied between interpreters. This ultimately led interpreters to resort to different strategies, as for some the risk of an incorrect anticipation appeared to be greater than that of lagging too far behind the speaker or vice versa. This result ultimately proves that it would be difficult, if not impossible, to prescribe the use of certain strategies, as interpreters have to choose them very quickly, hence they need to resort to the one(s) they feel most comfortable with. This result can be considered as a proof of the gap existing between theory and practice, as in theory one strategy could be considered more suitable than another in certain contexts, but the choice of which strategy to use in practice appears to be subjective and dependant on several factors.

Another important aspect that helped provide a clearer answer to the main research question was the inclusion of the two independent variables: speed and redundancy. Two pilot studies confirmed the necessity of the two variables, as it was noted that the results of the pilot studies might have changed if the input speech rate or the level of redundancy had been different. To this end, the strategies found in the core experiment were analysed both in isolation and in relation to the possible effect of the two independent variables. It was found that speed had a greater influence on the choice of strategies, e.g. causing the occurrence of waiting to vary greatly (32% in the slower speech and only 7% in the faster one) as well as the occurrence of other strategies whose connection to speech rate was evident, such as omissions (2% in the slow speech and 12% in the fast one) and FTPS (29% in the slow speech and 51% in the fast one). These findings are in line with previous

studies on the correlation between input speech rate and interpreter's performance, particularly noting that a higher input rate seems to be linked to a higher occurrence of omissions (Barghout, Rosendo and García, 2015; Gerver; 1969/2002). This result ultimately disproved the initial hypothesis that a higher speech rate could have a positive impact, which was based on Schlesinger's findings (2003) that when the speech rate is higher an item has less time to 'decay' in the interpreter's working memory because they have to process the information faster. In the present investigation, speed did not seem to have a particularly positive impact, as it caused an increase in omissions. Moreover, it was initially hypothesized that anticipation would be found more in Speech A than in Speech B, because with a higher input rate the interpreter would be exposed to the head-final source language element sooner. The data analysis revealed that this did not happen in the investigation and that, in fact, interpreters resorted to anticipation three times in Speech B and two times in Speech A.

As for the influence of redundancy, while its impact on anticipation was not significant (anticipation was found both in high- and in low-redundancy sentences), it seemed to have an effect on the use of other strategies, such as changing the order, (11 times in low-redundancy sentences and 4 times in high-redundancy ones in Speech A) or short *décalage* (15 times in high-redundancy and 4 times in low-redundancy sentences). In Speech B, on the other hand, the difference in the use of strategies based on the level of redundancy was less pronounced. This variable had an effect on some of the strategies, such as short *décalage* (12 times on low-redundancy and 8 times on high-redundancy sentences), however the speech rate seems to have had a much more significant impact compared to redundancy. It should be noted that, while the redundancy analysed was at sentence level, both speeches used for the core experiment were political speeches, which are known to have a higher text-level redundancy (Chernov, 2004), hence in both cases the speech in its entirety included more high-redundancy sentences than other speeches. Regarding the methodology, the results have confirmed the necessity of testing it with two separate pilot studies in order to adjust some details that were then changed for the core experiment, such as the use of original material and the decision to not disclose the exact scope of the investigation to the participants. Moreover, the decision to set up an experiment revealed itself as particularly useful, as it allowed to control the experiment conditions and the occurrence of both the independent and the dependent variables.

Finally, although the main research question was focused on anticipation and on whether it would be often used by interpreters, the data analysis has revealed a new

nuance of this strategy that has not been identified in research thus far. A proposed name for this new form of anticipation is ‘pragmatic anticipation’, due to the presumed origins of its cues within the field of pragmatics. It was necessary to adopt a definition of pragmatics that was wide-ranging enough to include the different possible cues that seem to have been used by the interpreters to anticipate the *meaning* of the utterance. Pragmatic anticipation appeared to be a consequence, or product, of the process of ‘prediction by production’ (Amos et al., 2020; Gambi and Pickering, 2018), which was defined by previous authors as the ability to make predictions about the upcoming information based on the listener’s own production system. Pragmatic anticipation, whilst not being the anticipated production of a specific source language constituent in the target language, is the verbalization of a meaning or intention that has clearly been anticipated by the interpreter, hence the choice of considering it a form of anticipation (and not of prediction, which is the step before anticipation). This finding has revealed that the strategy of anticipation, which is the consequence of inference (Chernov, 2004) and prediction (Hodzick and Williams, 2017), seems to have different nuances that should be addressed and further explored.

Based on the findings of the present investigation, it is possible to make some recommendations for future research in order to further explore the subject of interpreting strategies and anticipation itself. First of all, it would be helpful to replicate the present study with a greater cohort of participants, in order to investigate whether more instances of anticipation would be found and, specifically, more occurrences of pragmatic anticipation. A greater group of participants would ensure more data that could shed greater light on how professional interpreters tackle head-final negative sentences. This is a preliminary study, and a greater wealth of data would allow some firm conclusions about anticipation as a strategy with valuable insights for interpreting studies more broadly.

The present study also addresses ‘strategy’ as a term and seeks to provide a definition of what a strategy is and, more specifically, what factors seem to have an impact on the choice of strategies. The investigation started from the need to describe strategies from a more practical perspective, hence the study can have a twofold impact. On one hand, the thorough definition of strategies as well as the analysis of approaches taken by participants are useful from a theoretical perspective as they will integrate the current literature in interpreting studies with focus on interpreting strategies. In fact, this analysis has shown that theory and practice can sometimes differ, and this encourages critical

thinking within academia on what we define as a strategy and whether the limits between strategies are as defined in practice as they are in theory.

On the other hand, being the data analysis a realistic account of interpreters' performance, the study can be useful in interpreting pedagogy as it would show students and trainees the approaches taken by interpreters in a simulated assignment. This would allow them to have an overview of the performance of a professional and on how they use strategies. In this regard, it would also prove helpful for students to become aware that the use of strategies is not prescriptive, there are several subjective factors involved. Moreover, as shown in the analysis, professionals sometimes change their approach if they find it has not led to the expected outcome. This shows that there is some flexibility in the choice of strategies, and that students can exploit their training to carry out a trial and error of the strategies available and understand which one works best for them.

It is worth noting that these benefits of the research can reach beyond the specific experiment conditions, as the discussion of strategies is applicable to any interpreting situation and the syntactic differences noted here do not only exist between German and English. There are several languages with different syntactic structures (Japanese, Turkish, Italian, French etc.), thus the language-specific approaches described here can be used across several language pairs.

Moreover, in the present investigation participants were asked to interpret from their B language in their A language, which is common practice in simultaneous interpreting (although the private market can be different). However, previous studies have found that the ability to predict is sometimes greater when listeners hear a message in their A language (Ito et al., 2018). Therefore, specifically when analysing prediction and anticipation, it would be interesting to assess whether the ability and the occurrence of anticipation vary when interpreters are working from their A language into their B language, hence changing the directionality of the interpretation compared to the current investigation. This could provide an enhanced understanding of prediction and anticipation as they are used by interpreters who are listening in their A language. If found that interpreters listening in their A language find it more natural to predict, their prediction might lead to actual anticipation rather than pragmatic anticipation, which would ultimately prove that the interpretation is more inferential when listening in the A language. This would have an impact on scholarship as, when discussing anticipation, it would be necessary to make clear distinction between interpreters listening in their A or in their B language.

Finally, redundancy was considered in the present research from an objective perspective only, as objective redundancy was directly measurable in the material used, while subjective redundancy was a criterion that would have been difficult to control and analyse within the scope of the present study. However, the same utterance or sentence has different degrees of subjective redundancy for different listeners, as subjective redundancy is a personal criterion. To this end, further studies could consider redundancy in its entirety, hence including subjective redundancy as well, in order to assess whether the impact of redundancy changes when the subjective redundancy is included. A further nuance would be to consider redundancy at the text level rather than at the sentence level.

Aside from the type of redundancy considered, the study has some other limitations. First of all, as mentioned, the sample size is rather small, and it does not allow to draw generalised conclusions concerning the whole interpreting population, hence it would be interesting to carry out similar investigations in anticipation as a strategy (and its limits) with a greater cohort of participants to understand whether (and how) the results might change, both in terms of anticipation and in terms of the use of strategies in general. A further limitation is the selection of only head-final negative sentences for the data analysis, however this limitation was essential to the study: the focus of the research was on head-final negative sentences in particular and the study sought to move away from the generalised recommendation that anticipation is a very helpful strategy and focus on a very nuanced scenario where anticipation might not be widely used, hence the data analysis on head-final negative sentences only. This focus reflects previous studies that focused on a particular language specificity.

Moreover, it is worth addressing that the study features a data collection method that seeks to be as close as possible to real-life conditions featuring real-life speeches, however it is still a reconstruction of an interpreting environment. However this was necessary as including only real-life interpretations of speeches would not have allowed to have the same conditions for all the subjects considered as it would have been necessary to have several speeches with different difficulty levels interpreted by different interpreters. The experiment set-up was specifically selected to propose the same conditions to all participants in order to minimize the possible differences that could have an impact on their performance. As for the type of participants, they were all professional interpreters who were asked to perform a task they are used to carrying out in their daily professional life and their approach shows how professional interpreters tackle head-final negative sentences, which was the scope of the analysis.

Finally, although the study features a specific language pair, the point of departure is that language specificities can be an added difficulty in simultaneous interpreting, hence this approach can be applied to other language pairs that feature different syntactic structures.

To conclude, then, the present investigation has shown that anticipation is not the strategy most often used by interpreters when tackling head-final negative sentences. This finding was thoroughly addressed and explained by the inter-subject variability in the choice of strategies. Several factors are impactful on the choice of strategies, and many of these factors are subjective. This showed that, while anticipation remains a helpful strategy, it was not widely used in the present investigation. In terms of independent variables, it appears that they did not have a significant influence on the use of anticipation, but they were more impactful on the use of the other strategies. The study also showed that the discussion of strategies in the scholarship does not always accurately reflect the presentation of the same strategies in practice, as several of the strategies identified so far cannot be clearly distinguished in interpreter performance (e.g. segmentation and short *décalage*).

These findings can be used to replicate this study or carry out similar investigations to further analyse interpreting strategies and anticipation, which appear to be complicated and faceted subjects of analysis.

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Appendix

Abbreviations

EVS – ear-voice-span

FTPS – finishing the translation of the previous language

SI – simultaneous interpreting

RSI – remote simultaneous interpreting

Ethics Approval

Original ethics approval

Da: Erin Pickles <E.R.K.Pickles@leeds.ac.uk> per conto di AHC Research Ethics <AHCRResearchEthics@leeds.ac.uk>

Inviato: giovedì 6 maggio 2021 13:23

A: Clarissa Guarini <mlcg@leeds.ac.uk>

Cc: Binhua Wang <B.H.W.Wang@leeds.ac.uk>; AHC Research Ethics <AHCRResearchEthics@leeds.ac.uk>

Oggetto: LTSLCS-132 AHC FREC application outcome (Favourable)

Dear Clarissa (Binhua for information),

RE: LTSLCS-132 / Is anticipation the right tool for simultaneous interpreters to tackle the night ambush?

Further to the submission of your application, I am pleased to inform you that your light-touch research ethics amendment application has been reviewed by the AHC Committee and I can confirm this has received a favourable ethical opinion based on the documentation received at date of this email.

Please retain this email as evidence of approval in your study file.

Please notify the committee if you intend to make any amendments to the original research as submitted and approved to date. This includes recruitment methodology. All changes must receive ethical approval prior to implementation. Please refer to the [amendment form](#) or contact the Research Ethics & Governance Administrator for further information (ahcresearchethics@leeds.ac.uk) if required.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms (if you continue to do this by post), risk assessments and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited.

It is our policy to remind everyone that it is your responsibility to comply with Health and Safety, Data Protection and any other legal and/or professional guidelines there may be.

Some funders require official confirmation that ethics approval has been achieved. If you require this email agreement in letter form please do let me know. I would be happy to provide this if it is needed.

I hope the study goes well. If you have any questions please do email me.

Best wishes,

Erin

(on behalf of the AHC Faculty Research Ethics Committee)

Erin Pickles

Research Administrator

AHC Faculty Research Ethics Committee | University of Leeds

Email: ahcresearchethics@leeds.ac.uk

Ethics approval following amendments

Da: AHC Research Ethics <AHCResearchEthics@leeds.ac.uk>

Inviato: martedì 26 ottobre 2021 12:03

A: Clarissa Guarini <mlcg@leeds.ac.uk>

Cc: AHC Research Ethics <AHCResearchEthics@leeds.ac.uk>

Oggetto: LTSLCS-132 Amd September 2021 - Approval

Dear Clarissa

LTSLCS-132 Amd September 2021 - Negation as a language-pair specificity in German to English simultaneous interpreting: an experimental study

I am pleased to inform you that the above research ethics application amendment has been reviewed by AHC Committee and I can confirm a favourable ethical opinion based on the documentation received at date of this email.

Please retain this email as evidence of approval in your study file.

Please notify the committee if you intend to make any amendments to the original research as submitted and approved to date. This includes recruitment methodology; all changes must receive ethical approval prior to implementation. Please see http://ris.leeds.ac.uk/downloads/download/179/amendment_form or contact the Research Ethics & Governance Administrator for further information (ahcresearchethics@leeds.ac.uk) if required.

Ethics approval does not infer you have the right of access to any member of staff or student or documents and the premises of the University of Leeds. Nor does it imply any right of access to the premises of any other organisation, including clinical areas. The committee takes no responsibility for you gaining access to staff, students and/or premises prior to, during or following your research activities.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, risk assessments and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited.

If you require this confirmation in letter form, for example to show to external funders, then please do email me. I am happy to provide this if required.

It is our policy to remind everyone that it is your responsibility to comply with Health and Safety, Data Protection and any other legal and/or professional guidelines there may be.

I hope the study goes well.

Very best wishes,

George

Georgina Hough

FREC | University of Leeds

Email: ahcresearchethics@leeds.ac.uk

Web:

<https://leeds365.sharepoint.com/sites/ResearchandInnovationService/SitePages/Research%20Ethics.aspx>
