Language interference in English-Chinese simultaneous interpreting with and without text

Ma Xingcheng

Southeast University

Andrew K.F. Cheung

Hong Kong Polytechnic University

This study investigated the effect of source language interference during English-Chinese simultaneous interpreting (SI) with and without text by examining the relationships between manifestations of language interference and interpreting modes. A corpus-based descriptive approach was used to investigate language interference during English-Chinese interpreting at various sessions of the United Nations General Assembly. An intermodal comparison was carried out in three dimensions, addressing 1) the general linguistic properties of the interpreted texts; 2) the distribution of reformulation strategies; and 3) strategies for interpreting passive constructions and attributive clauses, two structures representing structural asymmetries between English and Chinese. The results indicated that the interpreted texts produced by SI with text and SI without text showed different degrees of language interference.

Key words: Language interference, Language specificity, English-Chinese interpreting, Simultaneous interpreting with/without text, United Nations

1. Language interference in interpreting

Language interference is a well-known phenomenon in language contexts. In translation studies, language interference is generally regarded as negative; many associate it with vices such as errors and literal translation. Language interference is observed when a translation is "oriented more towards the source language" (SL) than the target language (TL) (Teich 2003:7). Corpus-based studies comparing translated texts with either source texts or non-translated native texts provide evidence of language interference during translation (Xiao 2015).

In interpreting studies, however, language interference derived from language-pair specific factors remains under debate. Seleskovitch (1978) posits that the structure of the SL does not affect target reformulation because deverbalization minimizes language interference; however, the notion of deverbalization is debatable. Gile (2005) opines that language-pair specific factors or linguistic differences between the SL and the TL may impose an additional cognitive load on interpreters, resulting in unnatural or awkward target expressions.

Language-pair specific factors may trigger language interference during interpreting. Wliss (1978) and Gile (2009) show that language interference occurs when morphosyntactic structures differ considerably between the SL and the TL, perhaps because this requires interpreters to make more effort and use specific interpreting strategies. Language interference is

less common when interpreting between languages with similar word order, as this seldom requires interpreters to resort to special reformulation strategies (Viezzi 1990).

2. Language specificity: a potential trigger of interference during interpreting

The notion of language specificity highlights interpreters' difficulties in overcoming linguistic or cultural barriers. "Language specificity" refers to language-specific factors such as differences in linguistic structures and cultural conceptualizations between the SL and the TL. Wliss (1978), Riccardi (1995) and Ahn (2005) examine the relationships between language specificity and interpreting performance and find that structural asymmetry between the SL and the TL is a major source of cognitive load. To minimize the impact of cognitive loading on interpreting quality, interpreters can use strategies such as linearly following the SL's word order; however, the resulting renditions show clear signs of SL interference. Chinese and English are among the six official languages of the United Nations (UN). A systematic exploration of language specificity in English-Chinese interpreting based on authentic materials sheds light on the relationship between linguistic properties and interpreting performance.

3. Language specificity in English-Chinese interpreting

Structural differences between the SL and the TL may result in cognitive overload during interpreting (Shlesinger 2003). Notable differences between the structures of Chinese and English may impact interpreting performance. Setton (1999) systematically explains the structural differences between modern standard Chinese and English, listing several features of Chinese that contrast most saliently with those of English. Passive constructions and attributive clauses may pose the greatest linguistic challenges when interpreting from English into Chinese. As these linguistic phenomena show striking syntactic differences between English and Chinese, they may increase interference, as interpreters under greater cognitive constraints are more likely to retain traces of SL structures.

3.1 Passive constructions in English and Chinese

Although passive constructions are used in both Chinese and English, they have different functions and take different forms. In English, passives primarily function to "mark an impersonal, objective and formal style" (Xiao et al. 2006:143); in Chinese, they tend to indicate negative semantic meanings (Xiao et al. 2006). In terms of linguistic construction, a passive construction in English is formed by a copular verb followed by a past particle (Xiao et al. 2006). However, passive structures in Chinese may be formed from a wider range of devices. In addition, the flexibility of Chinese grammatical rules allows for an unmarked passive voice.

The proportion of passive constructions is significantly higher in English than in Chinese: passives occur nearly 10 times as frequently in English as in Chinese (Xiao et al. 2006). Native Chinese tends either to avoid passives or to use them in unmarked forms (Xiao 2010:28). Passive constructions in English are thus a major source of difficulty for English-Chinese interpreters, as

they must be transformed into either non-passive structures or unmarked passive structures in Chinese. This may cause interference.

3.2 Attributive clauses in English and Chinese: right-branching vs. left-branching

Attributive clauses, which occur extremely frequently in English, may also lead to interference (Verspoor and Sauter 2000). In English, an attributive clause is a subordinate clause that modifies the word it follows; in Chinese, words or phrases are generally used to perform attributive roles, and these modifying elements always appear before the headword. Attributive post-modifiers in English are replaced in Chinese with pre-modifiers or even whole "participial" clauses that precede and modify a noun or noun-phrase (Setton 1999). To produce a TL rendition in line with norms for Chinese, post-modifiers are generally translated into pre-modifiers if the modifying elements are relatively short and simple. Long and complex English attributive clauses may require additional restructuring (Tsai 2015).

4. Interpreting mode and language interference

Intermodal research on translation/interpreting that compares the processes involved and/or products generated by different modes may offer insights into the mechanisms and cognitive features of translation/interpreting. The findings of Lambert (1988), Agrifoglio (2004), Jakobsen and Jensen (2008) and Shreve et al. (2010) suggest that interpreters are sensitive to visual interference when written texts are present. Language interference seems to be an inherent feature of interpretation. However, few studies explore the differences between SI without text and SI with text, which is surprising given the wide use of SI with text in international organizations.

4.1. SI with text

SI with text is a hybrid of translation and interpreting, because the SL is presented both orally and visually (Seeber 2010). SI with text is common at conferences, during which speakers usually deliver speeches from prepared written scripts (Setton and Motta 2007). SI with text involves a special form of textual production, because oral reformulation occurs concurrently with reading and listening comprehension. The simultaneous input of written and audio input adds complexity.

However, SI with text remains an under-explored area with inconclusive findings. Using a corpus of data from professional conference interpreters, Lamberger-Felber and Schneider (2008) analyze the types and frequencies of SL interference during SI with text, and find both a high proportion of interference in SI with text and considerable variation between interpreters. As the source information is presented both aurally and visually during SI with text, interpreters have to divide their attention or alternate between listening to the speaker and reading the text (Ivanov et al. 2014). This attention-dividing mechanism can be detrimental to interpreting production (El-Sakran 2010). However, Lambert (2004) and Setton and Motta (2007) posit that the visual presence of the SL may not impose a greater mental load but instead facilitate interpreting

performance, giving interpreters greater freedom to carry out on-line planning to avoid the scrambling effect. According to this argument, the availability of visual information may reduce interpreters' memory burden and facilitate processing at a macro level. Access to written scripts may relieve interpreters' memory burden by freeing up resources for other aspects of interpreting, such as listening and reformulation. If no written scripts are offered, SI processing may be confined to a local level. The linear and on-line processing mode of SI without text limits interpreters' comprehension of the unfolding text, as it is rarely possible to wait until the end of a full segment or sentence before beginning to interpret (Ahn 2005). Written texts help interpreters to carry out global processing by facilitating their understanding and anticipation of textual structures, which may lessen the impact of SL interference.

Both of the above views of interference in SI with text seem reasonable, but they deserve closer scrutiny based on empirical data. Studies of language interference arising from language specificity have largely been confined to translation contexts and European language pairs. Examination of other language pairs, such as English-Chinese, may offer new data on language interference in interpreted texts. In addition, an intermodal comparison of SI with text and SI without text is expected to yield intriguing insights into the similarities and differences between these two interpreting modes.

5. Research questions

This study adopts a corpus-based approach to comparing language interference during SI without text and SI with text, with a focus on interference arising from the effects of language specificity on the linguistic properties of interpreted texts. By identifying and analyzing the linguistic properties of English-Chinese interpreting at sessions of the UN General Assembly (GA), this study compares the influence of language specificity on the manifestation and degree of language interference in the two SI modes. The two languages under review, English and Chinese, have different syntactic structures. Due to these structural asymmetries, traces of the original speech may remain in the TL rendition, taking the form of unnatural or non-standard target expressions.

The study focuses on answering the following questions.

1) What are the general lexical features of texts produced by SI with text and SI without text, as indicated by lexical variety and the presence of high-frequency words? How do the lexical properties of interpretations generated from SI with text differ from those produced during SI without text?
2) Do reformulation strategies differ between SI with text and SI without text? How do professional English-Chinese conference interpreters working in different SI modes deal with language interference induced by language specificity, particularly that represented by right-branching attributive clauses and frequent passives in English in contrast with left-branching structures and fewer passives in Chinese?

3) Is language interference related to interpreting mode? In other words, is SI with text more susceptible to SL interference than SI without text?

6. Research design

6.1 The UN GA archive

This study adopts a corpus-based descriptive approach. The corpus under study comprises 15 English-Chinese SI renditions from the 70th, 71st and 72nd UN GAs. At these events, interpreters simultaneously interpreted speeches by heads of states into all of the UN's official languages. Speakers at international conferences usually read prepared scripts rather than speaking impromptu. Therefore, interpreters generally have access to the written scripts of speeches for interpreting, and conduct SI with text. However, SI without text may still be required if no scripts are provided beforehand, if the source speech is in a language incomprehensible to the interpreter or if prepared statements are replaced by impromptu speeches.

High-quality and representative interpreting data are crucial to any corpus-based study of interpreting. The data used in this study are drawn from authentic settings. The degree of homogeneity of the data is high, because all speeches at the GA address similar topics and are delivered in the same institutionalized setting, and all of their interpreters are experienced UN professionals.

6.2 Data processing

The data are drawn from seven interpretations produced by SI with text and eight interpretations produced by SI without text. The latter are renditions of relay interpreting from Arabic to Chinese via English. Relay interpreting is common when no interpreters are available to directly interpret between languages. Although Arabic is one of the six working languages of the UN, direct interpreting between Arabic and Chinese is rare due to Chinese interpreters' language combinations. Therefore, interpreters usually have to rely on English renditions as their SL for interpretation into Chinese. When Arabic speakers provide written scripts in Arabic only, interpreters have to perform SI without text from English to Chinese.

All of the materials from which the data are drawn were originally interpreted from English to Chinese. Each original speech lasted for 10-25 minutes. Both the original speeches and the target speeches are transcribed from audio recordings. The two corpora have a similar word count: that of SI with text totals 21,822 words and that of SI without text totals 21,159 words.

Most of the original data are processed via the following four steps.

a. Transcription of audio recordings to give written texts.
b. Manual alignment of ST and TT to build a parallel corpus.
c. Summary of basic linguistic features using AntConc (3.4.4).
d. Annotation indicating reformulation strategies through comparison of ST and TT.

e. Marking of passive constructions and attributive clauses in ST and their equivalent production in TT.

7. Data analysis and discussion

An intermodal approach is conducted to compare the uses of linguistic features and interpreting strategies between the corpora of SI with text and SI without text. Before analysis is performed, the English sources of the interpreted Chinese are used to determine whether differences between the texts can be attributed to differences in interpreting modes or to intermodal differences in the source speeches. Three parameters are examined: delivery rate (words per minute), lexical variety as indicated by type/token ratio and average segment length. The results of a Mann-Whitney U test reveal no significant differences in terms of basic language features. Therefore, source speech dissimilarities can be disregarded as a potential confounding factor in the intermodal comparison of the interpreted texts.

Table 1. Results of the Mann-Whitney U test for intermodal comparison of English sources

SI with text vs SI without text

$U = 15$	Delivery rate
$P = .152 > 0.05$	
$U = 10$	Lexical variety
$P = 0.06 > 0.05$	
$U = 28$	Average segment length
$P = .366 > 0.05$	

7.1. Overall use of lexical features in different modes
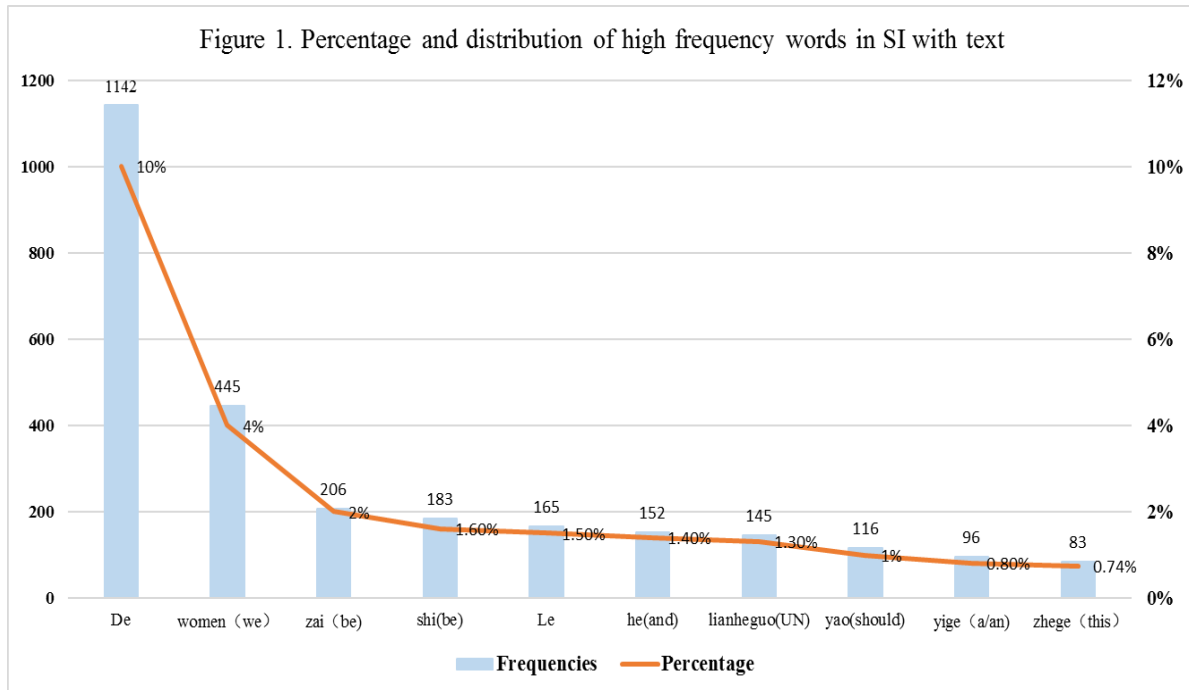
7.1.1. Lexical variety

The general linguistic features of the interpreted texts are evaluated in three dimensions: lexical variety, as measured by type-token ratio (TTR), the proportion of unique words (types) relative to the total number of words (tokens). TTR is an indicator of lexical variety: the larger the number of types compared with the number of tokens, the greater the lexical variety, i.e., the greater the lexical simplification (Zanettin 2013). As shown in Table 3, the overall TTR of the SI with text is greater than that of the SI without text, implying that the interpreted texts produced by SI with text show greater lexical variety.
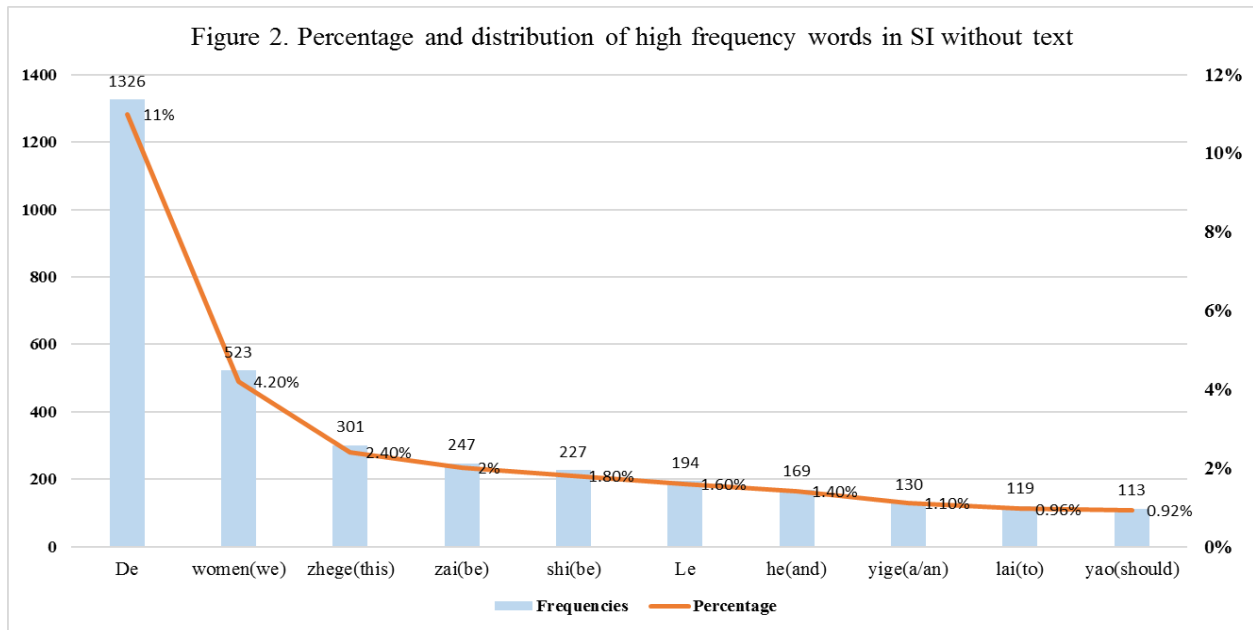
Table 2. Comparison of type-token ratio between interpreted text in SI with text and in SI without text

	Types	Word tokens	Standardized results
SI with text	2,167	11,177	194/1000
SI without text	1,749	10,878	160/1000

7.1.2 High-frequency words

Another linguistic property under review is the profile of high-frequency words. High-frequency words are generally defined as words that account for at least 0.10% of the total number of words in a corpus. Using this criterion, a long list of high-frequency words can be generated. This study focuses on the first 10 high-frequency words listed. The following two figures display the percentage and frequency, respectively, of each high-frequency word in the two modes.

Figure 1. Percentage and distribution of high frequency words in SI with text

Figure 2. Percentage and distribution of high frequency words in SI without text

The two figures illustrate the frequency profiles of the interpreted texts in the two modes. Although the two corpora are similarly sized, the distribution of high-frequency words differs slightly between them. Notably, the frequency of "*zhege*" in the corpus of SI without text is much higher than that in the corpus of SI with text (301 in the former compared with 83 in the latter). The expression "*zhege*" conventionally serves as a demonstrative pronoun to refer to something specific within a clause. A closer look at its concordance using AntConc reveals that "*zhege*" is primarily used as a filler to connect segments, and is usually a redundant addition, as shown in the following extract from the corpus of SI without text.

ST	TT	Literal translation of TT
The Act East policy has replaced the earlier Look East one, with more vigorous and proactive engagement with an economically vibrant region. We remain committed to the Middle East Peace Process which is the key to prevent further radicalization of the region. We have also qualitatively upgraded our relations with all the major powers.	還有我們<u>這個</u>一項政策呢 也是非常積極的，就是參與我們<u>這個</u>經濟上非常充滿活力的地區的活動。我們仍然呢還致力于<u>這個</u>中東和平進程，推動中東和平進程 這也對於避免這個地區的進一步激進化作出關鍵貢獻，我們也<u>這個</u>更顯我們同主要大國的關係。	In addition, we, *zhege* policy, is also very positive, that is to take part in our *zhege* economically very vibrant region's activities. We are still committed to *zhege* East Peace Process, to promoting the Middle East peace progress, this is also making crucial contribution to preventing further radicalization of this region. We are also, *zhege* to upgrade our relations with major countries.

The above example shows four instances of "*zhege*." The expression "*zhege*" is defined as a filler because it is redundant; deleting it does not distort the original meaning. Under strict

cognitive constraints, interpreters may use fillers to hide effort, hesitation or silence. Compared with written language, oral language shows a higher frequency of redundant expressions. The results show that the output of the SI without text, compared with that of the SI with text, is shaped more by the features of oral language, as characterized by the repetition of redundant words and fillers. The output of the SI with text more closely resembles written language, with fewer repetitions, redundant expressions and fillers.

7.2. Intermodal comparison: analysis of target reformulation strategies

The reformulation strategies (Falbo 1999:181-183) under review comprise three micro-strategies, morphosyntactic reformulation, synthesis and expansion, which can be further divided into the following sub-categories.

A. Morphosyntactic reformulation

A1. Morphosyntactic transformation: transforming a negative clause into a positive clause; transforming a noun into a verb or vice versa; or transforming a subordinate clause into a main clause (Riccardi 1999).

A2. Syntactic segmentation: dividing long sentences into several shorter clauses and translating individual units of meaning by adhering to original structures (Seeber and Kerzel 2012). Segmentation is frequently adopted by interpreters when dealing with languages that are structurally distant (Kader and Seubert 2014).

A3. Changing the order of phrases or other elements within a clause; this restructuring process helps interpreters to cope with differences in word order between the SL and the TL and thereby deliver a better product (Gile 1995).

B. Synthesis

B1. Generalization: "replacing a segment with a superordinate term or a more general speech segment" (Gile 1995:197). Generalization is often adopted when interpreters need to "boil down complex and detailed ideas" (Kader and Seubert 2014:131), but it can also be used as an emergency strategy when interpreters fail to find suitable equivalent expressions for particular words or phrases.

B2. Simplification: the lexical or stylistic simplification of the source message (Kalina, 1998), an extreme form of generalisation.

B3. Deletion: the removal of redundant information from the original language, a conscious strategy based on the selection of information (see Kalina 1998).

C. Expansion

C1. Explanatory addition: the expansion of lexises and content for clarification (De Feo 1993:33).

C2: Addition to maintain coherence: used to explicate coherence relationships for logical continuity.

C3: Repetition: repeating previously processed parts.

C4: Paraphrasing: rephrasing an idea when interpreters are unable to find suitable terms or do not know the exact equivalent expressions in the TL (Donato 2003).

Due to the structural differences between the two languages, English-Chinese interpreting requires effortful morphosyntactic reformulation, synthesis and/or expansion. Mode-specific factors may restrict the cognitive resources available for reformulation; if cognitive constraints are greater in one mode, interpreters may have to adhere to the original order of information to maintain delivery. Comparing the use of reformulation strategies between SI with text and SI without text casts light on the relationships between interpreting strategies and interpreting modes.

Table 4 · Frequency of different reformulation strategies in SI with text and SI without text

	A1	A2	A3	B1	B2	B3	C1	C2	C3	C4
SI with text	74	52	243	7	6	6	41	28	5	1
SI without text	35	73	29	22	27	61	9	4	3	2

Figure 3. Frequencies of different reformulation strategies in SI with text and SI without text
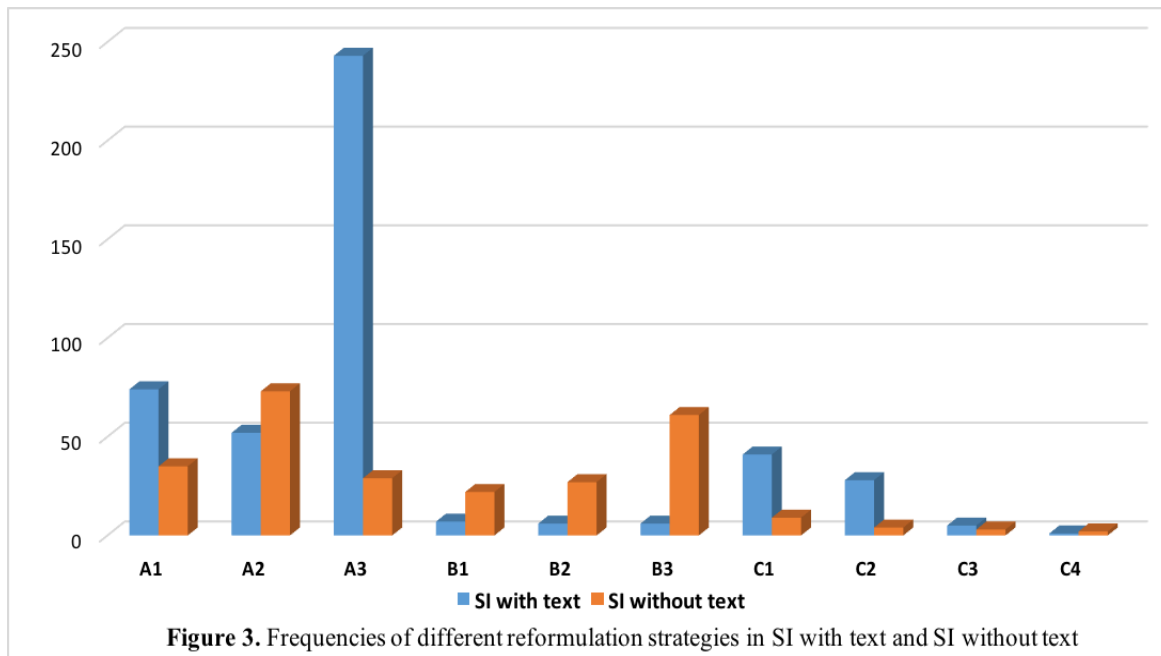
Different strategies were adopted in the two modes, as shown in Table 4. The statistical results demonstrate that the frequency and distribution of reformulation strategies differed between the SI with text and the SI without text, offering insights into the relationships between interpreting strategies and modes. Morphosyntactic reformulation and expansion (A1, A2, A3, C1 and C2) occurred more frequently during the SI with text, and these two strategies together accounted for more than two thirds of the total. A3 was most frequently used during the SI with text, suggesting that significant restructuring efforts are required to cope with linguistic asymmetry. Reordering information was the primary strategy used to address SL interference, as shown in (1).

(1) Example from SI with text

ST	TT	Literal translation of TT
We want to see a more equal relationship, to pave the way for the two-state solution that Israelis, Palestinians and a broad international community view as the right path to peace.	我們希望見到更加對等的關係，為被以色列人，巴勒斯坦人與國際社會視為通往和平，正確途徑的兩國方案建構基礎。	We hope to see a more equal relationship, for Israelis, Palestinians and international community (who) view (as) right path to peace (de) two-state solution…form basis.

As shown in the example above, the relative clause "the two-state solution that …view as the right path" is a typical right-branching structure in English, in contrast with the canonical left-branching relative structure in Chinese. The interpreter was able to reorder the right-branching structure as a left-branching one, possibly due to the presence of the source text, by putting the headword after the post-modifiers, resulting in a more natural Chinese expression.

The interpreters conducting SI with text also relied heavily on Strategy A1, as shown in (2).

(1) Example from SI with text

ST	TT	Literal translation of TT
And if peace <u>is more than</u> the absence of war, peacebuilding <u>is more than</u> the direct <u>prevention</u> of military conflict.	和平<u>不僅僅</u>是沒有戰爭，締造和平<u>決不僅</u>止與直接避免軍事衝突。	Peace is by no means non-existence of wars, peacebuilding <u>should never be limited to</u> directly <u>prevent</u> military conflict.

In (2), three parts of the source segment were transformed: "be more than," in the affirmative voice, was replaced with "*bu jinjin shi*," expressing negation; and the original noun "prevention" was transformed into its verb form, "prevent." These transformations were necessary to bring the TT in line with norms in Chinese.

In contrast, segmentation (A2) and deletion (B3) were most common during the SI without text, as shown in (3).

ST	TT	Literal translation of TT
The prevalence of terrorism and extremism across the globe is now a significant reason for thinking about a new way to combat terrorism <u>to ensure that it is in line with</u> the cooperation bilaterally and multilaterally.	這種恐怖主義極端主義在全球範圍內的這種現象，使我們要認真地想一想，有什麼辦法來打擊這種恐怖主義現象，怎麼樣通過雙邊多邊合作來這樣做。	This terrorism and extremism [prevail] across the globe, making us think about what way can combat this terrorism, how to do it by bilateral and multilateral cooperation.

The long sentence in (3) was divided into several short segments, and the clause "to ensure that it is in line with" was absent from the TT. Rendering all of a speaker's words may increase the interpreter's cognitive burden, leading to cognitive saturation. Segmentation is one of the most useful strategies for processing long and complex sentences during interpreting. As cognitive resources are limited during SI, interpreters have to distinguish primary information from secondary or redundant information, giving priority to the former and simplifying the processing of the latter to avoid cognitive overload. This often leads them to resort to deletion as a strategy.

The difference in the use of Strategy A3 is worth noting. Although the two corpora are similarly sized, the frequency of use of A3 during the SI with text was significantly higher than that during the SI without text, which can be attributed to the different mental processes at play in different interpreting modes. During SI with text, written scripts may help interpreters to process the SL at a macro level. Interpreters with scripts are better able to grasp the textual structure of the SL, giving them more freedom to implement strategies such as reordering information both during preparation and when on-line. Interpreters' choices seem to be more limited during SI without text, as they have to make immediate decisions as the original speech unfolds.

7.3. Intermodal comparison: interpreting passive constructions and attributive clauses

The strategies for interpreting certain structures during SI with text differed from those during SI without text. Interestingly, passive constructions and attributive clauses differ considerably in frequency, structure and major function between English and Chinese. Given the different cognitive constraints imposed by SI with text and SI without text, interpreted texts produced under these two conditions are highly likely to differ in the degree of SL interference and the number of traces of the SL.

7.3.1. Interpreting passive constructions in SI with text and SI without text

All passive constructions in the SL (including the default structure and alternative expressions) and the corresponding interpreted texts in the TL are marked for analysis. The main strategies used by the interpreters to interpret these passives comprised the following: A: converting the passive voice into the active voice/converting passive structures into active structures; B: retaining the original passive structures; C: replacing passive constructions with other structures; and D: omitting passive sentences. The following table displays the frequency of passives in the SL and the distribution of these four strategies in the TL corpus.

Table 5. Distribution of strategies for interpreting passives

Mode	A	B	C	D	Number of passives in SL
SI with text	47	22	6	1	73
SI without text	24	16	9	11	60

As seen in Table 5, converting passive to active structures (Strategy A) was the primary strategy used under both conditions to interpret passive constructions. As the number of passive constructions differs between the corpora of SI with text and SI without text, analyzing the proportion rather than the frequency of each strategy yields more convincing results.
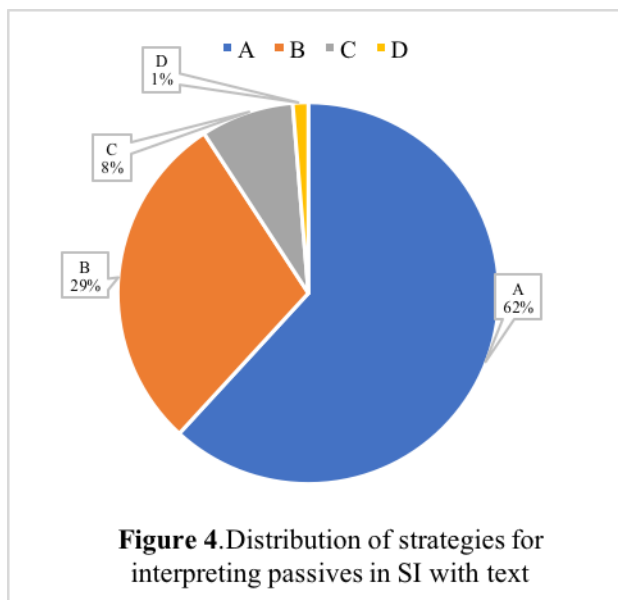

Figure 4. Distribution of strategies for interpreting passives in SI with text
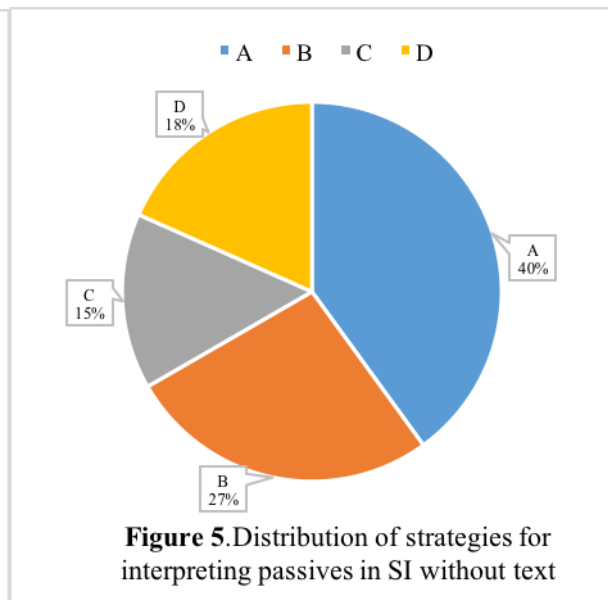
Figure 5. Distribution of strategies for interpreting passives in SI without text

Figures 4 and 5 compare the distribution of strategies for interpreting passive constructions between the two modes. The figures show that Strategy A accounted for the largest share of all of the strategies used during SI with text (62%), greater than its contribution to SI without text (40%). The use of strategies for processing passives differed between the two modes: the four strategies were more evenly distributed in the corpus of SI without text than their

counterparts in the corpus of SI with text, in which Strategy A was most frequently adopted. More omissions were made during the SI without text. More evidence from a larger corpus would be needed to attribute the high frequency of omissions to the greater cognitive constraints imposed by SI without vs. with text.

7.3.2. Interpreting attributive clauses in SI with text and SI without text

In native Chinese, attributive modifying structures always appear in front of the headword. In English, modifying clauses are located after the headword. Four strategies were used by the interpreters to cope with attributives: A: translating English attributives into Chinese attributives by adding "*de*" before the segment modified; B: chunking the original sentence by interpreting the attributive clause as an independent clause; C: reordering the original sentence and condensing it to give a simple sentence; and D: interpreting English attributive clauses that serve as adverbials in complex sentences as the corresponding Chinese adverbial clauses of time, condition, purpose and concession. The following provides examples of A, B, C and D.

(1) Example: Application of Strategy A

ST	TT	Literal translation of TT
We can be the generation that prevents political crises from becoming humanitarian crises.	我們可以成為防止政治危機變成人道危機**的**一代人	We can become [prevent political crises from humanitarian crises] {De} the generation.

(2) Example: Application of Strategy B

ST	TT	Literal translation of TT
Our aid is focused on our region and in areas where we know we can get real results for real people.	我們的援助是集中于我們這個地區的，在這些領域里我們堅信可以為人民帶來真正的好處。	Our aid is focused on our region, and in these regions we firmly believe that we can bring our people real benefits

(3) Example: Application of Strategy C

ST	TT	Literal translation of TT
Two countries that persistently violate international standards in this realm- ……- are Iran and North Korea.	有兩個國家一貫地違背這個規則……就是伊朗和北朝鮮。	Two countries persistently violate this rule….(they) are Iran and North Korea.

(4) Example: Application of Strategy D

	(5) ST	TT	Literal translation of TT
	The African continent continues to appeal for a seat in the Security Council where our voice will be fully represented.	非洲大陸依然呼籲非洲能在安理會有一個席位，這樣就可以在安理會發出我們的聲音。	Africa still appeal for a seat in the Security Council so that we can make our voice heard.

Figure 6.Distribution of strategies for interpreting attributive clauses in SI with text

Figure 7.Distribution of strategies for interpreting attributive clauses in SI without text
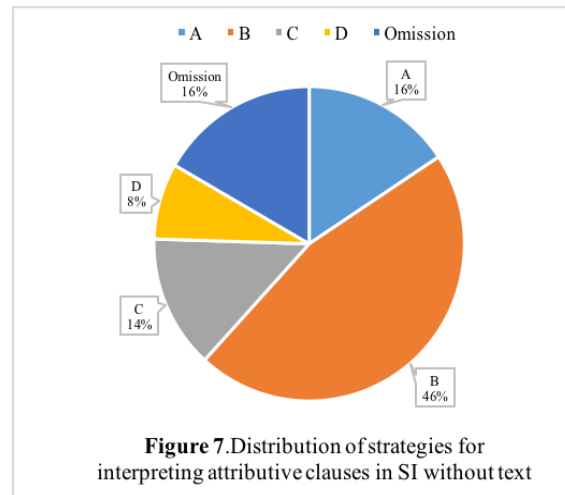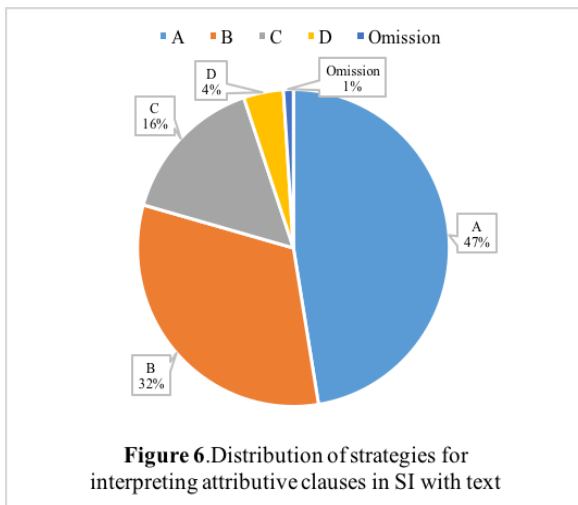
Figure 6 and Figure 7 show the distribution of the four strategies during SI with text and SI without text. Strategy A made up 48% of all of the strategies used during SI with text, but only 16% of the strategies used during SI without text. In addition, the omission rate during SI without text (16%) was much higher than that during SI with text. Strategy A, restructuring back-loaded structures as front-loaded modifiers to conform to standard Chinese, probably requires more cognitive resources than the other strategies. The greater contribution made by Strategy B and the higher omission rate during SI without text suggests that this mode imposes greater constraints on interpreters' cognitive resources, forcing them either to rely on chunking (Strategy B) or to omit attributive clauses to relieve their cognitive burden and avoid making mistakes.

8. Conclusion

8.1. Major findings and implications

This study examines the effects of language interference on the linguistic properties of interpreted texts between SI with text and SI without text. First, a lexical investigation is conducted. A comparison of lexical density and high-frequency words indicates that production during SI without text, compared with that during SI with text, is oriented more towards the

features of oral language, as indicated by lower lexical density and a higher frequency of redundant fillers. To obtain further insights into the relationships between production and interpreting mode, the frequency of certain reformulation strategies in the two modes is analysed. The two conditions show considerable differences in the distribution of reformulation strategies. A3 occurred significantly more frequently during the SI with text than during the SI without text, and more synthesis strategies were used during the SI without text. These intriguing contrasts suggest that interpreting mode affects interpreters' on-line decision-making. To further analyze the processing mechanisms in the two SI modes, the frequency of certain strategies for interpreting passive constructions and attributive clauses, two structures representing syntactic differences between English and Chinese, are measured. The results demonstrate that conversion occurred more frequently during the SI with text, whereas retaining the original passive structure was more common during the SI without text, suggesting a higher degree of interference in SI without text than in SI with text. The processing of attributive clauses shows a considerably higher omission rate under SI without text than SI with text, implying that interpreters working in this mode suffer a greater cognitive burden.

In short, the findings indicate mode-specific effects on the linguistic features and choice of strategies during interpreting. According to the limited capacity model, interpreting performance is poorer in the bimodal than the unimodal condition. However, this study offers evidence in support of better production under bimodal processing: instead of causing additional difficulties, the presence of written scripts is found to facilitate interpreting production, as manifested in a lesser degree of source language interference. The written information available during SI with text serves as a cue when interpreters encounter obstacles to their comprehension or short-term memory, freeing more attentional resources for TL production. In contrast, interpreters carrying out SI without text have to stretch their cognitive resources to keep up with incoming messages, and are rarely able to weigh their words, plan reformulation or optimize interpreting strategies in the linear on-line mode.

The preliminary findings obtained in this study have the following implications for future interpreting practice and training.

1). Written scripts must be available to ensure interpreting quality, as visual information can help interpreters to decode messages at a global level, improving their comprehension and relieving their memory burden. Offering interpreters written scripts where possible should become a norm for better interpreting performance.

2) SI with text has received much less attention than SI without text in interpreting training. Yet the two modes entail different procedures and cognitive mechanisms. SI with text should thus be given more weight in the curricula of interpreter training programs to prepare trainees to adapt to real working conditions.

3) This study highlights the influence of structural asymmetries on the degree of language interference in English-Chinese interpreting. Both interpreting trainers and trainees need to be aware of relevant language-specific factors and the importance of implementing certain strategies to cope with problems triggered by these factors.

8.2. Limitations and prospects

This pilot trial of a descriptive study of language interference in English-Chinese interpreting yields tentative results regarding the relationships between indicators of SL interference and interpreting modes. The following extensions and improvements are envisaged for future studies.

1) Evidence from a larger corpus is needed to determine whether the patterns observed in this study are generalizable.
2) Data triangulation should be conducted to compensate for the limitations of the current design; interpreters' reflections should be collected via retrospective recall to determine the motivations for particular interpreting behaviors.
3) A combination of corpus data and experimental data may lead to a synergy between process-oriented and product-oriented research. This could be a topic for future exploration.

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About the author

Ma Xingcheng is a PhD candidate in interpreting studies at Department of Chinese and Bilingual Studies, the Hong Kong Polytechnic University. Her major research interests lie in cognitive processes of interpreting and translation. She has published a number of research papers on cognitive studies of interpreting in journals such as *Foreign Language Teaching and Research* and *Journal of Foreign Languages*.

Address: AG518, Department of Chinese and Bilingual Studies, The Hong Kong Polytechnic University, Hong Kong

Email: littlehorsem@hotmail.com

Andrew K.F. Cheung is Associate Professor at the Department of Chinese and Bilingual Studies of Hong Kong Polytechnic University. He completed his AM in Conference Interpreting at the Graduate Institute of Translation and Interpreting Studies of Fu-jen Catholic University and di his PhD at the University of East Anglia. His research interests include corpus-based interpreting studies and quality perception of interpreting services.