ON THE OPTION BETWEEN FORM-BASED AND MEANING-BASED INTERPRETING: THE EFFECT OF SOURCE TEXT DIFFICULTY ON LEXICAL TARGET TEXT FORM IN SIMULTANEOUS INTERPRETING[1]

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1.   Introduction

The hypothesis that will be addressed in this paper is rooted in the highly generalized idea that it is possible to distinguish between two paradigmatic procedures or strategies of interpreting: one is generally referred to as **form-based** (or word-based, structural, horizontal, sign-oriented, etc.) interpreting, and the other is labelled **meaning-based** (or conceptual, vertical, sense-oriented, etc.) interpreting (Seleskovitch 1975; Gran and Fabbro 1988; Gran 1989; Fabbro, Gran, Basso and Bava 1990; Fabbro, Gran and Gran 1991; Darò and Fabbro 1994; Paradis 1994; Isham 1994 and 1995; Gran and Bellini 1996; De Groot 1997 and 2000; Frauenfelder and Schriefers 1997; Gernsbacher and Shlesinger 1997; Lonsdale 1997; Massaro and Shlesinger 1997; Dam 1998). Form-based interpreting is generally described as a more or less direct transmission of source text structures to corresponding structures in the target language, i.e. as a procedure in which the interpreter follows the surface form of the source text as much as possible when constructing the target text. In meaning-based interpreting, by contrast, the interpreter detaches him/herself from source text form and produces the target text only on the basis of a conceptual – i.e. a non-verbal or amorphous – representation of the meaning of the source text. Because of this assumed non-verbal stage, the process involved in meaning-based interpreting is also often referred to as the process of *deverbalization*, whereas the procedure involved in form-based interpreting is frequently labelled *transcoding*.

As may be derived from this description, form-based and meaning-based interpreting are generally taken to be different both in terms of the underlying cognitive processes and in terms of the final product, i.e. the target text. Thus, it has been suggested that form-based interpreting involves source text processing only at a more superficial level, whereas meaning-based interpreting involves

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processing at a deeper semantic level (e.g. Darò and Fabbro 1994: 368; Gran and Bellini 1996: 104; Gernsbacher and Shlesinger 1997: 123; Lonsdale 1997: 96). In terms of the interpreting product, the form-based approach is thought to lead to a target text that is formally similar to the source text, whereas the meaning-based strategy would result in a target text with a lexical and morphosyntactic form that is essentially different from that of the source text (e.g. Fabbro *et al.* 1990: 75).

It is generally assumed that both techniques are available to trained interpreters, who may alternate between them according to internal or external circumstances (e.g. Gran 1989; Fabbro *et al.* 1990; Fabbro *et al.* 1991; Lonsdale 1997; Frauenfelder and Schriefers 1997; Massaro and Shlesinger 1997), be it consciously or unconsciously (Isham 1994). Although very little is known about the nature of the circumstances that would affect the choice of strategy, one assumption appears to be rather generalized: it is repeatedly stated in the literature that meaning-based interpreting is the strategy generally preferred by interpreters, whereas form-based interpreting is reserved for specific situations – typically situations which may be characterized as problematic for the interpreter (Gran 1989; Fabbro *et al.* 1990; Isham 1994 and 1995; Gran and Bellini 1996; De Groot 1997; Lonsdale 1997; Massaro and Shlesinger 1997). In other words, meaning-based interpreting is normally thought of as the standard strategy, whereas form-based interpreting is held to be an exceptional approach to which interpreters resort primarily in order to overcome difficulties. Interpreters' choice of either strategy is therefore essentially associated with the notion of *difficulty*. As examples of interpreter-internal factors that are likely to produce a situation experienced as difficult, and therefore inductive of form-based interpreting, some researchers mention stress and fatigue (cf. Gran 1989: 98; Fabbro *et al.* 1990: 75; Fabbro *et al.* 1991: 4; Darò and Fabbro 1994: 368). Interpreter-external difficulties, on the other hand, are normally associated with the characteristics of the source text or the way it is presented. Frequently stated examples of such source-text-related difficulties that are likely to make interpreters resort to form-based interpreting are numbers, names, technical terms, enumerations or a high rate of delivery (Gran 1989: 98; Fabbro *et al.* 1990: 75; Isham 1994: 206 and 1995: 139; Gran and Bellini 1996: 105; Lonsdale 1997: 96; Massaro and Shlesinger 1997: 39) – all of which are also often characterized as sources of interpreting difficulties in the general literature on interpreting (e.g. Seleskovitch 1975; Gile 1995: 172-174).

Even if these assumptions concerning the distribution of form-based and meaning-based interpreting are shared by many interpreters and interpreting scholars, no empirical evidence has been obtained to support them so far. In fact, in a previous study in which I examined the general distribution of form-based and meaning-based interpreting on a small-scale corpus of consecutive

interpretations, I found that, contrary to the current assumption, evidence of form-based interpreting was more dominant than evidence of meaning-based interpreting (Dam 1998).

The central question of the study I shall report on in this paper is not so much whether form-based interpreting is more, or less, frequent than meaning-based interpreting overall. Rather, the question here is whether it is true that the level of difficulty of the source text has an effect on simultaneous interpreters' choice of approach to the task, difficult texts being associated mainly with form-based interpreting and, inferentially, non-difficult texts being linked primarily with meaning-based interpreting. In other words, the present study sets out to test the prevailing **hypothesis** that *the more difficult the source text, the more the interpreter tends to deviate from the meaning-based approach and to interpret on the basis of source text form.*

In order to test this hypothesis, I shall essentially apply the methodology proposed in my previous study on form-based and meaning-based interpreting (Dam 1998), in which I drew upon the assumed product-manifestation of the two paradigmatic interpreting procedures. Thus, the basic method of the study will consist in comparative analyses of source and target texts, and, as the key concepts of the model of analysis, *lexical similarity* and *lexical dissimilarity* will be used as tools to identify form-based and meaning-based interpreting, respectively. The model of analysis and its underlying principles are described in section 3. In addition, for the above hypothesis to become operational, the elusive concept of 'difficulty' needs to be operationalized. Section 2, which contains a description of the data of the study, includes an attempt to do so.

2.   Data

The study is based on an experimental set of data comprising extracts from two Spanish speeches (the source texts) and the corresponding extracts from five simultaneous interpretations into Danish of each of the two speeches (the target texts).

2.1   Source texts

The source texts were originally presented in the context of two simulated conferences organized as part of the interpreter training programme at the Aarhus School of Business. As regards instructions, the speakers – two native speakers of Spanish – had been asked to give speeches that were in line with the general themes of the conferences ('refugees and immigrants' and 'unemployment', respectively) and to base their presentations on notes rather

than using full manuscripts. They had received no further instructions as to the selection of specific topics, perspectives, etc. The speakers and their presentations were video-recorded during the conferences, and the video-recordings were subsequently used as source text data for the present study.

I selected the two source texts for this study because of their apparently very different levels of difficulty. One of them – hereafter referred to as **Source Text 1** – was assessed as the less difficult text, and the other – hereafter referred to as **Source Text 2** – as the more difficult text.

A question that needs to be addressed at this point is how to determine a text's level of difficulty – an evidently subjective notion that depends largely on individual experience, knowledge, etc. (see also Lamberger-Felber 2001). While the level of difficulty of a text therefore cannot be determined in objective terms, an initially purely subjective assessment may be backed by intersubjective consensus. In this case, there were several factors to indicate the existence of such a consensus to back my intuitive identification of Source Text 1 as less difficult than Source Text 2.

Firstly, on several occasions prior to the study, the two texts had been presented to different groups of interpreting students during class, and their immediate reaction was invariably the same: they all found Source Text 1 very straightforward and easy to interpret, whereas they complained about how difficult Source Text 2 was. This was, then, a first indication of a shared opinion in the assessment of Source Text 1 as less difficult to interpret than Source Text 2.

Secondly, analyses of the relevant extracts (cf. section 2.3) of the source texts revealed that a series of the characteristics that are normally identified as sources of interpreting difficulties – essentially by general agreement among interpreters – were present to a much greater extent in Source Text 2 than in Source Text 1. Table 1 below shows the most important differences between the two texts in terms of sources of difficulties:

	Source Text 1	Source Text 2
Specialized terms	0	several
Numbers	2	34
Average sentence/clause length		
- Words per sentence	13.32	20.02
- Words per clause	7.06	10.81
Average rate of speech		
- Words per minute	119	125
- Syllables per minute	232	262

Table 1: Differences with possible implications for the respective levels
of difficulty of Source Text 1 and Source Text 2.

As shown in Table 1, one difference between Source Text 1 and Source Text 2 concerns the use of **specialized terms** – a feature often referred to as a problem trigger in interpreting (e.g. Gile 1995: 173; see also Gile 1985 for some empirical support). None of the texts were truly technical, but whereas the speaker of Source Text 1 primarily used high-frequency words from every-day vocabulary, Source Text 2 also contained a series of fairly specialized terms of low frequency. Obviously, speakers' terminological choices are not random, but depend i.a. on their choice of topic and, perhaps more importantly, of perspective. The topic of Source Text 1 was the situation of immigrants in Mexico as seen from the point of view of an ordinary citizen of Mexico – a choice that favoured the use of non-specialized language. The topic of Source Text 2 was unemployment in Spain, and emphasis was put on the reasons for this phenomenon as analysed from a macroeconomic perspective; this choice of perspective, together with the fact that the speaker of Source Text 2 was an economist, explains the usage of a series of specialized terms and concepts from the domain of Economics.

Another important difference, that is probably also determined by the speakers' choice of topic and perspective, concerns the use of **numbers** – another well-known source of difficulties in interpreting (e.g. Gile 1995: 176; for some empirical documentation, see Alessandrini 1990). As shown in the Table, Source Text 1 contained only 2 numbers, whereas Source Text 2 included as many as 34 – or one number for every 1.6 sentence in the analysed extract. In addition, the two numbers in Source Text 1 consisted of one digit only, whereas only 4 of the 34 numbers in Source Text 2 were one-digit numbers; the remaining 30 were composed of between two and eight digits and were therefore more complex.

A third significant difference between Source Text 1 and Source Text 2 derives from **sentence** and/or **clause length**, the sentences and clauses of the latter text being considerably longer than those of the former. While the length of the sentences and/or clauses of a text may not be of importance in itself, it is an indication of phenomena that may indeed affect the level of difficulty. Thus, sentence length is an indicator of information density, insofar as it reflects the amount of information given in one sentence. High information density is often described in the literature as a major source of interpreting problems (e.g. Gile 1995: 173). Seen from a different angle, sentence length is an indicator of syntactic complexity, because long sentences suggest the presence of many modifiers at phrase, clause and/or sentence level(s), i.e. a high degree of syntactic subordination.

A fourth difference between the two source texts is the **rate of delivery**, Source Text 2 being presented at a slightly higher rate than Source Text 1. Together with high information density, a high rate of delivery has been

characterized as one of "the most frequent sources of interpretation problems" (Gile 1995: 173). Although none of the source texts were delivered at extreme speed, there was a measurable difference between them, which may have been sufficient to be experienced as significant by interpreters. In fact, in an experimental study, Gerver (1969 and 1976) found that the input rate at which simultaneous interpreters perform at their best is between 95 and 120 words per minute – a rate that was exceeded only by the speaker of Source Text 2, as shown in Table 1.

The above differences between the two source texts are tangible, and objective, enough. It is even safe to say that these differences make it likely that Source Text 1 will be experienced by many interpreters as less difficult to interpret than Source Text 2, though interpreters' actual perception of difficulty will always remain individual and subjective. Consequently, as a way of ascertaining that the assumed difference in levels of difficulty was, in fact, experienced as such by the interpreters who served as subjects in the present study, I asked them, after they had interpreted the two texts (cf. section 2.2), whether they felt that there was a difference. Their response was unanimous: all the subjects answered that there was indeed a difference. When asked about the distribution of the levels of difficulty, they all responded that Source Text 1 was the less difficult text and Source Text 2 the more difficult one. In fact, they all characterized Source Text 1 as "easy" and Source Text 2 as "difficult" – in absolute terms. This was, then, a further indication of an intersubjective consensus on the identification of Source Text 1 as less difficult than Source Text 2 – and vice versa.

In accordance with the prevailing hypothesis, as formulated in section 1, we may therefore expect more evidence of the form-based strategy in the interpretations of Source Text 2 than in those of Source Text 1 in the present study. This expectation will be matched with the actual results of the study in section 4.

2.2   Target texts

The video-recordings of the two Spanish source texts were presented to a group of five subjects, each of whom performed a simultaneous interpretation into Danish of each source text. Thus, a total of ten target texts were obtained.

All five subjects had recently finished their interpreting training at the Aarhus School of Business and had passed their exams with one of the highest

marks[2]. Thus, the subjects had undergone formal interpreting training and had shown good interpreting potential, but none of them had actual conference experience. They all had Danish as their mother tongue and Spanish as their first foreign language.

Prior to the task, the subjects had been informed of the general themes of the simulated conferences and the titles of the source texts. They knew that their interpretations were to be used as data in an investigation on interpreting, but they were not informed of the specific purpose of the study. Apart from having been told to interpret in the simultaneous mode, the subjects had received no instructions on how to interpret; they were simply asked to interpret "as they thought best".

During the task, the subjects sat in classroom interpreting booths equipped with head-phones, microphones, monitors and tape-recorders. Before the actual task began, the subjects were given a short live speech, which they interpreted as a warming-up. Then they interpreted the video-recording of Source Text 1 and, after a five-minute break, that of Source Text 2. The duration of the warming-up speech was approximately 5 minutes; Source Text 1 lasted approximately 10 minutes, and Source Text 2 approximately 15 minutes. The interpretations were recorded on the tape-recorders in the booths.

2.3   Preparation of data for analysis

For the purpose of the analyses, the recordings of the two source texts and the ten target texts were transcribed essentially in accordance with orthographic standards. Apart from voiced hesitations, everything was recorded in the transcripts, including self-corrections, repetitions and other manifestations of oral language production.

The transcribed texts were then divided into smaller units, hereafter referred to as **segments**. As a rule, a segment consists of a series of words grouped around a finite verb. In most cases, a segment therefore corresponds to a clause. As the interpreters tended to include more verbs in their texts than were originally present in the source texts, it was sometimes necessary, in the data preparation stage, to compound two or more target text segments into one in order to ensure comparability between source and target text segments. The segments, then, constituted the units of analysis in the comparative analyses of source and target texts.

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2   They had obtained either 10 or 11 on a scale of 13, which does not contain 12 and with 13 being awarded only very exceptionally for outstanding performances.

When segmented, Source Text 1 had become divided into a total of 173 segments and Source Text 2 into 184. For the analyses, I selected 100 consecutive segments from each source text, starting with a segment uttered approximately 3 minutes into each speech, and the corresponding target text segments. The duration of the analysed extract of Source Text 1 was approximately 6 minutes, and that of the extract of Source Text 2 approximately 9 minutes. The discrepancy between the number of segments and duration may seem strange at a first glance, but it is simply a reflection of the fact that the segments of Source Text 2 were generally longer than those of Source Text 1, which again reflects the higher degree of syntactic complexity and information density of the former text (cf. section 2.1).

3.   Analyses

In this section, I shall describe how the data of the study were analysed. After a description of the general principles of analysis (section 3.1), I shall present the model of analysis itself (section 3.2).

3.1   General principles of analysis

As explained, the study is based on the comparative analyses of the source and target text data described in section 2. What is interesting in a product-based, or text-comparative, study on form-based and meaning-based interpreting is how these two approaches to interpreting manifest themselves in the target text as compared with the source text. As briefly mentioned in section 1, we can expect the direct passage from source to target text involved in form-based interpreting to lead to a target text that displays a high degree of formal *similarity* in relation to its source text, whereas we can expect the deverbalization process hypothesized for meaning-based interpreting to lead to a target text with very few traces of the linguistic form of the source text, i.e. a target text that exhibits a high degree of *dissimilarity* to the source text in terms of form (cf. Dam 1998). What should interest us here is therefore formal similarities and formal dissimilarities between source and target texts.

    While such similarities and dissimilarities of form may be both phonological, morphological, syntactic and lexical in nature, the only aspect of form that will be studied here is the lexical one. This choice was made in order to limit the number of parameters to be analysed, which would otherwise have been overwhelmingly high. In support of the choice of the lexical aspect, rather than the others, I may mention the fact that there are so many phonological, morphological and syntactic differences between the source language, i.e.

Spanish, and the target language, i.e. Danish, that it would be extremely cumbersome – if not impossible – to attempt to isolate the language-induced differences of this type in the source and target texts from the interpreting-induced ones, which are those of interest here. Lexical comparisons are certainly not without problems, but the obstacles are fewer, I believe (for a discussion, see Dam 1998; see also sections 3.1.1 and 3.2 below).

As a basic premise, then, **lexical similarity** between source and target texts is taken to reflect form-based interpreting, whereas **lexical dissimilarity** is held to reflect meaning-based interpreting in this study. Consequently, these two concepts represent the main categories of analysis, or the so-called theoretical categories of the study, on the basis of which the model of analysis is constructed, as also described in section 3.2 below.

In order to determine whether the relation between the lexical elements of a target text and those of its source text is one of similarity or dissimilarity, we need a device which may serve as a bridge between the two texts, since they are, by definition, expressed in two different languages and therefore not directly comparable. In order to identify the formal-lexical relation between a target text and its source text across the language gap, a not very formalized version of the concept of **formal equivalence** will be used here (cf. Dam 1998). In this context, a relation of formal equivalence is considered to exist between source and target texts, when a particular lexical target text element can be identified as the closest possible contextual equivalent, or an inflectional or derivational form thereof, of a particular lexical source text element; in that case, the relation between the two elements in question is considered to be one of lexical similarity. If, on the other hand, it is not possible to identify a given target text element as the closest possible contextual equivalent, i.e. as the formal equivalent, of a given source text element, the relation between that target text element and the source text is determined as one of lexical dissimilarity. In other words, lexical similarity is identified as a function of formal equivalence, and lexical dissimilarity as a function of lack of formal equivalence in the present analyses.

The binary structure inherent in the distinction between lexical similarity and lexical dissimilarity is evidently a theoretical construct. Empirically, there may of course be different degrees of similarity and, particularly, of dissimilarity between a target text and its source text, even if the object of analysis has been narrowed down to lexis only. The binary structure of the theoretical categories of the study is, however, justified by the binary structure of the empirical phenomena under study, i.e. form-based and meaning-based interpreting. Still, the theoretical and empirical range of each of the categories needs to be at least roughly explained and tentatively illustrated, and will be so in section 3.1.1 and 3.1.2 below.

3.1.1   Theoretical categories

As explained, the so-called theoretical categories of the study comprise lexical similarity and lexical dissimilarity.

3.1.1.1 The category of lexical similarity

As we have seen, the category of lexical similarity is considerably more narrowly defined than that of lexical dissimilarity, since it is defined as a function of formal equivalence – and that only. In other words, the category of lexical similarity is positively defined – as opposed to the negatively defined category of lexical dissimilarity. However, it is not, and cannot be, a one-option-only category. This is due to the fact that some source text words have two or more target language words as very close equivalents, and it may be practically impossible to determine which one has the highest degree of equivalence, even when they appear in a particular context. In such cases, each of the very close equivalents would qualify as 'the closest possible one', and therefore as the formal equivalent, in the present analysis.

In the following example, which is extracted from the data, the italicized elements illustrate a possible variation within the category of lexical similarity:

Example 1)[3]

ST-1   (25):   otro punto importante es la *posición* social y económica
                [another important point is the social and financial
                position]

TT-1   (19):   et andet vigtigt punkt er den sociale og økonomiske
                position
                [another important point is the social and financial
                position]

TT-5   (14):   en anden vigtig ting er den sociale og økonomiske *stilling*
                [another important thing is the social and financial
                position]

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3   In the examples, the source text extracts are preceded by the abbreviation 'ST' and the target text extracts by the abbreviation 'TT'. The abbreviations are followed by the number of the source or target text from which the example is extracted (ST-1 or ST-2; TT-1, TT-2, TT-3, TT-4 or TT-5). In a subsequent parenthesis, the number of the exemplified segment, as it appears in the data, is stated. Following each extract, a literal translation into English is provided in square brackets.

In this example, the lexical source text element 'posición' is represented as two different lexical elements in the Danish target texts: 'position' (TT-1) and 'stilling' (TT-5). While the two target text words are therefore mutually different, they were found to have approximately the same degree of equivalence in relation to the source text word in the present context. In fact, the only real difference between the two target text words is etymological: while 'position' is of Latin derivation, 'stilling' is of Germanic origin. As such, this example illustrates a pattern of lexical equivalence typical of the Spanish-Danish language pair: a number of Spanish words have two Danish equivalents – one of Latin and one of Germanic origin – which are freely interchangeable in many contexts. Target language equivalents of this type were therefore both analysed as the formal equivalents of the source text word, i.e. as manifestations of lexical similarity, in the present analysis. An observation that supports the indiscriminate analysis of the two target text words as the formal equivalents of the source text word in the above example is the fact that, if the two target text segments were to be translated back into the source language, the two target text words in question – 'position' and 'stilling' – would probably both be translated into the original source text word, i.e. 'posición'.[4]

3.1.1.2 The category of lexical dissimilarity

The category of lexical dissimilarity covers an even wider range of target text elements than the category of lexical similarity. This is a consequence of the negative definition of this category, to which target text elements were ascribed exclusively as a function of their *lack* of formal equivalence with particular source text elements. Target text elements allocated to the category of lexical dissimilarity may therefore relate to the source text in an infinite number of ways: they may be apparently direct – although not formally equivalent – substitutions of specific and clearly identifiable lexical source text elements, or they may represent complete changes of larger stretches of text, just to mention the two extremes on the continuum of possible manifestations of dissimilarity. For reasons of space, it is not possible to illustrate and explain all the possible types and ranges of dissimilarity here, though the italicized elements in example 2 below are fairly representative examples of target text elements that were categorized as manifestations of lexical dissimilarity:

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4 Incidentally, more or less the same pattern of lexical equivalence seems to exist between English and Danish, which is also reflected in my identical translation of the two Danish target text words in example 1 ('position' in TT-1 and 'stilling' in TT-5) into English ('position' for both).

Example 2)

ST-2   (46):   *medio millón* de españoles han vuelto *a casa*
                [*half a million* Spaniards have returned *home*]

TT-3   (38)   *mange* Spaniere kom tilbage *til Spanien*
                [*many* Spaniards returned *to Spain*]

In this example, the relation of substitution between the target text elements analysed as lexically dissimilar and specific source text elements seems fairly clear-cut. Thus, it would be possible to characterize the target text element 'mange' [many] as a substitution of the source text expression 'medio millón' [half a million], and 'til Spanien' [to Spain] as a substitution of 'a casa' [home]. However, the substituting target text words are evidently not the formal equivalents of the apparently substituted source text words, and they were therefore analysed as manifestations of lexical dissimilarity. Incidentally, we may note that the two substitutions work in opposite semantic directions, insofar as the first one ('mange' for 'medio millón') involves a loss of specificity, whereas the other ('til Spanien' for 'a casa') adds specificity in relation to the source text word. But what is important to note about these substitutions is that they represent *interpretations* (in the hermeneutic sense of the term)[5] of the source text elements. Thus, it is quite clear that some kind of contextual and/or background knowledge is required to understand 'half a million' as 'many', and 'home' as 'Spain'. This *interpretative* nature is a common characteristic of all the target text elements that were allocated to the category of lexical dissimilarity in the data, independently of their nature, structure, range, etc. And it is exactly this characteristic that makes it reasonable to link the category of lexical dissimilarity with meaning-based interpreting: it is obviously not possible for interpreters to make *interpretations* like the ones in example 2 above, unless they resort to the underlying meaning of the source text; conversely, the target text elements in question clearly have not been produced by a simple transfer of source text words to their formal target text equivalents, which would be the essence of form-based interpreting.

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5   Using the term 'interpretation' in its hermeneutic sense is clearly unfortunate in the present context, where the topic is 'interpreting' - understood as oral translation. However, I know no other appropriate term, and have therefore chosen to use it anyway. But in order to avoid confusion, the term 'interpretation' – and its derivations – will be stated in italics here when it is used in its hermeneutic sense.

3.1.2   Empirical categories

The examples shown above may produce the impression that there is always some sort of relation of substitution between target and source text elements – be this relation of a formal or (only) a semantic nature, be it clear or blurred. This is not the case. Apart from target text material that does appear to substitute linguistic elements in the source text, it is possible to identify target text elements that constitute actual additions seen in relation to the source text. On the other hand, some source text elements have been omitted in the target texts. In other words, the target texts contain examples of (1) material that does have a relation of substitution with respect to the source text material, which I shall refer to here as **core-material**, examples of (2) **omissions**, and examples of (3) **additions**. These are then the empirical categories, as opposed to the theoretical categories of lexical similarity and lexical dissimilarity.

So far, I have explained how the so-called core-material was categorized as manifestations of either lexical similarity or lexical dissimilarity. In the following, I shall describe how omissions and additions were analysed.

3.1.2.1 Omissions

Omissions were disregarded in the analysis, i.e. they were not recorded at all. In order to understand this choice, it is necessary to consider the purpose of the analyses, on the one hand, and the nature of the data and the evidence they can provide, on the other. The fundamental purpose of the analyses is to describe what interpreters do – rather than what source text speakers do. Therefore, even if the analyses are essentially comparative, the focus of interest naturally lies with the interpreters' output rather than with that of the speakers. But, as data, target texts have the limitation of providing no evidence of what interpreters have done with source text material that has not been transmitted to the target texts. In other words, the data used here provide no evidence of how, or if, the omitted source text material was processed: the interpreters may have processed it and chosen to leave it out, they may have processed it but not have had time to reproduce it, or they may not have processed (heard) it at all. The point is that we cannot know from the type of data used here. Omissions may therefore be regarded as 0-evidence in the present context. This point probably becomes clearer if we consider the status of omissions in relation to the key concepts of the study, i.e. lexical similarity and lexical dissimilarity: clearly, omissions cannot be considered as manifestations of either lexical similarity or lexical dissimilarity. For these reasons, omissions were not taken into account in the present analyses.

3.1.2.2 Additions

As opposed to omissions, additions do provide evidence of how interpreters process the source text and were therefore treated differently in the analyses.

Additions may take different forms and have different functions, but as a general characteristic, they evidently add information to the text – information that is not (explicitly) given in the source text. Rather, additions normally represent the interpreter's *interpretation* of one or several source text elements, which have also been transmitted to the target text. This characteristic of additions is apparent in example 3 below, where the added element is italicized:

> **Example 3)**
>
> ST-2   (44):   que también explican el desempleo en España
>   [which also explain the unemployment in Spain]
>
> TT-5   (33):   som også kan forklare *problemet* med hensyn til
>   arbejdsløsheden
>   [which may also explain the *problem* of unemployment]

In this example, the interpreter has made an addition by characterizing 'unemployment' as a 'problem', though it was not characterized as such in the corresponding source text segment. This added characterization may therefore be seen as a result of the interpreter's *interpretation* either of the concept of unemployment as such or of the way s/he felt it had been presented in the source text at a more general level. On the other hand, we may safely say that the addition has not been produced on the basis of explicit linguistic information in the source text segment. This *interpretative* nature of additions makes them conceptually very close to the core-material that was categorized as manifestations of lexical dissimilarity in the present analyses. Consequently, additions were categorized in the same way, i.e. as manifestations of lexical dissimilarity.

3.2   Model of analysis

So far, I have mainly been concerned with the analysis of *individual* target text elements in relation to the categories of lexical similarity and lexical dissimilarity. However, the model of analysis is designed to categorize larger entities of text, namely the *segments*, which, as explained in section 2.3, are the units of analysis here.

Since the purpose of the model of analysis is to describe and quantify the distribution of lexical similarity and lexical dissimilarity at the level of segments,

the model contains a series of categories which reflect different distributional patterns of lexical similarity and lexical dissimilarity in the target text segments as compared to the source text segments.

In principle, the relation between a target text segment and a source text segment, or the source text as such, may be characterized either exclusively by lexical similarity, exclusively by lexical dissimilarity, or by a mixture of the two; in the latter case, it may be characterized mainly by lexical similarity, mainly by lexical dissimilarity, or by an even distribution of the two. Accordingly, the model of analysis contains the following five categories of target text segments: (1) Similar segments, (2) Dissimilar segments, (3) Similar(dissimilar) segments, (4) Dissimilar(similar) segments, and (5) Similar/Dissimilar segments[6]. In subsections 3.2.1-3.2.5, the five categories will be described and illustrated with examples from the data.

3.2.1   Similar segments (S-segments)

Similar segments, hereafter referred to as S-segments, are target text segments which are exclusively characterized by lexical similarity in relation to a particular source text segment.

A more formal definition would run as follows: an S-segment "is a target text segment in which all the lexical elements can be identified as the formal equivalents, or inflectional or derivational forms of such equivalents, of particular lexical elements in the source text segment on the basis of which the target text segment appears to have been constructed" (Dam 1998: 55-56).

This means that, even if an S-segment may reflect morphological and syntactic changes in relation to the corresponding source text segment, it typically represents a literal translation of the source text segment – one in which each target text word apparently substitutes a particular source text word as directly as possible, i.e. by means of its closest possible equivalent in the context. The example below, which shows two target text segments that were categorized as S-segments and their corresponding source text segments, is typical of this category:

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6   In the paper in which I first proposed this model (Dam 1998), these categories were referred to as 'Parallel segments', 'Substituting segments', 'Parallel(substituting) segments', 'Substituting(parallel) segments', and Parallel/Substituting segments' respectively. The definitions remain the same, but the names were changed because I found those used here more appropiate to indicate the nature of the empirical phenomena that the categories are designed to describe.

Example 4)

ST-1   (29):   México es un país del tercer mundo
        (30):   *y necesita este tipo de gente*
                 [Mexico is a third world country/and needs this kind of people]

TT-3   (23):   Mexico er et tredieverdensland
        (24):   og behøver den slags mennesker
                 [Mexico is a third world country/and needs this kind of
                 people]

In this example, all the lexical target text elements can be identified as the formal equivalents of particular lexical source text elements: 'Mexico' as 'México', 'er' as 'es' [is], 'tredie(-)' as 'tercer' [third], 'verden(s-)' as 'mundo' [world], 'land' as 'país' [country], 'og' as 'y' [and], 'behøver' as 'necesita' [needs], 'slags' as 'tipo' [kind], and 'mennesker' as 'gente' [people]. At the lexical level, the formal similarity between source and target text segments is therefore indisputable. Nevertheless, the example does reflect certain structural changes between source and target text segments, including for example changes in noun structure and word order (e.g. 'país[1] del tercer[2] mundo[3]' -> 'tredie[2]verdens[3]land[1]'), and in grammatical number ('gente' [singular] -> 'mennesker' [plural]) – changes which we may note are exclusively language-induced, as opposed to interpreting-induced. As explained, such morpho-syntactic changes were not registered in these exclusively lexis-based analyses.

3.2.2   Dissimilar segments (D-segments)

Dissimilar segments, also referred to as D-segments, are exactly the opposite of the S-segments, since they are exclusively characterized by lexical dissimilarity in relation to the source text.

Formally they would be defined as follows: a D-segment "is a target text segment in which no lexical element can be identified as the formal equivalent, or an inflectional or derivational form of such an equivalent, of any lexical element either in the source text segment on the basis of which the target text segment appears to have been constructed or – if no source text segment can be identified as the basis of the target text segment – in any other source text segment" (Dam 1998: 57-58).

It follows from this definition that, empirically, D-segments may consist of either core-material or additions in relation to the source text (cf. section 3.1.2). D-segments of the first type would then be complete reformulations of specific source text segments. This is the case for the target text segment which, along

with the apparently corresponding source text segment, appears in italics in example 5 below:

Example 5)

ST-2 (6-8): - siguiendo con las causas específicas del estado español quisiera mencionar también el -- la no existencia de una política económica adecuada debido a la transición
- *cuando murió Franco en mil novecientos setenta y cinco*
- la situación política era muy difícil
[continuing with the specific reasons of the Spanish State I
would also like to mention the -- the non-existence of an adequate economic policy due to the transition/*when Franco
died in nineteen hundred and seventy five*/the political situation was very difficult]

TT-3 (6-7): - jeg ville også gerne nævne den manglende existens på en
økonomisk politik ved overgangen til demokrati
- *dengang*
- var den øk. -- var den politiske situation meget svær
[I would also like to mention the lack of existence of an economic policy in the transition to Democracy/*at that time*/the ec. -- the political situation was very difficult]

Here the source text speaker uses the expression 'cuando murió Franco en mil novecientos setenta y cinco' [when Franco died in nineteen hundred and seventy five] to refer back to, and elaborate on, the expression 'la transición' [the transition (to Democracy)], mentioned in the first source text segment of the extract, whereas the interpreter refers back by means of the much shorter expression 'dengang' [at that time] – an expression which is entirely different from that of the apparently corresponding source text segment in terms of form.

In example 6 below, the italicized target text segment is a D-segment of the second type, i.e. one that may be analysed as an addition in relation to the source text, insofar as no particular source text segment can be identified as the basis of the D-segment:

Example 6)

ST-1 (52): en México si no trabajas
(53): no comes
(54): o de alguna manera tienes que buscar la forma de -- de

                        ganar dinero
                        [in Mexico if you do not work/you do not eat/or somehow you
                        have to find a way of -- of making money]

TT-5   (31):   i Mexico hvis du ikke har arbejde
        (32):   skal du finde en eller anden måde at -- at skaffe penge på
        (33):   *for du får ingen penge fra staten*
                  [in Mexico if you do not have a job/you have to find some
                  way of – of getting money/*because you receive no money from the State*]

As is clear from the examples above, the common denominator of D-segments is their *interpretative* nature, independently of the type of empirical material ascribed to the category: be it actual core-material which has been changed completely as in example 5, or be it additions as in example 6.

3.2.3   Similar(dissimilar) segments (S(d)-segments)

Similar(dissimilar) segments, hereafter referred to as S(d)-segments, belong to the mixed categories of the model of analysis. S(d)-segments, then, are target text segments which are characterized mainly by lexical similarity, but also by some degree of lexical dissimilarity in relation to a source text segment.

Formally, the category can be defined as follows: an S(d)-segment "is a target text segment in which most of the lexical elements can be identified as the formal equivalents, or inflectional or derivational forms of such equivalents, of particular lexical elements in the source text segment on the basis of which the target text segment appears to have been constructed, whereas no such identification can be made for the rest of the lexical elements of the target text segment" (Dam 1998: 59).

Since the only constraint attached to the categorization of a target text segment as an S(d)-segment is that *most* of its lexical elements can be identified as the formal equivalents of particular elements in the corresponding source text segment, the distribution of similarity and dissimilarity in S(d)-segments may actually vary to some degree. However, the typical pattern is a very limited degree of lexical dissimilarity, and example 7 below is therefore highly representative of the category of S(d)-segments. In the example, all but one – namely the italicized – lexical target text element can be identified as the formal equivalents of particular lexical elements in the corresponding source text segment:

Example 7)

ST-1   (27):   que llegaron durante la segunda guerra mundial
                    [who came during the Second World War]

TT-4   (18):   som – som kom *på grund af* den anden verdenskrig
                    [who – who came *because of* the Second World War]

3.2.4   Dissimilar(similar) segments (D(s)-segments)

The second mixed category of target text segments is that of Dissimilar(similar) segments, which I shall refer to as D(s)-segments in the following. This category reflects exactly the opposite pattern of that of the S(d)-segments. Thus, D(s)-segments are target text segments which are mainly characterized by lexical dissimilarity, but also by some degree of lexical similarity in relation to a source text segment.

Formally defined, a D(s)-segment "is a target text segment in which most of the lexical elements cannot be identified as the formal equivalents, or inflectional or derivational forms of such equivalents, of particular lexical elements in the source text segment on the basis of which the target text segment appears to have been constructed, whereas such an identification can be made for the rest of the lexical items of the target text segment" (Dam 1998: 60-61).

As was the case with the S(d)-segments, the distribution of lexical similarity and lexical dissimilarity may vary to some degree between the individual target text segments categorized as D(s)-segments, since target text segments are allocated to this category if only less than half of their lexical elements can be analysed as the formal equivalents of particular source text elements. As examples of the category of D(s)-segments, consider target text segments (66) and (67) in the following example, in which the lexically similar target text elements and their source text counterparts are italicized; note that target text segment (65) and source text segment (82) are only included to provide a context:

Example 8)

ST-1   (82):   es muy fácil encontrar en México
            (83):   que los amigos del hijo o de la hija pasan a formar parte
                    de la *familia*
            (84):   si ellos mismos *no tiene* una
                    [it is very easy to find in Mexico/that the friends of the
                    son or the daughter come to form part of the *family*/if
                    they do *not have* one themselves]

TT-1   (65):   det er – man kan meget let finde i Mexico
     (66):   at en *familie* omfatter andre mennesker
     (67):   der *ikke har* egen familie
             [it is -- you can very easily find in Mexico/that a *family* includes other people/who do *not have* a family of their own]

Target text segment (66) of this example was categorized as a D(s)-segment in relation to source text segment (83), since they are comparable in terms of content but they only have the lexical element 'family' (: 'familie' vs. 'familia') in common. Target text segment (67) was categorized as a D(s)-segment in relation to the semantically corresponding source text segment (84), because they only have the elements 'not' (: 'ikke' vs. 'no') and 'have' (: 'har' vs. 'tiene') in common. The remaining lexical elements of the two target text segments cannot be identified as the formal equivalents of the lexical elements of the two corresponding source text segments.

3.2.5   Similar/Dissimilar segments (S/D-segments)

The third mixed category of target text segments is that of Similar/Dissimilar segments, which are characterized by an approximately even distribution of lexical similarity and lexical dissimilarity in relation to a source text segment. The abbreviation for Similar/Dissimilar segments is S/D-segments.

The formal definition of this category runs as follows: an S/D-segment "is a target text segment in which approximately half of the lexical elements can be identified as the formal equivalents, or inflectional or derivational forms of such equivalents, of particular lexical elements in the source text segment on the basis of which it appears to have been constructed, whereas no such identification can be made for approximately the other half of the lexical elements of the target text segment" (Dam 1998: 61).

The even distribution of lexical similarity and lexical dissimilarity characteristic of S/D-segments is reflected in example 9 below:

Example 9)

ST-2   (67):   en los años sesenta muchos the los tripulantes eran españoles
             [in the sixties many of the crew members were Spanish]

TT-3   (56):   *en stor del af besætningen var tidligere spaniere*
             [a large part of the crew members were previously Spanish]

In this example, three of the lexical target text elements can be identified as the formal equivalents of specific source text elements – namely 'besætningen' as 'tripulantes' [crew members], 'var' as 'eran' [were], and 'spaniere' as 'españoles' [Spanish]; on the other hand, three of the target text elements have no formal equivalents in the corresponding source text segment – namely 'stor' [large], 'del' [part], and 'tidligere' [previously].

3.2.6   Summary

The five categories of target text segments described above represent different distributional patterns of lexical similarity and lexical dissimilarity in relation to the source text segments on the basis of which they appear to have been constructed, or in relation to the source text as such. Ordered on a scale with a descending degree of similarity and, conversely, an increasing degree of dissimilarity, the categories are the following:
- S-segments
- S(d)-segments
- S/D-segments
- D(s)-segments
- D-segments

If we relate these categories to the empirical phenomena under investigation, i.e. form-based and meaning-based interpreting, the categories placed at the top of the above scale may be regarded primarily as evidence of form-based interpreting, whereas those placed at the bottom of the scale can essentially be seen as evidence of meaning-based interpreting. Therefore, if it is true that the meaning-based approach to interpreting is more associated with non-difficult source texts, and the form-based technique is more associated with difficult texts, we may expect the categories at the bottom of the scale to be more dominant in the interpretations of Source Text 1 than in those of Source Text 2, and vice versa. In the following section we shall see how the categories were actually distributed over the interpreted versions of the two texts.

4.   Results and discussion

All the target text segments of the corpus were categorized in relation to each source text according to the model described above, whereby the results summarized in the tables below were obtained.

Table 2 shows the results of the analyses of the interpretations of Source Text 1, i.e. the less difficult text, whereas the results obtained for Source Text 2, i.e. the more difficult text, are shown in Table 3. In the tables, the figures

without brackets indicate the absolute number of occurrences of target text segments as distributed over the different categories, whereas the figures appearing in brackets indicate the approximate percentages. The categories are ordered so as to represent a decreasing degree of lexical similarity and, conversely, an increasing degree of dissimilarity (cf. the scale of section 3.2.6):

	TT-1	TT-2	TT-3	TT-4	TT-5	TOTAL
S-segm.	50 (58%)	17 (22%)	55 (58%)	36 (43%)	40 (52%)	198 (47%)
S(d)-segm.	22 (26%)	32 (42%)	26 (27%)	36 (43%)	25 (32%)	141 (34%)
S/D-segm.	7 (8%)	8 (11%)	7 (7%)	9 (11%)	5 (6%)	36 (9%)
D(s)-segm.	5 (6%)	13 (17%)	2 (2%)	2 (2%)	5 (6%)	27 (6%)
D-segm.	2 (2%)	6 (8%)	5 (5%)	1 (1%)	2 (3%)	16 (4%)
TOTAL	86	76	95	84	77	418

Table 2: Distribution of target text segment categories in the interpretations of Source Text 1 (the less difficult text)

	TT-1	TT-2	TT-3	TT-4	TT-5	TOTAL
S-segm.	25 (27%)	11 (15%)	23 (25%)	17 (19%)	26 (30%)	102 (24%)
S(d)-segm.	39 (42%)	28 (39%)	43 (47%)	42 (48%)	47 (53%)	199 (46%)
S/D-segm.	15 (16%)	13 (18%)	13 (14%)	16 (18%)	6 (7%)	63 15%)
D(s)-segm.	8 (9%)	12 (17%)	7 (8%)	7 (8%)	8 (9%)	42 (10%)
D-segm.	5 (5%)	7 (10%)	5 (5%)	6 (7%)	1 (1%)	24 (6%)
TOTAL	92	71	91	88	88	430

Table 3: Distribution of target text segment categories in the interpretations of Source Text 2 (the more difficult text)

For comparison, Table 4 below shows the differences between the overall results of the analyses of the interpretations of Source Text 1 (cf. Table 2), on the one hand, and Source Text 2 (cf. Table 3), on the other. The results for each source text are indicated in percentages and the differences in percentage points:

	Interpretation of Source Text 1	Interpretations of Source Text 2	Differences
S-segments	47%	24%	-23
S(d)-segments	34%	46%	+12
S/D-segments	9%	15%	+6
D(s)-segments	6%	10%	+4
D-segments	4%	6%	+2

Table 4: Differences between the results obtained for Source Text 1 overall and those obtained for Source Text 2 overall

If we look at Tables 2 and 3, or the first two columns of Table 4 in isolation, it becomes apparent that one tendency is particularly salient: the large majority of the target text segments, in relation to both source texts, have been allocated to the categories at the top of the scale. As explained, the top-categories are those that reflect the highest degree of similarity in relation to the source texts and may therefore primarily be considered evidence of form-based interpreting. This observation is therefore clearly in contradiction with the general assumption that meaning-based interpreting is the standard technique, whereas form-based interpreting is used only exceptionally (cf. section 1). On the other hand, it is also an observation that corroborates the results of my previous study on the general distribution of form-based and meaning-based interpreting (Dam 1998, cf. section 1), although it should be stressed that my previous study was on consecutive interpreting whereas the present one is on simultaneous, which means that the two studies and their results are not directly comparable.

Although the general tendency of the interpreters to concentrate their output on the categories at the top of the scale is reflected in the results for both source texts, the last column of Table 4 shows that there is also one very clear difference between the results obtained for Source Text 1 and those obtained for Source Text 2: the category that represents pure similarity, i.e. the S-segments, is far more dominant in the interpretations of Source Text 1 than in those of Source Text 2. Thus, almost half of the target text segments in the interpretations of Source Text 1 have been allocated to the category of S-segments (47%), whereas for Source Text 2 this is only the case for approximately half as many (24%). On the other hand, the D-type-segments clearly have more weight in the interpretations of Source Text 2 than in the renditions of Source Text 1. Thus, both the S(d)-segments, the S/D-segments, the D(s)-segments and the D-segments are more frequent overall in the interpretations of Source Text 2 than in those of Source Text 1.

Approximately the same pattern can be observed in the interpreters' individual performances, as can be derived from Tables 2 and 3 above. Thus, all five interpreters represent more target text segments as S-segments in their renditions of Source Text 1 than in their renditions of Source Text 2 (in TT-1 the representation of S-segments for Source Text 1 as compared to Source Text 2 is 58% vs. 27%; in TT-2 it is 22% vs. 15%; in TT-3 it is 58% vs. 25%; in TT-4 it is 43% vs. 19%; in TT-5 it is 52% vs. 30%). On the other hand, all the subjects represent more target text segments as D-type-segments – i.e. as S(d)-, S/D-, D(s)- or D-segments – in their interpretations of Source Text 2 than in those of Source Text 1 (cf. Tables 2 and 3).

It is therefore clear that lexical similarity is a more salient feature in the interpretations of Source Text 1 than in the renditions of Source Text 2. Conversely, lexical dissimilarity is more dominant in the interpretations of

Source Text 2 than in those of Source Text 1. Consequently, insofar as lexical similarity and lexical dissimilarity can be considered general evidence of form-based and meaning-based interpreting, respectively, the results of the present analyses indicate that the form-based strategy is more associated with less difficult source texts, whereas the meaning-based technique is more linked with more difficult texts. This finding is clearly in contradiction with the prevailing hypothesis, which, as stated in section 1, predicts exactly the opposite pattern. Thus, even if there seems to be a relation between the level of difficulty of the source text and interpreters' choice between the form-based and the meaning-based strategies, as is generally assumed, this relation may in fact be exactly the opposite of what is often held to be the case.

While this finding is potentially interesting, it needs to be pointed out that the evidence obtained here has a series of weaknesses. For one thing, the experiment on the basis of which data were obtained was not carefully controlled so as to maintain all parameters, except for the one studied, unaltered across the two tasks. Thus, factors other than that defined as the parameter under study here, namely the level of source text difficulty, may in principle have influenced the results. Furthermore, the lack of in-conference experience of the subjects and the small size of the corpus weaken the representativeness of data and results.

However, the evidence obtained here should be strong enough to serve as a basis for the (re-)formulation of hypotheses. On the basis of the results of the present study, and in opposition with the prevailing hypothesis, I shall therefore formulate the following **alternative hypothesis***: the more difficult the source text, the more interpreters tend to deviate from its surface form in their target text production*. Using standard terminology, this hypothesis could alternatively be formulated as follows: the more difficult the source text, the more interpreters tend to deviate from the form-based approach and move towards the meaning-based approach.

In order to provide a tentative explanation for this hypothesis, and for the results obtained here, we may resort to some of the existing research on the interpreting process. Particularly, the Effort Model of simultaneous interpreting, proposed and developed by Daniel Gile (e.g. Gile 1988, 1995 and 1997), seems to provide a useful starting point. Basically, this model describes simultaneous interpreting as a process consisting of three different, but highly interlinked, components: (1) a listening or comprehension component, (2) a production component, and (3) a short-term memory component. These components are referred to as **efforts** to stress the fact that they are non-automatic operations and that each of them requires a certain amount of processing capacity, which is available only in limited supply. The processing capacity requirements for each effort are described as highly variable, since they depend on the task the interpreter is engaged in at a particular point in time. And because of the

interlinked nature of the three efforts, variations in the requirements for one effort may have implications for any of the other efforts.

Using this framework, we may assume that the different *production* patterns observed in the interpretations of Source Text 1 and Source Text 2 are a result of different *comprehension* requirements which, again, have had implications for the short-term *memory* component.

Thus, the following scenario seems plausible: the more difficult the source text, the higher the requirements for the listening or comprehension effort. When comprehension requirements are high, the interpreter is likely to pay particular attention to this effort. One way of doing this would be to postpone target text production for as long as possible in order to have more time and a larger context to deal with comprehension problems. In other words, we may assume that a focus on the listening/comprehension effort leads to an increase in the time lag, or **ear-voice-span** (Goldman-Eisler 1972), that is the time that elapses from the moment a source text element is heard until the moment it is reproduced in the target language. In fact, Gile also mentions this possibility within the framework of the Effort Model. Thus, as one possible "coping tactic" aimed at increasing comprehension potential, Gile suggests, among many other tactics, "delaying the response" (Gile 1995: 192-194). We may also note that there is some empirical evidence to support the idea that interpreters tend to increase the ear-voice-span when the source text is difficult. In one experimental study, Gerver (1969) found that interpreters' ear-voice-span increased with an increase in the input rate. In another experimental study, Adamowicz (1989) found that interpreting prepared and well-structured texts involved a shorter ear-voice-span than working with unprepared and structurally more scrambled texts.

It would therefore be reasonable to assume that interpreters tend to increase the ear-voice-span when the source text is difficult. This is again likely to have implications for the memory component, since an increased ear-voice-span involves an increase in the amount of source text information stored in memory for subsequent target text production.

An accumulation of source text information in memory, on its part, is likely to have implications for the production component. This is due to the fact that verbal memory, i.e. memory for verbatim surface forms, has a very limited duration. As explained by Isham (1994), based on Jarvella (1971), information about form, i.e. the particular words used and their syntactic relations, is normally only available in memory for the most recent sentence in a text. For previous sentences, by contrast, only the "gist", or meaning, is generally retained in memory. And there are in fact quite a number of studies that show that verbal memory is even poorer in simultaneous interpreting than in ordinary listening or other cognitive tasks that do not involve concurrent listening and speaking (Gerver 1974; Lambert 1989; Isham 1995 and 1995; Darò and Fabbro 1994). Be

that as it may, if difficult source texts make interpreters increase the ear-voice-span, we may assume that this leads to an increase in the amount of source text information stored in memory, which may be accumulated up to a point where the limits of verbal memory are exceeded (cf. also Massaro and Shlesinger 1997: 27). Therefore, when target text production eventually starts, information about the surface form of the source text may have disappeared, partially or completely, from the interpreters' memory. At that point, the interpreters would therefore be less able to base their target text on source text *form*, even if they wished to do so, but would have to rely primarily on source text *meaning*. In other words, interpreters may tend to reformulate, rather than to reproduce, the source text when they work with a relatively long time lag. By contrast, actual reproduction of source text form in the target text, or form-based interpreting, is probably only possible when the interpreter works with a relatively short ear-voice-span (cf. also Frauenfelder and Schriefers 1997: 81). And it stands to reason that a short ear-voice-span can mainly be used for source texts that are characterized by short and straightforward sentences or clauses – i.e. source texts which may be described as fairly easy[7].

The above scenario may, then, explain how different production patterns, such as those observed in the interpretations of the two source texts in this study, may be a function of different memory requirements, which may again be reflections of different requirements for listening and comprehension.

No attempt has been made here to measure the ear-voice-span or in other ways to examine the underlying interpreting process more directly than can be done by means of product observations. The above scenario therefore serves exclusively as a tentative explanation for a hypothesis which is in itself only tentative. However, the hypothesis is both intuitively appealing and backed by at least some empirical evidence.

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7   Whether interpreters actually *prefer* to work with a short ear-voice-span is a different
    discussion altogether. However, we cannot exclude the possibility that interpreters
    tend to work with the shortest possible time lag as part of a general strategy to adhere
    to the so-called **minimax principle**, according to which interpreters prefer to use the
    least demanding strategy whenever possible (e.g. Massaro and Shlesinger 1997: 36;
    Gernsbacher and Shlesinger 1997: 130). As part of such a general strategy, a short
    ear-voice-span could be aimed at avoiding an overload of memory, which would
    increase the risk of forgetting part of the source text (de Groot 1997: 50).

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