Investigating note-taking in consecutive interpreting
   – Using the concept of visual grammar

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# Table of Contents

List of Figures .................................................................................................................. 4  
List of Tables ...................................................................................................................... 6  
Abstract ............................................................................................................................... 7  
Declaration ............................................................................................................................ 8  
Copyright statement ........................................................................................................... 8  
Acknowledgements ............................................................................................................. 9  

Chapter One: Investigating note-taking in consecutive interpreting: A visual communication perspective .................................................................................................................. 10  
1.1 Research background .................................................................................................... 12  
1.2 Rationale ...................................................................................................................... 18  
1.3 Theoretical framework ................................................................................................. 21  
1.4 Research questions ...................................................................................................... 24  
1.5 Data ............................................................................................................................. 26  
1.6 Structure of the thesis .................................................................................................. 27  

Chapter Two: A Social Semiotic approach to note-taking .................................................. 29  
2.1 Social Semiotics ........................................................................................................... 29  
2.1.1 Premises .................................................................................................................. 29  
2.1.2 Core concepts ......................................................................................................... 32  
2.1.3 Modes ...................................................................................................................... 37  
2.1.4 Metafunctions ......................................................................................................... 47  
2.2 Overview of the grammar of visual design .................................................................. 55  
2.2.1 Narrative structure ................................................................................................. 58  
2.2.1.1 Vectors .............................................................................................................. 59  
2.2.1.2 Geometrical shapes ......................................................................................... 62  
2.2.2 Visual structure ....................................................................................................... 64  
2.2.2.1 Layout ............................................................................................................. 65  
2.2.2.1.1 Composition ............................................................................................. 65  
2.2.2.1.2 Framing ..................................................................................................... 76  
2.2.2.2 Salience ........................................................................................................... 78  
2.3 Conclusion ................................................................................................................... 79  

Chapter Three: Towards a methodology for the study of visual grammar in interpreters’ notes ....................................................................................................................... 81  
3.1 Introduction .................................................................................................................. 81  
3.2 Rationale for the experimental study .......................................................................... 82  
3.3 Data collection methods ............................................................................................. 89  
3.3.1 Piloting .................................................................................................................... 89  
3.3.2 Organization of the experimental component ......................................................... 93  
3.3.3 Field work: subject and venue .............................................................................. 102  
3.3.4 Data Source: notes ................................................................................................. 105  
3.3.4.1 Variable 1: Vectors ......................................................................................... 107  
3.3.4.2 Variable 2: Geometrical shapes ....................................................................... 112  
3.3.4.3 Variable 3: Composition ............................................................................... 115  
3.3.4.4 Variable 4: Salience ......................................................................................... 118  
3.4 Conclusion ................................................................................................................... 120
Chapter Four: Data analysis - narrative structure ............................................ 122
4.1 Introduction .................................................................................................. 122
4.2 Vectors in notes .......................................................................................... 123
    4.2.1 The use of FEATURE [arrows] as meaning-making resources .......... 124
        4.2.1.1 The timeline of an event .......................................................... 124
        4.2.1.2 The meaning of growth and decline ..................................... 133
        4.2.1.3 A movement or consequence .............................................. 139
        4.2.1.4 Repeated information .......................................................... 142
    4.2.2 The use of FEATURE [Graphic lines] as meaning-making resources .... 148
4.3 Geometrical shapes in notes ........................................................................ 154
4.4 Conclusion ..................................................................................................... 166

Chapter Five: Data analysis - visual structure ................................................... 169
5.1 Introduction .................................................................................................. 169
5.2 Layout .......................................................................................................... 170
    5.2.1 SUB-MODE [composition] as a set of meaning-making resources .... 170
        5.2.1.1 Classificational structure ....................................................... 171
        5.2.1.2 Meaning-making resources associate with FEATURE [margin] ... 179
    5.2.2 Meaning-making resources associate with SUB-MODE [framing] ...... 187
5.3 Meaning-making resources associate with SUB-MODE [Salience] .......... 193
5.4 Conclusion ..................................................................................................... 201

Chapter Six: Conclusion .................................................................................... 203
6.1 Summary ....................................................................................................... 203
6.2 Discussion of findings .................................................................................. 207
6.3 Limitations .................................................................................................... 212
6.4 Contribution to existing knowledge .............................................................. 214
6.5 Suggestions for future research ................................................................. 215

References ......................................................................................................... 217
Appendix One: ................................................................................................. 223
    Research Ethics Declaration Form .............................................................. 223
    Participant Information Sheet ...................................................................... 224
    Consent Form for Participants Taking Part in Student Research Projects .... 227
Appendix Two: A brief outline of the speech and terminology list ................. 229
Appendix Three: Research participants’ notes ................................................... 230

The final word count: 70,051
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Diagonal layout</td>
<td>16</td>
</tr>
<tr>
<td>1.2</td>
<td>Parallel values</td>
<td>17</td>
</tr>
<tr>
<td>2.1</td>
<td>Meaning Potential of signs</td>
<td>36</td>
</tr>
<tr>
<td>2.2</td>
<td>Network of modes and sub-modes in interpreters’ notes</td>
<td>40</td>
</tr>
<tr>
<td>2.3</td>
<td>Graphic lines in notes</td>
<td>41</td>
</tr>
<tr>
<td>2.4</td>
<td>Example of notes (geometrical shape)</td>
<td>42</td>
</tr>
<tr>
<td>2.5</td>
<td>Example of notes (horizontal tree structure)</td>
<td>43</td>
</tr>
<tr>
<td>2.6</td>
<td>Example of notes (margin, framing)</td>
<td>44</td>
</tr>
<tr>
<td>2.7</td>
<td>Example of notes (underlining)</td>
<td>45</td>
</tr>
<tr>
<td>2.8</td>
<td>Calligraphic signs in notes</td>
<td>46</td>
</tr>
<tr>
<td>2.9</td>
<td>Subject, verb and object in notes</td>
<td>50</td>
</tr>
<tr>
<td>2.10</td>
<td>Combination of prescriptive and creative notes</td>
<td>51</td>
</tr>
<tr>
<td>2.11</td>
<td>Interactive meaning in images</td>
<td>52</td>
</tr>
<tr>
<td>2.12</td>
<td>The combinations of modes and sub-modes</td>
<td>55</td>
</tr>
<tr>
<td>2.13</td>
<td>Action process - the British used guns</td>
<td>59</td>
</tr>
<tr>
<td>2.14</td>
<td>Actor</td>
<td>59</td>
</tr>
<tr>
<td>2.15</td>
<td>Goal</td>
<td>60</td>
</tr>
<tr>
<td>2.16</td>
<td>Shannon and Weaver’s communication model</td>
<td>60</td>
</tr>
<tr>
<td>2.17</td>
<td>The action process in notes</td>
<td>61</td>
</tr>
<tr>
<td>2.18</td>
<td>Geometrical Symbolism</td>
<td>62</td>
</tr>
<tr>
<td>2.19</td>
<td>Example of arrows</td>
<td>63</td>
</tr>
<tr>
<td>2.20</td>
<td>Example of arrows</td>
<td>63</td>
</tr>
<tr>
<td>2.21</td>
<td>Example of notes</td>
<td>64</td>
</tr>
<tr>
<td>2.22</td>
<td>Covert taxonomy</td>
<td>66</td>
</tr>
<tr>
<td>2.23</td>
<td>Overt taxonomy</td>
<td>67</td>
</tr>
<tr>
<td>2.24</td>
<td>Covert Taxonomy Structure</td>
<td>67</td>
</tr>
<tr>
<td>2.25</td>
<td>Overt taxonomy</td>
<td>68</td>
</tr>
<tr>
<td>2.26</td>
<td>An unordered structure</td>
<td>69</td>
</tr>
<tr>
<td>2.27</td>
<td>Buddhist Painting</td>
<td>70</td>
</tr>
<tr>
<td>2.28</td>
<td>Horizontal and vertical triptychs</td>
<td>71</td>
</tr>
<tr>
<td>2.29</td>
<td>Vertical triptych from the University of Oxford website</td>
<td>72</td>
</tr>
<tr>
<td>2.30</td>
<td>Example of notes (Centre-Margin)</td>
<td>72</td>
</tr>
<tr>
<td>2.31</td>
<td>Example of notes (Centre-Margin)</td>
<td>73</td>
</tr>
<tr>
<td>2.32</td>
<td>Example of notes (triptych)</td>
<td>74</td>
</tr>
<tr>
<td>2.33</td>
<td>Bushells advertisement</td>
<td>75</td>
</tr>
<tr>
<td>2.34</td>
<td>Space between lines</td>
<td>76</td>
</tr>
<tr>
<td>2.35</td>
<td>Example of notes (framing)</td>
<td>77</td>
</tr>
<tr>
<td>2.36</td>
<td>Example of notes (curved line)</td>
<td>78</td>
</tr>
<tr>
<td>2.37</td>
<td>Example of notes (circling)</td>
<td>79</td>
</tr>
<tr>
<td>3.1</td>
<td>Example of how interpreters interpret the word ‘wheat’</td>
<td>87</td>
</tr>
<tr>
<td>3.2</td>
<td>Minor obstructions from the participants’ left hand or hair</td>
<td>91</td>
</tr>
<tr>
<td>3.3</td>
<td>Conference room provided by Chang Jung Christian University, Tainan</td>
<td>103</td>
</tr>
<tr>
<td>3.4</td>
<td>Conference room rented by the researcher in Taipei</td>
<td>104</td>
</tr>
<tr>
<td>4.1</td>
<td>Notes from PA</td>
<td>128</td>
</tr>
<tr>
<td>4.2</td>
<td>Notes from PD</td>
<td>131</td>
</tr>
<tr>
<td>4.3</td>
<td>Notes from PF</td>
<td>132</td>
</tr>
</tbody>
</table>
List of Tables

Table 3.1 The advantages and disadvantages of the open/closed questions ......................... 85
Table 4.1 Number of occurrences of FEATURE [arrows] in participants’ notes .................... 123
Table 4.2 Participants’ use of FEATURE [arrows] to indicate the timeline of an event ........ 126
Table 4.3 Using FEATURE [arrows] to indicate the meaning of growth and decline .......... 135
Table 4.4 Using FEATURE [arrows] to indicate a movement or consequence .................. 140
Table 4.5 Using FEATURE [arrows] to indicate repeated information ............................ 145
Table 4.6 Number of occurrences of FEATURE [graphic lines] in the notes ................... 148
Table 4.7 The use of SUB-MODE [geometrical shapes] in the notes ................................ 156
Table 5.1 Using SUB-MODE [composition] to list information with equal importance .... 173
Table 5.2 Using FEATURE [margin] to present information indicating logical progression 182
Table 5.3 Use of links in the fragment containing instances [C10], [C11], and [C12] .... 184
Table 5.4 The source text of Figures 5.16 and 5.17 ......................................................... 189
Table 5.5 Using SUB-MODE [Salience] to signal the importance of information ............ 199
Abstract

Interpreting studies has so far tended to concentrate on simultaneous interpreting over the consecutive mode. Note-taking – an integral part of consecutive interpreting – has therefore received very little scholarly attention. As an indispensable tool in consecutive interpreting, note-taking plays an important role in supporting the interpreter’s memory. This study argues, however, that the interpreter's notes should not be viewed merely as a memory storage tool, but as a third visual language with its own logic and meaning-making practices that need interpreting. The way in which interpreters read their notes is explored here from the perspective of Social Semiotics for two reasons. Firstly, Social Semiotics conceptualises signs as meaning-making resources which are realized in specific communicative contexts to convey specific communicative intentions – unlike previous approaches to note-taking, that have tended to categorise signs as static constituents of relatively finite sign codes. Secondly, Social Semiotics not only accounts for how written language is used in notes, but also how the pictorial component of communication is encoded and interpreted through interpreter’s notes.

The interpreter, as a viewer, has to make use of semiotic resources deployed in the notes in order to reconstruct the information given by the speaker and to produce the target speech for the audience. Therefore, the interpreters’ note-reading stage, based on the interaction between signs, can be conceptualised by reference to the concept of visual grammar. This study draws on visual grammar (Kress and van Leeuwen 2006) to analyse interpreter’s notes with a view to gaining a better understanding of how linguistic and visual semiotic resources are deployed in the process of note-taking. Insight into interpreters’ meaning-making practices and note-taking patterns is gained through an experimental study of the notes produced by nine qualified, practising conference interpreters, during a consecutive interpreting task from English into Chinese. The patterns identified in my data set are then compared with the established prescriptive approaches to note-taking training – which are typically based on relatively stable correspondences between note-taking signs/symbols and their meaning.

The analysis focuses on certain elements of the source speech (concepts that can be noted down through the use of vectors, geometrical shapes, specific classificational structures, margin, and salience) as reflected in the notes. The way in which interpreters read their notes involves the interaction between two core modes, such as image and language, and a range of sub-modes, such as vectors, geometrical shapes, composition, framing, salience and calligraphy. The results of the analysis indicate that the way in which interpreters arrange the contents of their notes reflects the depth of the information processing effort required by the note-taking process. The findings suggest that the narrative structure in notes seems to assist interpreters in retrieving information at a micro, lexical level, whereas the visual structure would appear to assist interpreters in retrieving information at a macro, contextual level, e.g. in representing the hierarchies of information value, constructing the structure of rendition, and showing the importance of specific signs.
Declaration

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Chapter One: Investigating note-taking in consecutive interpreting: A visual communication perspective

As global developments have led to an increased demand for interpreting services, the need for consecutive interpreters as mediators in bilateral exchanges of information brings to the fore the issue about how interpreters process the information they receive. However, even with the best memory, “it is next to impossible for the interpreter to remember all that is said in lectures, negotiations or press conferences, particularly if names, dates and figures are involved” (Mahmoodzadeh 1992: 234). It is inevitable that interpreters need to use notes as a tool in some occasions to assist them recall the information in the reformulation stage. This thesis will discuss the role of note-taking in consecutive interpreting, one of the important tools for conference interpreters.

As a result of the time pressures inherent in the activity of consecutive interpreting, interpreters are required to process information quickly. Working memory plays a vital role in allowing consecutive interpreters to recall and reconstruct information they have just heard. According to Baddeley (2003: 189), “working memory involves the temporary storage and manipulation of information that is assumed to be necessary for a wide range of complex cognitive activities.” In other words, interpreters’ working memory capacity refers to the amount of information an interpreter can hold temporarily while performing a number of processing operations. When the fragment of speech to be interpreted is brief, or follows conventional patterns of rhetorical or logical organisation, consecutive interpreters can work purely from memory. More often than not, however, the volume or density of information or the structure of the speech can lead to cognitive overload. In these cases, consecutive interpreters take notes to support their memory as part of a complex procedure that involves on the one hand receiving, decoding and selecting information conveyed by the source text, and on the other hand rendering it into the target language. Certain types of information (e.g. numbers, names, lists, etc.) can have a particularly overloading effect, as they cannot be recalled only on the basis of analysis and logic. In these cases, interpreters do not need to burden their memory, as long as they can note the information in a way that serves to remind them of when and where to integrate it during the production stage of their interpretation.
Broadly speaking, early research in the field of interpreting studies conceptualised the function of note-taking from two different perspectives: as an external storage mechanism, and as an information encoding mechanism (Di Vesta and Gray 1972, Fisher and Harris 1973). In terms of their role as an external storage mechanism, notes provide a means to reproduce and store knowledge for later consultation. Viewed as an encoding mechanism, on the other hand, it has been argued that notes contribute to the individual’s acquisition of personal knowledge (Howe 1975). However, in the context of the consecutive interpreting process, note-taking assumes an additional function that I explore in some details below.

Gile’s (1995a/2009) Effort Model was the first to postulate that notes serve different functions in each of the two phases of the consecutive interpreting process, i.e. note-taking and note-reading, respectively. According to this model, the role of notes in each of these two phases can be formulated as follows:

Phase One: \textit{Interpretation}= L+N+M+C

L=Listening and analysis
N=Note-taking
M=Short-term memory operations
C=Coordination

Phase Two: \textit{Interpretation}=Rem+Read+P

Rem=Remembering
Read= Note-reading
P= Production

Taking notes during the listening process, i.e. phase one, “requires more time than speech production because hand movements are slow, and therefore lead to some lag, hence to a higher pressure on short-term memory” (Gile 2009: 178). This may in turn reduce the capacity available to interpreters for their Listening and Analysis efforts, and thus result in renditions of poor quality. Although note-taking significantly enhances the cognitive effort demanded from interpreters during phase one, Gile argues that being able to rely on good notes during phase two can help the interpreter to “perform Rem operations and may actually reduce Rem processing capacity requirements rather than increase them” (\textit{ibid.}: 176). But while Gile claims that good notes can help reduce \textit{Remembering} capacity requirements, he neither defines the meaning of ‘good notes’ nor elaborates how good notes
can help reduce this capacity. Therefore, this and other issues pertaining to the note-taking and reading processes, as well as the ways in which notes are used by the interpreter, will form the departure point for this study.

It is worth mentioning that although note-taking “is not an end in itself, but rather a prop serving the interpreter in effective rendition of the source message in the target language” (Chmiel 2010: 234), I have decided to explore how entities in notes assist interpreters in retrieving information by investigating notes themselves (the semi-product in consecutive interpreting), rather than the interpreting output (the final product). The reason is that the final success of consecutive interpreting relies on many factors – not only good notes, but also interpreters’ working memory, comprehension, analytical and reformulation skills. By analysing certain aspects of notes, it is envisaged that this research can shed light on how relationships between entities in interpreters’ notes are established.

1.1 Research background

The study of interpreters’ notes has a long tradition in the history of conference interpreting and has generated a large volume of literature (e.g. Herbert 1952; Rozan 1956; Seleskovich 1975; Kirchhoff 1979; Ilg 1980, 1982, 1988; Alexieva 1993; Gile 1995a; Ilg and Lambert 1996; Jones 2002; Gillies 2005; Szabó 2006; Albl-Mikasa 2008; Liu 2008; Chmiel 2010). During the early years of research on note-taking in consecutive interpreting, “most of the literature has mainly aimed at giving recommendations about what interpreters’ notes should look like or how note-taking should be taught on the basis of personal experience and/or opinions” (Dam 2004b: 4). In the past two decades, however, investigations of interpreters’ note-taking practices have shifted away from the tendency to draw generalisations based on the interpreters’ own professional experience. Instead, a proliferation of more experimental studies based on research in the fields of psychology (Howe 1975, Padilla et al 1999) and cognition (Shreve and Diamond 1997, Setton 1999) can now be observed. In line with this development, note-taking is no longer primarily theorised as a general ‘memory reinforcer’, but rather as a crucial component of the highly complex comprehension mechanisms that obtain in interpreter-mediated communication. In other words, note-taking is now conceptualised as a process that facilitates different aspects of the
comprehension effort, including decoding, selecting, stimulating and reconstructing information.

Although conference interpreters’ notes have attracted a fair amount of attention over the years, very little empirical research has been conducted on this issue. Szabó (2006) conducted a survey of literature on note-taking and divided the relevant publications into four groups: (i) studies describing different general approaches to note-taking (Rozan 1956, Ilg 1980, Allioni 1989); (ii) studies investigating particular aspects of note-taking, e.g. comprehension (Lung 1999) or the use of symbols (Ahrens 2002); (iii) studies discussing the role of note-taking within different interpreter training approaches (Seleskovitch and Lederer 1989, Dollerup and Loddegaard 1992, Alexieva 1994, Ilg and Lambert 1996, Gillies 2001, Jones 2002, Szabó 2003); and (iv) studies reporting on the results of experimental research on note-taking (Seleskovitch 1975; Kirchhoff 1979; Dam 2004a, 2004b). The classification proposed by Szabó also indicates that experimental studies are far less numerous than those based on scholars’ personal experience and observation.

This section sets out to deliver a chronological review of previous research on note-taking. Herbert (1952: 36) was the first scholar to suggest that interpreters’ notes “should be easy to read and therefore as visual as possible”. Here, the term ‘visual’ refers to the use of pictorial components in the interpreter’s notes to represent the content of the source text, such that, the interpreter can “tell the story from pictures” (ibid.) during the note-reading and production stage. This early statement has been borne out by later research, which acknowledges that limited but structured notes aid the interpreter’s memory during recall tasks (Gillies 2005). Rozan’s (1956) practical indications to guide learners on ‘how to note’ have assisted several generations of trainee interpreters in deciding how to lay out their notes on the notepad effectively – so that their meaning leaps out of the page at the interpreter during the production phase. More recently, Jones (2002) and Gillies (2005) have recommended note-taking techniques based on Rozan’s model. The aspects of their note-taking techniques that are meant to benefit the interpreter during the note-reading stage include the use of symbols, diagonal layout, verticality, and the left-hand margin. Their suggestions are summarized in the coming paragraphs, that explore each of these terms in turn.
In interpreters’ notes, information is encoded and represented in the form of words and ‘symbols’. In most publications related to note-taking in consecutive interpreting (e.g. Gillies 2005, Jones 2002, Pöchhacker 2004), the term ‘symbol’ is used to designate pictorial components (e.g. mathematical symbols, punctuation signs) or calligraphic components (e.g. abbreviations). According to Gillies (2005: 99), “[a] symbol doesn’t have to be a picture. It can also be a short word, pair of letters or a single letter.” Under this definition, most entities in notes can be viewed as ‘symbols’. Using such symbols in notes has a number of advantages. They make it possible to save time during note-taking, thus enhancing the efficiency of the note-taking process. Indeed, by reducing an idea to a symbol, interpreters can “escape the trap of word-for-word translation” (Jones 2002: 48). In sum, the interpreter-training literature uses the term ‘symbol’ to designate any abstract entity used in the interpreters’ notes, which represents a very vague use of the term.

Although using ‘symbol’ in notes has clear advantages, there are a number of problems associated with the use of this term, not least because of the differences between the ways in which it is used in different fields. Interpreting studies scholars, on the one hand, tend to use the term ‘symbol’ to designate any pictorial or calligraphic meaning-making resource. For semioticians, on the other hand, “a symbol represents something in a completely arbitrary relationship. The connection between signifier and signified depends entirely on the observer, or more exactly, what the observer was taught. Symbols are subjective. Their relation to the signified object is dictated either by social and cultural conventions or by habit” (Burgin and Schumann 2006: 190). In the light of this difference, using ‘symbol’ to designate pictorial and calligraphic components in interpreters’ notes should be avoided. Arguably, it may lead to the impression that all the symbols in notes have arbitrary meaning. However, the meaning-making resources that interpreters refer to as ‘symbols’ are never arbitrary. It is therefore necessary to borrow another suitable term from field of semiotics to designate the range of pictorial and calligraphic components used in interpreters’ notes.

Central to semiotics is the notion of ‘sign’, which designates “something that stands for something, to someone in some capacity” (Danesi and Perron 1999). From a semiotic perspective, signs have meaning, and hence can be interpreted as something other than themselves, thus serving to establish connections or relations between several elements. As discussed in one of the examples presented by Kress and van Leeuwen (2006: 7), a three-year-old child may use circles as a sign to represent the meaning of a car. For this child, the
most important part of a car is its wheels – which are most plausibly represented by circles. The note-taking process in the context of interpreter-mediated communication is similar to the sign-making process I have just described. Indeed, the meaning of the pictorial components in notes does not always result from strict regulations or arbitrary social conventions; in many cases, interpreters simply use the forms that they consider apt for the expression of the meaning they wish/need to convey.

In order to explore the motivation behind the use of each entity in the interpreter’s notes, this research adopts the social semiotic perspective, a spin-off of systemic functional linguistics that will be outlined in section 2.2, to investigate interpreters signifying practices in an experimental study. In Social Semiotics, the sign does not necessarily correspond to a pre-existing association between form and meaning. Under the framework of Social Semiotics, there is no such sign as ready-made signs to be recognized and used as stable or conventional units of meaning – in the way that signs and their respective meanings are usually thought to be ‘available for use’ in semiotics.

Therefore, instead of using the term ‘symbol’, this thesis will use the term ‘sign’ as defined in the field of Social Semiotics to describe the abstract entity that interpreters make use of when taking notes. As I argue in section 2.2, this alternative conceptualization of sign is more helpful to analyse the function of individual entities in notes and how they interact with one another.

When learning to take notes, trainee interpreters are often advised to ‘note the ideas’, preferably adopting a **diagonal layout**. According to Gillies (2005: 35), the term ‘ideas’ is used in this context to refer to those parts of the message that tell the audience “who did what to whom”. That is to say, when noting the ideas, the interpreter should identify the three basic units of a sentence, which are the Subject (who), the Verb (did what) and an Object of the verb (to whom). In order to help noted ideas stand out on the page and grab the interpreter’s attention as they go through the notepad pages, interpreters are advised to separate the three components (the subject, verb and object) clearly and allocate a place of their own to each of them as they distribute the information along a virtual diagonal axis, as represented in Figure 1.1 (Jones 2002).
There is no reason why interpreters should limit themselves to noting just the subject, verb and object. Indeed, textbooks often suggest that interpreters should build in other noted details around this basic structure. The advantage of applying the diagonal layout in notes is that the left-to-right and top-to-bottom flow of information matches the natural eye movement when reading, thus “forc[ing] the interpreter to separate components of a sentence on a page in a way which avoids all confusion” (ibid.: 45). Most important of all, clearly separated and distinct notes will make it easier for the interpreters to pick out the elements of a sentence when they cast their eye rapidly over their notes during the production phase. It goes without saying that this only applies to users of scripts which are read from left to right. Interpreters of Arabic, for example, may have to apply this note-taking system the other way around (Gillies 2005).

If the source speech includes a list of information elements with equal syntactical importance, they should be listed vertically in the notes (Jones 2002). The technique whereby information with equal importance is listed vertically is known as ‘verticality’ or ‘tiering’ (Rozan 1956). If several lists are presented in the source text, each set of elements can be grouped in blocks. These blocks are then laid out in columns that run parallel to the vertical axis of the page, which clearly signals to interpreters that these nouns share the same subject. For example, the sentence ‘Because the French, German and British governments have cut customs duties, visa fees and administrative charges’ (Gillies 2005: 79) could be noted as shown in Figure 1.2:
Because of the parallel positioning of the nouns acting as objects of ‘have cut’, interpreters can easily grasp the hierarchy of information value at play in the text. According to Gillies, “this system suggests that the most important elements are furthest to the left, and that any two elements in the same section of notes, the same idea, that are vertically aligned on the page are of equal value” (ibid.: 86).

Given that the diagonal layout involves bringing interpreters’ eyes back to the left-hand side of the notepad at the beginning of each new idea, interpreters can visually enhance the importance of certain elements of information that they feel is particularly important by noting them to the left hand margin of the notepad (Jones 2002, Gillies 2005). Jones (2002: 46) suggests that the logical place to note these important elements of a speech (e.g. the link, dates, opinions and structural elements such as numbering, digressions and questions) is to the left-most edge of the page, just before the beginning of the substantive idea.

To sum up, the information elements included in their notes are meant to remind interpreters of core information or key content mentioned in the source speech, and thus to facilitate the production stage of the consecutive interpreting process. On the basis of the overview provided in this section, it can be concluded that (i) using graphic elements in notes can enhance the efficiency of note-taking, (ii) the diagonal layout matches the natural eye movement when reading, (iii) any two (or more) elements that are vertically aligned in the same section of the interpreters’ notes are of equal value, and (iv) key elements of information tend to be noted in the left-most part of the page. Finally, interpreters will recall all the related information, but not because their memory is exceptional. Instead, it is the
availability of a limited but highly productive set of noting conventions that provides a

crucial aid to the interpreter’s memory while conducting the recalling task.

There is no clear evidence to show the origin of the way in which note-taking in consecutive interpreting is taught nowadays, as note-taking systems and styles are highly variable. However, one line of thought is represented by Rozan (1956) – “the author of the perhaps most widely used note-taking system among interpreters ever” (Dam 2004a: 251) - whose work has been more recently consolidated and developed by scholars like Gile (1995) and Gillies (2005). Although some note-taking practical guides have been published in the past decade (Lin 2004, Liu 2008), their suggestions still follow closely with the techniques provided by Rozan (1956) and Gillies (2005), including the recommendation to use the diagonal layout, vertical lists and symbols. In general, they all share a range of key recommendations – all three of them place emphasis on what to note and how to do so. Gillies (2005) also acknowledges, his proposed note-taking system is not informed by the practices of a specific interpreter, but on a compilation of practices by different interpreters, as documented in the available literature; his working experience with other interpreters and discussions of their notes; his own experience as a trainer; and his awareness of the problems that student interpreters most commonly encounter. Both statements show that teaching note-taking in consecutive interpreting in the early years was influenced by lectures’ personal experience. In other words, the level of prescriptivism does play an important role when learning note-taking. Despite the time elapsed since they were first formulated, all the suggested note-taking techniques still go back to the same basis and draw on the collective experiences of conference interpreters. Ultimately, the guidelines provided by Gillies and earlier by Rozan have affected many trainees’ learning processes, and no one up to date had proposed a substantially different set of note-taking practices. It is therefore necessary to demonstrate empirically the validity of these suggestions.

1.2 Rationale

When viewing notes as a supplementary tool for conducting consecutive interpreting, it is worth paying attention to how the notes are generated and used. As Lambert highlights, “translation occurs at some stage in the process of consecutive interpretation: either during
the **encoding stage** when the interpreter is taking notes in Language A on an incoming message in Language B, or during the **reconstructive stage** when the interpreter is asked to deliver the same speech in the target language by way of notes (1983: 53, emphasis added).”

As implied in the above statement, notes are at the centre of both the encoding stage and the reconstructive stage. Similarly, notes also play a double role in Gile’s Effort Model. From Gile’s point of view, interpreters have to listen to and analyse the source language before taking the notes in Phase One. In other words, interpreters translate the speech during the encoding stage and there is a highly possibility that the notes are taken in the target language. Phase Two of his model, however, would seem to suggest that when interpreters read their notes, they rely mainly on the memory of what they have heard/understand and then read out the notes they have taken. This view brings to the fore the importance of note-reading, although no clear answers to the question of how interpreters read their notes are yet available.

As hinted above, experimental studies of interpreters’ note-reading processes are still scant. Among the few experimental studies that have been published so far, only two (Ma *et al.* 2012, Yu *et al.* 2013) have explicitly discussed how interpreters read their notes, albeit briefly. In order to provide empirical evidence of how interpreters use their notes, these two scholars adopted an experimental research method, i.e. eye-tracking. This allows them to verify the validity of some note-taking principles suggested in most studies on this modality of interpretation (e.g. the diagonal layout and the use of target language). Ma *et al.* (2012) have observed that directionality can significantly determine the time required by the subject to read the notes. They support the recommendation that trainee interpreters should write their notes vertically and in the target language. Similarly, Ju *et al.* (2013) also found that the use of diagonal layout is in fact a valid recommendation supported by empirical evidence. However, although the interpreters’ reading path can be identified through eye-tracking technology, to my knowledge, no study has so far attempted to investigate the important role played by visual semiotic resources in the note-reading process, nor has any study taken into account the interpreters’ production and interpretation of meaning-making resources when taking notes.

To address this research gap, the current study conceptualises note-reading as a form of visual communication and investigates interpreters’ meaning-making processes from a new perspective, namely, the interpreters’ production and interpretation of visual resources while
taking and reading notes. Since interpreters’ notes serve as “retrieval cues for memorized conceptual structures” (Pöchhacker 2004: 124) and play a mediating role between source language and target language, this research argues that there are three different languages at play in consecutive interpreted events. On the one hand, the source and target languages are embedded in the original and interpreted speeches, respectively. On the other hand, the interpreters’ notes act as a third visual language with their own logic and patterning that needs interpreting. The interpreting output, as a result, is the interaction between language and image modes during the note-reading process.

The main objective of this research is to explore the way in which interpreters, as sign-makers, position themselves in the note-reading process through choices that have an impact on the interpreted output. It is therefore assumed that the grammar of visual design (Kress and van Leeuwen 2006), which has been extensively applied to the analysis of images from a multimodal perspective, is best placed to inform the investigation of how signs used in interpreters’ notes are processed and serve as a basis for the production of the interpreted output. Kress and van Leeuwen (ibid.) argue that visual structures have meaning which is comparable to that of linguistic structures, even though visual semiotics is not as transparent and universally understood. In modern language processing research, text comprehension involves building multi-level representations of the text: on a local, surface level and on a global, deep level (Albl-Mikasa 2008). According to Albl-Mikasa (ibid.: 203), on the level of surface representation, verbal language structures are maintained; on the deep, superordinate level, “the mental representation models the situation described by the text rather than the text itself and is therefore much less text-specific”. In other words, if visual structures have meaning which is comparable to that of linguistic structures, when interpreters reproduce a text based on their surface cognition level, (i) the interpreting output may closely be related to the linguistic structure of the source speech and contain central as well as peripheral information, and (ii) details of recall are higher than reproducing the speech based on the deep cognition level, which “is more distant from the original linguistic form and foregrounds essentials rather than details” (ibid.). By using Kress and van Leeuwen’s concept of visual grammar, it is envisaged that this research will be able to shed light on the interplay between verbal and non-verbal signs in interpreters’ notes, i.e. how the signs and relationships which the interpreter deems important or ‘relevant’ enough to note actually ‘hang together’.
1.3 Theoretical framework

This thesis investigates the applicability of Kress and van Leeuwen’s (2006) notion of the grammar of visual design, which is based on the theory of Social Semiotics, to analyse interpreters’ notes.

Kress and van Leeuwen extend Halliday’s notion of metafunction to the study of the meanings constructed through the syntactic relations that hold between the different entities depicted in images. The term ‘metafunction’ originates in systemic functional linguistics and is considered as “part of the system of a language – the particular semantic and lexico-grammatical resources – that has evolved to perform the function in question” (Halliday 1978: 44). Metafunctions are considered to be shaped and organized in relation to three functions: ideational, interpersonal, and textual (see section 2.1.4).

Halliday argues that languages have “meaning potential” (1978: 39) and constitute sets of resources which may influence what the speaker can do with language in a particular social context. Kress and van Leeuwen further apply Halliday’s notion of metafunctions to the study of visual communication. Specifically, Kress and van Leeuwen provide detailed and explicit methods for analysing how images realise Halliday’s three metafunctions (ideational, interpersonal, and textual) in terms of representational, interactive, and compositional functions, respectively. According to Kress and van Leeuwen (2006), the ideational metafunction of visual texts can be studied by analysing the relationship between the signs and images used in the text on the one hand, and the actual objects and ideas that they stand for and represent on the other. In other words, the ideational metafunction designates what a given image represents or tells about a given phenomenon. The interpersonal metafunction of visual texts pertains to the interaction between producer and receiver, and conveys “a sense of interaction between the depicted person and the viewer” (ibid.: 43). Finally, the textual metafunction of visual texts refers to the ways in which visual signs can cohere to form texts “both internally with each other and externally with the context in and for which they were produced” (ibid.: 43).

The core concept in Social Semiotics is ‘sign’. In order to explore the use of different types of signs, scholars working in field of Social Semiotics have gone beyond and created the notion of ‘mode’ in relation to those metafunctions in the field of Social Semiotics. The
interaction between modes also forms the concept of ‘multimodality’, which discusses the use of several modes to create a single artefact. A further explanation of modes will be provided in section 2.1.3.

The signs that interpreters place on their notepad (whether they involve the deployment of verbal or non-verbal resources) are visual entities. Hence, the processes whereby interpreters encode and retrieve information through their own notes can be discussed from the perspective of visual communication. Generally speaking, (visual) communication encounters revolve around the interaction between image-makers and viewers. Whilst image-makers deliver a message through an image, the viewer’s role involves processing the message and interpreting those visual resources. From a Social Semiotics perspective, people use semiotic resources to produce communicative artefacts and to interpret them in the context of specific social situations (van Leeuwen 2005). In other words, reading the message embedded in an image involves using not only the resources available in hand, but also intertextual connection (Jewitt and Oyama 2001). The resources and intertextual connection of an image will then assist the readers to create their own new interpretation.

Note-reading, as a form of communication between interpreters and their notes, can be discussed from the perspective of visual communication. What makes the role of this type of notes special is that the interpreter plays the roles of the image-maker and viewer successively within a short period of time. As an image-maker, the interpreter needs to make full use of his/her background knowledge to draw out the relevant inferences about the speaker’s intention by using various signs to capture his/her interpretation when taking the notes. As a viewer, the interpreter has to make use of semiotic resources deployed in the notes in order to reconstruct the information given by the speaker and to produce the target speech for the audience. Therefore, it can be claimed that the interpreters’ note-reading stage, based on the interaction between signs, can be conceptualised by reference to the concept of visual grammar.

Since the interpreting output is produced through the interplay between the meaning-making resources used by the interpreter, this research focuses on ‘how’ the meaning of a sign is generated from a Social Semiotics perspective – rather than simply exploring ‘what’ is the meaning of the signs. It is claimed in the present study that notes should be viewed as multimodal texts because when interpreters read their notes, they have to deal with the
interaction between the specific resources deployed in the notes and the overall compositional dimension of notes. In order to further examine the multimodal nature of interpreters’ notes, the present study adopts Stöckl’s (2004) approach to the study of modes (see subsection 2.1.3) and categorises the nature of interpreters’ notes into two core modes (image and language), five sub-modes (vectors, geometrical shapes, composition, framing and salience), and a range of features (arrows, graphic lines, margin, spacing, natural language and formal language).

The concept of visual grammar – which postulates that visual design can be accounted for in grammatical terms, as realized through the use of colour, perspective, framing and composition, among other practices – was proposed by Kress and van Leeuwen (2006) for the purpose of providing a comprehensive guideline for reading images. According to Kress and van Leeuwen, the semiotic function of visual signs deployed within a given image can either be narrative or conceptual. Instead of using ‘objects’ or ‘elements’ to describe the semiotic make-up of an image, they use the term ‘participants’ or more precisely, ‘represented participants’, to foreground the relational characteristic of “participant in something” (ibid.:47). In terms of narrative representation, it presents the unfolding actions, processes of change, or transitory spatial arrangements of participants. As for conceptual representation, it represents participants in terms of their more generalized and timeless essence. In contrast with narrative representation, conceptual representation does not represent participants as doing something, but as “being something, or meaning something, or belonging to some category, or having certain characteristics or components” (Jewitt and Oyama 2001: 141). The decision to represent something from a narrative or conceptual perspective is important, because it “provides a key to understanding the discourses which mediate their representation” (ibid.). Hence, identifying the representational approach behind the production of any image will help the viewer to interpret the image in a more systematic manner.

For the sake of presentational clarity, let us regard each notepad page as an image made up by a wide range of signs. During the note-reading stage, interpreters do not only retrieve meaning from the written signs. They are also able to retrieve complementary information from the spatial disposition of signs on the page. By applying Kress and van Leeuwen’s conceptual network, the present study argues that interpreters’ note-reading processes can be
influenced by NARRATIVE STRUCTURE and VISUAL STRUCTURE\(^1\). The former, which involves how graphic entities (i.e. vector and geometrical shapes) are used as devices to represent who is ‘doing’ or what is ‘happening’ in notes, will be analysed from the perspective of narrative representation in Chapter Four. The latter, which involves the classification and/or certain characteristics of signs in notes, will be investigated from the perspective of conceptual representation in Chapter Five.

1.4 Research questions

The thesis aims to gain a better insight of the note-reading stage in consecutive interpreting in order to find out whether and how the meaning-making processes are constrained and/or shaped by verbal and non-verbal resources in which the texts are embedded. The research is interdisplinary in nature: the analysis of the data set is informed by a model built on (i) Stöckl’s (2004) theorisation of multimodality as a networked system of core modes, sub-modes and features; and (ii) Kress and van Leeuwen’s (1996/2006) theorisation of visual meaning-making based on Social Semiotics.

Kress and van Leeuwen’s social semiotic approach to the study of visual patterns has long been adapted to investigate visual communication in printed media (cf. Jewitt and Oyama 2001, Stöckl 2004). Although Kress and van Leeuwen’s theory explains how different viewers read an image, their approach cannot be easily applied to study how individuals read images that they themselves have produced (i.e. when the author and the viewer are the same person). Interpreters’ notes are an example of this second type. This study draws on this integrated model, which has never been applied before as such in interpreting studies as far as this researcher is aware, to address systematically the following research questions:

1. Can the concept of visual grammar, as posited by Kress and van Leeuwen, be applied to the study of note-taking for consecutive interpreting?

If so, what regularities and patterns in the use of linguistic and visual signs can be identified in interpreters’ notes?

\(^{1}\) These two terms are presented in small capitals here because they are part of the research questions and will be further discussed in Chapter Two.
2. What NARRATIVE STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

3. What VISUAL STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

**Question One** seeks to identify regularities and patterns in the use of linguistic and visual signs in interpreters’ notes. From the perspective of visual communication, the signs in notes – which represent some aspects of the world in concrete or abstract terms and determine the way in which interpreters read their notes – can be investigated through narrative and visual structures (see section 2.2). It is argued that Social Semiotics helps the researcher to gain a deep insight into how interpreters make use of verbal and visual semiotic resources within notes. This thesis will argue that narrative structures can be observed by studying how objects and processes are realized in the visual text, as illustrated by the use of vectors and geometrical shapes. On the other hand, visual structures can be analysed by observing how signs are deployed, in terms of features such as composition, framing and salience. Specifically, the present study posits that the interaction between image and language in notes is the key factor that shapes interpreters’ meaning-making process and ultimately, suggests the most conventional or appropriate textual choices when interpreting.

**Question Two** aims to investigate NARRATIVE STRUCTURE in terms of the function of vectors and geometrical shapes found in the data set. Examining NARRATIVE STRUCTURE in notes allows the researcher to observe how vectors are used as indicators of logical relationship between different entities and how geometrical shapes affect interpreters’ meaning-making processes and practices. The analysis of NARRATIVE STRUCTURE is centred on Kress and van Leeuwen’s notion of *narrative representation*, which explores the ways in which image can represent the world ‘narratively’ - that is, in terms of what someone is ‘doing’ or what is ‘happening’ in the image. The analysis will firstly examine four scenarios, i.e. (a) timeline of an event, (b) the meaning of growth and decline, (c) a movement or consequence, and (d) repeated information, where the use of vectors may help interpreters to retrieve meaning. The second part of the analysis will discuss how interpreters use geometrical shapes as meaning-making resources.
**Question Three** focuses on the visual structure arising from the spatial disposition of signs, including layout and salience. Examining visual structure in notes allows the researcher to observe the interplay between verbal and visual elements through conventionalised patterns of meaning-making processes. The analysis of visual structure is centred on the notion of conceptual representation, which explores the ways in which image can represent the world ‘conceptually’ – that is, in terms of the way in which information is categorised or emphasised in the image. In multimodal texts, such as the interpreters’ notes included in the data set, it is the combined analysis of verbal elements and visual meanings that allows for a full interpretation of a text as a semiotic ensemble. The analysis will firstly examine the layout, where the use of taxonomic structure and margin may help interpreters to better understand the hierarchical value of each element information within their notes. Then, the discussion will move on to explore how the use of framing assists interpreters in organizing the structure of the interpreting output. And finally, the analysis will draw on how interpreters use visual devices to highlight specific information.

### 1.5 Data

In order to address the research questions outlined above, this thesis relies on an experimental approach to collect the data set. The primary component of the data set that informs the thesis consists of notes taken by nine interpreters who carried out a 20-minute interpreting task from English into Chinese, individually, in designated conference rooms. The renditions were audio recorded and note-taking processes were videotaped. The data set collected is very rich and complex in nature: first of all, although a general indication of the frequency of occurrence of certain patterns within the data set is supplied, the approach adopted to investigate it can be described as qualitative. Secondly, the data set combines descriptive and prescriptive signs. It aims to highlight how the training processes affect interpreters’ note-taking habits, and assist in the study of what happens in real consecutive interpreting practices. Thirdly, the approach to the analysis of the data set is interdisciplinary, as it combines recent developments in the field of interpreting studies, social semiotic and visual communication studies. The reason for approaching interpreters’ notes from social semiotic and visual communication perspectives is the acknowledgement of the complexity
of note-taking and the consequent need to adopt a design that can account for the interplay of verbal and non-verbal signs affecting the unfolding of the meaning-making process when reading the notes.

1.6 Structure of the thesis

The thesis consists of six chapters:

Following Chapter One, an introductory chapter which outlines the background to the current study, Chapter Two sets out to answer research question one. It lays out the theoretical framework for approaching interpreter’s notes as multimodal texts involving a range of meaning-making resources. After a brief introduction to the nature of interpreters’ notes, the chapter focuses on Social Semiotics and delivers an overview of the network of modes and sub-modes – as adapted from Stöckl (2004) – that could be drawn on to inform the current study of interpreters’ notes. The chapter then proceeds to assess the suitability of Social Semiotics to conduct a systematic investigation of the data set. Given the multimodal nature of the data set at hand, the grammar of visual design – specifically, Kress and van Leeuwen’s (2006) theorisation of visual communication – is posited as providing a robust theoretical framework to investigate the interaction between written and visual modes in the note-reading process.

Chapter Three aims to describe the methodology for investigating the regularities in the way interpreters deploy and interpret meaning-making signs. The chapter firstly sketches out an overview of methodological issues in note-taking studies and outlines the rationale informing the choice of an experimental approach. The second half of the chapter deals with the experimental study by delineating experimental procedures and data collection. The chapter ends by presenting a comprehensive account of how the analysis will be undertaken.

Chapter Four addresses research question two mentioned above. The chapter begins by introducing and integrating Stöckl’s (2004) network of modes into Kress and van Leeuwen’s (2006) narrative representation with a view to categorising the instances of NARRATIVE STRUCTURE found in the data set. To answer question two, the chapter reports on the function of vectors and geometrical shapes found in the participants’ notes. The analysis
undertaken in this chapter consists of two parts. The first part delivers an account of the ideational metafunction realised through using *vectors* to connect different elements of information in the interpreters’ notes, whilst the second part discusses the use of *geometrical shapes*, which reveals how geometrical shapes affect interpreters’ meaning-making processes and practices.

**Chapter Five** attempts to answer research question three. It starts with a brief review of VISUAL STRUCTURE in note-reading processes with a view to showing the interplay between signs and their spatial disposition. To answer question three, the chapter reports on the function of *layout* and *salience* found in the participants’ notes. The first part delivers an account of the textual metafunction realised by the VISUAL STRUCTURE through how the *layout* in terms of the composition and framing of signs (both image and language) in notes may affect the way in which participants sequence the process of information retrieval, whilst the second part discusses the function of *salience*, which reveals how visual strategies affect participants’ meaning-making processes and the interpreting output.

Finally, **Chapter Six** concludes the study by presenting the main findings and contributions of this research project. The study is then assessed in terms of its limitations and potential implications. The chapter ends with some suggestions for future research.
Chapter Two: A Social Semiotic approach to note-taking

2.1 Social Semiotics

This section discusses interpreter’s notes from the perspective of Social Semiotics. It examines the main premises and core concepts of Social Semiotics before applying them to approach interpreters’ notes as multimodal texts involving a range of meaning-making resources.

2.1.1 Premises

Note-taking is an indispensable tool in consecutive interpreting. It plays an important role in both relieving and jogging the interpreter’s memory. The former, relieving, is used for “noting down specific elements so the interpreter can reproduce the content of a speech”, whilst the latter, jogging, refers to notes that can be used to “enhance the interpreter’s ability to reproduce the structure of a speech” (Jones 2002: 40). That is to say, interpreters will be able to recall the content and structure of the source text when reading their notes.

Many people have long considered, incorrectly, that interpreters’ notes can be equated to shorthand because interpreters mainly transcribe speech verbatim and at high speed. It has also been long believed that the output of interpreting can be achieved simply by reading the images and languages noted. In fact, if interpreters only paid attention to the form of signs, their version would be “too much a transliteration of the original, not a re-expression of its ideas” (ibid.: 39). When interpreters attempt to note information by trying to remain as close as possible to the source text, their notes may become a form of shorthand. However, the main factor that distinguishes interpreters’ notes from shorthand is the application of signs, which reflect a specific concept or idea in the interpreter’s mind. Signs are produced within interpreters’ notes in two ways. Firstly, by drawing on conventions and practices they have become familiar with through formal instruction. Secondly, through the development of personal conventions based on their individual experience. In addition to using signs, the structure of the notes should also be able to reproduce “semantic relationships in the source text” (Alexieva 1994: 200). This makes it clear to the interpreter how the ideas are related to or separated from one another.
To date, most theoretical research (e.g. Gile 1995, Pöchhacker 2004, Seleskovitch 1975) and practical training (e.g. Alexieva 1994, Gillies 2005, Herbert 1952, Jones 2002, Lin 2004, Liu 2008) regarding note-taking in consecutive interpreting mainly focuses on what to note and how to note it. In these experts’ opinion, the priority in learning how to take notes is developing the skills to use and combine signs – together with their corresponding meaning. However, less attention has been paid to what to read and how to read interpreters’ notes. In order to address this research gap, this study argues that the way in which interpreters read their notes can be further explored from the perspective of Social Semiotics for two reasons. Firstly, Social Semiotics conceptualises signs as meaning-making resources which are realized in specific communicative contexts to convey specific communicative intentions – unlike previous approaches to the categorisation of signs as static members of relatively rigid sign codes. Secondly, Social Semiotics not only explains how written language is used in notes, but also how the pictorial component of communication is encoded and interpreted through interpreters’ notes.

As stated above, the use of signs in notes is partly affected by the interpreters’ learning prescription. As Herbert claimed some time ago, “the interpreter has every reason for keeping the symbols and abbreviations to which he has personally grown accustomed, for instance while studying at school or college” (1952: 37). As part of their learning process, trainees use a list of signs when practising note-taking skills, and these signs will automatically prompt a pre-given idea or word in their minds. In other words, trainees can connect a certain sign to a specific meaning. This connection is in accordance with the Paris School of Semiotics’ conceptualisation of ‘sign’ as part of a ‘code’ – because codes “set rules for connecting signs and meanings” (Jewitt and Oyama 2001: 134) and the rules set by codes govern “the selection and combination of elements” or signs (Johansen and Larsen 2002: 7). For instance, it is thought that, when more than two people share a common understanding of a given code, e.g. the colour of traffic lights, they will be able to have the same understanding of the same situation or thing, i.e. understand each other. As a result, signs in notes which are based on a learning prescription can be understood by a large number of interpreters, who can then interpret such signs in a uniform way. Proponents of this approach to note-taking training tend to pay little attention to who made these rules or how these codes came about (Jewitt and Oyama 2001).
This thesis argues that it is impossible to deliver a comprehensive and coherent interpretation by simply relying on signs as parts of codes. Different contexts may inspire interpreters to create new signs. Although trainee interpreters are taught to use certain signs in their notes, when it comes to a real life interpreting assignment, different interpreters may have different habits of notation and create signs which allow them (as individuals) to encode and retrieve information more efficiently. Their final interpreting output is produced on the basis of individual choices and the interplay between the different meaning-making resources available to and deployed by the interpreter at any given point. In other words, the meaning of signs in notes arises in each individual context and does not result from a fixed equivalence between signs and their static meanings. When further examining the signs in notes, attention should therefore be paid to ‘how’ the meaning of a sign is generated, rather than focusing on ‘what’ it means. That is to say, what should be considered is not the code which determines how the sign is used, but the resources available to interpreters during the meaning-making process. Since interpreters’ notes are a combination of signs, Social Semiotics could potentially be used to explain why and how the meaning of the sign is constructed within the notes.

Social Semiotics shifts the focus “from the ‘sign’ to the way people use semiotic ‘resources’ both to produce communicative artefacts and events and to interpret them … in the context of specific social situations and practices” (van Leeuwen 2005: xi). This study seeks to apply this insight to the examination of how meaning-making processes inform the interpreters’ note-taking and note-reading efforts. It is argued that, in so far as notes are a very unique text produced by interpreters only for their own use, the focus should be shifted away from the analysis of individual signs and their wider codes; instead, the focus should be turned to how interpreters use images and language (two important types of meaning-making signs or modes) as resources to create communicative artefacts.

In addition, whether the resources used in note-taking consist of image or written language, they are all visual entities that replicate part of the experience in the interpreter’s mind. During the note-reading process, interpreters have to deal with the interaction between the specific resources deployed in the notes and the overall compositional dimension of notes (in terms of visual layout or organization). This is in line with the fact that Social Semiotics “compares and contrasts various semiotic modes … and investigat[es] how they can be integrated in multimodal artefacts and events” (van Leeuwen 2005: xi). Therefore, notes can
be viewed as multimodal texts and will be approached from a social semiotic perspective to investigate how interpreters deal with the multimodal nature of notes.

In summary, when viewing the note-reading process as a form of visual communication, Jewitt and Oyama (2001: 134) state that the “Social Semiotics of visual communication involves the description of semiotic resources”. Using the concept of Social Semiotics helps to explain what can be said and done with meaning-making resources in notes, as well as to interpret what interpreters say and do with those resources. Since Social Semiotics involves the observation and analysis of semiotic production and interpretation, and the discovery of new semiotic resources as well as new ways of using existing ones (van Leeuwen 2005: xi), it could potentially be applied to analyse how interpreters engage in the production and understanding of their notes. The next section explores a range of key concepts developed within Social Semiotics that will inform this study of note-taking in the context of interpreting.

2.1.2 Core concepts

Over the past decade or so, translation studies research has also begun to pay attention to Social Semiotics from the perspective of evaluating the role of images (e.g. advertisement). However, early approaches tended to focus on the written text rather than the image as a whole. As noted by Flippance (2009: 19), when images were mentioned during the translation procedure, “it tended to only be a case of acknowledging their existence”. The image works as a reminder for translators to consider the layout of the image when they produced the translation (ibid.). With the development of multimodal approach, research in translation studies has begun to “move beyond the written word…[and incorporate]…the visual, and multimodal in general” (Munday 2004: 216). In order to investigate the role of images, one of the approaches that often use by researchers is to discuss from the perspective of visual communication. However, although a large number of studies have been carried out on visual communication based on Kress and van Leeuwen’s theory, only few attempts have so far been made within translation and interpreting studies. In particular, no studies have ever attempted to discuss interpreters’ notes from a visual communication perspective.
In translation studies, for example, Flippance (2009) extends the scope of House’s framework and completes the visual dimension of the proposed model according to Kress and van Leeuwen’s theory to examine the quality of translated advertisements. The research pays much attention to the ideational and interpersonal aspects of both the written and visual texts. Based on systemic functional linguistics, Chueasuai (2010) also extends his research in terms of social semiotics to conceptualize the visual analysis, and identifies verbal and visual shifts in the translation of magazines. Although both deal with a topic related to visual communication, their research mainly focuses on the interpersonal metafunction which deals with the interaction between the producer and the viewer of the image. However, even if interpreters’ notes can be viewed as one of the visual communication methods, there are still a great number of differences between interpreters’ notes and general images. The interactive characteristics which exist between images and viewers, for example, gaze, gesture, and modality, can not be found in notes. Therefore, to inquire further into this matter would take us beyond the scope of this study. Rather, this research intends to focus on the ideational function between interpreters and their notes, as well as the textual function between entities in notes. Hence, when analysing interpreters’ notes, one must look at the whole page as an integrated text, and see how the different elements in notes interact with and affect one another. In order to conceptualise the research, this section will firstly explain the core concept of Social Semiotics and then provide a brief outline of visual communication provided by Kress and van Leeuwen, and explores how the concepts of narrative representation, conceptual representation, and composition can be applied to investigate interpreters’ notes.

According to Kress (2010: 54), “the core unit of semiotics is the sign, a fusion of form and meaning”. In other approaches to semiotics, the meanings of signs are always connected with their codes, as if these signs already had a pre-given meaning. The code is “a rule for the selection and combination of relevant properties belonging to elements with predefined properties” (Johansen and Larsen 2002: 9). When interpreters take notes, they usually choose signs from their own knowledge or experience and combine them on their notepad. This is a process in which languages and images are selected, combined and distributed. The whole process is a “rule-bound activity, even though the rules may be ambiguous or used unconsciously” (ibid.: 7). In this context, the rules governing the selection and distribution of signs are determined by codes.
Essentially, codes are based on the assumption that the user is equipped with a list of all possible existing signs, and that each sign has a specific value – which is why each sign has a pre-given meaning. That is to say, the code “attributes power to meaning, instead of meaning to power” (Hodge and Kress 1988: 2). However, from the perspective of Social Semiotics, the meanings of the signs will be different in each occurrence, depending on how they are used. One of several features which distinguishes Social Semiotics from other forms of semiotics is that it focuses primarily on the process of sign-making (meaning-making process) instead of how a sign is used (van Leeuwen 2005, Kress 2010).

The understanding of “language as resource – resource for meaning, with meaning defined in terms of function” (Halliday 1978: 17, emphasis in the original) was originally proposed by Halliday, who also claimed that language should not be interpreted as “a set of rules but as a resource” (ibid.: 192). This understanding of resource later became a central tenet of Social Semiotics. Van Leeuwen extended this idea to “the ‘grammar’ of other semiotic modes”, and defined semiotic resources as “the actions and artefacts we use to communicate” (2005: 3). This grammar, according to Kress and van Leeuwen, is “a flexible set of resources that people use in ever new and ever different acts of visual sign-making” (2006: 266). Therefore, it is the actual use of signs in specific contexts which enables a sign to convey a certain meaning in a specific situation, which may or may not be the same in a different context.

It is important to note that semiotic resources are not restricted to certain ways of expression, e.g. speech, writing or picture-making. Indeed, almost everything we do can be done in various ways and therefore, at least in principle, we are able to articulate social meanings using different resources (van Leeuwen 2005). In the process of consecutive interpreting, meaning is conveyed by using a wide range of semiotic resources, including gesture, speech, facial expression and notes, and these can all be viewed as semiotic resources.

In recent years, in an attempt to understand how these different resources are integrated into a new form of text to create meaning, a fast growing research discipline, namely, multimodal theory, has further developed the conceptualisation of mode (Kress 2010, Stöckl 2004). Generally speaking, modes are “sign-systems from which communicators can pick up specific semiotic resources to realise their communicative intention” (Stöckl 2004: 11) and they are “a socially shaped and culturally given semiotic resource for making meaning”
(Kress 2010: 79). In other words, in order to further analyse a communicator’s meaning-making process, it is necessary to understand how/what semiotic resources are embedded in modes.

As stated previously, interpreters’ notes are multimodal texts because, when reading them, interpreters are required to understand the signs they have written and make sense of the visual dimension of their notes, as realised through the overall composition or layout of the notes on the pad. Among the different approaches of multimodal research applied in recent times (Bezemer and Jewitt 2009), my own analysis of the multimodal nature of interpreters’ notes in subsection 2.1.3 is informed by Stöckl’s (2004) approach to the study of modes.

Having established that a given type of material artefact constitutes a semiotic resource, it is possible to explore its meaning-making potential, or its so-called ‘semiotic potential’. The term potential was also proposed originally by Halliday, who claimed that language users are able to explain ‘what is’ because they can “pay attention to the situations of language use, taking account of the nonlinguistic factors which serve as the controlling environment” (1978: 28). As van Leeuwen states, “studying the semiotic potential of a given semiotic resource is studying how that resource has been, is, and can be used for purposes of communication” (2005: 4-5). Hence, when attempting to analyse the semiotic potential of a sign, the social context cannot be excluded as being a key factor of the meaning-making process.

The notion of semiotic potential enables the study of how a specific semiotic resource for communicative purposes can be applied for past, present and potential future use. That is to say, users may decide to use the relevant semiotic resource at hand according to past and present experience. However, the potential meaning of signs is unpredictable and can never be fully realised without considering its dynamic nature. Consider, for example, the use of graphic arrows in Figure 2.1. Although the arrows in the notes look more or less the same, interpreters may still allocate a different interpretation to each arrow based on the context.

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2 Bezemer and Jewitt (2010) highlight the ways in which multimodality has been taken up in social linguistic research and put forward a social semiotic approach to multimodality.
Here, the graphic arrows connect the information conveyed by different items in the notes and help to construct a relationship between the signs. Each of the eight graphic arrows in Figure 2.1 has a different potential meaning. (1) indicates the timeline of an event, which means ‘before I came to’; (2) is used to represent the term ‘cabinet’ which has already been mentioned; (3) shows that the company ‘pays you to’ stay; (4) is an abstract image which embeds the interpreter’s thoughts that ‘move around and work in many different places’; (5), (6) and (8) show the meaning of growth, which is ‘a raise in pay’; and (7) indicates a cause-and-effect relationship between entities, which means that, if the company refuses to raise the salary, ‘then you just go’.

3 The notes in this figure correspond to the following source text: Before I came to Taiwan, I was what we call a working man. I was blue-collar. I worked in various cabinet shops making furniture. I did this for ten years or so. And during these ten years, I worked in seven different shops. I worked for seven different companies. In most other jobs, it pays you to stay in one place, to stay put and work in the same company. But in the cabinet trade, it’s better to move around and work at many different places. This way you can learn many different things and it’s also a way to get yourself a raise in pay. If the company you are working for won’t give you a raise, then you just go someplace else. And usually you can get your raise that way. I did this on a number of occasions myself (Liu 2008: 117, 128).
The core concepts regarding semiotic resources, modes and semiotic potential features will play a central role in this study, insofar as (i) they illustrate the resources available to the interpreter for making meaning; (ii) they bring the multimodal dimension of the function of each mode into sharp focus, as well as the mutual relationship between modes; and (iii) they contribute to the understanding of the potential meaning of semiotic forms.

2.1.3 Modes

In recent years, researchers in a wide range of language-related fields (Bezemer and Jewitt 2010, Kress 2010, Kress and van Leeuwen 2001, Stöckl 2004) have become more aware that, in addition to spoken and written texts, various resources can still be exploited to create texts using different semiotic modalities or modes, e.g. images or music. These different semiotic modalities often co-exist in a multimodal text to create meaning.

The process of consecutive interpreting usually requires taking notes to achieve the purpose of the communication. Specifically, interpreters’ notes are about turning a multimodal spoken text into a multimodal written text, which is then re-expressed into another multimodal spoken text. Interpreters’ notes are multimodal texts because they involve the use of different modes or types of meaning-making resources. When interpreters read the notes, they not only read the visible sign itself, but also process complementary information encoded in terms of framing, composition, salience, etc. That is to say, information which is conveyed through the mode of sound, such as the speed of speech delivery, intonation and so on, will have to be reflected in the interpreters’ notes, but only in a written form. Then, when interpreters read their notes, they will have to convert the multimodal written texts again into the target language using meaning-making resources from the sound-based modes.

Since interpreters’ notes are constructed by signs, how interpreters read and interpret the signs present in their notes has become a major issue for investigation. This study draws on the premise that Social Semiotics can provide an appropriate explanation. It “provide[s] instructions on how to interpret (and even translate) a given term according to the sense it acquires in a particular context and/or situation of production and reception” (Eco and Nergaard 2008: 219). In other words, Social Semiotics pays attention to ‘how’ the meaning of a sign is generated, rather than focusing on ‘what’ it means, or the related meaning
between signs in a specific social context. In order to analyse interpreters’ notes as multimodal texts, it is necessary to know the types of signs used in the notes, as well as how these signs are used.

According to Kress (2010: 79), “different modes offer different potentials for making meaning. These differing potentials have a fundamental effect on the choice(s) of mode in specific instances of communication”. Stöckl (2004) pursues this further and proposes that a multimodal text can be discussed through CORE MODES, SENSORY CHANNELS, SUB-MODES and FEATURES.

CORE MODES are “deeply entrenched in people’s popular perception of codes and communication” (Stöckl 2004: 14). As far as interpreters’ notes are concerned, the CORE MODES used are both image and language. In many instances of visual communication, image and written language provide different strands of information to the viewer. In the case of interpreters’ notes, images and written language are central to the overall semiotic process. Oyama (2000) claims that when language is used in written form, it can be treated as a visual entity because the written language is realised as a physical and graphic substance in a given space. This means that, when interpreters read their notes, both elements (image and written language) are being received by the interpreters’ eye as a visual entity. For the sake of clarity, this research distinguishes the content of notes into two groups: image and language.

CORE MODES can be realised through different SENSORY CHANNELS. In each SENSORY CHANNEL, “signs can be perceived and meaning made by communicators” through different sense organs (Stöckl 2004: 11). In many cases, e.g. in films, language can be conveyed via auditory and visual channels (though spoken dialogue and subtitles, respectively). However, language in interpreters’ notes can only be realised through the visual channel, which involves the use of written language or static images.

In interpreters’ notes, opting for a static realisation of the image mode entails a further choice among a range of sub-modes which are available to interpreters. The SUB-MODES used in interpreters’ notes are vectors, geometrical shapes, composition, framing, salience and calligraphy. Stöckl (ibid.: 14) claims that “all sub-modes in conjunction with their manifold interrelations establish a mode and facilitate its realisation in a communicative event”. The choice of SUB-MODES also explains how interpreters construct the structure of
the source text as well as the meanings beyond the written language and images. Overall, it is the combination of the interpreter’s “choices out of the options available under each sub-mode system […] that ultimately determines the realisation of a mode in a multimodal text” (Pérez-González 2007: 71).

According to Stöckl, “if sub-modes are the building blocks of a mode’s grammar, then features are the shapes of the blocks and the patterns from which they can be combined. Features can be conceived of as property scales on which certain values can be adjusted in the design of a communicative product/event.” (2004: 15). As Figure 2.2 shows, one of the SUB-MODES associated with the CORE MODE [image] is vectors. In the case of notes, for instance, SUB-MODE [vector] is one of the ways used by interpreters to connect information, whilst arrows and graphic lines are the FEATURES associated with that specific SUB-MODE.

Choosing SUB-MODE [vector] therefore allows the interpreter to make additional choices in terms of arrows and graphic lines; the use of these FEATURES in each specific context contributes to the realisation of the communicative function of SUB-MODE [vector].

As Figure 2.2 shows, each mode is realised only through a finite number of SUB-MODES. Conversely, most SUB-MODES can be associated with both CORE MODES [image] and [language]. However, some SUB-MODES are only associated with specific MODES. For example, SUB-MODES [vector] and [geometric shape] are only available when the interpreter has previously made use of CORE MODE [image]. Similarly, SUB-MODE [calligraphy] is only associated with CORE MODE [language].

Figure 2.2 shows the network of CORE MODES and SUB-MODES that are used in interpreters’ notes. In this figure, the left hand column corresponds to the SENSORY CHANNEL which, in the case of interpreters’ notes, is always visual. The following column (second from the left) shows the two main CORE MODES used in interpreting notes, which are image and language. The third column from the left displays a range of SUB-MODES which are divided into three groups. As explained in the previous paragraph, the top group is only associated with the CORE MODE [image]; the bottom is only available when the CORE MODE [language] has been used. Finally, the middle group is shared by both CORE MODES. The right hand column shows the FEATURES that are associated with specific SUB-MODES. The columns of SENSORY CHANNEL and CORE MODES deal with types of signs, whilst the columns of SUB-MODES and FEATURES describe how these signs can be used. In other words, the interpreted version of a
given speech is not achieved by the types of sign that the interpreter uses, but by how s/he uses those signs.

<table>
<thead>
<tr>
<th>Channels, modes, sub-modes and features in notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Channel</td>
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<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Visual</td>
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<td></td>
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<tr>
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<tr>
<td>Language</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Types of sign</td>
</tr>
</tbody>
</table>

Figure 2.2 Network of modes and sub-modes in interpreters’ notes (Adapted from Stöckl 2004)

Figure 2.2 also shows that vectors and geometrical shapes are SUB-MODES which can only be noted through visual resources in interpreters’ notes. Vectors, which can be noted in the form of arrows (see Figure 2.1) or graphic lines (see Figure 2.3) as their FEATURES, are one the most common signs used by interpreters in notes. They connect different elements of information in notes and help to construct a relationship between those distinct entities.
In addition to vectors, the use of CORE MODE [image] in notes can also result in the activation of SUB-MODE [geometrical shapes]. Geometrical shapes are abundant in notes because interpreters are often encouraged to “note the simple for the complicated” (Gillies 2005: 115). Jones (2002: 50) believes that signs in notes are “very much a personal affair” created by the interpreter. For example, the interpreter creates a geometrical shape ‘⌂’ in Figure 2.4 to represent the meaning of ‘family’. It can be argued that this is a sign created by the interpreter, instead of one that has been taught to him/her by others – possibly on the grounds that for this interpreter the shape of a house may represent a place where a family exists.

Figure 2.3 Graphic lines in notes

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4 The notes in this figure correspond to the following source text: In Britain, new policies were introduced for women, family protection and long term saving opportunities. In the post war period the range of Prudential’s products changed towards an emphasis on savings, annuities, pensions and family income protection. In the 1970s a number of acquisitions were made and in 1978 Prudential Corporation was set up as the holding company for the group. The focus on adopting new sales and marketing techniques to promote products dominated the 1980s (Lin 2004: 188).
Leaving behind the SUB-MODES [vectors, geometrical shapes] that can only be activated by the CORE MODE [image], our account moves on to SUB-MODES [composition, framing, salience] that can be associated with both CORE MODES [image] and [language].

SUB-MODE [Composition] refers to the information structure in terms of how signs are placed in notes, e.g. whether in a diagonal layout, a tree structure, or a vertical list. A diagonal layout working from left to right and top to bottom of a page can clearly help ideas to stand out in notes by only glancing at the notepad. It also provides a natural eye movement for the interpreter when reading (Gillies 2005). A tree structure and a vertical list can visually define or classify signs. When the source language contains a list of facts with equal importance, the notes also tend to have a predominantly horizontal tree structure to correspond with the ordered list in the source language. For example, the horizontal tree structure in Figure 2.5 displays the distribution of the company’s 350 workers in four areas. In addition, the vertical list (see Figure 2.3) may also have the same status.

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5 The notes in this figure correspond to the following source text: The other tax increases in the plan are generally aimed at the rich. And by the rich, the President here means those individuals or families making over 200 thousand dollars a year (Liu 2008: 121,136).
The realisation of SUB-MODE [composition] can involve two different FEATURES, which are *margin* and *spacing*. The information noted in the margin and the body of the notepad has a different degree of importance. In terms of the FEATURE [margin], the left-hand margin of a notepad is often reserved for the purpose of making important information, including dates, opinions, structural elements (numbering, digressions and questions), stand out, thus facilitating the note-reading processes (Gillies 2005). In Figure 2.6, for instance, some transition words, such as ‘so’, ‘but’, ‘maybe’, and the sign ‘∵’ (which means ‘because’) are noted in the left-hand margin.

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6 The notes in this figure correspond to the following source text: Company E was founded in 1995 and brought together a number of consultancies with a track record of performance in the environmental field, including Aspinwall, March and Quantisci. **Company E has over 350 people in ten offices in the UK, one office in the Irish Republic, two offices in mainland Europe and one office in Canada.** Through partner organizations we extend globally, with active projects on every continent (Lin 2004: 321).
Regarding the FEATURE [spacing], the space between elements is another way of grouping signs in notes. Even though notes are multimodal texts involving the use of a vast number of signs, one of the ways in which interpreters are able to segment those signs into bigger units is by using spacing as a structuring device. An example of using space between elements is shown in Figure 2.3. In this example, two sentences (segments of written language) are visually divided into two parts by the use of blank space.

SUB-MODE [Framing] indicates that elements deployed in the interpreter’s notes can either be given separate identities or represented as belonging together. In other words, framing ‘connects’ or ‘disconnects’ elements. In the process of consecutive interpreting, when the speaker gives a longer speech, the interpreter simply draws a short horizontal line (see

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7 The notes in this figure correspond to the following source text: Because once the election is over, all the analysis is done, the President, or should I say, the new President, must begin to act on and deliver on some of the promises he has made. The American people are generally forgiving, but their patience with politicians, new presidents are not, is generally very short. So, once he was in the White House, Clinton was under pressure to deliver. This president may have had one of the shortest honeymoon presidencies in recent memory. People are very concerned and they want action. "So, okay, Mr. Clinton, you are in the White House. Now what are you going to do?" (Liu 2008: 133).
Figure 2.6) between the sections to indicate different units of meaning in their notes or to remind themselves that a change of intonation may be required at a certain point. That is to say, when the interpreter gets to the bottom of each unit, he or she may adopt a falling intonation to emphasise that the formulation of an idea is being completed.

SUB-MODE [Salience] involves noting information in an eye-catching way. In the process of consecutive interpreting, when the interpreters hear any particular important message, they are encouraged to write the information in bigger letters on the page so that they can tell at a glance from the size of the letter how important a given item of information is (Gillies 2005). In addition to increasing the size of the letters for the purpose of catching the eye, underlining is another common way used by interpreters to remind themselves of the importance of the message (see Figure 2.7).

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8 The notes in this figure correspond to the following source text: … to make me realize that economic conditions in the country had truly changed this time. And that your average person, this time, was truly concerned about the economic future of the country. All this change and all this concern was taking place during the period just before the Presidential elections. And as in all Presidential elections, the candidates must talk about their plans for the economy (Liu 2008: 118,130).
SUB-MODE [Calligraphy] can only be associated with the CORE MODE [language] of interpreters’ notes. ‘Calligraphic signs’ are written language signs and their realisation may involve one of the following two FEATURES, i.e. natural language and formal language. The term natural language designates written language signs pertaining to the source language, the target language, abbreviations, single letters/words or words that do not exist in either the source or target languages. On the other hand, the term formal language designates mathematical symbols (e.g. $\geq$, $\infty$, $\neq$) and punctuation signs (e.g. !, ?), where the relationship between the sign and its meaning is arbitrary but fixed. Figure 2.8 shows a number of ways in which an interpreter takes notes using calligraphic signs from various natural languages.

Figure 2.8 Calligraphic signs in notes

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9 The notes in this figure correspond to the following source text: Before I came to Taiwan, I was what we call a working man. I was blue-collar. I worked in various cabinet shops making furniture. I did this for ten years or so. And during these ten years, I worked in seven different shops. I worked for seven different companies. In most other jobs, it pays you to stay in one place, to stay put and work in the same company. But in the cabinet trade, it’s better to move around and work at many different places. This way you can learn many different things and it’s also a way to get yourself a raise in pay (Liu 2008: 117,128).
In examples (1) and (5) within Figure 2.8, the interpreter uses words from the source or target language exactly as those words would appear in the source language or target language. Examples (2) and (3) show that the interpreter also uses English abbreviations or single characters in Chinese to represent whole words or concepts. The interpreter may also note words that are not drawn from either the ST or the TT. For example, the word ‘So’ (see Figure 2.8-(4)) is noted, but it does not appear in the source text. Therefore, the word ‘So’ reflects a certain causal link that, in the interpreter’s view, is the ultimately structuring element in that sentence.

2.1.4 Metafunctions

In order to read a text effectively and meaningfully, Halliday (1989) claims that the reader has to be able to interpret the text in terms of three “metafunctions”. Before proceeding to describe such metafunctions, it is important to understand Halliday’s original approach to the description of texts. He points out that the term ‘text’ can be “either spoken or written, or indeed [realised] in any other medium or expression that we like to think of” (ibid.: 10). This definition highlights two important issues. On the one hand, it clarifies that not only can written and spoken language be regarded as semiotic resources; indeed, other types of non-verbal language encoded through visual meaning-making resources can come under that category too. On the other hand, it also brings to the fore the idea that “the entire architecture of language is arranged along functional lines” (Halliday 2004:31). That is to say, function is a fundamental property of language.

From the perspective of Systemic Functional Linguistics, language has three communicative functions, termed ‘metafunctions’ by Halliday (1989). The three metafunctions posited by Halliday are ideational, interpersonal and textual. As Martin aptly points out, “ideational resources construe the world as we think we see it; interpersonal resources construe social relations as we enact them; and textual resources map these construals onto one another as digestible bites of information” (quoted in Pérez-González 2007: 18). These notions have so far been mainly used in by scholars in the field of linguistics.

In recent years, the notion of metafunctions has also been applied to the study of written and visual texts from the perspective of Social Semiotics and multimodal analysis (i.e.
O’Halloran 2004; O’Toole 1994; Kress and van Leeuwen 2006), drawing on Halliday’s theory of systemic functional linguistics to a greater or lesser degree. Specifically, my study draws on Kress and van Leeuwen’s (2006) extension of Halliday’s metafunctions of language to analyse the semiotic meaning that arises from the syntactic relations between the entities depicted in images. Kress and van Leeuwen (ibid.: 41) argue that “in order to function as a full system of communication, the visual, like all semiotic modes, has to serve several representational and communicational requirements”. The form in which Kress and van Leeuwen (2006) gloss metafunctions in their work applies to all semiotic modes, and is not restricted to any specific mode, e.g., speech or writing. They provide detailed and explicit methods to analyse the visually specific ways in which images realise Halliday’s three metafunctions, namely ideational, interpersonal and textual in terms of representational, interactive and compositional functions, respectively.

The previous discussion shows that Hallidayan linguistics (in relation to written language) and Social Semiotics (in relation to visual language) share a common premise: metafunctions play a role in both verbal and non-verbal texts. Since interpreters’ notes can be viewed as being multimodal texts, the CORE MODES and SUB-MODES in notes are used in different combinations to perform a specific metafunction, as proposed in Social Semiotics. The following subsections will (i) provide detailed definitions of each type of metafunction, both in the context of linguistic and visual texts; and (ii) propose how each metafunction is realised through a specific combination of MODES and SUB-MODES in the context of note-taking.

(a) The ideational metafunction: Representational meaning

In Halliday’s terms, the ideational metafunction represents “the speaker’s meaning potential as an observer” (Halliday 1978: 112). It refers to “the content function of language, language as about something. This is the component through which the language encodes the cultural experience, and the speaker encodes his own individual experience as a member of the culture” (ibid.: 112). In other words, the ideational metafunction refers to how an individual uses language to represent his or her personal experience.
From the perspective of designing images, the *ideational metafunction* involves creating the representation of objects and their relationship within the real world (Kress and van Leeuwen 2006: 42). It displays what an image represents or tells about a given phenomenon. Kress and van Leeuwen use the term *representational* to designate the way in which the *ideational metafunction* is realised in visual texts.

Therefore, from the interpreter’s point of view, the *ideational metafunction* embedded in notes concerns the ‘content’ of notes. As for its visual realisation, the *ideational metafunction* is concerned with the choice of certain terms to be presented in the notes and the content to be conveyed. The following examples will serve to clarify how metafunctions can be realised through several combinations of modes and sub-modes:

- **CORE MODE [image] with SUB-MODE [vectors, geometrical shapes]** realises an ideational metafunction based on noting *geometrical shapes* to show the underlying meaning of a word or expression that is important to the interpreter, rather than the actual word or expression used by the speaker. In the example shown in Figure 2.4, the interpreter uses a geometrical shape of a house to represent the idea of ‘families’ used by the speaker.

- **CORE MODE [language] with SUB-MODE [calligraphic sign]** realises an ideational metafunction based on noting a subject, verb or object as the main process and participants in the sentence/utterance. Figure 2.9 shows that the interpreter uses three calligraphic signs ‘人’[everybody], ‘用’[uses], ‘fuel’[fuel] as subject, verb and object, respectively, to denote that the participants are ‘everybody’ and ‘fuel’, and that the main action process is ‘use’.
Based on the concepts elaborated by Kress and van Leeuwen (2006), the representational meaning of the visual elements included in interpreters’ notes can be discussed from two perspectives: narrative structure and conceptual structure. The narrative structure of notes refers to the way in which the pictorial signs are used as meaning-making resources to connect different units of information or as resources to represent certain lexical items used in the source speech. By contrast, conceptual structure refers to a more abstract approach in terms of the visual regularities used by interpreters to conceptualise the verbal and non-verbal resources in notes.

- Firstly, the ideational metafunction realised by the narrative structure in notes can be discussed in terms of action process and geometrical symbolism. The action process can be realised by a combination of CORE MODE [image] with SUB-MODE [vector]. From the perspective of action process, how entities in notes interact with one another can be analysed by how interpreters use arrows and graphic lines (see Figure 2.1). The geometrical symbolism can be realised by a combination of CORE MODE [image] with SUB-MODE [geometrical shape]. Geometrical symbolism in notes can be analysed by how and why interpreters take notes by using certain geometrical shapes. Some of the geometrical shapes interpreters use are simply responding to the application of knowledge which was imparted to the interpreters when they learned to interpret (see Figure 2.10, item 2), whereas in other cases, interpreters come up with their own personal geometrical shapes (see Figure 2.10, item 1).
Secondly, the ideational metafunction realised by conceptual structure in notes can be further discussed in terms of classificational processes. The combination of CORE MODE \([\text{image, language}]\) with SUB-MODE \([\text{composition}]\) realises classificational processes. Classificational processes in notes can be investigated by analysing how interpreters organise the information in notes, as well as how such a structure may affect the interpreting output (see Figure 2.5).

(b) The interpersonal metafunction: Interactive meaning

The interpersonal metafunction is “the doing function” which refers to the relationship that is established between the language producer and language receiver through the deployment of specific verbal and non-verbal resources in texts (Halliday and Hasan 1989: 44). According to Halliday, the interpersonal dimension of language is constituted when “the speaker intrudes in the context of situation, both expressing his own attitudes and judgements and seeking to influence the attitudes and behaviour of others” (Halliday 1978: 112). However, interpreters’ notes are a very special type of text, as they are produced and read by the same person: the interpreter. In this situation, the premise of interpersonal metafunction that the speaker intends to influence the attitude and behaviour of others does

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\[\text{Figure 2.10 Combination of prescriptive and creative notes}^{10}\]

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\[^{10}\text{The notes in this figure correspond to the following source text: In the past we’ve heard a lot about, we’ve heard the experts often talk about the national debt, and what a serious problem it is, and how it must be dealt with (Liu 2008: 116,126).}\]
not apply in interpreters’ notes. Therefore, the *interpersonal metafunction* in notes is considered to be irrelevant to the verbal and non-verbal dimensions of multimodal texts such as notes.

At the visual level, the *interpersonal metafunction* is also about the interaction between the producer and receiver, and conveys “a sense of interaction between the depicted person and the viewer” (Kress and van Leeuwen 2006: 43). Major linguistic and visual differences in the *interpersonal metafunction* can be explained by Figure 2.11. This is a potentially complex network of interactive meanings in images proposed by Kress and van Leeuwen (2006), who use the term *interactive* to explain the *interpersonal metafunction* concept.

![Figure 2.11 Interactive meaning in images (Kress and van Leeuwen 2006: 149)](image)

The interactive meaning of notes is realised by a specific combination of SENSORY CHANNEL [*visual*], CORE MODE [*image, language*], and SUB-MODE [*all*]. This interactive function can be explored in terms of contact, social distance and attitude. Even if interpreters’ notes can be viewed as being a form of visual communication, a significant number of differences still exist between an interpreter’s notes and other types of images. For instance, texts in notes are produced and interpreted by the same person, i.e. the interpreter. In addition, the interactive characteristics that exist between images and viewers, such as gazes and gestures, cannot be found in notes. Therefore, the only important factor of the networks elaborated by Kress and van Leeuwen (see Figure 2.11) in the context of note-taking is ‘objectivity’, which comes under the category of attitude.
An objective attitude can usually be found in scientific and technical pictures, e.g. diagrams, maps and charts. The objective attitude in images tends to be done in either “a directly frontal or perpendicular top-down angle” (Kress and van Leeuwen 2006: 143-144). The former refers to the angle of “maximum involvement” (ibid.: 145) which usually involves an action orientation, suggesting what the viewer should do. The latter refers to the angle of “maximum power” (ibid.: 145) which implies knowledge orientation, or objective knowledge, suggesting what the viewer should know. Most importantly, the image is presented to the viewer without regard to reality.

In terms of interpreters’ notes, objectivity means that, when interpreters take notes, as when they draw a map, they are not doing this so that the notes/map look like a photograph of the real object. They simply want to convey the information so that it can be used for an instrumental purpose. Therefore, the notes can be read as a map from a top-down angle (‘this is what notes/signs look like’) or as a frontal view, so that the notes look like ‘a practical manual of interpretation’ (this is what interpreters say when they interpret).

(c) The textual metafunction: Compositional meaning

The textual metafunction refers to how text conveys an overall meaning constructed by ideational and interpersonal metafunctions. According to Halliday, “the textual component represents the speaker’s text-forming potential; it is that which makes language relevant … It expresses the relation of the language to its environment, including both the verbal environment – what has been said or written before – and the nonverbal, situational environment” (1978: 112-113). The textual metafunction serves to ensure that the text is coherently structured and related to its context (Halliday and Hasan 1989).

From the perspective of visual design, the textual metafunction of visual text deals with the ways in which visual signs can cohere to formulate texts “both internally with each other and externally with the context in and for which they were produced” (Kress and van Leeuwen 2006: 43). Kress and van Leeuwen use the term compositional to explain the textual metafunction concept.
Therefore, the *textual metafunction* embedded in notes concerns the spatial arrangement of signs. As far as visual realisation is concerned, *textual metafunction* accounts for the way in which signs are arranged in notes. For instance:

- **CORE MODE [image, language] with SUB-MODE [composition]** realises a textual metafunction based on noting the signs in classificational processes. This enables interpreters to see at a glance how the information is organised in the speech they are interpreting (see Figure 2.5).

- **CORE MODE [image, language] with SUB-MODE [composition] and FEATURE [margin]** realises a textual metafunction based on noting the links or transitional signs on the left-hand margin to make them stand out, and thus, facilitate the note-reading and interpreting stages (see Figure 2.6).

- **CORE MODE [image, language] with SUB-MODE [composition] and FEATURE [spacing]** realises a textual metafunction by using the space between signs to segment sentences in notes (see Figure 2.3).

- **CORE MODE [image, language] with SUB-MODE [framing]** realises a textual metafunction based on noting a short horizontal line to create visual boundaries between different units of information (see Figure 2.6).

- **CORE MODE [image, language] with SUB-MODE [salience]** realises a textual metafunction by noting signs in an eye-catching way (e.g. underlining and circling) to indicate the importance of the message (see Figure 2.7).

To sum up, each metafunction that can be realized through the possible combinations of modes and sub-modes is listed in Figure 2.12.
<table>
<thead>
<tr>
<th>Core modes</th>
<th>Sub-modes</th>
<th>Metafunctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image</td>
<td>Vectors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geometrical shapes</td>
<td>Ideational</td>
</tr>
<tr>
<td>Language</td>
<td>Calligraphic signs</td>
<td></td>
</tr>
<tr>
<td>Image and Language</td>
<td>Composition (classificational process)</td>
<td></td>
</tr>
<tr>
<td>Image and Language</td>
<td>All (vectors, geometrical shapes, composition, framing, salience, and calligraphic signs)</td>
<td>Interpersonal</td>
</tr>
<tr>
<td>Image and Language</td>
<td>Composition (margin, spacing)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Framing</td>
<td>Textual</td>
</tr>
<tr>
<td></td>
<td>Salience</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.12 The combinations of modes and sub-modes

2.2 Overview of the grammar of visual design

To date, Social Semiotics has been applied extensively to the analysis of written language, whilst the visual aspect has received less attention. As noted in the previous section, images play a vital role in the note-reading process. The importance of the written language not only has to do with the information that has been noted, but also with how the visual dimension of written language (e.g. the spatial disposition of noted items on the paper) visually affects interpreters. The link between signs and the spatial disposition of signs is crucial to the interpreting output, as it is the interplay between the two that potentially affects the interpreters’ note-reading process. In order to better understand this link, this section turns to the science of reading images. The work of Kress and van Leeuwen (2006) will serve to further elucidate what information is communicated by signs in notes.
Images can be realised “subjectively, through the presence of a perspectival angle, and objectively, through its absence” (Kress & van Leeuwen 2006:19). Whereas language “does not have or need angles of vision to achieve perspective, nor does it have or need spatial dispositions of elements to achieve the meanings of syntactic relations, […] images have and need both” (ibid.: 19). In other words, angles of vision and the spatial disposition of elements are important features of visual literacy.

As far as interpreters’ notes are concerned, the spatial disposition of elements in terms of composition, salience and framing reflects the sequence, importance, relevance and logic in the interpreter’s mind. By analysing the spatial disposition of elements in notes, we can understand how interpreters segment meaning units. This form of analysis also allows us to establish that noted information is not displayed randomly and that the distribution of information in notes presents certain regularities. In addition, by analysing how interpreters apply semiotic resources to interpret signs in their notes, we are able to explore potential regularities in how entities are connected visually within the notes (e.g. the function of a ‘verb’ can be realized by using the sign of an arrow in interpreters’ notes). These ‘regularities’ can be referred to as the ‘grammar’ of notes.

As stated in the previous section, when interpreters read notes, they don’t only read written signs but also other complementary information pertaining to the spatial disposition of signs. This section argues that interpreters’ note-reading processes are organised in terms of NARRATIVE STRUCTURE and VISUAL STRUCTURE. The former refers to how geometrical signs (i.e. vectors) assist interpreters in connecting calligraphic signs and how geometrical shapes may affect interpreters’ meaning-making processes. The latter refers to not only how the spatial disposition of signs in terms of layout and its impact on the structure of interpreted output is, but also how to visually emphasize certain information in notes. The terminology adopted in this study follows very closely the one proposed by Kress and van Leeuwen. However, instead of using the Narrative versus Conceptual dichotomy, this research will use Narrative versus Visual. There are two reasons for using Visual structure to replace Conceptual structure. Firstly, the conceptual structure proposed by Kress and van Leeuwen involves a range of processes and structures which seems to be less useful in the analysis.

Kress and van Leeuwen postulate seven kinds of conceptual processes: (1) unstructured analytical processes, (2) temporal analytical processes, (3) exhaustive and inclusive analytical processes, (4) conjoined and
of interpreters’ notes. Secondly, the term ‘visual’ is used to foreground the fact that the spatial disposition of signs has a great visual impact on interpreters during the note-reading stage. The aim of this section is therefore to engage with Kress and van Leeuwen’s work (2006) in order to understand how we might assess the function of signs and the way in which they are linked to and interact with one another. However, even if interpreters’ notes can be viewed as a visual communication method, there are still a significant number of differences that exist between interpreters’ notes and other forms of images. For instance, the producer and the reader of the notes are the same person: the interpreter. When notes are created and read by the same person, it is difficult for other people to explain the meaning of noted signs from other perspectives. Hence, the categories of visual design will be amended for the demands of this research.

The theory used in this thesis, i.e. the grammar of visual design, provided by Kress and van Leeuwen (2006) is not a ‘universal’ grammar, because visual language is culturally specific. In other words, they assumed that “this visual resource has spread, always interacting with the specificities of locality, wherever global Western culture is the dominant culture” (Kress and van Leeuwen ibid.:3). This means the generalization may only apply to the culture deeply affected by Western society. For example, since Western visual communication is deeply affected by the convention of writing from left to right, this visual grammar may not applicable in the contexts of cultures that write from right to left, i.e. Arab cultures. This is mainly because “different values and meanings are attached to such key dimensions of visual space. These valuations and meanings exert their influence beyond writing, and inform the meanings accorded to different compositional patterns, the amount of use made of them, and so on” (ibid.:4). Hence, the theoretical framework of this research only applies to the culture that use the convention of writing from left to right, including Taiwan. However, since the culture-specific aspect lies in specific instances of use, the findings of this research merely want to signal that our investigations have been restricted, by and large, to English-Chinese languages combination. I make no specific claims for the application of findings to other language combinations.

compounded exhaustive structures, (5) topographical and topological processes, (6) dimensional and quantitative topography, and (7) spatio-temporal analytical structures.
2.2.1 Narrative structure

According to Kress and van Leeuwen, narrative representation serves to “present unfolding actions and events, process of change, transitory spatial arrangements” (2006: 59). In a narrative representation based on the deployment of visual resources, different representational meanings in the image are produced by the interaction between interactive participants and represented participants. The former are the participants present in the act of communication, whereas the latter are the participants who constitute the subject matter of the communication. The existence of a vector is the hallmark of a narrative visual ‘proposition’, a visual medium which connects participants. In pictures, vectors may be formed by depicted elements that form an oblique line. For example, the guns and the outstretched arms of the British in Figure 2.13 form such a line. In an abstract image (e.g. diagrams, flow charts, maps), vectors may take the form of abstract graphic elements, such as arrows or lines with an explicit directionality (Kress and van Leeuwen 2006).

In the context of notes, NARRATIVE STRUCTURE refers to how interpreters use vectors to connect information, as well as how geometrical shapes affect interpreters’ meaning-making processes. By applying Kress and van Leeuwen’s concept\(^\text{12}\), the use of vectors will be analysed from the perspective of action process, whilst the meaning of geometrical shapes will be investigated from the perspective of geometrical symbolism.

\(^{12}\) Based on the kinds of vectors and number of participants involved, Kress and van Leeuwen postulate six kinds of narrative processes: (1) action process, (2) reacational process, (3) speech process & mental process, (4) conversion process, (5) geometrical symbolism, and (6) circumstances. However, some of them specifically refer to images rather than signs. For instance, in comic strips, a special kind of vector can be found to represent speech process and mental process: “the oblique protrusions of the thought balloons and dialogue balloons that connect drawings of speakers or thinkers to their speech or thought” (Kress and van Leeuwen 2006: 68). Therefore, some narrative processes proposed by them are found to be less useful in the analysis of interpreters’ notes. When applying the notion of narrative processes to interpreters’ notes, only the action and geometrical symbolism processes will be analysed.
2.2.1.1 Vectors

In this sub-section, I discuss how interpreters interpret an action when processing the signs in their notes from the perspective of action processes. An action process involves participants and vectors. In written or spoken languages, speakers usually use a ‘verb’ to designate an action, whilst in images, the direction of the action of participants is often represented by the use of vectors. In action processes, there are two types of participants: *Actor* (Figure 2.14) and *Goal* (Figure 2.15).

![Actor Diagram](image)

Figure 2.14 Actor (Kress and van Leeuwen 2006: 63)
The ‘Actor’ is usually the beginning point of the vector, and the ‘Goal’ is usually the destination of the vector. When the two participants, Actor and Goal, are connected by a directional vector, the structure indicates that “something done by an Actor to a Goal” (Kress and van Leeuwen 2006: 50, emphasis in the original).

This interaction between Actor and Goal can be realized through a transactional process. A transactional process in an image is the equivalent of a transitive verb, which needs to be followed by an object in verbal languages. In Figure 2.13, the British and the Aborigines form a transactional structure. Two British men with guns play the Actor role, with the Aborigines performing the Goal role. The guns held by the British in the image create a line connecting Actor British and Goal Aborigines. Together, this image forms an action process where “The British stalk the Aborigines” (ibid.: 46).

Shannon and Weaver’s (1949) ‘communication model’ in Figure 2.16 can be used as another example. In this communicational process, the boxes represent participants (Actor and Goal) and the arrows are the processes that relate them to one another. If we wanted to translate the interaction between participants and processes into language, “we could say that the boxes are like nouns, the arrows like verbs (e.g. ‘send’ or ‘transmit’), and that together, they form clauses” (ibid.: 48).
The interaction between participants and arrows in interpreter notes (Figure 2.17) is similar to the interaction between boxes (participants) and arrows (processes) in Figure 2.16. In Figure 2.17, calligraphic signs ‘工’[it] and ‘stay’[stay] can be viewed as participants – ‘工’[it] is the Actor (company), ‘stay’[stay] is the Goal, and the arrow realizes the action (i.e. that the company ‘pays you’). This example shows that the arrow is the key visual factor for the interpreters to be able to connect the participants and the processes.

Therefore, the function of vectors requires further analysis. The analysis will compare the notes with the interpreted output to investigate how the interpreter deals with the vectors representing actions, and explore whether interpreters have other ways of representing the action process visually in their notes. In addition, the research will also examine how interpreters deal with cases when notes contain only calligraphic signs but the interpreted output includes an action process. What aspects of their notes do interpreters rely on to

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13 The notes in this figure correspond to the following source text: Before I came to Taiwan, I was what we call a working man. I was blue-collar. I worked in various cabinet shops making furniture. I did this for ten years or so. And during these ten years, I worked in seven different shops. I worked for seven different companies. In most other jobs, it pays you to stay in one place, to stay put and work in the same company. But in the cabinet trade, it’s better to move around and work at many different places. This way you can learn many different things and it’s also a way to get yourself a raise in pay. (Liu 2008: 117,128).
retrieve the relevant processes in these cases? These issues will be analysed from the action process perspective.

2.2.1.2 Geometrical shapes

In some situations, a visual shape is used because its actual appearance is close to the referent of that sign. This correspondence between the meaning of visual shape and its actual appearance is relatively under-explored. For instance, Figure 2.18 displays an ‘infinity’ sign which is used instead of an arrowhead to indicate the directionality of the vector. Kress and van Leeuwen (2006: 71) argue that the symbolic meaning of the helix shape:

\[
\text{combines the desirable features of the straight line and of the circle, while avoiding the weakness of either … It gives testimony to the concept that communication, while moving forward, is at the same time coming back upon itself and being affected by its past behaviour, for the coming curve of the helix is fundamentally affected by the curve from which it emerges.}
\]

![Figure 2.18 Geometrical Symbolism (Kress and van Leeuwen 2006: 70)](image)

The meaning of pictorial or abstract images is constituted by their symbolic value. It is their symbolic value that allows pictorial or abstract images to draw the viewers’ attention beyond the diagonal action line or a simple arrow. Basic geometrical shapes are thought to have “the power to directly affect our nervous system” (Kress and van Leeuwen 2006: 53), and there is no doubt that the choice of visual shapes is charged with meaning. For example, a square represents “honesty, straightness and workmanlike meaning”, while circles represent “endlessness, warmth, protection” (Dondis 1973: 44). Hence, in the image-making
process, the producer may reflect particular associations in the selection of particular visual shapes, and this makes the meaning of the image quite specific for the producer.

Kress and van Leeuwen also suggest that formal differences in the realisation of the arrow may affect the meaning-making process. For instance, arrows can be attenuated, which diminishes the sense of ‘impacting’ and ‘targeting’, by using dotted lines, making the arrowhead smaller (Figure 2.19) and placing it in the middle of the line; or amplifying the graphic element by using bolder arrows or a number of arrows (Figure 2.20) to suggest the frequency or multiplicity with which the process occurs (2006: 71-72).

![Figure 2.19 Example of arrows (Kress and van Leeuwen 2006: 71)](image1)

![Figure 2.20 Example of arrows (Kress and van Leeuwen 2006: 71)](image2)

Using different arrow shapes to reflect the interpreter’s comprehension of the source text can also be found in notes. These arrows with different shapes help interpreters to encode and retrieve their own perception about the likelihood, importance or frequency of an action. It must be noted that, when reading a sign with geometrical symbolic meaning, interpreters do not just reproduce the sign in the most conventional form, but introduce changes to the sign or add additional features to the prototypical sign. For example, interpreting the three arrows featuring in Figure 2.21 against the source text suggests that their different angles represent different meanings. The first one is a curved arrow meaning that something ‘had truly changed a lot’. It appropriates the symbolic value of the circle, representing significant change. The second arrow forms a radian triangle which means ‘taking place’ – with the radian indicating that ‘something is happening’. The third one is a 45° triangle without curves evoking the meaning of ‘must’ in the interpreter’s mind.
As the interpreter’s choice of noting signs is affected either by prescription rules taught by lectures or the interpreter’s personal creation when hearing the message, this research will compare the notes with the interpreting output that they generate as a basis to analyse the extent to which interpreters draw on the visual meaning of geometrical symbolism.

2.2.2 Visual structure

During the note-reading process, interpreters not only read concrete written signs; they also retrieve meaning from the spatial disposition of signs. The disposition of signs may have an influence on how interpreters perceive the information and then affect their interpreting.

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14 The notes in this figure correspond to the following source text: … to make me realize that economic conditions in the country had truly changed this time. And that your average person, this time, was truly concerned about the economic future of the country. All this change and all this concern was taking place during the period just before the Presidential elections. And as in all Presidential elections, the candidates must talk about their plans for the economy (Liu 2008: 118,130).

15 As explained in section 3.3.2, the experimental study also involved interviewing interpreters to find out their rationale for the use of certain signs and to find out how they interpreted them, even though this information was not eventually included in the analysis.
output. Hence, the second type of structure which may affect note-reading processes is the **VISUAL STRUCTURE** of notes.

**VISUAL STRUCTURE** can be discussed from two perspectives: *layout* and *salience*. The former refers to the placement of written signs on the note pad, whilst the latter refers to how interpreters signal the importance of a specific sign through visual strategies like circling or underlining. Although these are tangible forms of representation, circling or underlining are accessories of the calligraphic and geometrical signs when it comes to the visual representation of emphasis. It is for this reason that *salience* is examined under the heading of **VISUAL STRUCTURE**.

2.2.2.1 Layout

Layout pertains to how signs are placed in the interpreters’ notepad page. Interpreters tend to use horizontal lines to segment different meaning sections on their notepad. Each meaning section (the information between two horizontal lines) is presented as a visual unit of information. Individual meaning sections are connected by interpreters to produce a target language version of the speech in question. For this reason, the layout of notes can be discussed in terms of the *composition* of each meaning unit, as well as the *framing* of the notepad page.

2.2.2.1.1 Composition

Composition can be considered under the following four headings: vertical list and tree structures, tree structure, margin, and spacing.

(a) **Vertical list and tree structures**

The vertical list and tree structures are used as classificational processes in interpreters’ notes. Classificational processes relate different participants (i.e. people, places or things) to each other through a taxonomic structure, distributing them symmetrically across the image
to show that they have something in common. They involve one superordinate element and any number of subordinate ones. In the taxonomy structure, the superordinate can be seen as an overarching concept, while the subordinates represent sub-categories.

There are two types of taxonomies: covert taxonomy and overt taxonomy. In a covert taxonomy, the superordinate is inferred from such similarities as the viewer may perceive to exist between the subordinates. One crucial factor concerning visual characteristics in the realisation of covert taxonomies is that the proposed equivalence between the subordinates is visually realised by symmetrical composition. In fact, “the ordering in the image itself produces the relations” (Kress and van Leeuwen 2006: 79). Using Figure 2.22 as an example, the visual ordering in this picture suggests that these watches belong to the same range of Xpose watches. However, this picture does not display ‘Xpose’ in an eye-catching way. Instead, the name of the range is the inferred superordinate, with the actual watches being the subordinates.

![Figure 2.22 Covert taxonomy (Kress and van Leeuwen 2006: 81)](image)

Overt taxonomies show a higher degree of ordering and include an explicit superordinate. The superordinate is placed above or below the subordinates. Overt taxonomies are usually
‘chained’ so that the ‘intermediate’ participants will be superordinate with respect to some of the other participants, but subordinate with respect to others. In addition, participants called ‘interordinate’ can be found in overt taxonomy structures (Kress and van Leeuwen 2006: 79-80). Figure 2.23 is an example of overt taxonomy. The superordinate (source of signs) is clearly indicated at the top of the tree structure.

![Overt Taxonomy (Kress and van Leeuwen 2006: 82)](image)

Figure 2.23 Overt taxonomy (Kress and van Leeuwen 2006: 82)

Taxonomic structures are often found in interpreters’ notes. The common writing direction in notes is from left to right, with equally important elements of information being listed vertically. There are a number of different ways of noting messages with equal importance. For example, Figure 2.24 shows that when the speaker mentions a number of countries in the world, the interpreter may simply write down a vertical list of the abbreviations of countries, but not indicate that they all depend on the implicit notion of ‘export’ as the interpreter is able to retain that in her mind. In this case, what is displayed in the notes is the covert taxonomy where the superordinate (export countries) is inferred.

![Covert Taxonomy Structure](image)

Figure 2.24 Covert Taxonomy Structure

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16 The notes in this figure correspond to the following target text: In terms of foreign trade, our total exports in 2001 stood at 176.495 billion US dollars. We have seen steady growth in our traditional export market, and
In the multi-levelled overt taxonomy example shown in Figure 25, on the other hand, we can say that the abbreviation ‘L–交’ [Liaoning & transport systems] is the superordinate. The graphic symbol ‘∥’ is used to identify the interordinate elements, namely ‘Rail 6’[6 trunk railway lines], ‘高’[motorway], ‘10 pt’[10 ports], and ‘6 机’ [6 airports]. The use of another series of ‘∥’ further indented to the right presents another list of itemised information ‘支 29’[29 branch lines], ‘2k+km’ [over 2,000 kilometres], ‘B150’[ with 150 berths] and ‘2 世’[of which 2 are international airports] as subordinates. The multi-levelled overt taxonomy shown in Figure 2.25 can be represented as the classificational structure shown in Figure 2.25a. In this structure, the interpreter uses an “L” shape to indicate the connection between entities. This visually distinguishes two hierarchies of entities: the superordinate in the left-most layer is the source of information, with the remainder of information complementing the information given by the superordinate.

Whereas NARRATIVE STRUCTURE can be used to explain the meaning of signs themselves as well as the interaction between signs, the taxonomic organisation of VISUAL STRUCTURE shows how notes can visually affect the interpreting output. To discuss the VISUAL

initial results in our newly developed markets. Our exports to the US, EU and Japan have been increasing steadily. Our exports to Africa, ASEAN, India and Russia have been growing even faster (Lin 2004: 368-369).

17 The notes in this figure correspond to the following target text: Liaoning has excellent transport systems. There are 6 trunk railway lines and 29 branch lines. We have over 2,000 kilometres of motorway. Every city is linked by a motorway. Every village is linked by a tarmac road. We have 10 ports with 150 berths, capable of handling 110 million tonnes of cargo. We have 6 airports, of which 2 are international airports serving 114 domestic routes and 13 international routes (Lin 2004: 419).
STRUCTURE from the perspective of classificational processes, the classification of signs in notes can be viewed as the information noted either as a taxonomy structure or as an unordered list (Figure 2.26), and this could also possibly reflect the interpreters’ comprehension stage. On the one hand, taxonomy structures may frame the sequence of interpreting output in the interpreters’ minds. That is to say, when interpreters see overt or covert taxonomy structures in their notes, they may explicitly verbalise those structures. Taxonomy structures also reflect that the information has been analysed during the note-taking process. On the other hand, when notes display an unordered structure, the interpreter may re-organize and analyse information during the note-reading and interpreting processes. In other words, comparing the notes to the source text and target text may reveal whether the interpreters’ information analysing process occurs at note-taking or note-reading stage. At this juncture, it is sufficient to acknowledge that this type of analytical process does exist, but it would require further investigation of source and target text if such an unordered structure occurs in any of the notes featured in the data sample for this study.

Figure 2.26 An unordered structure

(b) Margin

When trainees learn note-taking skills, they are often instructed to use the left-hand margin for noting important structural elements, such as logical transitions, links, discourse markers

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18 The notes in this figure correspond to the following source text: …while not everybody has big stock market investments that might be affected by the different parts of the plan, everybody uses fuel of one sort or another. Even if you don’t have a car, you still need to heat your home with natural gas or oil (Liu 2008: 102).
and digressions, in order to make this information stand out on the page (Gillies 2005). In addition to the idea that the left-hand margin is preserved for noting important structural elements, placing key elements in the middle of the notepad is another important principle of note-taking. The element in the middle is then regarded as the Centre, while the peripheral elements are labelled as the Margins. In images, the Centre designates the nucleus of the information that holds the ‘marginal’ elements together. The other elements placed around the Centre are viewed in some sense as subservient (Kress and van Leeuwen 2006: 196). For example, the Buddhist represented in which the central figure of Figure 2.27 is viewed as a leader surrounded by a circle of subordinates (ibid.: 194).

![Figure 2.27 Buddhist Painting (Kress and van Leeuwen 2006: 194)](image)

In Western visual languages, most compositional patterns tend to revolve around polarizations such as the ‘Given-New’ and/or ‘Ideal-Real’, with central composition being relatively uncommon (ibid.: 194-195). By contrast, central composition plays an important role in Asian cultures. As Kress and van Leeuwen claim, “perhaps it is the greater emphasis on hierarchy, harmony and continuity in Confucian thinking that makes centring a fundamental organizational principle in the visual semiotic of their culture” (ibid.: 195). It is worth mentioning here that the concept of ‘Given-New’ in image-reading to some extent mirrors the concept of ‘theme-rheme’ provided by Hatim and Mason (1997). They believe that one of the aspects of texture is theme-rheme arrangement. According to Hatim and Mason (1990: 212), “thematic elements are ‘context-dependent’ and consequently of lesser communicative importance than ‘context-independent’ rhematic elements”. That is to say, theme and rheme ordering is not merely about the word order, but the order itself can show
aspects of context, such as intentionality. Hence, when translating or interpreting, one has to “take into account the thematic structure of the original text to preserve the implication and intention of the text producers” (Mohiman and Nejadansari 2013: 184).

A visual combination of the Given-New and Ideal-Real with a Centre-Margin is found to create a new form of visual structure: the triptych (Figure 2.28). The structure of the triptych “can be either a simple and symmetrical Margin-Centre-Margin structure or a polarized structure in which the Centre acts as a Mediator between Given and New or between Ideal and Real” (ibid.: 199).

![Figure 2.28 Horizontal and vertical triptychs (Kress and van Leeuwen 2006: 201)](image)

For example, the University of Oxford website (Figure 2.29) can be viewed as a simple Margin-Center-Margin structure. In this image, the student can be viewed as the Centre, with the information about the university (i.e. photos, address) being the Margin (Kress and van Leeuwen 2006: 198).
According to Kress and van Leeuwen, “circular structures can create a gradual and graded distinction between Centre and Margin” (ibid.: 196). That is to say, the importance of the Margin’s information value is decided by the distance to the Centre. The closer to the centre, the more important information value it has. However, the ‘Centre and Margin’ structure in notes may have a different meaning. Although the compositional structure of ‘centre and margin’ (see Fig. 2.30a) and ‘triptych’ (see Fig. 2.30b) can also be found in notes, this research argues that in interpreters’ notes, ‘centre and margin’ can be viewed as a single-levelled tree structure, whilst ‘triptych’ can be viewed as a multi-levelled tree structure, each of which has a different information value.

The notes in this figure correspond to the following source text: Following the 1997 election, in which the Labour Party came to power, the macroeconomic policy framework has been reformed. The aim of this form is to help provide a framework for improved macroeconomic stability and economic growth. I would like to explain the key features of the UK economic policy framework, identify the key institutions, their leaders and their main responsibilities. There are three main institutions. URL: <http://www.kouyi.org/note/20.html>, last accessed on 11th May 2011.
Using Figure 2.31a (extract from Figure 2.30) as an example of ‘centre and margin’, the word ‘機’ [key institutions] is the Centre, with the rest of the words ‘領’ [leaders], ‘責’ [responsibilities] and ‘3’ [three main institutions] being the detailed information.

![Figure 2.31a Example of notes (Centre-Margin)](image)

This text further indicates what has to be identified (leaders and responsibilities) in the key institutions and adds extra information: ‘3’ [three main institutions]. Although it is displayed in a graphic form, it can be argued that it has the same visual function as the single-levelled tree structure presented in Figure 2.31b – thus corroborating the claim that the ‘Centre and Margin’ structure in notes is a single-levelled tree structure. Effectively, this means that the ‘Centre and Margin’ structure in notes may have the same information value as the ‘Left and Right’ structure.

Although Figure 2.32a (extract from Figure 2.30) is displayed in a graphic form, it can be argued that it has the same visual function as the multi-levelled tree structure represented in Figure 2.32b. The word ‘我’ [I] is the central structuring element, and also acts as the source of action. The two actions taken by the source ‘我’ [I] are ‘explain’ the key features’ and ‘identify’ the key institutions’. In Figure 2.32, these two actions are located in the second layer. The details of each action are then explained and listed in the third layer. The first action to be taken is explaining the ‘key features’, which are complemented by ‘the UK economic policy framework’. The second action to be taken involves identifying the key institutions, which are complemented by ‘leaders, responsibilities, and the number of main institutions’. This suggests that the ‘triptych’ structure used in interpreters’ notes is a multi-levelled tree structure. Hence, information in the left Margin can be viewed as a Superordinate element, the information in the right Margin as a Subordinate element and the information in the Centre as an Intermediate element.
(e) Spacing

The space in notes can be discussed from the perspective of top-bottom placement. When images or layouts are structured along a vertical axis, the top-bottom placement creates an ‘Ideal-Real’ structure. If some of the constituent elements are placed on top and others at the bottom, then what is placed on top is presented as Ideal and the elements placed at the bottom as Real. Something Ideal is presented as the idealised essence of the information, whilst Real information is presented as more specific and practically oriented (Kress and van Leeuwen 2006). In Figure 2.33, for example, the upper section is a couple with a happy smile, with the lower section being information about the product. The purpose of the arrangement is to make viewer feels that their product (Real) can bring them a life full of happiness (Ideal).
However, if we view the whole page of interpreter’s notes as an integrated text, the vertical structure of notes follows the sequencing of information set by the speaker. Thus, it would seem that this kind of ‘Ideal-Real’ information value does not apply to interpreters’ notes. Therefore, rather than looking at the whole page of interpreters’ notes as an integrated text, it is suggested that the issue of spacing in the context of note-taking is examined at a more local level, focusing on how the boundaries between individual sentences affect the visual structure of interpreters’ notes.

Visually, each unit of meaning in the interpreter’s pad consists of several sentences separated by spaces. In the following example, two sentences are visually presented as two units of meaning (2.34a and 2.34b) by the space between them. In addition, by putting the starting point of a new sentence closer to the left margin, the recognition of a new unit of
meaning is made easier. In Figures 34a and Figure 34b, the interpreter is visually guided by graphic lines to connect related information that belongs to the same sentence.

Although interpreters’ notes do not seem to realise the information value of ‘Ideal and Real’ suggested by Kress and van Leeuwen, probably due to restrictions regarding the size of the notepad, the regularities regarding how interpreters distribute signs for the same verbal sentence in their notes is worthy of further investigation.

2.2.2.1.2 Framing

Framing indicates that compositional elements can either be presented as separate identities or as belonging together. In other words, framing ‘connects’ or ‘disconnects’ elements. According to Kress and van Leeuwen (2006: 203), “visual framing is also a matter of degree: elements of the composition may be strongly or weakly framed”. On one hand, “the stronger
the framing of an element, the more it is presented as a separated unit of information” (ibid.: 203). On the other hand, “the more the elements of the spatial composition are connected, the more they are presented as belonging together, as a single unit of information” (ibid.: 203-4).

Framing in notes can be achieved by drawing a horizontal line between sections. When the speaker gives a longer speech, the interpreter simply draws a short horizontal line (Figure 2.35) between sections to indicate the boundary between different meaning units in their notes and also to remind themselves of the need to use a different intonation pattern when necessary.

![Figure 2.35 Example of notes (framing)](image)

Hence, short horizontal lines are visual boundaries for interpreters to separate different meaning units and to indicate that the information between two horizontal lines belongs together. When analysing how interpreters are visually affected by framing in notes, the

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20 The notes in this figure correspond to the following source text: In this area he should have no problem. Because generally speaking the population will always support increased taxes on the rich. America may think of itself as the land of opportunity, where everyone has the chance to get ahead and get rich. But deep in the national psyche, I think, there’s a basic distrust of people who have too much money, or a lot of money. There will always be those who might argue that if you tax the rich too much, then this discourages them from investing in the economy, which in turn will create jobs for us ordinary people. This was the basic idea behind the tax cuts during the Reagan era, the Reagan years. But the money the rich saved during these years was spent on direct consumption, and not on investments that might have created jobs for the rest of us. So, the average guy has no problem with the soak-the-rich tax policy (Liu 2008: 121-122,138).
comparison of the interpreting output with the notes will seek to establish how interpreters make decisions based on visual note-taking conventions.

2.2.2.2 Salience

Salience is used to indicate that some elements can be made more eye-catching than others. This is not objectively measurable, but is the result of complex interaction, a complex trade-off relationship between a number of factors, i.e. size, circling, and underlining. Regardless of how and where the elements are placed, “salience can create a hierarchy of importance among the elements, selecting some as more important, more worthy of attention than others” (Kress and van Leeuwen 2006: 201). When multiple elements are involved in the composition, viewers are intuitively able to judge the ‘weight’ of the various elements on the basis of visual clues: the greater the weight of an element, the greater its salience (ibid: 202).

In interpreters’ notes, for example, underlining is applied to catch the interpreter’s eye. Figure 2.36 (examined against the source speech) suggests that the curved line next to the abbreviation ‘P’ is used to remind the interpreter that this information represented by the abbreviation is ‘particular’ or specific in some way.

![Figure 2.36 Example of notes (curved line)](image)

As shown in Figure 2.37, circling is another form of signalling salience.

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21 The notes in this figure correspond to the following source text: The first is HM Treasury which is responsible for the overall economic framework and for fiscal policy in particular. It is lead by the Chancellor, Gordon Brown who is an elected politician. He is supported by 4 junior ministers. URL:<http://www.kouyi.org/note/20.html>, last accessed on 11th May 2011.
In addition to circling, the interpreter also uses an exclamation mark to express the importance of a particular entity. The combination of circling and exclamation mark in Figure 2.37 is used to emphasise sincere appreciation (literally, ‘appreciation from the heart’ in the Chinese source text). Interestingly, however, this emphasis is not found in the target text, where the interpreter simply says ‘I’d like to thank’. The lack of correspondence between notes and interpreting output will be investigated further in the data analysis.

Salience is normally signalled in notes when the source text contains an adjective or an adverb that has been used for the purposes of emphasis (e.g. ‘truly, particularly, the most important’). Therefore, when analysing the visual effect of salience during the note-reading process, the use of adjectives and adverbs in the interpreting output will be investigated to see how interpreters interpret a sign with a visual salience function.

### 2.3 Conclusion

This chapter has proposed a theoretical framework for analysing interpreters’ notes based on the concepts of social semiotic and visual grammar. In this integrated multimodal analytical

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22 The notes in this figure correspond to the following target text: Ladies and gentlemen, I’m delighted to be here in the beautiful city of Hanover to attend the prestigious Hanover Industrial Exhibition, and to speak on the opening of the energy market as well as cooperation between China and Germany in the area of energy. Firstly, on behalf of the Economic and Trade Commission of China, I’d like to thank you for inviting me to this forum (Lin 2004: 147-148).
framework, Social Semiotics provides the core conceptual basis, while visual grammar offers complementary tools for analyzing visual meaning-making resources. On the one hand, Social Semiotics allows me to account for the meaning-making process in interpreters’ notes as a dynamic activity and facilitates the analysis of visual resources in this instance of multimodal textuality. On the other hand, the visual grammar approach explores the meaning-making potential of the spatial disposition of signs.

This chapter has also attempted to gain insight into the network of modes and sub-modes used in interpreters’ notes in order to achieve a better understanding of the multimodal nature of such texts. The internal relations between the modes and sub-modes that co-exist within those networks have been investigated, and a number of productive combinations of CORE MODES and SUB-MODES have been identified. More importantly, each of these combinations has been accounted for in terms of the metafunctions that they tend to realise in the context of note-taking.

As far as the visual grammar of note-taking is concerned, it has been suggested that any potential regularities of how interpreters read their notes can be discussed in terms of narrative structure and visual structure. The former examines how graphic signs (i.e. vectors and geometrical shapes) assist interpreters in connecting other written signs in notes, whilst the latter investigates how the spatial disposition of signs in notes assists interpreters in reconstructing the structural organization of information.

While there is a strong assumption that certain regularities exist in the production and interpretation of interpreters’ notes, little empirical evidence has been gathered to support this assumption. Based on the exploratory analysis carried out in this chapter, it is posited in this study that the grammar of visual design provided by Kress and van Leeuwen represents a useful framework for the analysis of multimodal notes and the interaction between individual signs.
Chapter Three: Towards a methodology for the study of visual grammar in interpreters’ notes

3.1 Introduction

The aim of this chapter is to propose a methodology for investigating any regularity that may exist in the way interpreters deploy and retrieve visual information when reading notes. It delivers an overview of experimental methodological issues in conference interpreting studies, and provides an account of the methodological apparatus underpinning this thesis.

This chapter consists of two parts. Prior to a stage-by-stage presentation of the methodological apparatus, section 3.2 begins with a review of the methodological issues involved in note-taking studies and presents the rationale underlying this experimental study. Section 3.3 presents the experimental study as such by delineating my approach to data design and data collection. Section 3.3.1 describes the pilot study and the issues that emerged while conducting it, with a view to raising awareness of the difficulties and commenting on potential pitfalls and advantages Section 3.3.2 then focuses on the organization of the experimental component, including a description of the preparatory work, the two stages of experiment, and the approach which the researcher is going to adopt to process the data. Section 3.3.3 examines a range of issues pertaining to data collection, including the background of the research participants and the technicalities of data gathering, the equipment used in this study and the facilities in which the experiment was conducted. Although the collected data set includes recordings of interpreted output and the interview data, I will primarily use them for evaluation in future research projects. With the assistance of these additional data sets, the connections in between what participants do and what they say they do can be clarified. However, the emphasis will still be placed on the actual evaluation of the notes. Section 3.3.4 discusses the rationale for the choice of the specific text, which involves the issue of prescriptivism in note-taking introduced earlier in Chapter 1, at the centre of this study. The text is described in terms of a set of variables, including vectors, geometrical shapes, composition, and salience. Finally, section 3.4 provides some concluding remarks and paves the way for the analysis carried out in chapter 4 and 5.
3.2 Rationale for the experimental study

Research on interpreters’ notes has a long tradition in the history of interpreting studies, but very little empirical work has been conducted on this matter. The issue of interpreters’ notes has generated a large volume of literature, starting with Rozan (1956), and continuing through Seleskovitch (1975), Alexieva (1993), Gile (1995a), Dam (2004a, 2004b) and Gillies (2005), to Szabó (2006) and Chmiel (2010), to name but a few. So far, most of the literature has focused on the didactic implications of note-taking, provided suggestions on how to make effective use of note-taking skills and issued recommendations on widely used note-taking conventions. However, “most of the recommendations are offered on the basis of personal experience and/or opinions only, with hardly any empirical studies to back them” (Dam 2004a: 252).

One of the vital issues any researcher working in the field of conference interpreting has to deal with is the difficulty in operationalising experimental research. As put very lucidly by Gile (1994: 39):

Many practitioners reject the idea of scientific research on translation and interpretation: some fear these disciplines may lose the aura of mystery surrounding their profession if dissected under a microscope; others do not believe science can shed much light on the processes and interactions involved; whereas others appear to fear that their intuitive theories and position in academia, or even that their social status may be threatened by scientific studies of I/T.

When interpreters reject the idea of participating in experimental research, researchers are bound to find difficulties in gathering data (Dam 2001, Schäffner 2004). Still, interpreters’ notes have nevertheless generated a considerable amount of research. As mentioned in section 1.1, Szabó (2006) conducted a survey of literature on interpreting related topics and divided the relevant publications into four groups: (i) studies describing different general approaches to note-taking; (ii) studies investigating particular aspects of note-taking, e.g. comprehension or symbols; (iii) studies discussing the role of note-taking within different interpreter training approaches; and (iv) studies reporting on the results of experimental research. My research falls into the final category – namely experimental research.
Experimental research “deliberately interferes with the natural order of things in order to isolate a particular feature for study and, as far as possible, eliminate other features that are not relevant to the research” (Williams and Chesterman 2004: 63). It allows researchers to set up controlled conditions in order to generate the experimental processes in terms of situations and phenomena for the specific purpose of study (Gile 1998). This study adopted an experimental approach to investigate (i) how linguistic and visual semiotic resources are deployed in the process of note-taking by controlling the structure and contents of the source text, and (ii) how information is retrieved when reading notes by comparing the interpreters’ notes with their actual interpretations. Whether the variables set in the source texts are reflected in the notes or not will be explored in the experiment outlined in this chapter. In addition, whether certain note-taking features are employed independently of the source text, will also be observed in the study.

The data set used for observing interpreters’ meaning-making practices in the present study comprises two sources: notes and interpreters’ target language renditions. In fact, the collection of the data set used in this research is in line with the methods suggested by Pöchhacker (2004: 64, emphasis in the original), who indicates that “the basic techniques for data collection [in interpreting studies] might be summarized as watch, ask and record”. In standard methodological terms, these three steps involve the use of observational methods, interviews and questionnaires, and the collection of documentary material, respectively (ibid.).

In note-taking related research, recording is a common and necessary data-collection method. In this study, both the collection of notes and the video/audio-taping of interpreting output are considered forms of ‘recording’. Both forms of recording are necessary in order to conduct the next stages of the analysis, i.e. a comparison between the target spoken text and the interpreters’ notes. Two good examples of comparisons between interpreters’ notes and their interpretations are Dam (2004) and Albl-Mikasa (2008). Dam observes how interpreters make a choice on whether to take notes (i) in the form of symbol or language, and (ii) in the source or target language by conducting an experiment and examining five professional interpreters’ notes. The analysis of the choice of form and language of their notes suggest that (i) “the more notes the consecutive interpreter represents as symbols, the more notes (s)he can take down, and, conversely, the more notes (s)he writes in the form of full words, the fewer notes (s)he is able to produce” (2004a: 255), and (ii) “the more
difficult the task, the more notes will be taken down in the source language, and – vice versa – the easier the task, the more notes will be rendered in the target language” \((ibid.: 260)\). In fact, Dam’s research (cf. 2004a, 2004b) on the interpreters’ choice of language, notes were analysed both through personal observation and by quantifying the categories\(^2\) set by the researcher, without engaging in any form of interaction with subjects, whether in the form of questionnaires or interviews. Hence, Dam herself also admitted that “it is clearly not possible to draw any conclusion on the basis of these observations alone … [so] the next logical step would be to examine the reasons for and, in particular, the effects of their choice of strategy” (2004a: 254). In other words, in order to examine the motivation behind the subjects’ decision, it is necessary to interact with the participants in the study.

Albl-Mikasa (2008) investigates how highly fragmented notation texts (i.e. interpreters’ notes) are recovered in the interpreting stage by drawing on the notes of five student interpreters. By comparing the source, target and notes texts, Albl-Mikasa concludes that the notes clearly reflect the surface structure of the source text, while the target text is produced on the basis of the reduced linguistic contribution of the notes.

Both studies show the vital importance of using notes as observational data in this study. However, the results of earlier research also bring to the fore the limitations of observation, in terms of a lack of interaction with subjects to gain further information to support the findings. Unsurprisingly, other studies have opted to use questionnaires to elicit the opinions of the subjects. For example, in order to test Dam’s conclusions (2004b), Szabó (2006) revisits the topic by using not only notes, but also questionnaires. The questionnaires were distributed among eight student subjects, and the results were used to support the conclusions drawn from the observational component of her experiment. In other cases, the results of questionnaires have been used as a way to reveal undiscovered facts. For instance, Chmiel (2010) investigates the effectiveness of teaching note-taking to trainee interpreters. The data used in her research comprises the source texts, notes and questionnaires. Once the participants completed the assigned consecutive interpreting tasks, they were asked to fill in questionnaires to evaluate the need and usefulness of training in note-taking. On the one hand, the results of comparing the notes with the source texts showed that the majority of

\(^2\) The categories chosen by Dam (2004) to describe language choice in the notes were (1) target language, (2) source language, (3) notes in a third language and (4) notes in an unidentifiable language, i.e. the language is identical in the source language, the target language and/or a third language.
student participants tend to take notes by following the principles taught by the lecturer. On the other hand, the results of questionnaires helped to shed light on the students’ views about the usefulness of the course and its shortcomings.

Although using questionnaires as a data-collection method does not represent an important logistical problem, this method presents both advantages and limitations. On the one hand, since this study is not only interested in the semi-product, i.e. the notes, but also on the cognitive processes leading to the retrieval of information from those notes – which may differ from participant to participant, it might be useful to adopt questionnaires as one of the information-gathering tools in this research. In this case, one of the top priorities in designing the questionnaires has been to ensure that they encourage participants to recall their note-reading habits and strategies as much as possible. Thus, great care should be taken to avoid formulating the questions in such a way that they influence the participants’ account of how they go about making sense of their own notes. To this end, both open and closed questions should be used throughout. Drawing on Oppenheim (1992), the advantages and disadvantages of open and closed questions are presented in Table 3.1.

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<thead>
<tr>
<th>Open questions</th>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td></td>
<td>Freedom and spontaneity of the answers</td>
<td>Time-consuming</td>
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<td></td>
<td>Opportunity to probe</td>
<td>In interviews: costly of interviewer time</td>
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<td></td>
<td>Useful for testing hypotheses about ideas or awareness</td>
<td>Coding: very costly and slow to process, and may be unreliable</td>
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<td></td>
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<td>Demand more effort from respondents</td>
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<table>
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<tr>
<th>Closed Questions</th>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td></td>
<td>Require little time</td>
<td>Loss of spontaneous responses</td>
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<tr>
<td></td>
<td>No extended writing</td>
<td>Bias in answer categories</td>
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<td></td>
<td>Low cost</td>
<td>Sometimes too crude</td>
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<td></td>
<td>Easy to process</td>
<td>May irritate respondents</td>
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<td></td>
<td>Make group comparisons easy</td>
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<td></td>
<td>Useful for testing specific hypotheses</td>
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<td></td>
<td>Less interviewer training</td>
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Table 3.1 The advantages and disadvantages of the open/closed questions (Oppenheim 1992: 115)
However, unlike participating in interviews, filling in a questionnaire seems to be a less taxing and time-consuming task for participants. This has led some specialists to regard the data elicited through questionnaires as relatively superficial. First of all, questionnaires tend to consist of gap-filling or box-ticking; consequently, a potential risk of using them is that the participants may complete the questions without giving them serious consideration. Secondly, since questionnaires are used for the purpose of saving time and tend to consist of gap-filling or box-ticking tasks, questionnaires may not able to fully capture and reflect the participants’ feeling and opinions (Gillham 2000). Hence, in the present study, the gap between observing the notes and verifying the observation will be bridged by means of retrospective interviews, which involve asking each participant to confirm the meaning of every single sign in their notes after completing the interpreting task.

Interviews have been commonly used as a method of data collection in interpreting related studies (Gile 1998). However, on the whole there has been relatively little research on interpreters’ notes using interviews as a data collection method. To the best of my knowledge, Seleskovitch (1975) is one of a few scholars who has interview subjects after the experimental component of her research. In her study, for instance, two subjects noted down the word ‘wheat’ (see Figure 3.1) but, when discussing that decision with them during the interviews, it became apparent that the same word could have totally different meaning for the two subjects. The relevant passage of the source speech of Seleskovitch’s (ibid.: 126) experiment is as follows:

In fact, I think I should remind you that the whole business of the international trade in temperate foods, is a problem for developed countries; that is to say, it’s become a problem between North America and the Six, between the Six and the Commonwealth, between the Commonwealth and North America, and so on and so forth.

And the kind of thing we have in mind when we mention temperate foodstuffs is, for example, the chicken war between the U.S. and the Six, and the tariff on wheat, and so on and so forth. Now this is not of much importance to the great majority of the less developed countries.

The notes provided by one of the subjects in Seleskovitch’s research (ibid.) for this passage are shown in Figure 3.1:
As Seleskovitch explains, one of the participants in her study said he only noted this word because “a distraction lasting a fraction of a second prevented him from analysing the message while taking notes … However, in a flash, a line of logic runs through his mind: he must attach meaning to this isolated word in his notes” (ibid.: 127). On the other hand, the other subject said that, because he was familiar with the context, noting the word ‘wheat’ alone “is enough to enable him to recall what was said and to interpret” (ibid.: 127). Therefore, in this case, interviewing the subjects revealed additional information that is not shown in the notes.

The studies mentioned above indicate that using interview as a data collection method may provide additional information for the researcher to create a robust experimental design. Gillham (2000) points out that if the researcher expects an elaborated in-depth response, the semi-structured format of interview is the optimal tool for collecting the relevant data. According to Kvale (1996: 27), a semi-structured interview is:

[C]onducted according to an interview guide that focuses on certain themes and that may include suggested questions. The interview is usually transcribed, and the written text together with the tape recording are the material for the subsequent interpretation of meaning.

However, a foreseeable problem that this research may encounter is the fact that “interpreting is a process” (Schäffner 2004: 39). As a matter of fact, “it is possible to
observe and record the note-taking part of the process and to monitor interpreters listening and providing their oral rendition, but the mental interpretation process itself is invisible” (Gile 1994: 41). In order to deal with the invisible nature of the process (which cannot be tackled by using questionnaires), in this research the participants will be asked to recall the meaning of each symbol in their notes individually. Indirectly, they should elicit information relating to research question 2 and 3, i.e. what NARRATIVE STRUCTURES and VISUAL STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting. Although their narration is subjective, the data is still informative for clarifying the meaning-making processes that the participants employ when reading signs in notes. The retrospective process will be conducted in their native Chinese language. This decision has been made on the assumption that most participants will be able to express their personal and individual perceptions more accurately if they are allowed to express themselves in their own linguistic terms.

To conclude this section, I will deliver a brief overview of the present study in terms of the stages involved in the process of data collection, according to Pöchhacker (2004):

- **Record & Watch:**
  
  In order to observe subjects’ note-reading processes, their notes and renditions of the source speech in the target language were collected as documentary material. The notes will be used for the purpose of investigating which signs subjects use and how they arrange the placement of signs on the notepad. Furthermore, by comparing the notes with the target speech, I expect to be able to observe how the subjects make use of the signs as meaning-making resources.

- **Ask:**
  
  It is not uncommon that a sign in notes can be used to represent different meanings. For instance, an arrow is commonly found in in interpreters’ notes. In some cases, it can be used to represent the meaning of ‘increase’ or ‘decrease’. It can also represent other meanings that can only be understood by interpreters themselves. Hence, one of the important steps in this experimental study is to ask the subjects to explain the meaning of individual signs in notes after they have completed the interpreting task. Asking the subjects to interpret retrospectively the meaning of each symbol they
have previously written down may help the researcher to gain a better understanding of the role that meaning-making processes play in interpreter-mediated encounters.

3.3 Data collection methods

This section outlines the methodological apparatus underpinning this study. It reports on the design of the experimental component, including the section of research participants; the rationale for the choice of the speech used as a basis for the experiment; and general issues pertaining to confidentiality, ethics, and consent. In addition, I will also account for the approach to data collection that I employed in this study.

3.3.1 Piloting

A pilot study was conducted to test the robustness of the methodology used in this research. The pilot study involved interpreting a speech which was divided into four meaning segments (the length of each meaning segment being approximately 5 to 6 minutes). The speech used in the experiment will be described in detail later. An outline and glossary of the speech were given to the participants one week before the pilot experiment. The participants were four holders of a master’s degree in translation and interpreting studies from different universities in UK and Taiwan (two in UK24 and two in Taiwan25). All participants26 had Chinese as their A language and English as their B language. Regarding their professional experience as conference interpreters, they ranged between two years and eight years of experience.

During the pilot experiment, the researcher paused the speech at the predetermined point; the duration of each interpreting section ranged between four and five minutes. However, the first three participants (PS-A, PS-B, PS-C)27 all suggested that if the duration of each interpreting unit could be reduced to less than three minutes, it would help to enhance the

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24 University of Bath and Newcastle University.
25 Chang Jung Christian University and The National Kaohsiung First University of Science and Technology.
26 Although they were trained by different educational institutions, all their lecturers (who held Master’s degrees in Translation and Interpreting Studies themselves) were all graduates from the Monterey Institute of International Studies.
27 PS-A= Pilot subject A, PS-B= Pilot subject B, PS-C= Pilot subject C
accuracy of their interpreting output. According to participant PS-C, who had eight years of experience working as a conference interpreter, the mechanics of the experiment did not reflect actual professional practices in Taiwan. She also mentioned that, in authentic political assignments, the interpreter would be usually provided with a script of the speech for preparation purposes before the speech. Should the script not be provided, the duration of the interpreting segments that the interpreter would be expected to work with should not exceed three minutes. Since not only PS-C, but also PS-A and PS-B, had expressed concerns about the duration of the interpreting segments, the fourth participant was asked to work with approximately 3-minute segments. As a result, participant PS-D\(^{28}\) reported that he felt the duration of each interpreting unit was moderate.

After the pilot experiment, the researcher found that the participants not only wrote on the notepad while listening to the speech; they also drew certain elements (such as circling, underlining and symbols) during the note-reading stage. Consequently, only a video-recording of the note-taking process could reveal which elements were written during the note-taking process or the interpreting phase.

It was also found in the video recording that the participants tended to use their pen or finger to point at the various elements written on the notepad while interpreting. In other words, the video recording could provide information not only on the note-taking process, but also on the participants’ reading path. A similar reading path could be found when the participants were asked to review their note-reading process. When they pointed at their notes and explained the meaning of each element, they also tended to draw on the notepad as they were talking. Hence, after the experiment had been conducted with the first three participants, the researcher decided to provide participant PS-D with a pen of a different colour to use while he reported on his note-reading process.

In addition, the angle from which participants were being recorded was another problem found in the pilot experiment. The reason for choosing to set the tripod on the left hand side, behind the participant, was that, if the video camera was set in front of the participants, it may directly put pressure on them when taking the notes. In addition, if the video camera was set on the right hand side behind the participants, their note-taking process might be obstructed by the right hand. Originally, it seemed that the left-hand perspective from

\(^{28}\) PS-D= Pilot subject D
behind the participants was the only suitable place for setting the camera. However, it was difficult to avoid some minor obstructions from the participants’ left hand or hair when they lowered the head (see Figure 3.2). This slight interference in the recording was viewed as something that is intrinsic to live data collection.

![Figure 3.2. Minor obstructions from the participants’ left hand or hair](image)

After each participant finished the interpreting task, the researcher sat next to him/her and asked him/her to look back over and explain their notes from the very beginning. During this exercise, the participants were asked to confirm the meaning of each individual sign. When the researcher considers that the sign is a prescriptive one (see subsection 3.3.4.2), i.e. taught by the lecturer, the participant only had to confirm the meaning. If the sign had been created and used only by a specific participant, (s)he would be asked to explain the rationale for using it. Although the participants occasionally claimed that they had forgotten or were not sure the meaning of some symbols, they could still explain the meaning of most symbols or words in their notes. Hence, the researcher only had to intervene by asking questions on the meaning of certain symbols that the participants had not clearly explained. The questions used to probe participants in the pilot study included the following:

- Could you explain the individual meaning of this arrow?
- What does this arrow/line/symbol mean?
- Is there any technique you used for note-taking that was created/developed by
yourself?

- Is there any technique you used for note-taking that you learnt during your training period?

To summarise, the pilot experiment (i.e. the combination of the interpreting task and the retrospective interview) with each participant took approximately 90 minutes. Following the completion of the pilot experiment, there appeared to be a need to introduce a number of changes in the ways the final study would be carried out, as explained in the remainder of this section.

First of all, the duration of each interpreting unit had to be reduced to less than three minutes. Participants PS-A, PS-B and PS-C all suggested that, since the source speech was politics-related and contained dense information, the interpreters working with a similar text in an authentic setting would have normally got a printed copy of the speech beforehand. In combination with the excessive duration of the interpreting segments originally set by the researcher, the lack of a written script could lead, in the participant’s opinion, to a loss of information and the adoption of non-standard interpreting strategies – e.g. summarising the speech, instead of trying to convey a certain degree of detail. Providing participants with a written script before the experiment may have led some of them to memorise the content and rely heavily on their memory. Consequently, the researcher decided not to provide the script in advance. Instead, the duration of the interpreting unit was reduced to less than three minutes to ensure that participants could produce detailed notes and an accurate interpreting output. In addition, PS-C claimed that in an authentic and formal political speech situation, this speech genre is more suitable for simultaneous interpreting than consecutive interpreting. The researcher was aware that this is a written-to-be-spoken text and, even though it is not perfectly suitable for consecutive interpreting, the text itself still fit the experimental variables.

Secondly, a different coloured pen would be provided during the retrospective interview stage, while participants explained the meaning of their notes. During this experimental study, there are three stages where the participants could potentially write down something on their notepad: (1) while they were listening to the source speech, (2) before and during their interpretation, and (3) while they were outlining the rationale for the use of certain signs. Ideally, the researcher should provide three different coloured pens to the participants
in order to clarify which components of the notes were written at each stage. However, this may interrupt or interfere with the participants’ thought processes as they moved from one stage to the next. Hence, instead of asking the participants to change their pen, the researcher decided to rely on the video recordings to establish whether certain components of the notes were taken while the participants were listening to or while interpreting the source speech. The participants would only be asked to use a pen with a different colour during the retrospective interview stage.

To maximise the consistency of the data set using in this study, the data elicited from the first three participants’ notes (PS-A, PS-B, and PS-C) – i.e. those who worked with longer interpreting segments – were excluded from the final data set, and hence from the analysis conducted in chapters four and five. Only the recordings involving participant PS-D’s notes, interpretation and retrospective interview remained as part of the final data set.

3.3.2 Organization of the experimental component

This subsection describes how the experimental component of this study was organized. The experiment consists of a preparatory briefing before the actual experiment, the two stages of the experiment, and the processing of data after the experiment.

**Pre-fieldwork preparation: ethical issues**

Ethical consent is required by the University of Manchester when research involves human interaction. The data collection process in this study, both in terms of note collections and recording of the participants’ interpretations, qualified as instances of human interaction, so ethical consent had to be secured. In February 2012, months prior to the beginning fieldwork, the researcher submitted a comprehensive application to the Research Ethics Committee for evaluation, following the procedures established by the University of Manchester. The applications involve filling the research ethics declaration form, a participant information sheet, and a participant consent form (see Appendix one).
The ethics declaration form was submitted together with the participants’ information sheet and consent form, which were produced in English. In order to ensure privacy and confidentiality, the researcher produced a participant information sheet for those participants taking part in the video and audio-recordings of the note-taking and retrospective interview stages. The participant information sheet described the study and offered participants the opportunity to ask any questions about the research in advance. The consent form for participants taking part in student research projects was signed by participants before the experiment. Participants were assured that no personal information that could identify them as individuals would be recorded or disclosed by the researcher, and therefore that privacy and confidentiality would be guaranteed.

**Before the experiment**

The text used as part of the experimental component of this study is an authentic, video-recorded public speech that Ing-wen Tsai, a well-known Taiwanese politician, former Democratic Progressive Party (DPP) chair and presidential candidate in 2012, delivered at the 2011 Annual General Meeting of the American Chamber of Commerce in Taipei. The source text is a 20-minute, 2280-word speech in English on the topic of the future challenges and opportunities facing Taiwan. The whole speech is provided below:

[Segment 1]

[Thank you very much for that welcome, despite the fact that I am not the President yet. It’s good to be here today and get invited. And as I said before I came into the room that I really cannot afford not coming here because this is so important to face members of AMCHAM here in Taipei. So, good afternoon. You have to be louder. I mean, for DPP, we expect the loud response from our audiences. Good Afternoon! Yes, good. I wouldn’t say something like “ge wei xiang qin, ge wei xi dwa”, but ‘ladies and gentlemen’, especially] President Andrea Wu, ladies and gentlemen, it is my great pleasure to be [here today] invited here by the American Chamber of Commerce to share my thoughts with you on the future challenges and opportunities facing Taiwan and Taiwan’s bilateral relations with the US. I see many friends and familiar faces, friends and people I have met over the last two decades either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician. It is my honour to be speaking to you today as the presidential candidate representing the Democratic Progressive Party, [that is] the DPP.

[Segment 2]
The friendship between Taiwan and the US dates back six decades. Over the sixty years, Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners. The US government, as well as US businesses, have become our partners and our strongest support in managing globalization strategically. In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes. Many of them are experiencing the pain of economic re-balancing and structural adjustment. The global financial and economic orders are also yet to be fully re-constructed. We are facing unprecedented challenges. Despite the challenges, the Asia Pacific region, especially Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn. We can foresee the region becoming the engine of global economic revitalization and the centre of future development. In recent months, we are pleased to note that the US has pledged to increase its engagement with the region and expressed its determination to have more active presence in Asia. With the long-time tradition of the friendship and close business cooperation shared between Taiwan and the US, Taiwan will remain as an essential and crucial partner of the US in the region. We look forward to exploring ways of furthering our relationship and to developing a new strategic partnership. Taiwan will hold its presidential election in January 2012. President Ma, like myself, has stressed the importance of the Taiwan-US relationship, and in particular, the balance in the trilateral relationship between Taiwan, US, and China; I must point out that since 2008, under the Ma administration, the speed of the development between Taiwan and China have far out-paced the relationship between Taiwan and the US. [So] restoring the balance in the trilateral relationship would be one of my key tasks in managing our external relations when I am elected president.

[Segment 3]

I, like the majority of the Taiwanese people, cherish and value the close and stable US-Taiwan relationship we have always shared. In the area of regional security, since the 1950s, the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait. This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights. With this, I wish to thank the continuing support from members of the AMCHAM for arms sales to Taiwan. In the area of Taiwan-US economic relations, our partnership has evolved from the early days of US economic assistance in the 1950s, to the US becoming Taiwan’s largest trading partner and destination for our exported goods in the 1980s. Back then, almost half of our total export value was destined for the US. Today, the US remains our third largest trading partner. In 2010, trade between the two sides was valued at 56.8 billion US dollars. The economic importance of US to Taiwan actually far exceeds what the trade figures suggest. The importance of the Taiwan-US business partnership can be illustrated by Taiwan’s role as the world’s leading IT supplier. Taiwan and US companies, along with Taiwan businesses in China, have successfully and firmly established an irreplaceable strategic business alliance in the IT industry, by “connecting the vast marketplaces and digital powerhouses of the US with the enormous manufacturing centres of China”, as described in a 2005 Business Week article and which remains just as true today.
I wish to use the opportunity today to point out that this is the best timing for furthering and developing a new strategic partnership between Taiwan and the US. The financial crises, coupled with the sovereign debt crisis, have led governments to realize that traditional monetary and financial policies are no longer sufficient tools in managing growing unemployment and re-building the economy. The only possible solution left for global economic recovery is to find new engines for economic growth and development. Global trends are beginning to show that harnessing [in] Asia’s growth and dynamism and broadening cooperation with the region would be the key to leading the global economy forward. The US government has stressed the importance of the region and recent statements and actions by President Obama and Secretary Hilary Clinton have reflected the move in this direction. This is also a time when Taiwan is seeking to re-position itself in light of global economic and political re-structuring. At this critical juncture, I wish to call on establishing a new strategic partnership between Taiwan and the US for the following reasons: One, both Taiwan and the US share common interest in, and responsibility for regional security and stability. Particularly with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region. Second, for decades, Taiwan and the US have both been firm believers in, and committed to the principles of free trade. Taiwan has always kept pace with the US in forming its trading rules and regulations. This common basis allows greater room for cooperation when working towards establishing a trading order for the region. Third, Taiwan and US’s tradition of business partnership will be mutually beneficial in exploring new and emerging markets, particularly for markets in this region. This has been demonstrated in the alliance for the IT-industry, with future opportunities including development of new and emerging industries, green industries, biotechnology, alternative energy, and so forth. There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, particularly China, Southeast Asia, India, and even Central and South America. By taking advantage of the business alliance between Taiwan and US, we can be key contributors in the global economic recovery.

The future of the new strategic partnership would need efforts from both sides, particularly [efforts in] the following areas: First of all, a peaceful and stable cross-strait relationship is key to continuing Taiwan and US relations. When I am elected, [of course as the] president [of this country] next year, I will place great effort in maintaining peace and stability in the Taiwan Strait. This is my responsibility towards the 23 million people in Taiwan, and our responsibility as a member of the Asia Pacific region. All indicators show that the presidential election will be a very close race. There is a real possibility that I will win. (Audiences clapping) [Yes, this is what I am waiting for.] We understand that there are some people [who maybe] are worried about our victory. I will do what we can, without compromising Taiwan’s fundamental interests, to ease tensions and foster an atmosphere where dialogue and interaction [after the election] is possible. We are aware that cross-
strait relations are a very important public policy matter, but in this election, there are other issues that are equally, if not more, important. These are issues relating to wealth gap, jobs, and the economy. Out of Taiwan’s long-term interest, my approach on cross-strait policy, during and after the election, is to build consensus, instead of driving a partisan wedge between different groups in Taiwan. In other words, we will not use cross-strait relations as a campaign tool. Our partisan differences in this election will be highlighted more in domestic policies. Although there are constraints on our interactions with Chinese interlocutors during the election, we will be proactive in seeking dialogue and stabilizing the relationship immediately following the election, and throughout the transition period.

[Segment 6]

Secondly, in the area of Taiwan and US trade relations, I will pursue free trade policies and objectives, which I believe are the common goals shared by our two sides. I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010. By contrast, over the last three years, Taiwan-US trade relations remained at a standstill. Many of you would know that Taiwan’s keenest competitor in global trade is the Republic of Korea. It brings me much worry to see the signing and coming into effect of the FTAs between the EU and the Republic of Korea as well as the FTA between the US and the Republic of Korea. At the same time, there is little progress in the signing of FTAs between Taiwan and the US or any other major trading partners. I fully agree with AMCHAM’s continuing call on Taiwan concerning the importance of developing balanced trade relations. In this regard, there has not been much progress in the trade discussion[s] between Taiwan and the US. The DPP’s position has been that the US should take the lead in creating an APEC-based free trade agreement for the region, which would, of course, include Taiwan. I am, therefore, pleased to note that the US is spearheading the Trans Pacific Partnership (that is, the “TPP”) amongst APEC economies. When I visited the US last September, the issue of the TPP was also raised in some meetings. The TPP has high standards for entry and we must have the determination to prepare ourselves to join. Despite the Ma government’s recent announcement of the intention to join the [DPP], TPP, [Well, I don’t really mind that if it’s DPP. Alright, let me do it again. Despite the Ma government’s recent announcement of the intention to join the TPP] we have yet to see the necessary determination and preparation made to facilitate such an effort.

[Segment 7]

In the “Ten Year Policy Platform” of the DPP, we recognized the immediate need to carry-out structural adjustment to the economy. We have a much more government involvememt approach in helping the R&D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating the emergence of new industries, which include among others R&D as an industry of its own, green energy, long-term care [services] and medical care [services]. The [intention] is to improve our
international competitiveness, and to create quality job opportunities. These policies will not only breathe new life into the Taiwan economy, but also will better prepare Taiwan for further liberalization of its markets in light of globalization. It is my belief that when DPP returns to the government, we will, in the shortest time possible, prepare Taiwan for joining the TPP. At the same time, we remain hopeful that the US and members of AMCHAM will provide us with the full support in working towards the common goal of a Taiwan-US FTA and membership in the TPP. In addition, I should strengthen and promote Taiwan and US exchanges. We should be enhancing the function and operation of TIFA and, on this basis, establish mechanisms to facilitate regular visits between high-level officials; not only would this be conducive to resolving outstanding issues, but it would contribute to furthering communication and understanding between the two sides for the way forward. It is, therefore, important to take action as soon as possible to resolve some of the outstanding disputes in our trade relationship, so that there will be opportunities to build on TIFA and to move forward from there.

[Segment 8]

Once elected, I will proactively manage the political complications arising from certain existing bilateral trade issues, so as to minimize the impact on our trade relationship with the US. They must be settled with the best long-term interests of the Taiwanese people in mind, which involves more open and closer trade relations with the US. We will take steps to facilitate the mobility of international professionals and senior managerial personnel in and out of Taiwan, which we understand is an area that has concerned AMCHAM. Taiwan has a need for quality talent but we must first remove current administrative and legal constraints. Under the Ma government, the number of foreign labourers increased by 16 percent compared to that of 2007. However, by contrast, the number of international professionals decreased by 8 percent during the same period. This trend is taking us in the opposite direction of upgrading the quality of our human capital. Therefore, I propose introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals. When the DPP was in the government last time, I said this as a method of conclusion, of course, Taiwan and the US enjoyed direct communication with each other, working together in resolving trade issues and developing mutual understanding. I wish to take this opportunity to re-assure you that when the DPP is in the government again, the team will place quality communication as its highest priority. At the same time, I am confident that communications between the DPP government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be reduced drastically. I mean drastically. I am confident that I’m going to win the presidential election next year. I am looking forward to a prosperous future for Taiwan and US relations, particularly in establishing a new strategic partnership. I am hopeful that we will be moving towards furthering and deepening our relationship, creating greater mutual benefits
between Taiwan and the US and creating greater benefits for the Asia Pacific region. Thank you, and I wish you all good health and prosperity. Thank you.  

Although the speech was not delivered in the speaker’s native language, this should not affect the audience reception as the speaker is widely perceived to be highly proficient in English. Also, interpreting speeches given by people who are not native speakers of the source language is something that all interpreters are used to. The task was interpreted consecutively into Chinese by nine professional conference interpreters with Chinese as their native language (A-language) and English as their foreign language (B-language). Details regarding the selection of subjects and experimental texts will be provided in subsections 3.3.3 and 3.3.4, respectively.

This study sought to minimise the methodological criticisms that may be derived from the fact that the interpreted data would be obtained in a laboratory situation (where the subject could not actually see the speaker and where the subject would not have a sense of reality in terms of participating in a real conference). Consequently, this study opted to use a recording of the speech being delivered in an authentic setting, rather than getting a different speaker to play the role of Ing-wen Tsai and re-recording the delivery of her speech in a simulated context. The video recording of the speech is publicly available on Youtube. Although Gile (1998) criticized that collecting the data in a lab situation may undermine the validity of the data sample, it is also worth noting that lab-based experiments allow for a tight control of other variables. In the present experiment, the participants would not allow to re-start if they made any mistake during the interpreting stage.

Following initial contact with the participants (see subsection 3.3.3), they were given a terminology list and a brief outline of the speech to be interpreted (see Appendix two) one week before the experiment was carried out. Through these materials, the participants would be able to anticipate the overall topic as well as the issues and specialised terms that would probably feature prominently in the speech. Although this decision would potentially allow

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29 Source: Department of Foreign Affairs, Democratic Progressive Party, http://dpptaiwan.blogspot.com/2011/11/tsai-ing-wens-remarks-at-2011-amcham.html [last accessed 11 July 2014]. The words in bold and between square brackets represent small corrections with regard to the original transcript that reflect the actual speech as delivered by the speaker.

30 According to The Diplomat online magazine, “while some would say she comes across as “bookish,” she [Ing-wen Tsai] has undeniable charm and is Western educated, with good English skills.” http://thediplomat.com/2011/04/tsai-wins-dpp-poll-in-taiwan/ [last accessed 11 July 2014].

31 https://www.youtube.com/watch?v=pRFZP3ta5I [last accessed 01 September 2014]
some participants to develop specific symbols prior to the experiment, this possibility should be viewed as part of the normal preparation process that most interpreters go through prior to an interpreting assignment.

On the day of the experiment, before the first stage (i.e. note-taking stage) was carried out, participants were briefed on the overarching goal of the experiment. Participants were informed that they were about to take part in a study aiming to establish how the notes assist their interpreting process. The specific aim of the experiment, i.e. how they make use of certain aspects of their notes through the retrieval of information encoded either through signs or visual structures, was not be revealed at this stage to avoid distorting their note-taking habits. The participants were also being informed that their notes would be collected by the researcher after the first stage of the experiment.

In addition, the researcher followed the procedures set out by the University of Manchester’s Ethics Committee, which requires that participants sign the consent form before conducting the experiment. The briefing, which, overall, did not exceed 10 minutes, also covered ethical issues, such as confidentiality, data protection and the participants’ right to withdraw at any time.

**The first stage of the experiment: note-taking**

At the beginning of the main experimental phase, each participant in this study was asked to conduct one consecutive interpreting task from English into Chinese. The interpreting task involved listening to a speech in the original language, taking notes and providing an interpretation of the original speech into the target language. During the note-taking stage, participants were required to take notes and the researcher paused the speech video at predetermined points (approx. 3 minutes each). The length of each interpreting fragment was decided on the basis of the feedback provided by participants in the pilot test. On the whole, the speech consists of eight fragments. Every time the speech was paused, participants were given 3 minutes to interpret the relevant segment before the speech was resumed. The duration of the interpreting stage was 40 minutes. Both the note-taking and interpreting processes were video-taped. Finally, the participants’ notepads were collected by the researcher at the end of the experiment.
The second stage of the experiment: retrospection

After a short break, the participants were required to complete a follow-up retrospective interview\(^\text{32}\), which took around 40 minutes. During this stage, the participants completed the retrospective process individually. They were asked to re-interpret their notes from the very beginning. Unlike the previous stage, where participants only had to deliver an interpreted version of the original speech, they now had to confirm the meaning of those symbols that they had not been able to explain in the first place. That is to say, the participants re-interpreted each unit of meaning first, and then confirmed the meaning of each entity. Generally speaking, the researcher only intervened when the meaning of the sign required further confirmation. For instance, if the participant used a sign created by herself, she would be asked to explain the motivation behind the use of that specific sign. In addition, the participants would also be asked to clarify the meaning of the recurrent sign without fixed definition, such as vectors. In this stage, I am not focusing on recall, but in order to try to understand some of the graphological representations, the interview data helps me to see what was going through their mind at the time. At the end of the experiment, the participants were informed orally of the precise aim of the experiment.

After the experiment

After the experiment, the researcher first worked with the video recordings of the different stages (note-taking process, interpreting output and retrospective contents), then transcribed those extracts that have been selected to illustrate the analysis. The transcript of the interpreting output was compared with the notes in order to clarify the contribution of notes to meaning-making in the context of consecutive interpreting.

All the audio recordings were saved as .mpeg and .mp3 files in a secure and encrypted folder on the researcher’s computer and they were not made available to any other person except the project supervisor. The transcripts of each recording were also stored in electronic format as .doc files. Confidentiality and anonymity were preserved by using codes to

\(^{32}\) Once the experiment was conducted, word count restrictions did not allow for the discussion of these interviews in the present analysis. This part of my data set will serve as a basis for future research.
identify the participants in the transcripts. Instead of being referred to by the real name, participants will be called identified as Participant A, B, C…etc. in this thesis. It is also worth noting that the identity of participants cannot be inferred from the textual data, the transcriptions or the analysis.

3.3.3 Field work: subject and venue

Although Chinese is commonly used in Taiwan, Hong Kong and China, there are linguistic differences between the varieties used in each of these countries in terms of the choice of wording and the writing style (Cheng 1985). The so-called ‘traditional Chinese’ is used in Taiwan, whilst ‘simplified Chinese’ is used in China. Because these two countries normally use different characters in writing, interpreters may have been trained in different traditions of note-taking conventions. For the purpose of consistency in the use of language, the study recruited interpreters in Taiwan only.

Nine subjects were recruited from interpreters’ online forums or professional associations (e.g. interpreting services providers). The subjects are interpreters who work as conference interpreters in a professional capacity, either on a part-time or full-time basis, whether they are self-employed or work in-house, and fulfil the following criteria:

- they have formal training in interpreting (e.g. a Master’s degree in Translation and Interpreting Studies or in Conference Interpreting);

- they had worked professionally as consecutive conference interpreters for more than 60 hours over the past 12 months.

All participants were professional interpreters working with the language combination Chinese-English, with English and Chinese as their B and A languages, respectively. Their professional experience ranged from two to eighteen years. Four of them had received their training at Taiwan33, three at the United States34 and two in the United Kingdom35.

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33 National Taiwan Normal University and Wenzao Ursuline University of Languages
34 Monterey Institute of International Studies
35 University of Bath and University of Leeds
The experimental component had two successive stages: note-taking and interpreting, on the one hand, and retrospective interview, on the other. Participants took one hour and thirty minutes to go through the two stages of the experiment, which took place in conference rooms equipped with facilities to play the speech video and record the interpreters’ performance. The video of the speech was projected on to a screen and the audio was broadcasted in stereo. Given that the participants lived in different Taiwanese cities, the experimental sessions involving participants from Southern Taiwan were conducted in the conference room of Chang Jung Christian University, Tainan (see Figure 3.3). On the other hand, the sessions involving participants from Northern Taiwan were conducted in a business centre room rented by the researcher in Taipei (see Figure 3.4). Although the video and recording equipment were similar to those in Tainan conference room, the conference room in Taipei was significantly smaller.

Figure 3.3 Conference room provided by Chang Jung Christian University, Tainan.
For the purpose of this study, the process of note-taking was recorded using one digital camera. This was determined by the resources available to the researcher, the purpose of the research itself and the level of detail that it would be required to capture. During the experiment, the video-camera was set on the left hand side behind the participant, within reasonable distance from the participants, with a view to capturing their note-taking as the speech unfolded, monitoring their reading of the notes and recording the target language version without being too intrusive. The angled camera was directed at the interpreter’s right hand, with a particular focus on their hand writing process (see Figure 3.4), as none of the participants was left-handed. By placing the camera behind the subjects, the participants’ faces were not revealed in the video, as they were visible in profile only.

On the other hand, the digital sound recording equipment was placed on the desk near the participant; the purpose of having more than one audio source was to minimise the risk that the camera may fail to deliver audio data of sufficiently high quality – as poor audio data would have prevented the researcher from transcribing the interpreted speech.

At the end of experiment, the researcher elicited the participants’ views on the position of the equipment used in this experimental study. They all declared that, as professional
interpreters, they are used to facing recording equipment. They also confirmed that the camera did not interfere with their performance, as it was placed behind them.

3.3.4 Data Source: notes

In order to investigate the interpreters’ note-taking/reading patterns, the participants were required to take notes while listening to the speech chosen by the researcher. The reason for this choice of text is that the structure and the content of the speech provide the researcher with multiple opportunities to explore in depth how information is expressed through different note-taking conventions and resources. The length and duration of the original speech was used in the experiment without any editing for two reasons: (i) the experiment drew on the original speech video file and (ii) the original structure and contents of the text illustrated a range of experimental variables that will be explored in more detail in the remainder of this section.

The research questions driving the experimental study can be formulated as follows:

1. What NARRATIVE STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

2. What VISUAL STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

In order to address the afore-mentioned questions, the experimental data should provide a better understanding of how interpreters decode and retrieve information from signs in notes. The text of the speech contains opportunities where interpreters could potentially be expected use specific note-taking conventions and/or semiotics resources. These include:

- Information that could be presented by means of SUB-MODE[vectors];

As regards the first variable, this study seeks to gain a better understanding of the role that NARRATIVE STRUCTURES play in notes by examining the function of vectors, i.e. how do vectors connect information in notes and help to construct a relationship between different entities.
• Information that could be encoded in the form of SUB-MODE [geometrical shapes];

As regards the second variable, this study seeks to test the NARRATIVE STRUCTURES in notes by examining the function of geometrical shapes, i.e. how the meaning of geometrical shapes in notes is recovered in consecutive interpreting.

• Information that could be presented by means of SUB-MODE [composition];

During the note-reading process, the placement of signs may have an influence on how interpreters perceive the information and then influence their interpreting output. This type of structure which may affect note-reading processes is called the VISUAL STRUCTURES of notes. Visual structures can be discussed from two perspectives: SUB-MODE [composition] and SUB-MODE [salience].

In connection with this third variable, this study seeks to test SUB-MODE [composition] in terms of whether the structure of the source text will be reflected in the target text via the deployment of signs in notes (i.e. a tree structure, a vertical list and a margin). In addition, this study also seeks to test how the placement of signs then affects the interpreting output when interpreters read their notes.

• Information that could be represented in the form of SUB-MODE [salience].

Under this fourth variable, this study seeks to test SUB-MODE [salience] in notes by setting emphatic information that can lead the interpreter to redeploy the oral information as visual meaning-making resources. It is assumed that visual strategies, such as underlining/circling a particular sign or writing a bigger sign, can smooth the note-reading comprehension procedure especially in information which the speaker wants to emphasize.

The following subsections provide a detailed analysis of the speech chosen for this experiment, placing particular emphasis on the range of signs that could be used to represent in their notes a number of aspects of information contained in the speech. The fragments of the speech included below for the purposes of illustration are provided in the original English language version.
3.3.4.1 Variable 1: Vectors

As mentioned in the previous chapter, vectors have semiotic potential and can be used by interpreters under different circumstances to represent a range of expressions. The speech used as a basis for this experiment includes 37 instances of terms and expressions that participants may choose to note through the use of vectors. These specific instances are classified below under four different headings or scenarios. In the context of this study, the use (or not) of vectors in each of these instances is monitored to gauge the extent to which participants adhere to note-taking conventions that are widely taught in most interpreter-training centres.

The vector may be used when they try to represent (i) the timeline of an event, (ii) the meaning of growth and decline, (iii) a movement or consequence, and (iv) repeated information. Each of these instances is reproduced in bullet point form under the relevant headings and labelled with an individual code with the following format: VX – where V stands for ‘vector’ and X is a numerical value from 1 to 31 which identifies the number of the instance. The phrases that lend themselves to being noted as a vector have been highlighted in bold.

(i) The timeline of an event

A backward vector or a forward vector is one of the options that can be used for indicating verbal tenses (Jones 2002). The experimental text includes 11 time expressions that could lead the participants to use SUB-MODE [vectors] to indicate a certain period of time in the past or in the future.

- Friends and people I have met over the last two decades [V1] either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician.
- The friendship between Taiwan and the US dates back six decades [V2]. Over the sixty years [V3], Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners.
- In recent months [V4], we are pleased to note that the US has pledged to increase its engagement with the region and expressed its determination to have more active presence in Asia.
President Ma, like myself, has stressed the importance of the Taiwan-US relationship, and in particular, the balance in the trilateral relationship between Taiwan, US, and China; I must point out that since 2008 [V5], under the Ma administration, the speed of the development between Taiwan and China have far out-paced the relationship between Taiwan and the US.

- Second, for decades [V6], Taiwan and the US have both been firm believers in, and committed to the principles of free trade.

- In the area of regional security, since the 1950s [V7], the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait.

- I wish to point out that the Ma administration, over the past three years [V8], has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010. By contrast, over the last three years [V9], Taiwan-US trade relations remained at a standstill.

- When I visited the US last September [V10], the issue of the TPP was also raised in some meetings.

- I am confident that I’m going to win the presidential election next year [V11].

(ii) Meaning of growth and decline

The use of an upward arrow has been commonly suggested by note-taking training books to note words such as ‘rise’, ‘increase’, ‘grow’, ‘climb’ etc; an downward arrow will mean the opposite (Jones 2002, Gillies 2005). The experimental text includes 9 expressions that could lead the participants to use SUB-MODE [vectors] to indicate growth and decline.

- In recent months, we are pleased to note that the US has pledged to increase [V12] its engagement with the region and expressed its determination to have more active presence in Asia.

- The only possible solution left for global economic recovery is to find new engines for economic growth [V13] and development.

- Global trends are beginning to show that harnessing Asia’s growth [V14] and dynamism and broadening cooperation with the region would be the key to leading the global economy forward.

- Particularly with the rise [V15] of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region.
• We should be **enhancing** \(^{36}\) [V16] the function and operation of TIFA and, on this basis, establish mechanisms to facilitate regular visits between high-level officials; not only would this be conducive to resolving outstanding issues, but it would contribute to furthering communication and understanding between the two sides for the way forward.

• Once elected, I will proactively manage the political complications arising from certain existing bilateral trade issues, so as to **minimize** [V17] the impact on our trade relationship with the US.

• Under the Ma government, the number of foreign laborers **increased** [V18] by 16 percent compared to that of 2007. However, by contrast, the number of international professionals **decreased** [V19] by 8 percent during the same period.

• At the same time, I am confident that communications between the DPP government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be **reduced** [V20] drastically.

(iii) A movement or consequence

Some interpreters may choose to use a directional vector to signify “simple movement” (Jones 2002: 56). For instance, ‘US car exports to Japan’ can be noted as ‘US cars &rightarrow; J.’. The directional vector in this case is used to represent the movement of ‘export’. In addition, Gillies (2005) also suggests that, when there are terms, such as ‘causes’ or ‘as a result’, a vector with head-direction can be used to represent consequence, i.e. A leads to B. The experimental text includes 7 expressions that could lead the participants to use **SUB-MODE vectors** to indicate either a movement or the consequence.

• In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes. [V21]

• In the area of regional security, since the 1950s, the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait. [V22]

• This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights. [V23]

\(^{36}\) Although this is not as straightforward an expression of growth or decline as the ones contained in the other bullet points/examples, the term ‘enhances’ in this context stands for to ‘work better’, or ‘work in a more effective way’, so there is a growth in effectiveness.
• The financial crisis, coupled with the sovereign debt crisis, have led governments to realize that traditional monetary and financial policies are no longer sufficient tools in managing growing unemployment and rebuilding the economy.

• I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010.

• When I visited the US last September, the issue of the TPP was also raised in some meetings.

• It is, therefore, important to take action as soon as possible to resolve some of the outstanding disputes in our trade relationship, so that there will be opportunities to build on TIFA and to move forward from there.

(iv) Repeated information

Over the course of the speech, the speaker may refer again to something that has been mentioned earlier by repeating the same words or by using other strategies. If there is any repetition of the same information, a vector can be used as a repetition link that allows the interpreter to interpret the message without having to note the same information again.

According to Hoey (1991), repetition can take place in the form of “lexical repetition”, paraphrase, personal pronouns, co-reference, etc. When interpreters hear the same information more than once, for the sake of saving time, instead of noting the same notion twice, they are suggested to “draw a line from the place where it is noted for the first time to the place where one would ordinarily note it for the second time” (Jones 2002: 56) – and where the interpreter will have previously left a blank space to flag up where the repeated item of information occurred in the speech. Under this circumstance, interpreters may insert an arrow to reposition the element on page. These types of repetition, such as lexical repetition, personal pronouns, paraphrase, and co-reference, are illustrated in the instances provided below. The experimental text includes 10 expressions that could lead the participants to use SUB-MODE [vectors] to indicate repetition.

• The friendship between Taiwan and the US dates back six decades. Over the sixty years, Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners.
In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes. Many of them are experiencing the pain of economic re-balancing and structural adjustment.

Despite the challenges, the Asia Pacific region, especially Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn. We can foresee the region becoming the engine of global economic revitalization and the centre of future development.

In the area of Taiwan-US economic relations, our partnership has evolved from the early days of US economic assistance in the 1950s, to the US becoming Taiwan’s largest trading partner and destination for our exported goods in the 1980s. Back then, almost half of our total export value was destined for the US. Today, the US remains our third largest trading partner. In 2010, trade between the two sides was valued at 56.8 billion US dollars.

We are aware that cross-strait relations are a very important public policy matter, but in this election, there are other issues that are equally, if not more, important. These are issues relating to wealth gap, jobs, and the economy. Out of Taiwan’s long-term interest, my approach on cross-strait policy, during and after the election, is to build consensus, instead of driving a partisan wedge between different groups in Taiwan. In other words, we will not use cross-strait relations as a campaign tool. Our partisan differences in this election will be highlighted more in domestic policies.

Many of you would know that Taiwan’s keenest competitor in global trade is the Republic of Korea. It brings me much worry to see the signing and coming into effect of the FTAs between the EU and the Republic of Korea as well as the FTA between the US and the Republic of Korea.

The DPP’s position has been that the US should take the lead in creating an APEC-based free trade agreement for the region, which would, of course, include Taiwan. I am, therefore, pleased to note that the US is spearheading the Trans Pacific Partnership (that is, the “TPP”) amongst APEC economies. When I visited the US last September, the issue of the TPP was also raised in some meetings. The TPP has high standards for entry and we must have the determination to prepare ourselves to join. Despite the Ma government’s recent announcement of the intention to join the TPP, we have yet to see the necessary determination and preparation made to facilitate such an effort.

In the “Ten Year Policy Platform” of the DPP, we recognized the immediate need to carry-out structural adjustment to the economy. We have a much more government involvement approach in helping the R&D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating the emergence of new industries, which include among others R&D as an industry of its own, green energy, long-term care and medical care.
When the DPP [V37a] was in the government, Taiwan and the US enjoyed direct communication with each other, working together in resolving trade issues and developing mutual understanding. I wish to take this opportunity to re-assure you that when the DPP [V37b] is in the government again, the team will place quality communication as its highest priority. At the same time, I am confident that communications between the DPP [V37c] government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be reduced drastically. I mean drastically.

3.3.4.2 Variable 2: Geometrical shapes

The second major type of sign to be analysed in the notes is SUB-MODE [geometrical shapes]. Geometrical shapes are commonly used as signs in notes. Different types of signs may be used to represent not only one phrase or word, but can also represent a concept or an idea. When this concept or idea is encoded using written language, it may require the note-taker to write down many words; however, this concept could also be completely expressed through a sign in the form of a geometrical shape (Liu 2008).

SUB-MODE [geometrical shapes] can be used by interpreters on the basis of prescription or creation. On the one hand, prescription refers to those signs that have been traditionally suggested to learners through their training course books, e.g. use ‘□’ to represent the meaning of ‘country’ (Gillies 2005). On the other hand, since creative signs result from the interpreters’ personal preferences, the following instances where the use of SUB-MODE [geometrical shapes] would be possible, are selected on the basis of the researcher’s personal intuition.

On the whole, the experimental text includes 14 instances of the two scenarios where the use of geometrical shapes may help participants to retrieve the meaning. Each of these instances is labelled with an individual code with the following format: GX, where G stands for ‘geometrical’ and X is a numerical value from 1 to 14 which identifies the number of the instance under discussion.
The experimental texts include 11 instances featuring information that could be easily noted using signs in the form of geometrical shapes suggested by traditional training course books. Prescriptive symbols are meaning-making resources whose use by learners has been suggested by training course books (Gillies 2005, Jones 2002, Liu 2008, Lin 2004). The specific prescriptive symbols that could have been used here are inserted in each instance, after the relevant item in bold face, for comparison purposes. However, it is also possible that different interpreters may use different conventional symbols to represent the same information.

- Over the sixty years, Taiwan and the US have not only been national [□-G1] security partners but the US is also one of Taiwan’s key economic and trading partners. The US government, as well as US businesses, have become our partners and our strongest support in managing globalization [〇-G2] strategically. In the aftermath of the global financial [〇$-G3a] crisis in 2008, nations around the world [=localhost -G4] have undergone major changes. Many of them are experiencing the pain of economic re-balancing and structural adjustment. The global financial [〇$-G3b] and economic orders are also yet to be fully re-constructed. We are facing unprecedented challenges. Despite the challenges, the Asia Pacific region, especially Asia, has demonstrated relative vitality and the potential for growth in the global economic [〇Ec.- G5a] downturn. We can foresee the region becoming the engine of global economic [〇Ec.- G5b] revitalization and the center of future development. In recent months, we are pleased [=localhost-G6] to note that the US has pledged to increase its engagement with the region and expressed its determination to have more active presence in Asia.

- With this, I wish to thank the continuing [=localhost-G7] support from members of the AMCHAM for arms sales to Taiwan.

- In the area of Taiwan-US economic relations, our partnership has evolved from the early days of US economic assistance in the 1950s, to the US becoming Taiwan’s largest trading partner and destination for our exported [〇-►G8] goods in the 1980s.

- We are aware that cross-strait relations are a very important public policy matter, but in this election, there are other issues that are equally [=G9], if not more, important [—-G10].

- Therefore, I propose [=G11] introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals.
(ii) Creative SUB-MODE \(\text{[geometrical shapes]}\):

In addition to the prescriptive signs recommended by training materials for noting frequently occurring verbs (e.g. speak, want) and nouns (e.g. problem, country), interpreters are also encouraged to create simple ways of representing complex ideas (Gillies 2005). In other words, prescriptive signs are used when interpreters try to represent certain key words using conventions they have been taught, whilst creative signs are used to represent either a single word or an idea on the basis of personal experience or immediate response. Therefore, creative signs arising from interpreters’ personal preferences or immediate response can rarely be understood by others. The texts used in this experiment include 3 instances that could be noted down in the form of creative geometrical shapes. The instances are selected on the basis of the researcher’s personal note-taking customs, and will be tested when looking at subjects’ notes. The researcher is also aware that there are some instances at which signs in notes are used in a different way (i.e. where no explicit trigger exists).

- We are aware that cross-strait relations are a very important public policy matter, but in this election, there are other issues that are equally, if not more, important. These are issues relating to wealth gap, jobs, and the economy. Out of Taiwan’s long-term interest, my approach on cross-strait policy, during and after the election, is to build consensus, instead of **driving a partisan wedge between different groups in Taiwan** [G12]38. In other words, we will not use cross-strait relations as a campaign tool. Our partisan differences in this election will be highlighted more in domestic policies.

- The US government has stressed the importance of the region and recent statements and actions by President Obama and Secretary Hilary Clinton have reflected the move in this direction. This is also a time when Taiwan is seeking to re-position itself in light of global economic and political re-structuring. **At this critical juncture** [G13]39, I wish to call on establishing a new strategic partnership between Taiwan and the US for the following reasons.

- All indicators show that the presidential election will be a **very close race**. **There is a real possibility that I will win**. We understand that there are some people who are worried about our victory [G14]40. I will do what we can, without compromising Taiwan’s fundamental interests, to ease tensions and foster an atmosphere where dialogue and interaction is possible.

\[38\] This can be represented by drawing the shape of Taiwan, and then drawing a line from the middle to represent ‘driving a partisan wedge between different groups’.

\[39\] This can be represented by drawing an ‘X’ with a dot in the middle.

\[40\] This can be represented by drawing two close lines – a long line means victory and a short line with an unhappy face refers to some people are worry to see the victory.
3.3.4.3 Variable 3: Composition

The third variable to be analysed in the notes is **SUB-MODE [composition]**. Under this variable, this experiment is going to explore how the placement of signs may affect the interpreting output by investigating (i) the use of the margin and (ii) the use of vertical lists.

On the one hand, this experiment will examine how interpreters make notes of the “interrelation of ideas” in terms of their logical progression (e.g. therefore, however, by contrast, etc.) and the relation between successive ideas (e.g. firstly, secondly, thirdly) by making use of the margin in notes (Herbert 1952). On the other hand, this experiment will also look at how interpreters make notes of the elements that are syntactically of the same importance (e.g. a number of objects depending on the same verb).

As far as composition is concerned, the experimental text includes 14 instances of the two scenarios where the use of geometrical shapes may help participants to retrieve the meaning. Each instance is labelled with an individual code with the following format: CX where C refers to the abbreviation of ‘composition’ and X is a numerical value from 1 to 14 which identifies the number of the instance.

(i) **FEATURE [margin]: the sequence of ideas**

When listening to a speech, one of the most important things to note how ideas are connected in terms of logical progression (Herbert 1952: 46). In order to make sure the sequence of ideas can be found at a first glance when interpreters read their notes, it is imperative to reserve a place in the left-hand margin for noting these logical links (Jones 2002; Gillies 2005). The experimental texts include 5 instances in 2 excerpts that could lead the participants to use **FEATURE [margin]** to indicate the sequences of ideas.

- **Although** [C1] there are constraints on our interactions with Chinese interlocutors during the election, we will be proactive in seeking dialogue and stabilizing the relationship immediately following the election, and throughout the transition period.
- **I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010. By contrast** [C2], over the last three years, Taiwan-US trade relations remained at a standstill.
Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007. However [C3], by contrast [C4], the number of international professionals decreased by 8 percent during the same period. This trend is taking us in the opposite direction of upgrading the quality of our human capital. Therefore [C5], I propose introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals.

(ii) Feature [margin]: the relation between successive ideas

When delivering a speech, some speakers may signal the relation between successive ideas by using terms such as ‘firstly’, ‘secondly’ etc. to number them. If interpreters do not pay sufficient attention to these structuring devices, serious mistranslations may obtain (Herbert 1956). Gillies (2005: 138) suggests that interpreters should use numbers in the left hand margin to remind themselves that “indeed the ideas belong in some broader structure (a list) within the speech as a whole”. This is particularly important when covering each of the points listed by the speaker would take a relatively long period of time. The experimental text includes 2 excerpts that where the sequencing of ideas signalled by items such as ‘one’, ‘second’, etc. could be noted down in the margin.

At this critical juncture, I wish to call on establishing a new strategic partnership between Taiwan and the US for the following reasons: One, both Taiwan and the US share common interest in, and responsibility for regional security and stability. Particularly with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region. Second, for decades, Taiwan and the US have both been firm believers in, and committed to the principles of free trade. Taiwan has always kept pace with the US in forming its trading rules and regulations. This common basis allows greater room for cooperation when working towards establishing a trading order for the region.

Third, Taiwan and US’s tradition of business partnership will be mutually beneficial in exploring new and emerging markets, particularly for markets in this region. This has been demonstrated in the alliance for the IT-industry, with future opportunities including development of new and emerging industries, green industries, biotechnology, alternative energy, and so forth. There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, particularly China, Southeast Asia, India, and even Central and South America. By taking advantage of the business alliance between Taiwan and US, we can be key contributors in the global economic recovery. [C6]
The future of the new strategic partnership would need efforts from both sides particularly on the following areas: First of all, a peaceful and stable cross-strait relationship is key to continuing Taiwan and US relations. When I am elected president next year, I will place great effort in maintaining peace and stability in the Taiwan Strait. This is my responsibility towards the 23 million people in Taiwan, and our responsibility as a member of the Asia Pacific region. Secondly, in the area of Taiwan and US trade relations, I will pursue free trade policies and objectives, which I believe are the common goals shared by our two sides. I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010. By contrast, over the last three years, Taiwan-US trade relations remained at a standstill. In addition, I should strengthen and promote Taiwan and US exchanges. We should be enhancing the function and operation of TIFA and, on this basis, establish mechanisms to facilitate regular visits between high-level officials; not only would this be conducive to resolving outstanding issues, but it would contribute to furthering communication and understanding between the two sides for the way forward. [C7]

(iii) SUB-MODE [composition]: vertical list/tree structure

In a speech, it is not uncommon for speakers to create sentences in which one grammatical subject is presented as performing different actions. For instance, when one grammatical subject is associated with three different verbs, these actions are usually placed in parallel in the interpreter’s notes. This helps interpreters see clearly that these actions have the same importance in the sentence. This technique “holds up to any number of permutations and still offers the interpreter a clear picture of what is going on” (Gillies 2005: 79). Hence, 7 instances in 6 excerpts that include enumerations or lists equally important terms or syntactic elements are selected to investigate SUB-MODE [composition].

- Friends and people I have met over the last two decades either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician. [C8]
- This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights. [C9]
- This has been demonstrated in the alliance for the IT-industry, with future opportunities including development of new and emerging industries, green industries, biotechnology, alternative energy, and so forth. [C10]
There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, particularly China, Southeast Asia, India, and even Central and South America. [C11]

We are aware that cross-strait relations are a very important public policy matter, but in this election, there are other issues that are equally, if not more, important. These are issues relating to wealth gap, jobs, and the economy. [C12]

We have a much more government involvement approach in helping the R&D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating the emergence of new industries [C13], which include among others R&D as an industry of its own, green energy, long-term care and medical care. [C14]

3.3.4.4 Variable 4: Salience

The fourth variable to be analysed in the notes is SUB-MODE [salience]. Typically, salience is verbally realized through the use of items such as ‘key’, ‘major’, ‘in particular’, ‘especially’ etc. The study therefore seeks to establish how interpreters make use of note-taking conventions to represent the SUB-MODE [salience], and how the latter may affect interpreters’ note-reading process.

When speakers attempt to stress or attenuate particular points or words, interpreters are recommended to opt for a different set of visual meaning-making resources, such as underlining or circling, to remind themselves of the relevant nuances with great ease. My data set contains 23 instances, which include terms such as ‘key’, ‘especially’, ‘in particular’, ‘important’, etc. These instances will allow me to establish how participants use visual meaning-making resources to account for SUB-MODE [salience] in their notes. Each instance is labelled with an individual code with the following format: SX, where S stands for ‘salience’ and X is a numerical value from 1 to 23 which identifies the number of the instance.

The friendship between Taiwan and the US dates back six decades. Over the sixty years, Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners [S1]. The US government, as well as US businesses, have become our
partners and our strongest support [S2] in managing globalization strategically.

- In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes [S3].

- Despite the challenges, the Asia Pacific region, especially [S4] Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn.

- With the long-time tradition of the friendship and close business cooperation shared between Taiwan and the US, Taiwan will remain as an essential and crucial partner [S5] of the US in the region.

- President Ma, like myself, has stressed the importance [S6] of the Taiwan-US relationship, and in particular [S7], the balance in the trilateral relationship between Taiwan, US, and China; I must point out that since 2008, under the Ma administration, the speed of the development between Taiwan and China have far out-paced the relationship between Taiwan and the US.

- Restoring the balance in the trilateral relationship would be one of my key tasks [S8] in managing our external relations when I am elected president.

- Global trends are beginning to show that harnessing Asia’s growth and dynamism and broadening cooperation with the region would be the key [S9] to leading the global economy forward. The US government has stressed the importance [S10] of the region and recent statements and actions by President Obama and Secretary Hilary Clinton have reflected the move in this direction.

- Particularly [S11] with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region.

- Third, Taiwan and US’s tradition of business partnership will be mutually beneficial in exploring new and emerging markets, particularly [S12] for markets in this region.

- There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, particularly [S13] China, Southeast Asia, India, and even Central and South America. By taking advantage of the business alliance between Taiwan and US, we can be key contributors [S14] in the global economic recovery.

- The future of the new strategic partnership would need efforts from both sides particularly [S15] on the following areas. First of all, a peaceful and stable cross-strait relationship is key [S16] to continuing Taiwan and US relations.

- We are aware that cross-strait relations are a very important public policy matter [S17], but in this election, there are other issues that are equally, if not more, important.
Many of you would know that Taiwan’s keenest competitor [S18] in global trade is the Republic of Korea.

It is my belief that when DPP returns to the government, we will, in the shortest time [S19] possible, prepare Taiwan for joining the TPP.

It is, therefore, important to take action as soon as possible [S20] to resolve some of the outstanding disputes in our trade relationship, so that there will be opportunities to build on TIFA and to move forward from there.

I wish to take this opportunity to re-assure you that when the DPP is in the government again, the team will place quality communication as its highest priority [S21]. At the same time, I am confident that communications between the DPP government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be reduced drastically [S22]. I mean drastically [S22b].

I am confident that I’m going to win the presidential election next year. I am looking forward to a prosperous future for Taiwan and US relations, particularly [S23] in establishing a new strategic partnership.

3.4 Conclusion

This chapter has proposed a methodological framework for analysing interpreters’ notes based on an experimental study that consists of two stages, namely a note-taking stage and a retrospective stage. The aim of the research is to reach a better understanding of how interpreters’ notes contribute to their production of interpreted output. In the experiment, the two major sources of data – notes, interpreting rendition, and retrospective contents – will be collected, recorded and transcribed. These stages are indispensable if a thorough account of interpreters’ meaning-making processes is to be achieved.

In the first stage, notes are analysed with a view to gaining a better understanding of how linguistic and visual semiotic resources are deployed in the process of note-taking. A further step in this research would then be to compare critically the patterns identified in this descriptive research with the established prescriptive approaches to note-taking training – which are typically based on relatively stable correspondences between note-taking signs/symbols and their meaning. It is assumed that the contribution of notes to meaning-making in the context of consecutive interpreting will become clearer by comparing interpreters’ notes and their actual interpreting output. In the second stage, the participants will also be asked individually to explain how they interpret their notes. In addition to notes, the retrospective stage will add depth to the analysis.
The chapter is designed for an experiment to test the robustness of the methodology that will inform the analysis of data in this thesis. The actual analysed data will be discussed in terms of NARRATIVE STRUCTURES in Chapter Four and VISUAL STRUCTURES in Chapter Five, respectively.
Chapter Four: Data analysis - narrative structure

4.1 Introduction

This chapter reports on the function of vectors and geometrical shapes found in the participants’ notes. The discussion and interpretation of results will seek to answer research question two:

What NARRATIVE STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

As explained in section 2.2, interpreters’ notes are multimodal texts which involve the interaction between two CORE-MODES (image and language) and a range of SUB-MODES (vectors, geometrical shapes, composition, framing, salience, and calligraphy). In order to gain a better understanding of the visual dimension of the notes, the analysis of interpreters’ note-reading processes should not only address the use of written signs, but also the meaning-making processes pertaining to the spatial disposition of signs. On the one hand, written signs may help interpreters to build connections between different entities. On the other hand, the disposition of signs on the interpreters’ notepad may influence how interpreters sequence or prioritise the retrieval of certain aspects of information, which would also affect the interpreting output. In this research, I have theorized the use of written signs (i.e. vectors and geometrical shapes) as devices building the NARRATIVE STRUCTURE, and conceptualised the spatial disposition of signs as part of the VISUAL STRUCTURE. The former will be analysed in this chapter and the latter will be examined in Chapter Five.

The analysis undertaken in this chapter consists of two parts. The first part delivers an account of the ideational metafunction realised by the NARRATIVE STRUCTURE (see subsection 2.2.1) through specific combinations of CORE MODE [image] and SUB-MODE [vectors] to connect different elements of information in the interpreters’ notes. This involves the analysis of both FEATURE [arrows] and FEATURE [graphic lines] within SUB-MODE [vectors]. The second part discusses the ideational metafunction realised through a NARRATIVE STRUCTURE involving the combination of CORE MODE [image] with SUB-MODE [geometrical shapes], which reveals how geometrical shapes affect interpreters’ meaning-making processes and practices.
4.2 Vectors in notes

This section discusses the results of the analysis of vectors observed in the data set. As was outlined earlier in this thesis (subsection 2.1.3), the noting of SUB-MODE [vectors] involves the activation of FEATURES such as arrows or graphic lines. According to Jones (2002), it is often recommended to interpreters that they use a vector in their notes when they encounter any one of the following four scenarios in the source text: (a) the timeline of an event, (b) the meaning of growth and decline, (c) a movement or consequence, and (d) repeated information. In this study, I isolated 37 instances of these four scenarios (subsection 3.3.4.1) where the use of vectors may help participants retrieve meaning. The 37 instances considered within these four scenarios will be referred to in this chapter as ‘pre-determined instances’ of vector use.

The data set, however, shows that there are other potential textual scenarios that may also lead participants to use vectors for meaning-making purposes. Results indicate that the participant who makes the most frequent use of arrows uses these signs 88 times in her notes; by contrast, the participant who uses them less frequently did so 25 times, i.e. not in all the pre-determined 30 instances. Overall, 8 out of 9 participants used more than 30 arrows in their notes, whilst only 1 participant used fewer than 30 arrows in her notes. Table 4.1 presents results for the use of FEATURE [arrows] within SUB-MODE [vectors] in the notes produced by the participants.

<table>
<thead>
<tr>
<th>Scenarios and number of pre-determined instances</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>The timeline of an event (11)</td>
<td>6</td>
</tr>
<tr>
<td>The meaning of growth and decline (8)</td>
<td>2</td>
</tr>
<tr>
<td>A movement or consequence (7)</td>
<td>0</td>
</tr>
<tr>
<td>Repeated information (10)</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>42</td>
</tr>
<tr>
<td>Total number of arrows</td>
<td>52</td>
</tr>
</tbody>
</table>

Table 4.1 Number of occurrences of FEATURE [arrows] in participants’ notes
4.2.1 The use of FEATURE [arrows] as meaning-making resources

According to Gillies, “the arrow is the ultimate distillation of meaning… [and] can be used to note many different things and as such it leaves interpreters with more freedom to choose the vocabulary of their version than any other symbol” (2005: 105). That is to say, because the arrow is the most versatile symbol used in notes, there is a possibility that the meaning of the arrow will be clear, in principle, only to the interpreter who wrote it.

In the remainder of this subsection, the discussion will draw on selected examples out of the considerable number of arrows found in the data set. Subsection 4.2.1.1 analyses the timeline of an event, focusing on the use of frontward and backward arrows. Subsection 4.2.1.2 examines the meaning of growth and decline, focusing on the use of upward and downward arrows. Subsection 4.2.1.3 focuses on movement or consequence, and subsection 4.2.1.4 discusses the repetition of information, as noted through the use of arrows.

4.2.1.1 The timeline of an event

Among all the arrows, the one that represents the meaning of the timeline of an event should be the easiest one for note analysts to decipher. As demonstrated by Jones (2002), past tense and future tense can be symbolized by the backward ‘↲’ and forward signs ‘↳’, respectively. The advantage of noting timeline in this symbolic way is that “the interpreter can immediately recognize the tense when reading back their notes” (ibid.: 54). For instance, if interpreters need to note a period of time, they can simply write down numbers or abbreviations first (e.g., 6y [6 years]), then add a backward or forward vector to indicate the relevant tense. The combination of ‘6y [6 years]’ with a backward vector ‘↲’ means ‘in the past six years.’ Given the widespread and standardized use of this convention, the meaning of arrows representing the timeline of an event in a given interpreter’s notes can be understood by other interpreters and note analysts.

The text used as the basis for the experiment includes 11 time expressions that could lead participants to use FEATURE [arrows] to represent a certain period of time in the past or future. The results from the analysis of the use of FEATURES [arrows] are presented in Table 4.2. In this table, the left hand column lists the 11 predetermined instances that could have prompted the participants to use FEATURE [arrows] to indicate a timeline. The following set
of columns (under headings A–I) shows whether the participants noted the information using arrows (√), lines (L), or calligraphic signs (W). The second right-most column (No. of arrows) indicates the aggregated number of arrows used by participants in each instance, whilst the right-most column (Total) indicates the aggregated number of participants who have noted the information in the forms of arrows, lines, and calligraphic signs. The results shown in the second, third, and fourth row from the bottom quantify the instances of calligraphic signs, lines, and arrows used by each individual participant, respectively, whilst the results presented in the bottom row pertain to the overall number of instances noted by each participant whether through the use of arrows, symbols, or words.

<table>
<thead>
<tr>
<th>Participants</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>No. of arrows</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>[V1] Friends and people I have met over the last two decades [V1] either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician.</td>
<td>√</td>
<td>L</td>
<td>√</td>
<td>L</td>
<td>√</td>
<td>L</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V2] The friendship between Taiwan and the US dates back six decades [V2].</td>
<td>√</td>
<td>L</td>
<td>√</td>
<td>L</td>
<td>L</td>
<td>√</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V3] Over the sixty years [V3], Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners.</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V4] In recent months [V4], we are pleased to note that the US has pledged to increase its engagement with the region and expressed its determination to have more active presence in Asia.</td>
<td>W</td>
<td>W</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V5] President Ma, like myself, has stressed the importance of the Taiwan-US relationship, and in particular, the balance in the trilateral relationship between Taiwan, US, and China; I must point out that since 2008 [V5], under the Ma administration, the speed of the development between Taiwan and China have far out-paced the relationship between Taiwan and the US.</td>
<td>√</td>
<td>√</td>
<td>L</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V6] Second, for decades [V6], Taiwan and the US have both been firm believers in, and committed to the principles of free trade.</td>
<td>W</td>
<td>√</td>
<td>L</td>
<td>√</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V7] In the area of regional security, since the 1950s [V7], the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait.</td>
<td>L</td>
<td>√</td>
<td>√</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010.

By contrast, over the last three years, Taiwan-US trade relations remained at a standstill.

When I visited the US last September, the issue of the TPP was also raised in some meetings.

I am confident that I’m going to win the presidential election next year.

| FEATURE [arrows] to indicate the timeline of an event |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| The timeline of an event (arrows) | 6 0 2 0 1 0 4 6 1 20 |
| The timeline of an event (lines) | 0 4 0 0 5 2 0 3 14 |
| The timeline of an event (calligraphic signs) | 0 2 1 1 1 0 0 1 0 6 |
| The timeline of an event (arrows, lines and calligraphic signs) | 6 6 3 1 2 5 6 7 4 40 |

Table 4.2 Participants’ use of FEATURE [arrows] to indicate the timeline of an event

If we only look at the number of arrows, the results in Table 4.2 indicate that two-thirds (6) of the participants rarely used them to indicate the timeline of an event. However, given that the lines and calligraphic signs used by the participants in these 11 instances play the same role as the arrows, the results shown in the bottom row tell a different story: more than half of the participants were aware of the importance of the timeline expression. They just happened to note the information in various forms in terms of arrows, lines, and calligraphic signs.

As can be seen, the participants show a collective preference for the use of arrows (50% of all note units), with lines being their second choice (35%), and calligraphic signs being used to a lesser extent (15%). However, this overall pattern is not consistently reflected in the individual participants’ notes. Rather, the results obtained for individual participants exhibit what, in principle, would appear to be a high degree of variability. However, the participants do not perform in entirely different ways. Indeed, they are divided into two major groups, each of them showing patterns that are similar to those of other group members, but different from those of the other group. On the one hand, the collected data show that the
most experienced interpreters (participants C, D, and E) always use calligraphic signs, instead of arrows, to represent the specific time reference (e.g. 2008, 3y [three years]) mentioned in the speech. On the other hand, those participants (A, B, F, G, H) with less than four years of working experience appear to use a combination of arrows and calligraphic signs, in an attempt to note down the information in as detailed a manner as they can.

The predetermined instance that led more participants (4) to use FEATURE [arrows] was [V10]. By contrast, none of the participants use FEATURE [arrows] for meaning-making purposes in instances [V3] and [V4] (see Table 4.2). A possible explanation of why instance [V10] led more participants to use FEATURE [arrows] is that it contains a specific time expression ‘last September.’ As Gillies points out, dates are “not integral to the grammar of the sentence nor the causality of the ideas and are therefore very difficult to remember without notes” (2005: 120). Hence, in order not to burden their memory with the information that is most difficult to remember, 7 out of 9 participants would have chosen to note the information in the form of arrows (4), lines (1), and calligraphic signs (2). It may be reasonable to hypothesise that none of the participants use the arrow in instance [V3] (‘over the sixty years’) because it is a repetition of information provided in instance [V2] (‘dates back six decades’), whereas instance [V4] (‘in recent month’) does not provide any specific indication of the length of time. Therefore, it may be difficult to use arrows as supplementary information. A further discussion of instances [V3] and [V4] will be provided later in this subsection.

On the basis of these results, participants can be classified into three groups: (i) interpreters who noted both the arrow and time; (ii) interpreter who noted the specific time only but not the arrow; and (iii) interpreter who opted not to note the information.

(i) Interpreters who noted both the arrow and the word

Using both the directional arrow (FEATURE [arrows]) and words (SUB-MODE [calligraphic signs]) at the same time to represent tenses in notes is an ideal combination, often suggested by interpreter training handbooks or training programmes (Jones 2002; Gillies 2005), because “creating symbols by adding, combining, or reducing their elements is a very powerful technique, since it draws upon existing symbols which are already well entrenched in the interpreter’s system” (Chmiel 2010: 239). Also, by noting tenses in this symbolic way,
interpreters can recognize the tense at first glance when reading back their notes (Jones 2002). Figure 4.1 presents an example where the interpreter noted both the arrow and word.

As shown in Figure 4.1, the meaning of ‘over the last two decades [V1]’ can be presented through the combination of a backward arrow and the abbreviation of the word (‘20yr’). In this instance, the backward arrow encapsulates the meaning of “the last.” However, without noting SUB-MODE [calligraphic signs] (‘20yr’) as supplementary information, the meaning of the backward arrow may not be clear for the interpreter. In other words, when FEATURE [arrows] is accompanied by SUB-MODE [calligraphic signs], the latter tends to play the role of elaborating on the meaning conveyed by SUB-MODE [arrows].

From a visual communication perspective, the combination of FEATURE [arrows] and SUB-MODE [calligraphic signs] featured in Figure 4.1 follows the principles of information value that Kress and van Leeuwen (2006: 180–181) account for in terms of the ‘Given’ vs ‘New’ dichotomy:

when pictures or layouts make significant use of the horizontal axis … the elements placed on the left are presented as Given, the elements placed on the right as New. For something to be Given means that it is presented as something
the viewer already knows, as a familiar and agreed-upon point of departure for the message. For something to be New means that it is presented as something which is not yet known, or perhaps not yet agreed upon by the viewer, hence as something to which the viewer must pay special attention.

The combination of the time expression in Figure 4.1 starts with a backward arrow on the left-hand side. This is the Given for the combination as a whole, an element of familiarity in the expression of tense. On the right-hand side, the time scale is represented verbally, i.e. with an abbreviation of ‘20 years.’ In other words, when feature [arrows] is placed on the left-hand side as the departure point of the message, the first message that participant A reads is the past tense represented by that backward arrow. However, in order to remind himself of more specific information on the specific period of time, participant A draws on the abbreviation placed on the right. sub-mode [calligraphic signs] placed on the right-hand side is thus the New information that participant A does not yet know and needs to pay special attention to.

When the participant reads such a combination in the production or reformulation phase, the information that he needs to process is the meaning encoded in the backward arrow and the abbreviation of the word. In the case of abbreviations, the correspondence achieved between meaning and its calligraphic representation is only temporary, and their interpretation will therefore involve the interpreter’s reliance on his short-term memory. Regarding interpreters’ short-term memory, studies show that interpreters encode the information mainly “through three modalities: acoustic, visual, and semantic” (Kriston 2012: 82). The backward arrow can be viewed as an instance of visual modality, similar to the pictures or images the interpreter mentally creates when he hears a speech. The abbreviation, on the other hand, can be viewed as a semantic modality representing the actual meaning of words. On the whole, this combination is easier for interpreters to deal with because rendering the back arrow followed by an abbreviation will only involve a straightforward reading of the sign’s conventional meaning – i.e. one that any interpreter would associate with that sign in most contexts.

Although this is an ideal combination suggested by interpreter training handbooks or training programmes (Jones 2002, Gillies 2005), Table 4.1 indicates that it was used by only 2 out of 9 participants (A and H) on several occasions. Chmiel (2010: 48) argues that, under stressful conditions, trainee interpreters resort to a safer technique, i.e. writing down full or
abbreviated words during the note-taking stage because they are “burdened with an overload of information. This leaves no room for applying symbols, since the association between a symbol and a concept is not yet automatic.” However, since the participants of the current research project are professional interpreters, the association between a symbol and a concept should not be the reason why the participants in the current study use fewer arrows as a way to indicate tense in their notes. In the following section of the analysis, the discussion will turn to discuss why the experienced interpreters in this research tend to note a specific timing without using arrows in their notes.

(ii) interpreters who noted the specific time only, but not the arrow

As mentioned in the previous section, SUB-MODE [calligraphic signs] convey the key message that interpreters needs to note down, as it plays the role of supplementary information to the FEATURE [arrows]. By using calligraphic signs in this scenario, interpreters do not have to burden their memory; similarly, the use of such signs facilitates interpreting processes when they encounter notes pertaining to the time expressions used in the original speech.

However, there is another possibility. Interpreters may use the SUB-MODE [calligraphic signs] to note down the time expression without using the FEATURE [arrows]. Unlike interpreters using the combination of arrow and words mentioned above, who only need to process the tense indicated by the arrow and the period represented by the number they noted, interpreters who noted down the time expression without using an arrow may face additional difficulties. For example, when faced with the need to interpret a time expression, they may first try to establish whether there is any complementary item of information to the right of the time expression in question that may facilitate their rendition into the target language. For interpreters who heard the time expression but did not use FEATURE [arrows] in their notes under some circumstances, it is possible to hypothesise that, in the production or reformulation phase, they can retrieve that information from their background knowledge or the context, rather than from specific elements on their notes.

As shown in Figure 4.2, the time expression ‘since 2008[V5]’ is noted without vectors. This option is favoured by the three experienced participants (C, D, and E). The excerpt represented in this figure revolves around the inauguration of Ma Ying-jeou’s term as
President of Taiwan in 2008, an event commonly known by Taiwanese people, including participant D.

<table>
<thead>
<tr>
<th>Ma</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan and China far out-paced the relationship between Taiwan and the US</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.2 Notes from PD (V5)

ST: I must point out that since 2008 [V5], under the Ma administration, the speed of the development between Taiwan and China has far out-paced the relationship between Taiwan and the US.

TT: 那我想自從馬英九2008年執政以來，台灣跟中國的關係進展是大大超越台灣跟美國的進展。

BT: I think since Ma Ying-jeou took the power since 2008, the relationship between Taiwan and China has developed much faster than the relationship between Taiwan and the US.

(iii) interpreters who opted not to note the information

There are three main reasons why interpreters may opt not to note down a time expression that is used in the original speech: (i) the interpreter missed the information, (ii) the information is provided on more than one occasion in the speech, and (iii) the source text does not provide any specific indication of the length of time.

As shown in Table 4.2, none of the participants use FEATURE [arrows] as meaning-making resources in instances [V3] and [V4]. In the first of these two cases, the absence of the submode vectors is mainly due to the fact that the reference to ‘60 years’ is a repetition of information provided in instance [V2]. Most participants choose to optimize their cognitive effort by merging these two sentences with shared content into only one sentence within their notes. This can be seen in Figure 4.3: although the concept of ‘60 years’ has been mentioned twice in two consecutive sentences, the participant only notes the information once and places it on the very left-hand side in order to highlight that the information is repeated.

Participant F wrote the repeated information ‘60y’ once and placed it at the very left of the page which, from a visual communication perspective, makes the information stand out.
This arrangement suggests that the participant may have decided to reorganize the information and combine two sentences into one information unit during the note-taking phase. In the reformulation phase, the presence of ‘60y’ in the left margin helps participant F grasp very quickly that ‘60y’ is a time period she needs to pay attention to, insofar as that time expression refers to a series of developments listed within the current unit of information – not only to the first of those elements included in the enumeration. The use of margins will be discussed further in the next chapter.

| six decades | Taiwan | friendship |
| Over the sixty years | US | security |
| | | economic and trading |

**Figure 4.3 Notes from PF (V3)**

**ST:** The friendship between Taiwan and the US dates back six decades [V2]. *Over the sixty years* [V3], Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners.

**TT:** 在過去六十多年來, 總統和美國之間所建立的友誼是非常重要的。不僅僅是在國防安全的維護上面, 同時也是我們在經濟跟貿易夥伴關係上,是一個非常重要的角色。

**BT:** In the past sixty years, the friendship established between Taiwan and the US has been very important. Not only because of the national security, but also our economic and trade partner, play a very important role.

[V4] is the other instance where none of the subjects used feature [arrows]. 2 out of 9 participants chose to note down the expression ‘in recent months’ using the Chinese characters ‘最近’[recently] (Figure 4.4), i.e. an approximate synonym, whilst the remaining 7 opted not to note it (Figure 4.5). A possible explanation for this is that although ‘in recent months’ refers to a certain period of time in the past, this expression does not clearly indicate the specific length of the period in question. As the pressure on memory for very specific dates and numbers is greater, it may therefore be reasonable to hypothesise that,
when the source text does not provide any specific indication of the length of time, it may not be easy for interpreters to use vectors as supplementary information.

Figure 4.4 Notes from PD (V4)

ST: **In recent months** [V4], we are pleased to note that the US has pledged to increase its engagement with the region and expressed its determination to have more active presence in Asia.

TT: 那最近美國也是希望能夠在亞太區域、甚至台灣，在接近台灣的這個區域有進一步的商業關係。

BT: Recently the US also hopes to have a further business relationship in Asia-Pacific region, even with Taiwan or in the area that closed to Taiwan.

Figure 4.5 Notes from PE (V4)

ST: **In recent months** [V4], we are pleased to note that the US has pledged to increase its engagement with the region and expressed its determination to have more active presence in Asia.

TT: 我們很高興看到美國已經承諾要更加的與亞洲連結，更加的提升在亞洲的關係、與亞洲各國的關係，

BT: We are pleased to see that the US has committed to increase the connection with Asia and further enhance its relationship with Asia and countries in Asia.

4.2.1.2 The meaning of growth and decline

As stated in the previous subsection, the meaning of **FEATURE** [arrows] can be fully constituted when occurring in combination with SUB-MODE [calligraphic signs]. This combination also helps to explain how participants make sense of **FEATURE** [arrows] when it represents the meaning of growth and decline. As illustrated by Jones (2002: 52), “if
*increase, improvement* is noted by using ↑, *growth* in the sense of ‘economic growth’ could be noted ε↑”. In other words, by using “logical combinations of symbols, a vast range of frequently occurring notions can be noted without being a burden to the interpreter either when they are noting or when they are reading back their notes” (ibid.).

The text used as the basis for the experiment includes 9 expressions that could lead the participants to use FEATURE [arrows] to indicate growth and decline. The results are presented in Table 4.3.

In this table, the left hand column shows the pre-determined instances that could lead the participants to use FEATURE [arrows]. The following set of columns (under headings A-I) show whether the participants noted the information using arrows (√), symbols (S), calligraphic signs (W), or chose not to make any note of the instance under scrutiny. The right-most column (No. of arrows) indicates the aggregated number of arrows used by participants in each instance, whilst the right-most column (Total) indicates the aggregated number of participants who have noted the information using any of the semiotic resources available to that effect (i.e. arrows, symbols and calligraphic signs). The results shown in the second row from the bottom quantify the instances of FEATURE [arrows] used by each individual participant, whilst the results presented in the bottom row pertain to the overall number of instances noted by each participant – whether through the use of arrows, symbols and words.

<table>
<thead>
<tr>
<th>Instance</th>
<th>Participants</th>
<th>No. of arrows</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>[V12]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In recent months, we are pleased to note that the US has pledged to increase [V12] its engagement with the region and expressed its determination to have more active presence in Asia.</td>
<td>A B C D E F G H I</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>[V13]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The only possible solution left for global economic recovery is to find new engines for economic growth [V13] and development.</td>
<td>W W √ √ S S</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>[V14]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global trends are beginning to show that harnessing Asia’s growth [V14] and dynamism and broadening cooperation with the region would be the key to leading the global economy forward.</td>
<td>W √ W W</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
Particularly with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region.

We should be enhancing the function and operation of TIFA and, on this basis, establish mechanisms to facilitate regular visits between high-level officials; not only would this be conducive to resolving outstanding issues, but it would contribute to furthering communication and understanding between the two sides for the way forward.

Once elected, I will proactively manage the political complications arising from certain existing bilateral trade issues, so as to minimize the impact on our trade relationship with the US.

Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007.

However, by contrast, the number of international professionals decreased by 8 percent during the same period.

At the same time, I am confident that communications between the DPP government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be reduced drastically.

| Table 4.3 Using FEATURE [arrows] to indicate the meaning of growth and decline |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|
| the meaning of growth and decline (arrows) | 2   | 4   | 0   | 3   | 5   | 5   | 5   |
| the meaning of growth and decline (arrows, symbols and words) | 4   | 4   | 0   | 4   | 7   | 5   | 6   |
| Table 4.3 Using FEATURE [arrows] to indicate the meaning of growth and decline |

This table is quite revealing in several ways. First of all, the literature suggests that, during the note-taking stage, interpreters can use upward arrows to represent the sense of growth or increase conveyed by words such as ‘rise’, ‘increase’, ‘grow’, ‘climb’ etc. A downward arrow will therefore be used to note words that mean the opposite (Gillies 2005). However, the results in Table 4.3 show that this may not always be the case in actual practice. Instances [V14] and [V15] feature the terms ‘growth’ and ‘rise’, respectively — both of which represent the idea of moving upward from a lower to a higher position. Whilst most participants (8) use FEATURE [arrows] as their preferred meaning-making resource in instance [V15]), only one participant uses FEATURE [arrows] in instance [V14].
Using the instance [V15] as an example, 8 out of 9 participants used the combination of FEATURE [arrows] and SUB-MODE [calligraphic signs] – e.g. “↑↑” (Figure 4.6) or “CHINA/CN↑” (Figure 4.7) – to represent the meaning of “the rise of China”. If the participant only noted either a word “China” or an arrow “↑”, he may encounter difficulty in understanding the notes due to the lack of complementary information. In other words, FEATURE [arrows] (under this category) and SUB-MODE [calligraphic signs] complement each other well, for each emphasizes a different aspect of language use.

![Figure 4.6 Notes from PE (V15)](image1) ![Figure 4.7 Notes from PG (V15)](image2)

In instance [V15], 8 out of 9 participants used the combination of FEATURE [arrows] and SUB-MODE [calligraphic signs] to represent the meaning of ‘the rise of China’. It is possible to hypothesise that participants’ use of an upward arrow to represent the idea of ‘rise’ was influenced by “orientational metaphors” (Lakoff and Johnsen 2003). In instance [V15], the word ‘rise’ – an orientational metaphor denoting China’s high status and increasing power – may lead participants to instinctively note down an upward arrow. Given that participant C was the only one who did not use the arrow as a meaning-making resource to indicate the meaning of growth or decline, a discussion of how she read her notes will be provided later in the section.

By contrast, only one participant (G) used FEATURE [arrows] as a meaning-making resource when the word ‘growth’ was mentioned by the speaker in instance [V14]. This is an example of Jones’ (2002) insight that interpreters should use their own words to re-express the speech freely whilst respecting the content of the source text. According to Jones, when interpreters re-express the speech, they “can invert the order of two sentences, merge two of

---

41 The term ‘orientational metaphor’ designates a metaphorical concept which organizes a whole system of concepts with respect to one another. Most of them have to do with spatial orientations, such as up-down, in-out, front-back, on-off, deep-shallow, central-peripheral (Lakoff and Johnsen 2003).
the speaker’s sentences into one of their own, or on the contrary divide one long sentence up into a number of shorter ones” *(ibid.: 36)*. In other words, interpreters do not interpret the source text word-by-word, but often reconstruct the information that they heard by paraphrasing or omitting some of the information. Hence, even when the source text includes words such as ‘increase’ or ‘growth’, they may not always be noted in the form of an upward arrow. This may explain why only a few participants used FEATURE [arrows] as a meaning-making resource in instances [V12], [V13] and [V14]. The participants’ decision not to use the arrow may result in two different scenarios: conveying the information through calligraphic signs, or deciding against the use of any signs altogether. However, on the basis of the results reported in Figure 4.8, even when participants noted the word ‘growth’ [V14] in the form of SUB-MODE [calligraphic signs], they may still omit this information in their interpretation – probably because the meaning of ‘economic growth’ is embedded in the concept of ‘economic development’.

A scrutiny of my data sample also indicates that the participant who makes the most frequent use of arrows to indicate the meaning of growth and decline uses it 6 times in her notes (out of a total maximum of 9 pre-determined instances); by contrast, one subject (C) did not use any arrows to represent the meaning of growth and decline in hers. In all the

<table>
<thead>
<tr>
<th>Only</th>
<th>is to find</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>new</td>
</tr>
<tr>
<td></td>
<td>engines</td>
</tr>
<tr>
<td></td>
<td>economic growth</td>
</tr>
<tr>
<td></td>
<td>development</td>
</tr>
</tbody>
</table>

Figure 4.8 Notes from PA (V13)

ST: The only possible solution left for global economic recovery is to find new engines for economic growth [V13] and development.

TT: 唯一可以解決現全球經濟衰退的解決之道，就是要找到新的經濟發展原動力。

BT: The only solution for resolving the global economic recession is to find a new motivation for economic development.
instances where FEATURE [arrows] has been used to represent growth and decline, it always has to be accompanied by SUB-MODE [calligraphic signs].

Participant C was the only one who did not use the arrow to indicate growth or decline, which did not prevent her from interpreting the idea of growth/decline successfully at different points of the speech, as illustrated in Figure 4.9. Significantly, she did use FEATURE [arrows] as a meaning-making resource elsewhere in the same fragment. The fragment represented in Figure 4.9 includes a non-predetermined instance, i.e. the horizontal arrow next to ‘6%’ (a wrongly noted number). As the figure shows, participant C did not use any upward or downward arrow next to the numbers to clarify the trends they were meant to represent; however, she did use a forward arrow and placed it next to ‘6%’. The reason why this arrow is being used is unclear. The arrow may have found its way there because Participant C was planning to note down another item of information (i.e. foreign labours), but then changed her mind. In other words, this arrow can be assumed to have been included as a representation of the preposition ‘of’. In this case, even though Participant C did not use FEATURE [arrows] to indicate the meaning of increase or decrease, she was still able to retrieve the information by relying on her short-term memory.

Figure 4.9 Notes from PC (V18 and V19)

<table>
<thead>
<tr>
<th>16 percent [misnoted as 6 percent ]</th>
<th>8 percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive a car in reverse</td>
<td></td>
</tr>
<tr>
<td>Human capital</td>
<td></td>
</tr>
</tbody>
</table>

ST: Under the Ma government, the number of foreign labourers increased [T1ECV18] by 16 percent compared to that of 2007. However, by contrast, the number of international professionals decreased [T1ECV19] by 8 percent during the same period.

TT: 我要提出來的是在馬政府執政的這段期間當中，我們外勞的雇用率是增加了百分之六，但是同時如果你看在專業人士的流通部分呢，卻是減少了百分之八。

BT: I would like to point out that under the Ma government, the employee rate of foreign labours increase by 6 percent, but at the same time, if you look at the number of professionals, it decreased by 8 percent.

---

42 In the debriefing session following the experiment, Participant C indicated this was her intention when using this horizontal arrow.
4.2.1.3 A movement or consequence

In the previous two categories, FEATURE [arrows] was usually used by participants as a supplementary meaning-making resource, often qualifying the meaning of SUB-MODE [calligraphic signs] being used in the vicinity. The meaning of FEATURE [arrows] is normally not difficult for interpreters to interpret if it represents the meaning of timeline and growth/decline. However, not every arrow used in note-taking has a clearly discernible meaning. Gillies (2005) suggested that interpreters can use FEATURE [arrows] to represent certain concepts, such as consequence, result, end-effect, and repercussions. For example, ‘A leads to B’ can be noted as ‘A→B’. Some interpreters may also choose to use a directional vector to signify “simple movement” (Jones 2002: 56). For instance, ‘US car exports to Japan’ can be noted as ‘US cars → J.’. Most of the meanings of FEATURE [arrows] under this category are highly subjective and can often be deciphered only by the interpreter himself.

The text used as the basis for the experiment includes 7 expressions that could lead the participants to use FEATURE [arrows] to indicate either a movement or a consequence. Among all the instances under this category, instance [V26] is the only one which represents a movement, whilst the reminder instances convey the idea of consequence. The results from the preliminary analysis are presented in Table 4.4

<table>
<thead>
<tr>
<th></th>
<th>Participants</th>
<th>No. of arrows</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A  B  C  D  E  F  G  H  I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V21] In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes.</td>
<td>√  √</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>[V22] In the area of regional security, since the 1950s, the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait.</td>
<td>√  √  √</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>[V23] This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights.</td>
<td>√  √  √</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
The financial crisis, coupled with the sovereign debt crisis, have led governments to realize that traditional monetary and financial policies are no longer sufficient tools in managing growing unemployment and rebuilding the economy.

I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010.

When I visited the US last September, the issue of the TPP was also raised in some meetings.

It is, therefore, important to take action as soon as possible to resolve some of the outstanding disputes in our trade relationship, so that there will be opportunities to build on TIFA and to move forward from there.

The collected data set shows that only one participant (H) noted instance [V26] “I visited the US” by using FEATURE [arrows] to indicate the movement of “visited” (Figure 4.10), whilst the remaining participants omitted the information (Figure 4.11). In Figure 4.10, FEATURE [arrows] connects ‘I’ and ‘US’ – two realizations of SUB-MODE [calligraphic signs]. The meaning of FEATURE [arrows] in this instance can be illustrated by the concept of ‘action process’ proposed by Kress and van Leeuwen (2006). An action process involves participants (Actor & Goal) and vectors. In Figure 4.10, SUB-MODE [calligraphic signs] ‘I’ is an Actor, ‘US’ is a Goal, whilst FEATURE [arrows] ‘→’ indicates the direction of the action between participants. Therefore, FEATURE [arrows] in Figure 4.10 was used by participant H to indicate that the action ‘visit’ was done by Actor ‘I’ in order to reach Goal ‘US’.

Although most participants chose to omit the information ([V26]) in their notes, Figure 4.11 suggests that the participants were still able to retrieve the information from the context or by drawing on background knowledge. Whereas participant H took detailed notes and
produced her interpretation by relying on what is physically noted, without having to complement the notes with background knowledge or additional interpretation (see Figure 4.10), participant E wrote down only key elements of information (see Figure 4.11) in terms of timing (last September) and subject matter (TPP). Still, the action process (I visit the US) did feature in Participant’s rendition. This would appear to confirm that “with the assistance of comprehension beforehand, what he [interpreter] memorizes is meaning rather than the mere words” (Zhang 2012:180).

<table>
<thead>
<tr>
<th>last September [misnoted as last December ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>I visit US</td>
</tr>
<tr>
<td>TPP</td>
</tr>
<tr>
<td>heard  meetings</td>
</tr>
</tbody>
</table>

Figure 4.10 Notes from PH (V26)

ST: When I **visited** the US last September, the issue of the TPP was also raised in some meetings.

TT: 那去年十二月我**造訪**美國的時候，參加很多會議就提到了這個TPP的問題。

BT: When I **visited** the US last December, I joined many meetings and heard the issue of TPP in many meetings.

<table>
<thead>
<tr>
<th>Last September</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPP raised</td>
</tr>
</tbody>
</table>

Figure 4.11 Notes from PE (V26)

ST: When I **visited** the US last September, the issue of the TPP was also raised in some meetings.

TT: 去年九月我到美國去訪問的時候，我們也談到了有關TPP的相關議題。

BT: When I **visited** the US last September, we also discussed some TPP related issues.
Figure 4.12 shows an example of the use of FEATURE [arrows] to indicate a cause-consequence relationship. In instance [V22], ‘the defence assistance provided by the US’ can be viewed as a ‘cause’, whereas ‘stability in the Taiwan Strait’ can be viewed as an ‘effect’. FEATURE [arrows] in Figure 4.12 is thus used to indicate the cause-and-effect relationship between the defence assistance and the stability in the Taiwan Strait.

From a visual communication perspective, the arrow in Figure 4.12 also denotes an ‘action process’ (Kress and van Leeuwen 2006). In Figure 4.12, SUB-MODE [calligraphic signs] ‘美國’ (US government which provides the defence assistance) are used to represent the Actor in the central area (between the two forward slashes; SUB-MODE [geometric shape] ‘[ ]’ (Taiwan Strait) and SUB-MODE [calligraphic signs] ‘stabil’ (stability), both of which are located to the right of the Actor, represent the Goal; finally, FEATURE [arrows] ‘→’ indicates the direction of the action of participants. Consequently, FEATURE [arrows] in Figure 4.12 was used by participant D to indicate that the action ‘maintaining’ was done by Actor ‘US government’ in order to reach Goal ‘stability in the Taiwan Strait’.

| 1950s US defence | Taiwan Strait stability |

Figure 4.12 Notes from PD (V22)

**ST:** In the area of regional security, since the 1950s, the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait.

**TT:** 從1950年代, 美國就提供了國防協助, 那有助於穩定兩岸之間的一個穩定。

**BT:** Since 1950s, the US provided the defence assistance, **which helps** to maintain the cross-strait relations stable.

### 4.2.1.4 Repeated information

Over the course of the speech, the speaker may refer again to something that has been mentioned earlier in the speech by repeating the same words. When interpreters hear the same information more than once, for the sake of saving time, instead of noting the same
notion twice, they are taught to “draw a line from the place where it is noted for the first time to the place where one would ordinarily note it for the second time” (Jones 2002: 56). This convention also dictates that a space in the notes should be left empty when the information is mentioned the second time. The text used as the basis for the experiment includes ten expressions that could lead the participants to use SUB-MODE [vectors] to indicate repetition. The results are presented in Table 4.5.

<table>
<thead>
<tr>
<th></th>
<th>Participants</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[V28]</td>
<td>The friendship between Taiwan and the US [V28a] dates back six decades. Over the sixty years, Taiwan and the US [V28b] have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>[V29]</td>
<td>The friendship between Taiwan and the US dates back six decades [V29a]. Over the sixty years [V29b], Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s key economic and trading partners.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>[V30]</td>
<td>In the aftermath of the global financial crisis in 2008, nations around the world [V30a] have undergone major changes. Many of them [V30b] are experiencing the pain of economic re-balancing and structural adjustment.</td>
<td></td>
<td></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V31]</td>
<td>Despite the challenges, the Asia Pacific region [V31a], especially Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn. We can foresee the region [V31b] becoming the engine of global economic revitalization and the center of future development.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[V32]</td>
<td>In the area of Taiwan-US economic relations, our partnership has evolved from the early days of US economic assistance in the 1950s, to the US becoming Taiwan’s largest trading partner and destination for our exported goods in the 1980s [V32a]. Back then [V32b], almost half of our total export value was destined for the US. Today, the US remains our third largest trading partner. In 2010, trade between the two sides was valued at 56.8 billion US dollars.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

143
## Cross-Strait Relations

We are aware that cross-strait relations are a very important public policy matter, but in this election, there are other issues that are equally, if not more, important. These are issues relating to wealth gap, jobs, and the economy. Out of Taiwan’s long-term interest, my approach on cross-strait policy, during and after the election, is to build consensus, instead of driving a partisan wedge between different groups in Taiwan. In other words, we will not use cross-strait relations as a campaign tool. Our partisan differences in this election will be highlighted more in domestic policies.

## Global Trade

Many of you would know that Taiwan’s keenest competitor in global trade is the Republic of Korea. It brings me much worry to see the signing and coming into effect of the FTAs between the EU and the Republic of Korea as well as the FTA between the US and the Republic of Korea.

The DPP’s position has been that the US should take the lead in creating an APEC-based free trade agreement for the region, which would, of course, include Taiwan. I am, therefore, pleased to note that the US is spearheading the Trans Pacific Partnership (that is, the “TPP”) amongst APEC economies. When I visited the US last September, the issue of the TPP was also raised in some meetings. The TPP has high standards for entry and we must have the determination to prepare ourselves to join. Despite the Ma government’s recent announcement of the intention to join the TPP, we have yet to see the necessary determination and preparation made to facilitate such an effort.

In the “Ten Year Policy Platform” of the DPP, we recognized the immediate need to carry-out structural adjustment to the economy. We have a much more government involvement approach in helping the R&D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating the emergence of new industries, which include among others R&D as an industry of its own, green energy, long-term care and medical care.
When the DPP [V37a] was in the government, Taiwan and the US enjoyed direct communication with each other, working together in resolving trade issues and developing mutual understanding. I wish to take this opportunity to re-assure you that when the DPP [V37b] is in the government again, the team will place quality communication as its highest priority. At the same time, I am confident that communications between the DPP [V37c] government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be reduced drastically. I mean drastically.

Table 4.5 Using feature [arrows] to indicate repeated information

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>0</th>
<th>1</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>2</th>
<th>4</th>
<th>3</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Although we can find some instances where the participants may use an arrow to indicate repetition (Figure 4.13), the collected data show that, among the ten pre-determined instances, the participant who makes the most frequent use of arrows to indicate the repeated information does so on only 2 occasions. By contrast, most of the subjects participating in the study prefer to note the repeated information as many times as required (Figure 4.14).

On the one hand, using an arrow to indicate the repetition saves time when taking the notes. Following Gillies’ (2005: 135) suggestion, the interpreter “should not note the same word or symbol twice on the same page. It is almost always quicker to draw a line from where that word, symbol or construction first appears to where it appears the second time”. On the other hand, the process of linking ‘time’ with ‘event’ in Figure 4.13 was done by feature [arrows]. Considered from the perspective of multimodality, in this example the topic of time expression is fixed through spoken language (source speech) and visual semiotics (notes). In the speech text, the topic is shaped and talked through the temporal sequence: the actions/events presented in the speech are arranged in sequential order. When participant G transforms the concept into an image, a different ontological organization emerges: the temporal sequence is replaced by a hierarchical organisation. This directional arrow forms a narrative process which describes the unfolding of actions and processes of change (Jewitt and Oyama 2001).
In the area of Taiwan-US economic relations, our partnership has evolved from the early days of US economic assistance in the 1950s, to the US becoming Taiwan’s largest trading partner and destination for our exported goods in the 1980s [V32a]. Back then [V32b], almost half of our total export value was destined for the US. Today, the US remains our third largest trading partner. In 2010, trade between the two sides was valued at 56.8 billion US dollars.

Although Gillies (2005) suggests that interpreter should not note the same word twice on the same page, the collected data shows interpreters may note the repeated information as many times as required. As shown in Figure 4.14, when ‘Republic of Korea’ was mentioned three times by the speaker in two consecutive sentences, participant I chose to note it in a full word ‘Korea’ when she heard the name of the country for the first time, and she chose to wrote an abbreviation ‘K’ afterwards. In this case, probably using the abbreviation is more efficient than keep drawing lines.
Many of you would know that Taiwan’s keenest competitor in global trade is the Republic of Korea [V34a]. It brings me much worry to see the signing and coming into effect of the FTAs between the EU and the Republic of Korea [V34b] as well as the FTA between the US and the Republic of Korea [V34c].

To sum up, **FEATURE [arrows]** helps to connect signs in notes, prompting interpreters to process individual signs as part of a combination with other signs – which often complement or expand the information that any of these signs would have been able to convey if processed individually. It also reflects the depth of information retrieval in the note-reading phase. Based on the depth of information retrieval, the interpreters’ narrative structure formed by **FEATURE [arrows]** can be discussed from two perspectives: the surface-cognition level and the deep-cognition level.

Surface-cognition level obtains in those cases where interpreters read the combination of **FEATURE [arrows]** and **SUB-MODE [calligraphic signs]** in their notes (cf. 4.2.1.1 and 4.2.1.2), thus retrieving the information from the surface meaning of the symbol or words used in the notes. This combination helps to relieve the pressure on interpreters’ memory during the production and reformulation phases, because interpreters only need to translate the meaning of arrows and words literally. When **FEATURE [arrows]** is accompanied by **SUB-...
MODE [calligraphic signs], the latter tends to complement SUB-MODE [arrows] with additional meaning. Consequently, when FEATURE [arrows] is used to represent the timeline of an event or an instance of growth or decline, it is highly likely that such meaning-making signs can be understood by any interpreter – not just the one who was actually responsible for the specific set of notes under scrutiny.

On the other hand, the interpreters’ deep-cognition level corresponds to those cases where the interpreter uses FEATURE [arrows] to connect two words, symbols, or information units (cf. 4.2.1.3 and 4.2.1.4). It involves a number of mental processes, including the interpreter’s retrieval of information from the context or background knowledge; as a result, this level of interpreting cognition relies heavily on the interpreters’ personal experience. To sum up, when FEATURE [arrows] is used to represent a movement, consequence, or repeated information, the meaning of FEATURE [arrows] can hardly be deciphered by consulting the actual notes. By contrast, interpreters will only be able to retrieve their meaning and articulate their target language rendition by making use of their personal cognitive experience.

4.2.2 The use of FEATURE [Graphic lines] as meaning-making resources

The previous subsections have only discussed FEATURE [arrows] of SUB-MODE [vector]. This section is now shifting the discussion to FEATURE [graphic lines] within the same SUB-MODE [vector]. In fact, whilst most resources for the teaching of note-taking skills (concerning the use of symbols) pay particular attention to the use of arrows, the use of graphic lines has received little attention (Gillies 2005; Jones 2002). However, there are no absolute rules regarding when and how arrows and lines should be used in interpreters’ notes. The collected data set shows that FEATURE [graphic lines] was used not only when participants heard (a) prepositions and (b) conjunctions in the source speech, but also when they needed to (c) segment the source information and (d) construct lists of information items. The results are presented in Table 4.6.

<table>
<thead>
<tr>
<th>Participants</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>124</td>
<td>4</td>
<td>15</td>
<td>122</td>
<td>26</td>
<td>53</td>
<td>30</td>
<td>98</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 4.6 Number of occurrences of FEATURE [graphic lines] in the notes
(a) Representing grammatical dependence

According to Gillies (2005), a range of prepositions used in speeches (e.g. discussion about something, comments on something, reaction to something, and responsibility for something) can be noted simply with the symbol ‘/’. This is illustrated in the examples below (Figure 4.15 and 4.16). The left column contains samples of notes in Mandarin Chinese, whilst the right column displays English translations of the Chinese characters for reference. The right column also reproduces the lay-out of the notes to assist non-Chinese speakers with the interpretation of the participants’ output.

<table>
<thead>
<tr>
<th>One</th>
<th>common interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>responsibility for</td>
<td>regional security stability</td>
</tr>
</tbody>
</table>

Figure 4.15 Notes from PI

ST: One, both Taiwan and the US share common interest in, and responsibility for regional security and stability.

TT: 第一是台美雙方對於亞太區域安全以及區域穩定都擁有共同的利益，以及擁有共同的責任。

BT: First, both Taiwan and the US have common interest in and responsibility for Asia-Pacific region’s security and stability.

<table>
<thead>
<tr>
<th>Ten Year Policy Platform</th>
<th>Of DPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>structural</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.16 Notes from PA
ST: In the “Ten Year Policy Platform” of the DPP, we recognized the immediate need to carry-out structural adjustment to the economy.

TT: 而在民進黨的十年政綱當中，我們強調的是要進行台灣經濟結構的調整。

BT: In the DPP’s “Ten Year Policy Platform”, what we emphasize is the structural adjustment to Taiwan’s economy.

Figures 4.15-4.16 illustrate the use of FEATURE [graphic lines] as a meaning-making resource to represent the function of prepositions in the speech. In Figure 4.15, the preposition (‘for’) in the source speech is replaced by FEATURE [graphic lines] (‘‘) in the notes. A similar pattern can be found in Figure 4.16. In these two cases, the participants used FEATURES [graphic lines] as a way to grammatically project a goal (Figure 4.15) or express a relationship of possession (Figure 4.16). This can be seen in Figure 4.16, where FEATURE [graphic lines] helped the participant interpret this item appropriately, i.e. presenting the “Ten Year Policy Platform” as a policy belonging to the DPP. Therefore, she interpreted this part of information into the target speech as ‘民進黨的十年政綱’[the DPP’s “Ten Year Policy Platform], which includes the mark of possession.

(b) Representing conjunction

It is interesting to note that FEATURE [graphic lines] was used by the participants for the purpose of connecting different parts of the sentence, especially when they heard conjunctions (e.g. ‘and’) in the source speech. Using Figure 4.17 and 4.18 as examples, when the speaker mentioned ‘Taiwan and the US’, participants H and I chose to use FEATURE [graphic lines] to represent the meaning of ‘and’. In these two examples, the meaning of FEATURES [graphic lines] cannot be constituted without connecting it to the SUB-MODE [calligraphic signs].
Second, for decades, Taiwan and the US have both been firm believers in, and committed to the principles of free trade.

Moreover, the development in the past decades shows that both the US and Taiwan believe free trade.

And the second reason is that, both Taiwan and the US understand the principles and policies of free trade very well, and also deeply believe that these principles are very important.

(c) Representing the syntactic structure of the source text

My data set also shows that when a source speech sentence contains more than two clauses, some participants may choose to note each clause in a different line, whilst other
participants may choose to use FEATURE [graphic lines] in their notes to visually represent the complex syntactic structure of the source text. The latter makes the connection between the clauses as part of a bigger clause more prominent in their notes when it comes to retrieving the meaning of their notes. Figures 4.19-4.20 correspond to the notes that Participants A and D took of the same sentence, which consists of two clauses. As can be seen from the Figures below, both participants used FEATURE [graphic lines] as a way to visually reproduce the segmentation of the sentence.

Figure 4.19 Notes from PA

ST: In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes.

TT: 2008年的金融危機以來，全球各國都經歷重大的變化。

BT: Since the financial crisis in 2008, nations around the world have experienced major changes.

Figure 4.20 Notes from PD

ST: In the aftermath of the global financial crisis in 2008, nations around the world have undergone major changes.

TT: 全球的經濟，自從2008年開始有嚴重的衰落以來，各國都經歷很大的挑戰。

BT: Since the global economy experienced serious recession in 2008, nations have undergone major changes.
(d) Representing the hierarchical structure of the source text

Furthermore, the collected data also shows that FEATURE [graphic lines] can be used as a meaning-making resource when structuring a list of information items which have equal importance. Figure 4.21 displays a vertical list of titles or positions that the speaker has held in the past twenty years. In this example, Participant A placed FEATURE [graphic lines] in front of SUB-MODE [calligraphic signs] as a visual clue to remind himself that a certain part of the source text was structured as a list whose constitutive items are equally important for the target audience.

![Figure 4.21 Notes from PA](image)

Friends over the last two decades

- trade negotiator
- vice premier
- politician

To sum up, the participants in the experiment did not use SUB-MODE [vectors] when interpreting the four scenarios outlined above as much as had been envisaged. Even so, SUB-MODE [vectors] is still the most commonly found semiotic resource in interpreters’ notes. As shown in Table 4.1, it was possible to identify the meaning of most SUB-MODE [VECTORS]; in other cases (classified as “others”), the meaning could not be deciphered.

In fact, if we exclude the instances of SUB-MODE [vectors] with specific meaning (i.e. the meaning defined in section 4.2 and 4.3), the rest of the instances of FEATURE [Graphic lines]
found in the participants’ notes serve primarily as a visual clue, providing a reading path for participants in reading and/or interpreting their notes. As shown in Figure 4.22, the red graphic lines (highlighted by the researcher) were used by participant H as a visual guidance, to remind herself of the relationship between each meaning chunk.

![Figure 4.22 Notes from PH](image)

4.3 Geometrical shapes in notes

In addition to SUB-MODE [vectors], the use of CORE MODE [image] in notes also involves the activation of SUB-MODE [geometrical shapes]. This section discusses the ideational metafunction realised through a combination of CORE MODE [image] with SUB-MODE [geometrical shapes] in terms of how the latter affect interpreters’ meaning-making processes. As was outlined earlier in this thesis (subsection 2.2.1.2 and 3.3.4.2), SUB-MODE [geometrical shapes] can be used by interpreters either as a result of conventional prescription or personal creativity. On the one hand, prescription refers to those signs that have been suggested to learners through their training course books, e.g. using a smiley face (😊) to represent the meaning of ‘pleased’ (Gillies 2005). On the other hand, creative signs are used to represent an idea on the basis of the interpreter’s personal experience or immediate response to a cognitive stimulus, i.e. the source speech. As part of this study, I
isolated 14 instances (subsection 3.3.4.2) where the use of geometrical shapes may help participants to encode and retrieve meaning in note-taking and note-reading, respectively.

The data collected shows that participants seem to prefer using prescriptive signs more than creative signs as their favoured meaning-making resources. The results indicate that the participant who makes the most frequent use of SUB-MODE [geometrical shapes] uses 116 geometrical signs in her notes, whilst the one using them the least has 12 geometrical signs in the notes – i.e. two fewer than the pre-determined 14 instances. Using the pre-determined 14 instances as a reference, results indicate that 8 out of 9 participants used more than 14 geometrical signs in their notes, whilst only 1 participant (C) had less than 14 geometrical signs in her notes. The results of the analysis of geometrical shapes observed in the data set are presented in Table 4.7.

In the remainder of this section, the discussion will draw on examples selected from the considerable number of instances of SUB-MODE [geometrical shapes] found in the data set. Subsection 4.3.1 analyses the prescriptive SUB-MODE [geometrical shapes], focusing on how participants use the signs that they had been taught. Subsection 4.3.2 discusses the creative SUB-MODE [geometrical shapes], by examining how participants make sense of the signs created by themselves.

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<td>21</td>
<td>56</td>
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</table>

Table 4.7 The use of SUB-MODE [geometrical shapes] in the notes
4.3.1 Prescriptive SUB-MODE [geometrical shapes]

As Table 4.7 shows, all the participants in this study show a strong preference for taking notes by using prescriptive SUB-MODE [geometrical shapes], and tend to use the creative SUB-MODE [geometrical shapes] to a much lesser degree. Examples of note-taking that might be affected by learning prescriptions can be found in Figures 4.23 – 4.33. Based on these results, it would appear that the symbols recommended by most authors in the interpreting community, e.g. ‘□’ (global, international), ‘□’ (nations), ‘X’ (no, not), and ‘○’ (happy), are also the symbol preferred in the present study.

The collected data show that the square symbol ‘□’ and the circle symbol with a line in the middle ‘Θ’ are consistently used to represent ‘nation’ and ‘global’, respectively, by all participants.

<table>
<thead>
<tr>
<th>2008 crisis</th>
<th>nations around the world change</th>
</tr>
</thead>
</table>

Figure 4.23 Notes from PA


TT: 2008年的金融危機以來，全球各國都經歷重大的變化。

BT: Since the financial crisis in 2008, nations around the world have undergone major changes.

| Global financial 2008 nations major changes |

Figure 4.24 Notes from PD


TT: 全球的金融，全球的這個經濟，自從2008年開始有嚴重的衰落以來，那各國都經歷了很大的一個挑戰。

BT: The global financial, global economy, has had serious recession since 2008, every nation has experienced a huge challenge.
When comparing certain note-taking textbooks from the UK, China and Taiwan (Gillies 2005, Lin 2004, Liu 2008), it is found that the square symbol ‘□’ (see Figure 4.23-4.24), which originated in Rozan’s note-taking method (1965), is commonly used to represent the meaning of ‘nation’, ‘country’ or ‘state’. A number of these prescriptions originated in interpreter training institutions at Geneva, Paris and Heidelberg and have been disseminated throughout the world. This is the reason why the square symbol ‘□’ is used to represent the meaning of ‘national’ by interpreters from all over the world, regardless of their nationality, educational background or language combination.

The semiotic and ideological significance of these basic geometrical shapes in notes have always been a source of fascination. As suggested by Kress and van Leeuwen (2006: 53), “circles, squares and triangles have been thought to have the power to directly affect our nervous system”. For instance, squares and rectangles in contemporary Western society “are the elements of the mechanical, technological order, of the world of human construction. They dominate the shape of our cities, our buildings, our roads. They dominate the shape of many of the objects we use in daily life” (ibid.: 54). For an image reader, the square may represent “honesty, straightness and workmanlike meaning” (Dondis 1973: 44) or “the world and denotes order” (Thompson and Davenport 1987: 110). For their part, circles can be glossed very differently. According to Dondis (1973: 44), the circle denotes “endlessness warmth, protection”; according to Thompson and Davenport (1982: 110), it represents “the traditional symbol of eternity and the heavens”. In other words, the meaning of basic geometrical shapes can be multiplied endlessly – “the more abstract the sign, the greater its semantic extension; or to put it in our terms, the greater it potential range of uses as a signifier in signs” (Kress and van Leeuwen 2006: 54).

But the generalized use of the square symbol to represent ‘country/nation’ or the circle symbol to represent ‘world/global’ may not be necessarily the result of interpreters having been exposed to a relatively standardized set of note-taking conventions during their training period. It could be argued that, from a social semiotic perspective, it is the ‘round shape’ of our planet that leads interpreters to use a circle to represent the notion of ‘world/global’. To represent ‘world’ by ‘circle’ rests on the principle of analogy:

Analogy $\rightarrow$ ‘circle is round; world is round; circle is like world’
Although Thompson and Davenport (1982) claim that the square symbol denotes ‘the world’, the interpreting community has developed a new meaning for the square symbol, i.e. ‘the nation’. For interpreters who have Chinese as their first language, the shape of square is also similar to the periphery of Chinese calligraphic sign ‘國’, which means ‘nation’ or ‘country’. Hence, in reading the square or circle symbols featuring in their notes, the interpreters’ interpretation of these signs will not only be influenced by their long-term memory – i.e. their recollection of note-taking conventions learnt during their training years). It will also be informed by other considerations pertaining to the analogy between those signs and other local conventions or practices.

The symbol ‘X’ is another common realization of SUB-MODE [geometrical shapes] used by all of the participants. Participants use SUB-MODE [geometrical shapes] ‘X’ as a meaning-making resource in three different ways: (i) noting the ‘X’ next to SUB-MODE [calligraphic signs] (Figure 4.25) or SUB-MODE [vector], (ii) drawing the ‘X’ superimposed on SUB-MODE [calligraphic signs] or SUB-MODE [vector] (Figure 4.26), and (iii) using SUB-MODE [calligraphic signs] to remind interpreters that they are not sure about the accuracy of their comprehension (Figure 4.27).

![Figure 4.25 Notes from PB](image)

<table>
<thead>
<tr>
<th>Thank you</th>
<th>welcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>not</td>
<td>president yet</td>
</tr>
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</table>

ST: Thank you very much for that welcome, despite the fact that I am not the president yet.

TT: 謝謝刚才的歡迎之詞，但是我必須要澄清一下，我現在還沒有當選總統。

BT: Thank you for the welcome, but I have to clarify first that I am not the president yet.
has not been much progress in the trade discussion between Taiwan and the US.

By contrast, the signature of free trade negotiation agreement has no further development between the US and Taiwan, as well as among Taiwan and many other trading partners.

The SUB-MODE [calligraphic signs] ‘X’ appears to be the most frequently used meaning-making resource to note linguistic structures in the negative form found in the source speech. Both Figures 4.25-4.26 illustrate how participants used SUB-MODE [calligraphic signs] ‘X’ to represent the meaning of ‘no’ or ‘not’. On the one hand, participant B (Figure 4.25) noted down the concept by means of combinations of symbols: instead of writing ‘not the president’, the interpreter opted to use the symbol ‘X’ in combination with the abbreviation ‘P’). In this example, the symbol ‘X’ encapsulates the meaning of ‘not’. However, the meaning of the symbol ‘X’ may not be clear for the interpreters if they fail to use SUB-MODE [calligraphic signs] (‘P’) to encode supplementary information. This combination is similar to the one mentioned in section 4.2.1.1, where the SUB-MODE [vector] was accompanied by SUB-MODE [calligraphic signs]; in this combination, the latter would play the role of elaborating on the meaning of SUB-MODE [vector]. On the other hand, participant H (Figure 4.26) noted down the concept by means of negations, i.e. crossing out the negated element. From a social-semiotic point of view, the use of the symbol ‘X’ can be described as a resource to negate the meaning of the upward arrow. In the reformulation phase, the presence of ‘X’ helps participant H grasp very quickly that the symbol ‘X’ is a visual clue to remind herself that the noted item is expressed in the negative form. In this specific example, the superimposition of ‘X’ over an upward arrow cancels out the meaning of ‘growth’ or ‘rise’ that the arrow would have conveyed if it have been used by itself.
The importance of the Taiwan-US business partnership can be illustrated by Taiwan’s role as the world’s leading IT supplier. Taiwan and US companies, along with Taiwan businesses in China, have successfully and firmly established an irreplaceable strategic business alliance in the IT industry, by “connecting the vast marketplaces and digital powerhouses of the US with the enormous manufacturing centers of China”, as described in a 2005 Business Week article and which remains just as true today.

Regarding the business relationship between Taiwan and the US, Taiwan has always played a vital role in terms of the information technology supplier. Through our efforts in Taiwan and the manufactory industry in Taiwan, we also form a very important strategic partnership. With the advance of digital technology and the good production lines in China, Taiwan can have a further cooperation with the US.

However, in Figure 4.27 SUB-MODE [calligraphic signs] ‘X’ was not used to represent an element used in the source speech; instead, it helps the interpreter to remind herself that she was not sure about the accuracy of her comprehension at that point of the speech. Indeed, the use of ‘X’ at the end of a speech chunk that she has not fully understood may be an idiosyncratic habit of Participant D. The use of ‘X’ along this line may serve to remind herself, while producing the target language speech, of the need to use interpreting strategies such paraphrase or omission that minimise the risk of misinterpretation.
Figure 4.28 Notes from PE

ST:  Well, it’s good to be here today and get invited.[G15]
TT:  今天很榮幸能夠應邀到這裡，來跟大家說幾句話。
BT:  Today, it is a great honour to be invited here, to speak to everyone today.

Figure 4.29 Notes from PD

ST:  Well, it’s good to be here today and get invited. [G15]
TT:  我非常高興能受邀來參加各位今天晚上的晚會。
BT:  I am glad to be invited to join you tonight’s meeting.

Figures 4.28-4.29 illustrate the use of prescriptive SUB-MODE [geometrical shapes] as a meaning-making resource to represent the idea of a welcome remark in the source speech. In instance [G15], 8 out of 9 participants used a picture of a smiley face in their notes (Figure 4.28), whilst 1 participant (D) used a sign in the form of heart (Figure 4.29). Although participant D used a different SUB-MODE [geometrical shapes], it (heart) can still achieve the same function as the smiley face. This may be because interpreters are aware that there is always a welcome remark at the beginning of the speech. As an experienced interpreter, (s)he may note a smiley face symbol or another symbol with a similar meaning to remind him/herself of the welcome remark. By doing so, interpreters will not overload their working memory and noting down much information will not be necessary. When retrieving the information, interpreters will only have to give a contextually relevant opening remark, drawing on the repertoire of conventional expressions that form part of their background knowledge.

The collected data shows that a smiley face can be used to represent a happy mood or refer to a welcome remark. The reason why the same sign has different interpretations can be
explained from a multimodal social-semiotic perspective. As explained by Kress (2010: 108):

The distinction between meanings and forms is not an absolute one; it is not a difference of ‘substance’ or ’kind’, nor is it permanently fixed. It is a matter of the perspective demanded at a given moment. Something which functions as meaning at one moment may be used as a form the next; a sign at one moment functions as signifier in the next sign made.

When combined with the meaning/signified, happy is a sign which, once understood, endows the form/signifier ‘😊’ with an expanded potential for meaning. In its potential for meaning, happy can thus become a form/signifier for a new meaning/signified, e.g. ‘a welcome remark’. Hence, in the reformulation phase, interpreters should aim to produce a contextually relevant interpretation.

To sum up, as mentioned in the beginning of this section, the results indicate that the participant who makes the most frequent use of SUB-MODE [geometrical shapes] uses 116 geometrical signs in her notes, whilst the one using them the least has 12 geometrical signs in the notes – i.e. two fewer than the pre-determined 14 instances. This frequency of using SUB-MODE [geometrical shapes] may reflect the depth of information processing, as note-taking “plays an important role in externalization of the process of comprehension, helps the brain to trim the thoughts and makes them listed logically” (Zhang 2012: 182). Participants who focus on note-taking in terms of the completeness of their notes need to use more geometrical signs to note as much information as possible. By contrast, other participants may use fewer SUB-MODE [geometrical shapes] because they concentrate more on the analysis of the speech. Participants who use fewer geometrical signs may only use them under certain circumstances, i.e. when they want to highlight important messages, to show their happy or unhappy moods, to indicate negativity, and to represent the concept that has been internalized in their mind.

4.3.2 Creative SUB-MODE [geometrical shapes]

From the perspective of creative notes, some of the resources deployed in note-taking appear to arise from the interpreters’ personal creativity, rather than being acquired through instruction. Based on the notation created by an interpreter in their notes, the interpreter can
be seen as a ‘sign-maker’ who seeks to represent what they want to express, before expressing it through a sign-making process. According to Kress (1998: 18),

[w]hen we have come to understand that in our making of signs we remake the world around us, that we remake the means of making signs, and that in that process of making signs we make ourselves as human beings, out of the resources of the cultures and societies in which we live, we make ourselves as social objects, both social and individual.

Hence, interpreters in their capacity as sign-makers, can be compared to children choosing expressive resources that they have in their mind, based on what appears to be the most apt and plausible form of representing a specific meaning in a given context. For example, one participant created the geometrical shape ‘_nan’ in Figure 4.30 to represent the meaning of ‘support’. This geometrical shape ‘_nan’ looks like the word ‘hand’ written on the oracle bone script\(^{43}\) (an ancient Chinese character found on oracle bones) and the shape of a hand may represent the meaning of ‘support’, ‘help’ and ‘sponsor’. It seems to be a sign created and used by participant I only, rather than something taught to and learnt by Chinese interpreters at large.

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**Figure 4.30 Notes from PI**

**ST:** The US government, as well as US businesses, have become our partners and our strongest **support** in managing globalization strategically.

**TT:** 美國的政府以及私人的企業現在也成為台灣在進行全球化佈局當中非常重要的伙伴以及支柱。

**BT:** The US government and US private business have now become Taiwan’s important partner and **supporter** during the process of globalization.

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\(^{43}\) According to Wikipedia, “Oracle bones are pieces of turtle shell or bone, normally from ox scapulae or turtle plastrons, which were used for pyromancy – a form of divination – in ancient China”. Link: http://en.wikipedia.org/wiki/Oracle_bone [last accessed 01 September 2014]
Although this creative note-taking process seems to be an individual process, a similar creative sign denoting the same meaning can be used by different interpreters in their respective notes. In instance [G16], 6 out of 9 participants chose to use SUB-MODE [calligraphic signs] as their preferred meaning-making resource, whilst the remaining 3 participants (A, D, and H) chose to use creative SUB-MODE [geometrical shapes]. Figure 4.31-4.32 presents how participant A and D use creative SUB-MODE [geometrical shapes] to represent the idea of ‘the Taiwan Strait’. In Figure 4.31, participant A drew an oval-shaped sign to represent the Taiwan Strait, where the ‘two sides’ of the Taiwan Strait are represented by one dot on each side of the oval. In Figure 4.32, participant D drew two vertical lines and one horizontal line across in the middle to represent the meaning of ‘the cross strait relationship’. Following my observation and analysis of this note-taking convention, and having listened to the interpreted version, I suggest that, in this case, the two vertical lines represent the geographical location of the countries separated by the strait (China on the left and Taiwan on the right). The actual Taiwan Strait is represented by the space between the two vertical lines, whereas the horizontal line represents the meaning of ‘cross’. The third participant (H) also happened to use the same SUB-MODE [geometrical shapes] as participant D.

The most creative SUB-MODE [geometrical shapes] used by experienced interpreters involves the use of those signs that (i) facilitate the identification between the linguistic elements of the interpreted speech and the semiotic resources used to represent them as part of their notes; and (ii) are bound to enable an effective retrieval of the meaning encoded by those semiotic resources in each context. This matching of linguistic elements and semiotic resources is, to some extent, influenced by individual cognition processes and mechanisms, such as the neural pathways for the storing of information that interpreters develop in their mind through the recurrent exercise of their interpreting skills. As indicated by Hopper (2010: 102), “long-term memory is the neural pathways and synaptic connections that have stabilized through repeated use” (Hopper 2010: 102). When interpreters read the creative SUB-MODE [geometrical shapes] during the reformulation phase, their neural paths allow for an effective retrieval of information from their long-term memory, and hence the fast deciphering of note-taking signs.
Figure 4.31 Notes from PA (G16)

ST: In the area of regional security, since the 1950s, the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait.

TT: 而在區域安全上面，美國一直以來都提供國防上面的支援，這也是讓台灣在台海關係可以維持、保持穩定關係的基石。

BT: In the area of regional security, the US has always provided the defence assistance for Taiwan to maintain…… for Taiwan to maintain stability in the Taiwan Strait.

Figure 4.32 Notes from PD (G16)

ST: In the area of regional security, since the 1950s, the defence assistance provided by the US has been the bedrock for maintaining stability in the Taiwan Strait.

TT: 從1950年代，美國就提供了國防協助，那有助於穩定兩岸之間的一個穩定。

BT: Since 1950s, the defence assistance provided by the US has been a great benefit for maintaining stability in the Cross Strait.

4.4 Conclusion

This chapter has attempted to gain insight into the interaction between core modes and sub-modes used in interpreters’ notes in order to achieve a better understanding of how
interpreters retrieve information. It has focused on discussing NARRATIVE STRUCTURE in terms of the function of SUB-MODE [vectors] and SUB-MODE [geometrical shapes] in notes.

On the one hand, SUB-MODE [vectors] can assist participants in retrieving information through the following methods: (1) when SUB-MODE [vectors] is accompanied by SUB-MODE [calligraphic signs], the former tends to play the role of elaborating or complementing the meaning of the SUB-MODE [calligraphic signs]; (2) when SUB-MODE [vectors] is not accompanied by SUB-MODE [calligraphic signs], participants rely on their short-term memory or background knowledge to retrieve the information delivered in the source speech; and (3) SUB-MODE [vectors] provides participants with a visual clue as to how to go about connecting the different chunks of meaning.

From a visual communication perspective, it could be argued that, when interpreters use note-taking signs in compliance with the instructions they received during their training period, interpreters will be fully aware of the rationale for the use of the signs in question. When interpreters read prescriptive SUB-MODE [geometrical shapes], visually, they only need to connect the sign with the meaning they have learned, without further extending the meaning of the signs. By comparison, when a sign belonging to creative SUB-MODE [geometrical shapes] is created based on the interpreter's personal habit or immediate response, the encoded information can normally be retrieved only by the interpreter responsible for the note-taking.

The data set also shows that participants who used the most SUB-MODE [vectors] (H) and who used the least SUB-MODE [vectors] (B) have a common tendency:

- the more FEATURE [arrows] they use, the more FEATURE [graphic lines] they will include in their notes. In other words, the less FEATURE [arrows] they use, the less FEATURE [graphic lines] they will include in their notes;
- the more SUB-MODE [vectors] they use, the more SUB-MODE [geometrical shapes] they will include in their notes. Consequently, the less SUB-MODE [vectors] they use, the less SUB-MODE [geometrical shapes] they will include in their notes.

This responds to a personal note-taking preference in terms of using SUB-MODE [vectors] and SUB-MODE [geometrical shapes]. On the one hand, during the interpreting process,
participant B focused on listening and analysing the source text, while simultaneously translating the source speech into the target language in her mind. This would be indicative of a preference to note down the information after having completed the analysis. On the other hand, participant H prefers to use various SUB-MODE [geometrical shapes] in notes for the purpose of saving time. As shown in Table 4.7, she used SUB-MODE [geometrical shapes] ‘(○○)’ (relationship) up to 38 times – every time when she heard the words ‘relation’ or ‘relationship’. Since “note-taking plays an important role in externalization of the process of comprehension, helps the brain to trim the thoughts and makes them listed logically” (Zhang 2012: 182), this repetition indicates that participant H paid more attention to noting down the semantic meaning of the source text in as much detail as she could. In other words, participant B focused more on listening and analyzing, whereas participant H focused on the completeness of the notes while listening to the source speech. When listening to their interpreting output, the renditions provided by participant H contained more repetitive phrases which are in response to the number of SUB-MODE [geometrical shapes] she used, whereas the renditions provided by participant B focused more on delivering the contextual meaning, rather than the semantic meaning of the source text. These different priorities or preferences may not affect the accuracy of the interpreting output, but they would appear to reflect the participants’ different cognitive capacity created through years of practice.

However plausible the finding of the present study may seem, it should be stressed that they can only be regarded as preliminary due to the small size of the sample. The tables in Chapter Four and Chapter Five are provided for the purpose of showing each participant’s note-taking behaviours, instead of attempting to quantify the results.

As noted in section 4.1, when interpreters read their notes, they retrieve information not only pertaining to the NARRATIVE STRUCTURE of the source speech, but also from its VISUAL STRUCTURE, as realised through the disposition of signs on the note pad. It is precisely to the realisation of the VISUAL STRUCTURE in terms of SUB-MODE [composition], SUB-MODE [framing], and SUB-MODE [salience] that the discussion turns in next chapter.
Chapter Five: Data analysis - visual structure

5.1 Introduction

The aim of the analysis in this chapter is to explore and reveal the relationship between the spatial disposition of signs on the note pad and interpreting output. As noted in Section 2.3, when interpreters read notes, they do not only read written signs but also draw on other complementary forms of information pertaining to the spatial disposition of signs. In this chapter, the discussion of the interplay between signs and their spatial disposition will be informed by and structured around the category of visual structure. The discussion and interpretation of results will seek to answer research question three:

What visual structures do interpreters use in retrieving information in the transition between note-reading and interpreting?

The analysis undertaken in this chapter consists of two parts: layout and salience. The first part (layout) scrutinises the layout of notes in terms of how and where written signs are placed on the interpreters’ note pad. Specifically, the chapter explores how the placement of visual or calligraphic signs on the note pad informs the way in which participants sequence the process of information retrieval – resulting from the participants’ choices in the use of sub-mode [composition] and sub-mode [framing]. Through specific combinations of core modes [image and language] with sub-modes [composition and framing], the textual metafunction – which dictates how written and visual signs cohere to formulate texts – is reflected in the visual structure of interpreters’ notes (see subsection 2.2.2). The second part (salience) discusses how participants signal the importance of a specific sign through visual strategies like circling or underlining. The combination of a core mode [image and language] with sub-mode [salience] is thus an important visual strategy for the production and retrieval/interpretation of meaning in interpreters’ notes. Figure 5.1 summarizes the realization of visual structures in the processes of note production and note reading.
5.2 Layout

Layout, which pertains to how signs are spatially arranged on the note pad, can be discussed from two perspectives: SUB-MODE [composition] and SUB-MODE [framing]. Horizontal lines are commonly used in interpreters’ notes to segment different units of meaning. Each meaning section (i.e. the segment of information placed between two horizontal lines) is presented as a visual unit of information (see subsection 2.2.2.1.2). The spatial arrangement of signs within each meaning section will be discussed under the heading of SUB-MODE [composition] (subsection 5.2.1), whilst the function of horizontal lines will be discussed under the heading of SUB-MODE [framing] (subsection 5.2.2).

5.2.1 SUB-MODE [composition] as a set of meaning-making resources

In this subsection, the discussion will draw on selected examples from the data set featuring different spatial arrangements of signs in interpreters’ notes. As was briefly outlined in chapter section 2.2.2, an analysis of VISUAL STRUCTURE informed by the work of Kress and van Leeuwen (2006) involves accounting for choices in FEATURES such as margin and spacing within the notes. Subsection 5.2.1.1 analyses the way in which information in classified, focusing on the use of tree structures, vertical lists and horizontal lists. Subsection 5.2.1.2, on the other hand, examines how the interpreting output is affected by the use of margins.
5.2.1.1 Classificational structure

In a speech, it is not uncommon for speakers to create sentences in which one grammatical subject is presented as performing several actions. More generally, source texts often contain elements that engage in syntactical relationships with clusters of grammatical or lexical units of equal importance. For example, one person (subject) may carry out a number of actions (multiple verbs), while a group of people (multiple subject) may carry out a single action (verb). These clusters or groupings of elements are commonly noted in the form of vertical or horizontal lists. For instance, when one grammatical subject is associated with three different verbs, these actions are usually aligned next to each other (horizontally) – thus forming prominent visual structures in the interpreter’s notes. During the note-reading stage, these conspicuous visual alignments of written signs in notes help interpreters to grasp clearly that actions included in the cluster have the same importance (i.e. play the same grammatical function) in the sentence. This technique, Gillies argues, “holds up to any number of permutations and still offers the interpreter a clear picture of what is going on” (2005: 79). From the perspective of visual communication, the way in which interpreters note the constitutive items of these clusters, whether through tree structures, vertical structures or horizontal structures, can be conceptualised as classificational processes in interpreter note-taking (see subsection 2.3.2.1).

From the perspective of visual communication, SUB-MODE [Composition] refers to the construction of information structures through the visual structures that interpreters choose to list signs in their notes. When the source language contains a list of facts with equal importance, such structures can define or classify signs. These visual structures can be classified into three groups: (1) tree-like lists, (2) vertical lists, and (3) horizontal lists. Tree-like structures can be viewed as the representation of an overt taxonomy which includes an explicit superordinate. Vertically and horizontally structured lists, on the other hand, lack an explicit subordinate, and can thus be viewed as representations of covert taxonomies.

The text used as the basis for the experiment includes seven expressions that could potentially lead participants to use SUB-MODE [composition] to visually define or classify their note signs. The collected data show that most of the participants listed the information vertically. There were only a few occasions where they noted the information horizontally (marked as ‘H’ in the green slots in Table 5.1) or chose not to make any note of the instance.
The results of the analysis of the use of SUB-MODE [composition] in the data set are presented in Table 5.1.

<table>
<thead>
<tr>
<th>[C1]</th>
<th>Participants</th>
<th>No. of vertical list</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends and people I have met over the last two decades either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician. [C1]</td>
<td>A B C D E F G H I</td>
<td>6 6</td>
<td></td>
</tr>
<tr>
<td>This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights. [C2]</td>
<td>H A B A</td>
<td>6 9</td>
<td></td>
</tr>
<tr>
<td>This has been demonstrated in the alliance for the IT-industry, with future opportunities including development of new and emerging industries, green industries, biotechnology, alternative energy, and so forth. [C3]</td>
<td>H A A A A A</td>
<td>9 9</td>
<td></td>
</tr>
<tr>
<td>There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, particularly China, Southeast Asia, India, and even Central and South America. [C4]</td>
<td>H A A A A A</td>
<td>9 9</td>
<td></td>
</tr>
<tr>
<td>We are aware that cross-strait relations are a very important public policy matter, but in this election, there are other issues that are equally, if not more, important. These are issues relating to wealth gap, jobs, and the economy. [C5]</td>
<td>H A A A A A</td>
<td>9 9</td>
<td></td>
</tr>
<tr>
<td>We have a much more government involvement approach in helping the R&amp;D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating the emergence of new industries [C6], which include among others R&amp;D as an industry of its own, green energy, long-term care and medical care.</td>
<td>H A A A A A</td>
<td>7 7</td>
<td></td>
</tr>
<tr>
<td>We have a much more government involvement approach in helping the R&amp;D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating</td>
<td>H A A A A A</td>
<td>9 9</td>
<td></td>
</tr>
</tbody>
</table>
the emergence of new industries, which include among others R&D as an industry of its own, green energy, long-term care and medical care.

<table>
<thead>
<tr>
<th>List of information (vertical structure)</th>
<th>6</th>
<th>5</th>
<th>6</th>
<th>5</th>
<th>7</th>
<th>6</th>
<th>7</th>
<th>7</th>
<th>6</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of information (vertical and horizontal structure)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>58</td>
</tr>
</tbody>
</table>

Table 5.1 Using SUB-MODE [composition] to list information with equal importance

The results can be classified into three groups: (i) instances where the interpreter merges different units of meaning in the source text into a more general term in their notes that includes the meaning of the ones used in the source text (Figure 5.2-5.3, the expressions in question being [various position] and [negotiation] for ‘trade negotiator, minister, vice premier, or as a politician’), (ii) instances where the interpreter reproduces an explicit, itemised list of information horizontally (Figure 5.4-5.5), and (iii) instances where the interpreter reproduces an explicit, itemised list of information vertically (Figure 5.6-5.7).

In instance [C1], where the speaker gives a list of titles that she held in the past twenty years, one third of the participants (3) chose not to note the specific titles in the form of a list. Instead, participants B, D, and F opted to paraphrase the content of the source text. As shown in Figure 5.2 and 5.3, participant B noted the Chinese characters ‘各職’, a generic expression meaning ‘various positions’ to note down the speaker’s titles (Figure 5.2), whereas participant D only noted the word ‘negotiation’ (Figure 5.3).

![Figure 5.2 Notes from Participant B (C1)](image)

ST: Friends and people I have met over the last two decades either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician. [C1]

TT: 在場有許多人士, 是我在任職各種政治職位二十年來, 我有和大家碰面過。

BT: Many people here I have met in the past twenty years when I worked in various political positions.
Friends and people I have met over the last two decades either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician.

In terms of their interpreting output, participant B interpreted the words she noted, whilst participant D added a few words (i.e. ‘other related activities’) by way of complementary information. The Chinese characters ‘各職’(various positions) noted by participant B represent a generalisation of the speaker’s specific titles. The fact that she wrote this information in the target language indicates that she had decided how she was going to interpret this part of the speech while she was taking the notes. On the other hand, participant D only wrote down the first title mentioned by the speaker in the source language, probably due to time pressure. Figures 5.2-5.3 show how the participants used key words as a visual clue to remind themselves of the information they should include in their interpretation. In cases where the list of items included in the source speech is not presented using a specific classificational structure in the notes, it is quite likely that the interpreting output will not be as detailed as the source text.

The following two examples illustrate the strategy adopted by the second group of participants, namely the use of a detailed, itemised horizontal list. In instance [C2], where the speaker mentions a list of universal values (i.e. freedom, democracy and human rights), one third of participants (3) chose to note the information horizontally and segment it using forward slashes (see Figure 5.4).
Figure 5.4 Notes from Participant I (C2)

ST: This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights. [C2]

TT: 而另外我們也看到，美國協防台灣所提供的這種安全與保障，也讓台灣的人民能夠生活在一个不需擔心中國武力威脅環境當中，也因此台灣人民能夠全力的去追求經濟的繁榮以及普世的價值，包括自由、民主及人權等。

BT: We also see that the security and safeguard provided by the US allow Taiwanese people live in an environment where free from Chinese military threats. Therefore, the people of Taiwan can pursue economic prosperity and universal values such as freedom, democracy, and human rights.

As shown in Figure 5.5, participant D was one of the ones who also noted the details of instance [C2] horizontally. In Figure 5.5, the use of the symbol ‘{’ signals that participant D was planning to list the two major information items – namely, (1) economic prosperity and (2) universal values – vertically. She then noted the subsidiary items of information (i.e. 自由 [freedom], 民主 [democracy], and 人權 [human rights]) horizontally next to the second of these information items (i.e. universal values).

Figure 5.5 Notes from Participant D (C2)

ST: This security provided an environment free from Chinese military threats and allowed the people of Taiwan to pursue economic prosperity and universal values such as freedom, democracy, and human rights. [C2]
TT: 我想，台灣非常珍惜跟美國這份非常穩定的關係，那台灣跟美國的關係當中，從1950年代，美國就提供了國防協助，那有助於穩定兩岸之間的一個穩定，那另外呢，兩岸之間的一個穩定做為一個基石之下，我們才能夠在台灣看到有這麼好的經濟發展，甚至除了經濟發展之外，還有人民也得以享受自由、民主跟人權。

BT: I think, Taiwan treasures the stable relationship with the US very much. In terms of the relationship between Taiwan and the US, since 1950s, the US provided national defence assistance which helps to stabilize the cross strait relation. Besides, the stabilization between the cross strait is a cornerstone which allows Taiwan to pursue economic prosperity. In addition to the economic prosperity, Taiwanese people can also enjoy freedom, democracy, and human rights.

As shown in Figure 5.5, she used spacing to visually remind herself that there was information missing in her notes (i.e. universal values) below the first item of information (‘economic prosperity’, noted as ‘eco ↑’) included in the list. In the light of this absence, the horizontal listing of these three items can be viewed as a covert taxonomy, as the superordinate (‘universal values’) is missing from the notes. This also results in incomplete interpreting output: participant D’s interpretation fails to mention ‘universal values’ before referring to the three items. In other words, if the notes contain a covert taxonomy structure, interpreters may try to retrieve information from their short-term memory, experience, or background knowledge to make up for that gap; however, the covert taxonomy structure may also lead to the loss of information.

The following two examples illustrate the strategy used by group three, namely, the use of itemised vertical lists in notes. In Figure 5.6, participant I writes down a vertical list of the positions the speaker held. Participant I does not indicate that the items all come under the implicit notion of ‘working experience’, perhaps because she feels she is able to retain that in her mind. In this case, what is displayed in the notes is the covert taxonomy where the superordinate (working experience) is inferred.
Friends
[familiar faces]

last two decades

trade negotiator
minister
vice premier
politician

Figure 5.6 Notes from Participant I (C1)

ST: Friends and people I have met over the last two decades either as a trade negotiator, or in my capacity as a minister, vice premier, or as a politician. [C1]

TT: 今天在座各位當中，我看到了許多老朋友以及熟悉的面孔，這些朋友都是我在過去二十年來所結識的，過去二十年當中，我曾經擔任過貿易談判代表，擔任過部長，擔任過副院長、行政院副院長，也曾經擔任過政府官員，因此能夠有機會結識在座的很多老朋友。

BT: Today, I see many old friends and familiar face here. These are the friends that I have met in the past twenty years. In the past twenty years, I used to be a trade negotiator, minister, vice premier, and government official, so that I have the opportunity to know many old friends here today.

In the “multi-levelled overt taxonomy” (Kress and van Leeuwen 2006: 87) example shown in Figure 5.7, we can say that the calligraphic sign ‘gov’ [government] is the superordinate. Sub-mode [graphic lines] is used to identify the subordinate elements, namely ‘現農’ [modernize agricultural], ‘infri’ [infrastructure], ‘∞ indy 地 eco’ [links industries and local economies ], and ‘EM ↑ ’[the emergence of new industries]. This spatial distribution visually distinguishes two hierarchies of entities: the superordinate in the left-most layer is the source of information, with the remainder of information complementing the information given by the superordinate. As the source speech unfolds, what is now a superordinate in notes at some point may become an interordinate. In Figure 5.7, the last element ‘EM ↑ ’[the emergence of new industries] may also be regarded as an interordinate facilitating the clustering of further subordinate elements around the node ‘the emergence of new industries’, namely ‘RD’[R&D], ‘Gr’[green energy], ‘L’TCC’[long-term care], and ‘Med’[medical care].
Government help R&D startups
modernize agricultural
infrastructure
links industries
local economies
emergence accelerating
R&D
green
long-term care
medical

Figure 5.7 Notes from Participant G (C6, C7)

ST: We have a much more government involvement approach in helping the R&D phase of startups; in introducing focused programs to develop and modernize the agricultural sector; and in building infrastructure for developing close links between industries and local economies, and for accelerating the emergence of new industries [C6], which include among others R&D as an industry of its own, green energy, long-term care and medical care. [C7]

TT: 那我們政府會積極的提供協助來幫助各個領域的發展，包括了 R&D 這個產業，並且提供現代化的方式幫助農業發展，並且建構需要的基礎建設來連結在地經濟以及產業發展。當然也要持續支持新興產業，像剛提到的研發、綠能、長期照護以及醫療照護產業等等。

BT: Our government will actively provide assistance to develop various areas, which include R&D industry, and will develop the agricultural sector in a modernization way, as well as building infrastructure for connecting local economies and developing industries. Of course the government will continue to support the emergence of new industries, such as the R&D, green energy, long-term care and medical care we just mentioned.

The technique whereby information items with equal importance are listed vertically is known as “verticality” or “tiering” (Rozan 1956). By listing information vertically, interpreters can see at a glance the hierarchies of information value, which may help with correct intonation, speed and accurate interpreting. Although Gillies (2005) claims that noting information with equal importance horizontally in the note pad will make the
information less clear on the page, two of the examples above (Figures 5.4-5.5) show that, even when the participants note the information horizontally, they can still make correct lexical choices in their interpreting. Hence, other things being equal, whether information with equal importance is noted vertically or horizontally, the accuracy of the interpreting output at the lexical level is not affected.

However, even if participants note down the correct words, the way in which they classify information may affect the accuracy of the interpreting output. That is to say, the fact that interpreters place the information (the correct words) to the right or to the left may lead the interpreters, when reading the notes, to adopt different strategies to formulate the interpreting output. In overt taxonomies, the superordinate item is always visible, which allows interpreters to reproduce the different structural layers of the taxonomy, if appropriate, in their interpretation. By contrast, covert taxonomies often lead interpreters to rely on their short-term memory and experience to remember and interpret information items at different levels of the taxonomy in question, which may sometimes result in incomplete interpretations.

5.2.1.2 Meaning-making resources associate with FEATURE [margin]

In this subsection, the discussion will focus on the use of FEATURE [margin] in notes. Before embarking on the discussion proper, I will discuss the way in which speakers signal the relation between ideas. When delivering a speech, some speakers may signal the logical links between ideas by using “discourse connectives”, which indicate “coherence relations between hierarchically organized discourse units” (Unger 1996: 403). Connectives signal the way the speaker wants the hearer to relate what is about to be said to what has been said before (Baker 2011: 200). Baker proposes a classification of discourse connectives which can be summarized as below (ibid.: 201):

(a) additive: and, or, also, in addition, furthermore, besides, similarly, likewise, by contrast, for instance;

(b) adversative: but, yet, however, instead, on the other hand, nevertheless, at any rate, as a matter of fact;

(c) causal: so, consequently, it follows, for, because, under the circumstances, for this reason;
(d) temporal: then, next, after that, on other occasion, in conclusion, an hour later, finally, at last;
(e) continuatives
(miscellaneous): now, of course, well, anyway, surely, after all.

Since connectives are a device for signalling relations between chunks of information, developing a technique for noting them that reflects their importance within a speech would appear to be important. Indeed, a speech without connectives is a meaningless list of ideas (Gillies 2005). In order to make sure the logical links can be found at first glance when interpreters read their notes, it is imperative to reserve a place in the left-hand margin for noting these logical links (Jones 2002, Gillies 2005). If interpreters do not pay sufficient attention to these structuring devices, serious instances of misinterpretation may occur (Herbert 1956). In other words, it is recommended that logical information should be noted on the left-hand margin so that it is appropriately highlighted.

It is worth noting that the use of the left hand margin in the data set is not always in line with the practices that the literature describes. FEATURE [margin] is realized differently in my data set. Instead of drawing a margin down the left-hand side of every page, participants make use of the left most part of the noting area – whether it is a whole page or a column – to mark those connectives that have to do with logical links. It will be argued that, even though the participants did not follow the recommended rules in the literature about margin use, the space on the left-hand side of each meaning section can still realize the function of FEATURE [margin]. Hence, the discussion will focus primarily on the analysis of FEATURE [margin] in notes as an attempt to pinpoint how the items being placed on the left side of each meaning section may affect participants’ perception of information.

The text used as the basis for the experiment includes seven excerpts that could lead the participants to use FEATURE [margin] to indicate connectives within the speech. The collected data show that most of the participants listed the logical information on the very left-hand side, whilst the FEATURE [margin] played no role in the notes of other participants. The results from the analysis of the use of FEATURE [margin] are presented in Table 5.2.
Although there are constraints on our interactions with Chinese interlocutors during the election, we will be proactive in seeking dialogue and stabilizing the relationship immediately following the election, and throughout the transition period.

I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010. By contrast, over the last three years, Taiwan-US trade relations remained at a standstill.

Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007. However, by contrast, the number of international professionals decreased by 8 percent during the same period. This trend is taking us in the opposite direction of upgrading the quality of our human capital. Therefore, I propose introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals.

Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007. However, by contrast, the number of international professionals decreased by 8 percent during the same period. This trend is taking us in the opposite direction of upgrading the quality of our human capital. Therefore, I propose introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals.

At this critical juncture, I wish to call on establishing a new strategic partnership between Taiwan and the US for the following reasons: One, both Taiwan and the US share common interest in, and responsibility for regional security and stability. Particularly with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region. Second, for decades, Taiwan and the US have both been firm believers in, and committed to the principles of free trade. Taiwan has always kept pace with the US in forming its trading rules.
and regulations. This common basis allows greater room for cooperation when working towards establishing a trading order for the region. **Third**, Taiwan and US’s tradition of business partnership will be mutually beneficial in exploring new and emerging markets, particularly for markets in this region. This has been demonstrated in the alliance for the IT-industry, with future opportunities including development of new and emerging industries, green industries, biotechnology, alternative energy, and so forth. There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, particularly China, Southeast Asia, India, and even Central and South America. By taking advantage of the business alliance between Taiwan and US, we can be key contributors in the global economic recovery. [C13]

The future of the new strategic partnership would need efforts from both sides particularly **on the following areas**: **First of all**, a peaceful and stable cross-strait relationship is key to continuing Taiwan and US relations. When I am elected president next year, I will place great effort in maintaining peace and stability in the Taiwan Strait. This is my responsibility towards the 23 million people in Taiwan, and our responsibility as a member of the Asia Pacific region. **Secondly**, in the area of Taiwan and US trade relations, I will pursue free trade policies and objectives, which I believe are the common goals shared by our two sides. I wish to point out that the Ma administration, over the past three years, has only actively pursued trade relations with China, the relationship was taken a step further with the signing of ECFA in June 2010. By contrast, over the last three years, Taiwan-US trade relations remained at a standstill. **In addition**, I should strengthen and promote Taiwan and US exchanges. We should be enhancing the function and operation of TIFA and, on this basis, establish mechanisms to facilitate regular visits between high-level officials; not only would this be conducive to resolving outstanding issues, but it would contribute to furthering communication and understanding between the two sides for the way forward. [C14]

<p>| | | | | | | | | | | |</p>
<table>
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<td>3</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 5.2 Using **FEATURE [margin]** to present information indicating logical progression

Using instance [C9] as an example, Figures 5.8 to 5.10 show how the same information (i.e. **by contrast**) can be noted. Participants note the connectives on their pads in three different ways: (i) using the same word as the speaker did in the source language (Figure 5.8); (ii) offering a semantic distillation of the word used by the source language speaker (Figure 5.9);
and (iii) using a symbol to represent the information (Figure 5.10). Despite this variation, all three approaches involve the use of the left-hand margin (Figures 5.8 – 5.10).

<table>
<thead>
<tr>
<th>Contrast</th>
<th>US</th>
<th>standstill</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan</td>
<td>Taiwan</td>
<td>Korea</td>
<td>Korea</td>
</tr>
<tr>
<td>US</td>
<td>Korea</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.8 Notes from Participant D: using the same word as the source text

<table>
<thead>
<tr>
<th>Ma administration</th>
<th>past three years</th>
<th>with China</th>
<th>a step further</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECFA</td>
<td>June 2010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

But [By contrast]
Taiwan-US trade standstill

Figure 5.9 Notes from Participant I: offering a semantic distillation of the ST information

<table>
<thead>
<tr>
<th>Relationship</th>
<th>a step further</th>
<th>ECFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By contrast
US-Taiwan standstill

Figure 5.10 Notes from Participant H: using a symbol to represent the ST information
To facilitate the discussion of instances [C10], [C11] and [C12] in my data set, I have divided the fragment of the source speech containing such instances into individual ideas, as represented in Table 5.3. The links between the ideas/sentences included in this fragment have been highlighted in bold.

| Ideas | 
|-------|---|
| 1     | Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007. |
| 2     | **However** [C10], **by contrast** [C11], the number of international professionals decreased by 8 percent during the same period. This trend is taking us in the opposite direction of upgrading the quality of our human capital. |
| 3     | **Therefore** [C12], I propose introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals. |

Table 5.3 Use of links in the fragment containing instances [C10], [C11], and [C12]

Idea 2 is a counter argument to Idea 1 – with *however* and *by contrast* acting as adversative and additive connectives, respectively. Idea 3 [C12], on the other hand, is a consequence of Ideas 1 and 2 [C10] and [C11]. The discourse marker conveying the connective meaning is *therefore*.

In Idea 2, the speaker used two links in one sentence, namely, *however* and *by contrast*. As the purpose of these two linking terms is to signal a counter argument, instead of noting both of them, most of the participants chose to distil the core meaning of these two connectives into either a calligraphic sign (Figure 5.11) or a symbol (Figure 5.12, marked with a red circle for the benefit of the reader).

As shown in Figures 5.8-5.12, participants came up with a short word or a simple symbol to represent the additive connective (i.e. ‘by contrast’). According to Gillies (2005), one type of connective can be realized by different expressions in the speaker’s original, but as they still belong to the same class of connectives, these expressions can be noted in the same way. The fact that a range of additive connectives end up being simplified into *but* indicates that participants are “distilling the original message down to its simplest form” (*ibid.*, 60). The distilling of the meaning of original expressions is meant to make the notes clear. When participants interpret the speech, they will be able to choose from the many expressions in
the target language that can express ‘additive’ connectives without being tied down by the speaker’s version.

Ma government

increased 16 percent foreign laborers compared 2007

But [however, by contrast]

professionals decreased 8 percent [misnoted as 6 percent]

<table>
<thead>
<tr>
<th>Ma</th>
<th>Ma government</th>
</tr>
</thead>
<tbody>
<tr>
<td>-↑</td>
<td>increased 16 percent</td>
</tr>
<tr>
<td>-</td>
<td>foreign laborers</td>
</tr>
<tr>
<td>-&lt;</td>
<td>compared</td>
</tr>
<tr>
<td>2007</td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.11 Notes from Participant I (C10)

ST: Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007. **However** [C10], **by contrast** [C11], the number of international professionals decreased by 8 percent during the same period.

TT: 在馬總統的就任期間，與2007年相比，台灣的外籍勞工人數增加了百分之十六，但是同期國際性的專業人才卻下降了百分之六。

BT: Under the Ma government, the number of foreign laborers in Taiwan increased by 16 percent compared to that of 2007. **But** during the same period, the number of international professionals decreased by 6 percent.

The word ‘therefore’ [C12] in Idea 3 represents a consequence of Ideas 1 and Idea 2. In order to show this link, four out of nine participants opted to use either a calligraphic sign or a symbol (Figure 5.12, marked as blue circle) to represent the transition between the two ideas. As shown in Figure 5.12, the links mentioned in Table 5.3 were noted on the very left-hand side of each meaning section on the notepad. As a result, all four participants who noted instance [C12] by means of a calligraphic sign or a symbol also interpreted the information into the target language. By comparing the notes with the interpreted output, it becomes apparent that noting links on the far left-hand side of each meaning section motivated most participants to use connectives in their interpreting output to connect sentences.
<table>
<thead>
<tr>
<th>Under Ma</th>
<th>Opposite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laborers</td>
<td>Upgrading human capital</td>
</tr>
<tr>
<td>16 percent</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
</tr>
</tbody>
</table>

**by contrast**
- professionals
- decreased 8%

**Therefore**
- regulation
- obstacle to
- legislation
- talent

---

Figure 5.12 Notes from Participant A (C10, C11)

**ST:** Under the Ma government, the number of foreign laborers increased by 16 percent compared to that of 2007. **However** [C10], **by contrast** [C11], the number of international professionals decreased by 8 percent during the same period. This trend is taking us in the opposite direction of upgrading the quality of our human capital. **Therefore** [C12], I propose introducing special regulations, or even legislation, to remove obstacles preventing the entry of senior experts and professionals.

**TT:** 在2007年以來，馬總統的執政之下，外籍勞工增加了百分之十六，但是相對的，在專業的人才上面，我們卻減少了百分之八，這樣的趨勢，反而是對台灣的發展並不是一件好事。**因此**我們一旦重新執政的時候，我們會積極的制訂一些規範甚至是法規來減少人才流動的相關障礙。

**BT:** Since 2007, under the Ma administration, the number of foreign laborers increased by 16 percent. **But on the contrary**, in terms of the professional talents, we decreased 8 percent. This trend is not a good way of development for us. **Therefore**, once we return to the government, we will proactively legislated regulations or laws in order to remove obstacles of talents flows.
5.2.2 Meaning-making resources associate with SUB-MODE [framing]

In this subsection, the discussion will focus on the use of SUB-MODE [framing] in notes. When learning note-taking skills, learners usually focus on ‘what to note’ and ‘how to note’. In terms of ‘how to note’, trainee interpreters are often taught to use framing devices, specifically: the left-hand margin for the links between ideas, and a vertical layout to list information with the same value (Jones 2002). These are note-taking skills that can be helpful for interpreters to read back their notes in a more efficient way. A clear layout of notes, affected by these framing devices, can facilitate the production stage of consecutive interpreting (Gillies 2005).

From the perspective of visual communication, framing suggests that compositional elements can either be presented as separate identities or as belonging together. In other words, framing ‘connects’ or ‘disconnects’ elements. According to Kress and van Leeuwen (2006), visual framing is a matter of degree: the composition of note segments can be either strongly or weakly framed. On the one hand, “the stronger the framing of an element, the more it is presented as a separated unit of information” (ibid.: 203). On the other hand, “the more the elements of the spatial composition are connected, the more they are presented as belonging together, as a single unit of information” (ibid.: 203-4).

Figure 5.13 is a screenshot from Ingmar Bergman’s Through a Glass Darkly (1961). Kress and van Leeuwen (2006) use this picture to demonstrate how framing represents the relationship between Karin, who suffers from an incurable mental illness, and her problematic younger brother, Minus. A frame line in Figure 5.13 is created by the left post of the door because of the dark colour. This frame line literally and figuratively separates Minus from his sister, and forms a communicative gap between them. Kress and van Leeuwen suggest that framing in images can be achieved in at least three ways: using actual frame lines, white space between elements, and discontinuities of colour.
Framing in notes can be achieved by drawing a horizontal line between units of meaning and by using space between elements. Drawing a short line after each idea to separate it clearly from the next one can help interpreters read back their notes in a more efficient way. When the speaker gives a longer speech, the interpreter may draw a short horizontal line between what they perceive as different units of meaning in their notes to indicate the boundary between them. These horizontal lines also serve to remind themselves of the need to adapt their intonation pattern to the initial and final stages of each unit of meaning. However, “if this is considered superfluous, as the diagonal layout of a page should in any case separate ideas, a line should at least be drawn after each complete sentence” (Jones 2002: 47-48).

Short horizontal lines, then, act as visual boundaries that allow interpreters to separate what they consider to be different meaning units and to indicate that the information between two horizontal lines belongs together. When horizontal lines are used in this way, interpreters will proceed with the interpreting sequentially, based on the ordering of sections. Occasionally, however, participants may use a recall line (subsection 4.2.1) to represent specific relations (such as cause-effect or lexical repetition, to give but only two examples) between sections – which may cause interpreters to restructure the source speech by moving

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information across sections. On the whole, the use of horizontal lines visually helps participants to remind themselves of the ordering of elements in the speech. They interpret their notes section by section, and each section represents what they treat as a complete unit of meaning in their interpreting output.

The way in which participants use horizontal lines is ultimately a matter of individual habit. As can be seen from Figures 5.14 and 5.15, participants D and E segmented the source speech into information units at different points, thus showing that the processing of information can vary from person to person. The source text fragment noted in Figures 5.14 and 5.15 contains eight sentences presented in Table 5.4:

<table>
<thead>
<tr>
<th></th>
<th>The US government has stressed the importance of the region and recent statements and actions by President Obama and Secretary Hilary Clinton have reflected the move in this direction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>This is also a time when Taiwan is seeking to re-position itself in light of global economic and political re-structuring.</td>
</tr>
<tr>
<td>3</td>
<td>At this critical juncture, I wish to call on establishing a new strategic partnership between Taiwan and the US for the following reasons:</td>
</tr>
<tr>
<td>4</td>
<td>One, both Taiwan and the US share common interest in, and responsibility for security and stability.</td>
</tr>
<tr>
<td>5</td>
<td>Particularly with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region.</td>
</tr>
<tr>
<td>6</td>
<td>Second, for decades, Taiwan and the US have both been firm believers in, and committed to the principles of free trade.</td>
</tr>
<tr>
<td>7</td>
<td>Taiwan has always kept pace with the US in forming its trading rules and regulations.</td>
</tr>
<tr>
<td>8</td>
<td>This common basis allows greater room for cooperation when working towards establishing a trading order for the region.</td>
</tr>
</tbody>
</table>

Table 5.4 The source text of Figures 5.16 and 5.17
TT: (1) 我想這樣的看法在美國官方也是強調了很多次，特別是在歐巴馬總統以及希拉蕊柯林頓也都提過這件事情，(2)這個時候台灣也是正積極的想要利用全球的政治跟經濟重整的機會，再次為自己定位。(3) 在這樣的條件之下，我個人也提議美國跟台灣要建立起來一個新的夥伴關係，主要原因如下：(4) 第一個就是美國跟台灣在亞洲區域的安全跟穩定方面，有共同的利益也有共同的責任，(5) 特別是面對中國的崛起。因此美國跟台灣的合作，其實是非常有助於亞太區域的和平穩定與繁榮。(6) 在過去好幾十年來，美國跟台灣都非常重視自由貿易，那我想美國台灣要在這方面成為很好的夥伴關係呢，是有利的，(7) 因為台灣在過去以來，在貿易方面的相關規範，都經常是跟隨著美國的腳步，(8) 因此這可以做為一個很好的基礎，並且做一個很好的範例，可以來重建這個區域的貿易秩序。

BT: (1) I think this point of view has been stressed by The US government for several times, especially by President Obama and Secretary Hilary Clinton. (2) This is a time when Taiwan is actively seeking to re-position itself in light of global economic and political re-structuring. (3) Under such circumstances, I personally suggest that the US and Taiwan should establish a new partner relationship. The main reasons are:

(4) First, the US and Taiwan share the same benefit and responsibility in terms of the security and stability in Asia. (5) Especially with the rise of China. Therefore, the cooperation between the US and Taiwan and the US is benefit to jointly maintain peace, stability, and prosperity in Asia-Pacific region.

(6) For decades, Taiwan and the US have both been firm believers in the principles of free trade. I think it is benefit for The US and Taiwan developing a good partner relationship. (7) Because Taiwan has always kept pace with the US in forming its trading rules and regulations. (8) Hence, this is a good basis for cooperation when establishing a trading order for the region.
TT: (1) 美國也非常強調亞太這個地區所扮演的重要角色。我們可以從美國總統歐巴馬跟國務卿多次的發表的談話當中就知道美國也體認到亞洲所扮演的重要性。 (2) 我認為現在也是一個非常好的契機，讓台灣可以重新定位他的角色，可以在政治跟經濟上面重新做結構的調整。 (3) 因此在這裡我要呼籲，我們應該和美國建立一個全新的夥伴關係。我會做這樣子的呼籲，是基於下列幾個原因： (4) 第一，台美之間長久以來抱持著許多共同的利益，我們都期待能夠在亞太地區看到穩定的成長， (5) 尤其中國的興起之後，我們更期待雙方之間能夠有穩定的關係發展。而我們認為，台灣跟美國之間如果能夠更密切的合作的話，必定能夠促進這個地區的和平、穩定以及繁榮。 (6) 第二個原因是過去幾十年來，台美都非常堅信自由貿易協定的重要價值， (7) 我們也認為經由各種的改革跟法律限制的改革，才能夠促成自由貿易的成長， (8) 所以我認為，也唯有藉由台美建立這樣一個新的策略夥伴關係，我們才可以為亞洲制定一個新的貿易秩序。

BT: (1) The US has also stressed the importance of Asia Pacific for many times. We can understand that the US also recognizes the importance of Asia from the talks given by President Obama and Secretary Hilary Clinton. (2) I think this is a very good timing for Taiwan to re-position itself in light of global economic and political re-structuring. (3) Therefore, I would like to call on establishing a new strategic partnership between Taiwan and the US. The reasons I make such suggestions are for the following reasons: (4) First, both Taiwan and the US share common interest in, and we are looking forward to see the stable growth in Asia Pacific region. (5) Particularly with the rise of China, we need to have a stable cooperation. And we believe that the closer cooperation between the US and Taiwan will increase peace, stability, and prosperity in the region. (6) The second reason is that in the past decades, Taiwan and the US have both been firm believers in the important value of free trade. (7) We also believe that only through the reformation can increase the growth of free trade. (8) So, I believe, only through the establishment of a new relationship between the US and Taiwan, we can create a new trading order in Asia.
In the source text, the speaker mentioned the pronoun *I* only once. However, the results indicate that the number of chunks into which participant segment the source speech may affect how often the pronouns *I* or *we* will be used as subjects in their interpretations – which, in turn, is an indication of the number of content units into which the interpreter has divided the source speech. In Figure 5.14, participant D segmented these eight sentences into three chunks. In terms of her interpreting output, two out of three chunks use the pronoun *I* as the subject in her rendition. As can be seen in Figure 5.15, participant E’s notes segmented these eight sentences into seven chunks. A comparison of the notes with the interpreting output shows that six out of seven chunks use the pronoun *I* or *we* as the subject at the beginning of each sentence. Unlike participant D, who divided the source speech into three units of information, participant E would appear to find it easier to process the source text by segmenting it in a much bigger number of units of information. In her version, each of the seven chunks is regarded as an individual unit of meaning separated by horizontal lines – which assist the interpreter in finding the beginning of each unit of content in the source speech. Therefore, although the use of horizontal lines could simply be viewed as a way of segmenting units of meaning and would not appear to have any specific meaning, my data set indicates that participants’ renditions are influenced by the presence of such visual resources in their notes. Specifically, my results show that horizontal lines influence how interpreters structure their interpreting output in terms of syntactic complexity – and by extension the number of sentences/ clauses they use to formulate in the target language each of the content units contained in the source speech.

But horizontal lines should not only be viewed as a way to segment the source speech into different units of meaning in the interpreters’ notes. The results of my experiment suggest that they also served to remind participants of the need to monitor and modulate their intonation while interpreting. When the speaker pauses to signal the end of a speech section, participants usually draw an eye-catching mark in their notes (Figure 5.16-17) in order to visually remind themselves to adopt an intonation pattern that signals the imminent completion of the current information unit. This mark also helps participants to spot very quickly the starting point of the next information unit in their notes.
As illustrated in this section, horizontal lines are not only used in notes to segment units of information, but also a way to reflect the participants’ cognition processes visually.

5.3 Meaning-making resources associate with SUB-MODE [Salience]

The variable to be analysed in this section is SUB-MODE [salience]. The discussion will draw on selected examples from the data set featuring the way in which interpreters use certain elements to remind themselves of the importance of specific elements of information.

SUB-MODE [Salience] involves noting information in an eye-catching way. In the process of consecutive interpreting, when speakers attempt to stress or attenuate particular points or words, interpreters have a range of visual meaning-making resources to draw on to record this emphasis. For instance, Gillies (2005) suggests that interpreters might note the information in bigger letters on the page so that they can tell at a glance from the size of the letter how important a given item of information is. By doing so, it is claimed, interpreters are able to remind themselves of the relative importance of each noted element vis-à-vis
other elements in the vicinity. However, not surprisingly, the use of larger size letters or characters is not attested in my data because, as we will see, it is difficult to control the size of one’s notes when writing at speed.

From the perspective of visual communication, then, the term ‘salience’ is used to indicate that some elements can be made more eye-catching than others. Salience is not objectively measurable, but the result of a complex interaction or trade-off relationship between a number of factors: size, sharpness of focus, tonal contrast, colour contrasts, placement in the visual field, perspective and cultural factors (Kress and van Leeuwen 2006). Regardless of how and where the elements are placed, “salience can create a hierarchy of importance among the elements, selecting some as more important, more worthy of attention than others” (ibid.: 201).

Kress and van Leeuwen’s analysis of the image presented in Figure 5.13 can be drawn upon to demonstrate how salience works. In contrast to other elements in the screenshot, Karin, who is placed in the foreground, is the most salient element. The Karin’s larger size (relative to other elements featured in the image) serves to catch the viewer’s attention. Indeed, according to Kress and van Leeuwen, when multiple elements are involved in the composition, viewers are intuitively able to judge the ‘weight’ of the various elements on the basis of visual clues: the greater the weight of an element, the greater its salience (ibid: 202).

In terms of interpreters’ notes, SUB-MODE [Salience] refers to how interpreters signal the importance of a specific sign through visual strategies like circling or underlining. SUB-MODE [Salience] is normally signalled in notes when the source text contains an adjective or an adverb that has been used for the purposes of emphasis (e.g. ‘key’, ‘major’, ‘in particular’ and ‘especially’). The text used as the basis for the experiment includes twenty-three excerpts that could lead participants to use SUB-MODE [Salience] to visually acknowledge the importance of a specific sign in notes.

Participants can choose among three different sets of conventions to reflect the emphasis that speakers place on certain elements of their speech: (1) natural language, (2) formal language, and (3) visual devices. The results from the analysis of the use of SUB-MODE [Salience] are presented in Table 5.5. In this table, the left hand column lists the twenty-
three pre-determined instances that could have prompted the participants to use SUB-MODE \textit{[Salience]} to signal the importance of a sign. The following set of columns (under headings A-I) show whether the participants noted the information using a natural language such as Chinese or English (marked as ‘N’ in the green slots), a formal language based on symbols (marked as ‘F’ in the blue slots), or a combination of natural and formal language (marked as ‘N+F’ in the pink slots). Visual devices such as circle or underlining (marked as ‘V’ in the yellow slots) can be used in combination with either natural languages or formal languages, as well as with a combination of both. The right-most column (Total Ps) indicates the aggregated number of participants who have noted the information in the forms of calligraphic signs and visual devices. The results shown in the fifth to second rows from the bottom pertain to the instances of natural language, formal language, visual devices, and combinations of natural language and formal language, respectively, used by each individual participant, whilst the results presented in the bottom row pertain to the overall number of instances noted by each participant.

<table>
<thead>
<tr>
<th>Participants</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>TOTAL Ps(^{45})</th>
</tr>
</thead>
<tbody>
<tr>
<td>[S1] The friendship between Taiwan and the US dates back six decades. Over the sixty years, Taiwan and the US have not only been national security partners but the US is also one of Taiwan’s \textit{key economic and trading partners} [S1].</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>F</td>
<td>N</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>[S2] The US government, as well as US businesses, have become our partners and our \textit{strongest support} [S2] in managing globalization strategically.</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>[S3] In the aftermath of the global financial crisis in 2008, nations around the world have undergone \textit{major changes} [S3].</td>
<td>N</td>
<td>N</td>
<td>F</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

\(^{45}\) Total Ps = total number of participants noting information
<table>
<thead>
<tr>
<th>[S4]</th>
<th>Despite the challenges, the Asia Pacific region, especially Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[S5]</td>
<td>With the long-time tradition of the friendship and close business cooperation shared between Taiwan and the US, Taiwan will remain as an <strong>essential and crucial partner</strong> [S5] of the US in the region.</td>
</tr>
<tr>
<td>[S6]</td>
<td>President Ma, like myself, has <strong>stressed the importance</strong> [S6] of the Taiwan-US relationship, and in particular, the balance in the trilateral relationship between Taiwan, US, and China; I must point out that since 2008, under the Ma administration, the speed of the development between Taiwan and China have far out-paced the relationship between Taiwan and the US.</td>
</tr>
<tr>
<td>[S7]</td>
<td>President Ma, like myself, has stressed the importance of the Taiwan-US relationship, and <strong>in particular</strong> [S7], the balance in the trilateral relationship between Taiwan, US, and China; I must point out that since 2008, under the Ma administration, the speed of the development between Taiwan and China have far out-paced the relationship between Taiwan and the US.</td>
</tr>
<tr>
<td>[S8]</td>
<td>Restoring the balance in the trilateral relationship would be one of my <strong>key tasks</strong> [S8] in managing our external relations when I am elected president.</td>
</tr>
<tr>
<td>Sentence Numbers</td>
<td>Text</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>[S9]</td>
<td>Global trends are beginning to show that harnessing Asia’s growth and dynamism and broadening cooperation with the region would be the <strong>key</strong> [S9] to leading the global economy forward.</td>
</tr>
<tr>
<td>[S10]</td>
<td>The US government has <strong>stressed the importance</strong> [S10] of the region and recent statements and actions by President Obama and Secretary Hilary Clinton have reflected the move in this direction.</td>
</tr>
<tr>
<td>[S11]</td>
<td><strong>Particularly</strong> [S11] with the rise of China, Taiwan and the US need to have even closer and stronger cooperation, in order to jointly maintain peace, stability, and prosperity in the region.</td>
</tr>
<tr>
<td>[S12]</td>
<td>Third, Taiwan and US’s tradition of business partnership will be mutually beneficial in exploring new and emerging markets, <strong>particularly</strong> [S12] for markets in this region.</td>
</tr>
<tr>
<td>[S13]</td>
<td>There is much room for cooperation and mutual benefit. The traditional close business relationship and cooperation will help us explore new and emerging markets, <strong>particularly</strong> [S13] China, Southeast Asia, India, and even Central and South America.</td>
</tr>
<tr>
<td>[S14]</td>
<td>By taking advantage of the business alliance between Taiwan and US, we can be <strong>key contributors</strong> [S14] in the global economic recovery.</td>
</tr>
<tr>
<td>[S15]</td>
<td>The future of the new strategic partnership would need efforts from both sides <strong>particularly</strong> [S15] on the following areas.</td>
</tr>
</tbody>
</table>
First of all, a peaceful and stable cross-strait relationship is **key** to continuing Taiwan and US relations.

We are aware that cross-strait relations are a **very important public policy matter**, but in this election, there are other issues that are equally, if not more, important.

Many of you would know that Taiwan’s **keenest competitor** in global trade is the Republic of Korea.

It is my belief that when DPP returns to the government, we will, **in the shortest time** possible, prepare Taiwan for joining the TPP.

It is, therefore, **important to take action as soon as possible** to resolve some of the outstanding disputes in our trade relationship, so that there will be opportunities to build on TIFA and to move forward from there.

I wish to take this opportunity to re-assure you that when the DPP is in the government again, the team will place quality communication as its **highest priority**.

At the same time, I am confident that communications between the DPP government, and the US government and AMCHAM will much improve so that AMCHAM’s current complaints on government efficiency will be reduced **drastically**. I mean **drastically**.
I am confident that I’m going to win the presidential election next year. I am looking forward to a prosperous future for Taiwan and US relations, particularly in establishing a new strategic partnership.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural language (N)</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Formal language (F)</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Visual device (V)</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Natural language + Formal language (N + F)</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>10</td>
<td>9</td>
<td>11</td>
<td>8</td>
<td>16</td>
<td>12</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 5.5 Using SUB-MODE [Salience] to signal the importance of information

In what follows, the analysis will focus on how participants use visual devices as meaning-making resources, since natural and formal languages have already been discussed as calligraphic signs in section 2.2.3, under CORE-MODE [language].

As shown in Table 5.5, eight out of nine participants use visual devices to produce and retrieve meaning in their notes. The collected data shows that visual devices in notes are always presented in the forms of circling or underlining, and are always accompanied by formal or natural languages that need to be emphasized. Insofar as both formal and natural languages have been allocated a clear and specific meaning, when such information needs to be emphasized, interpreters may require other visual devices to remind themselves of the importance of the message. With interpreters performing under time pressures, emphatic terms such as ‘especially’ or ‘particularly’ seem to be treated as less important and tend to be ignored. In instance [S4], for example, when the speaker uses the term ‘especially’ to emphasise the importance of Asia, two-thirds of the participants failed to note this information. Only one-third of participants chose underlining (Figure 5.18) or circling (Figure 5.19) to stress the importance of the information.

In Figure 5.18, participant I drew a short line under the word ‘Asia’, reflecting the fact that the speaker used the term ‘especially’ to emphasise the importance of Asia in the Asia Pacific region. Although this emphatic expression (‘especially’) is not noted in the form of calligraphic sign, an emphatic expression ‘特別’ (especially) still can be found in the
Chinese rendition, with the underlining presumably reminding the interpreter to add this emphasis.

**Figure 5.18 Notes from Participant I (Underlining Asia to note ‘especially’) (S4)**

ST: Despite the challenges, the Asia Pacific region, especially [S4] Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn.

TT: 但是儘管面臨這樣子的挑戰，亞太地區，特別是亞洲，仍然展現出非常驚人的活力。

BT: But despite facing such a challenge, the Asia Pacific region, especially Asia, has demonstrated relative vitality.

**Figure 5.19 Notes from Participant F (Circling 亞[Asia] and 生[vitality], to signal emphasis) (S4)**

ST: Despite the challenges, the Asia Pacific region, especially [S4] Asia, has demonstrated relative vitality and the potential for growth in the global economic downturn.

TT: 這也使各國政府面臨極大的挑戰。亞太地區的國家，特別是亞洲的國家，在這個金融危機上因應似乎非常的靈活，而且還有成長進步的空間。

BT: This causes governments around the world to face huge challenge. The Asia Pacific region, especially countries in Asia, seems to respond to the financial crisis in a very flexible way and also has space for improvement.
In addition to underlining, participants may also choose circling to highlight specific information. As shown in Figure 5.19, participant F noted down two signs ‘亞太’ (Asia pacific), then drew a circle around the sign ‘亞’ (Asia) to highlight this piece of information, and used a curved line to connect the circle with another sign ‘esp’ (especially). The combination of circling and curved line in Figure 5.19 constitutes a visual device which helps the participant to visually connect the sign ‘亞’ (Asia) with ‘esp’ (especially) – signalling that Asia is especially important. It is also worth noting that in the Chinese rendition, participant F also used ‘huge’ and ‘very’ to emphasize ‘challenge’ and ‘flexible’, respectively. Although the speaker did not emphasize ‘challenges’ and ‘vitality’, for some reason, participant F noted down emphasis (circle around the character for vitality in the notes), and this led her to add emphatic signals in her rendering that do not originate in the source speech.

5.4 Conclusion

This chapter has attempted to gain insight into the interaction between core modes and sub-modes used in interpreters’ notes in order to achieve a better understanding of how interpreters retrieve information and encode it in note form. It focused on discussing VISUAL STRUCTURE in terms of the function of SUB-MODE [composition], SUB-MODE [framing] and SUB-MODE [salience] in notes.

In terms of SUB-MODE [composition], the data has revealed a rather dominant pattern in which the interpreters tend to list information with equal importance either vertically or horizontally. Noting information with equal importance vertically or horizontally does not seem to affect the accuracy of the interpreting output at the lexical level. However, when covert taxonomies feature in the source text, vertically ordered lists allow easier and more accurate retrieval of the input.

SUB-MODE [framing] can assist interpreters in retrieving information through the use of horizontal lines. It provides interpreters with a visual clue as to how to go about segmenting the different chunks of meaning. Although the way in which interpreters use SUB-MODE [framing] is a matter if individual habit, the results show that interpreters are visually guided by horizontal lines in terms of how they structure the interpreting output.
The data also suggests that interpreters frequently use visual devices such as underlining or circling to highlight specific information. The use of visual devices in notes is always accompanied by formal or natural languages that need to be emphasized through these devices. In terms of SUB-MODE [saliency], these visual devices provide a cue for interpreters to add emphatic signals in their rendering that may not originate in the source speech.

The next and final chapter will attempt to summarise the findings of the study and outline areas for future research.
Chapter Six: Conclusion

This thesis is a pioneering study insofar as it investigates how consecutive interpreters use verbal and non-verbal meaning-making signs in their notes as resources to create multimodal communicative artefacts from the perspective of Social Semiotics. The premise underpinning this research is that the semiotic resources used in interpreters’ notes, as well as the way in which such resources are placed and organized on the note pad, play an essential role in (i) capturing and representing the semantic and logical relationships underpinning the source text; and (ii) verbalising and structuring of the interpreting output. Given the multimodal nature of the semiotic resources deployed in the data set, I argue that this study constitutes an original attempt to explore in depth how interpreters’ meaning-making processes are constrained and/or shaped by the interplay between verbal and non-verbal semiotics.

In this concluding chapter, the main objectives of this thesis are revisited, and the set of research questions formulated and articulated at the beginning of this study are responded. The analysis are summarised in section 6.1 and a tentative explanation for these outcomes will be suggested in section 6.2. This will be followed by an appraisal of the limitations and contributions of the research in section 6.3 and 6.4, respectively, and some recommendations on how our findings can serve as a basis for future research is addressed in section 6.5.

6.1 Summary

In response to the research questions presented in Chapter One, the current study has attempted to identify the network of modes and sub-modes used in interpreters’ notes from the perspective of Social Semiotics for the purpose of achieving a better understanding of the multimodal nature of notes. In order to identify regularities and patterns in the use of linguistic and visual semiotic resources in interpreters’ notes, Chapter Two proposed a theoretical framework for analysing such unique texts based on the concepts of Social Semiotics and visual grammar. In this integrated multimodal analytical framework, interpreters’ notes are viewed as multimodal. The present research argues that the way in which interpreters read their notes, to some extent, is influenced by NARRATIVE STRUCTURE
and VISUAL STRUCTURE, which involves the interaction between two CORE-MODES [image and language] and a range of SUB-MODES [vectors, geometrical shapes, composition, framing, salience, and calligraphy]. By drawing on this integrated framework that combines insights from Interpreting Studies and Social Semiotics, the remainder of this section delivers an overview of the findings drawn from the data set – as reported in Chapter Four (question two) and Chapter Five (question three), respectively.

To answer research question two, Chapter Four reported on the findings of the NARRATIVE STRUCTURE analysis, focusing on the use of vector and geometrical shapes that can be identified and described with reference to Kress and van Leeuwen’s notion of narrative representation. The analysis consisted of two parts involving the combination of CORE MODE [image] with SUB-MODE [vector] and SUB-MODE [geometrical shapes], respectively.

Firstly, the analysis in section 4.2 delivers an account of the ideational metafunction realised by the NARRATIVE STRUCTURE through specific combinations of CORE MODE [image] and SUB-MODE [vector] to build connections between different entities in notes. The examination of the data set reveals that SUB-MODE [vectors] can assist interpreters in retrieving information through a number of combinations with other resources: (1) when SUB-MODE [vectors] is accompanied by SUB-MODE [calligraphic signs], the former normally add a further explanation to or qualify the meaning expressed by SUB-MODE [calligraphic signs]; (2) when SUB-MODE [vectors] is not accompanied by SUB-MODE [calligraphic signs], participants have to rely on their short-term memory or background knowledge to remember the information delivered in the original speech; (3) when used in isolation, SUB-MODE [vectors] provides participants with visual clues as to how to go about connecting the different chunks of meaning represented in the notes.

SUB-MODE [vectors], which are often viewed as meaningless signs, or appear to be used randomly following the interpreter’s intuition, is the most commonly found semiotic resource in interpreters’ notes. Interestingly, the participants in the experiment did not use SUB-MODE [vectors] when interpreting the four scenarios identified by the researcher as often as it had been envisaged. However, the data set shows that there are other potential textual scenarios which may lead participants to use vectors for meaning-making purposes. These alternative scenarios include the use of SUB-MODE [vectors] as a resource to represent (1) grammatical dependence within each phrase, (2) conjunctive relations, (3) the syntactic
structure within the sentence above the level of the phrase, and (4) the hierarchical structure of the source text.

Secondly, the analysis in section 4.3 discusses the ideational metafunction realised through the NARRATIVE STRUCTURE via the combination of CORE MODE [image] and SUB-MODE [geometrical shapes]. This specific realization of the NARRATIVE STRUCTURE suggests that interpreters prefer using prescriptive signs over creative signs as their favoured meaning-making resources. When interpreters come across visual prescriptive instances of SUB-MODE [geometrical shapes], they only need to retrieve the conventional interpretation of the sign that they became familiar with during their training period, without further extending the meaning of the signs they are using. As a result, most prescriptive SUB-MODE [geometrical shapes] can be understood and deciphered by interpreters without having listened to the original speech. By contrast, when a sign belonging to the creative SUB-MODE [geometrical shapes] type is created by drawing on the interpreter’s own personal habits or as a result of ad hoc responses to speech input while interpreting, the encoded information can only be understood by the interpreter him/herself. Unless the interpreters have used their own creative SUB-MODE [geometrical shapes] extensively in the past, any signs improvised during the note-taking process may hamper their decoding work during the note-reading stage.

Research question three is addressed in Chapter Five, which revolves around the VISUAL STRUCTURE and tries to reveal correspondence between the spatial disposition of signs on the note pad and the actual linguistic encoding of the interpreted version of the original speech. Interpreting a multimodal text (the notes) that consists of both verbal and non-verbal resources into a spoken text made up of only verbal resources involves an important semiotic shift where the semiotics of VISUAL STRUCTURE play a very important role. It has been argued in this study that the interpreting output is indeed the outcome of a process where interpreters makes meaning not only on the basis of the written signs that feature in their notes, but also of the way in which such signs are placed on the pad sheet. My analysis has foregrounded the contribution of layout and salience, with reference to Kress and van Leeuwen’s conceptual representations. It has therefore discussed VISUAL STRUCTURE in terms of the functions of SUB-MODE [composition], SUB-MODE [framing] and SUB-MODE [salience] in notes.
The analysis also delivers an account of how the *textual metafunctions* are realised by the *visual structure* through specific combinations of *core modes* [*image* and *language*] with *sub-modes* [*composition* and *framing*], and the combination of *core mode* [*image* and *language*] with *sub-mode* [*salience*]. Specifically, the first of these combinations indicates that the placement of written and visual signs on the note pad influences the way in which participants sequence the process of information retrieval. In the second combination, visual devices like circling or underlining affect participants’ meaning-making processes and the interpreting output because they provide a cue for interpreters to add emphatic signals in delivering their interpretations.

In terms of *sub-mode* [*composition*], the data has revealed a dominant pattern: interpreters tend to list information with equal syntactic importance either vertically or horizontally. Although Gillies (2005) claims that noting information with equal importance horizontally in the note pad will result in a less clear layout, my data set shows that the interpreting output of those participants who have opted to note the information horizontally is equally accurate at the lexical level. The data set shows that the clarity of the layout does not depend on whether it is vertically or horizontally organised, but on whether interpreters use overt or covert taxonomies – for it is the use of a specific taxonomy that may affect the accuracy of the interpreting output at a contextual level. Overt taxonomies allow interpreters to reproduce the different structural layers of the taxonomy, if appropriate, in their interpretation. By contrast, when faced with covert taxonomies, where the superordinate item is always invisible, interpreters need to rely on their short-term memory and professional experience to remember and interpret every element at the different levels of the taxonomy. This may sometimes lead to incompleteness in the interpreted output.

*Sub-mode* [*framing*] can assist interpreters in retrieving information through the use of horizontal lines, which act as visual clues as to how to go about segmenting the speech into chunks of meaning. Although horizontal lines are simply viewed as a way of segmenting units of meaning and do not have any specific meaning by themselves, the results of the analysis show that the horizontal lines used in the participants’ notes have an impact on their interpretation. Horizontal lines would appear to be a way of representing the participants’ cognition processes and structuring the interpreting output in terms of syntactic complexity.
Regarding SUB-MODE [salience], my data set shows that visual devices in notes are commonly realized in the form of circling or underlining. In other words, such markers of salience are used to emphasise, highlight or draw attention to specific signs taken either from both formal or natural languages. It is also worth noting that the use of SUB-MODE [salience] in notes may lead interpreters to add emphatic prosodic features in their rendering that were not originally present in the source speech.

6.2 Discussion of findings

This study set out to examine signs in interpreters’ notes, in order to identify specific patterns that reveal each interpreter’s note-taking approach and how these patterns are mediated in interpreting. It attempted to provide insights into the ways in which the meaning of a particular sign is constructed and framed through a particular combination with other signs, in the belief that it is important to alert note-takers to the information embedded under written signs using and encourage them to view/read all signs they use cautiously and critically. The analysis carried out in this study reveals some of the visual patterns and meaning-making mechanisms affected by the use of signs and hence, it is hoped, sensitises interpreters to the power of signs.

This study also attempted to make a contribution to Social semiotics-informed visual communication-based studies of interpreting, by adopting a theoretical framework that has not been previously employed in interpreting studies. The combined of Social Semiotics and visual communication has been applied in various research areas, but not the study of interpreting, or more specifically, in note-taking. This research, therefore, is a first attempt to incorporate two approaches and bring their combined power into the field of interpreting studies.

The first and overarching research posed in this thesis was as follows:

1. Can the concept of visual grammar, as posited by Kress and van Leeuwen, be applied to the study of note-taking for consecutive interpreting?

If so, what regularities and patterns in the use of linguistic and visual signs can be identified in interpreters’ notes?
As argued in the introduction and discussed in greater detail in Chapter 2, note-taking in consecutive interpreting has not yet been treated as a way of visual communication in the existing scholarly literature, especially with reference to meaning-making procedures. However, describing note-taking in consecutive interpreting as a way of visual communication is feasible insofar as Social Semiotics caters for conceptualising signs as meaning-making resources which are realized in specific communicative contexts to convey specific communicative intentions, and therefore well-defined multimodality. Kress and van Leeuwen (2006:9) argue that the potential meaning of a sign is defined by “the semiotic resources available to a specific individual in a specific social context”. In this particular context, viewing note-taking as a way of visual communication emerges from the need of understanding interpreters’ meaning-making mechanism in the transition between note-reading and interpreting.

The major finding to emerge from investigating note-taking by using the concept of visual grammar is that the “reading path” (Kress and van Leeuwen 2006: 204) provides an explanation for interpreters’ decoding mechanism in terms of how they use signs as meaning-making resources to reconstruct the information in notes. This finding shows that the way in which signs are arranged in notes is the main factor that affects interpreters’ meaning-making processes, and thus, notes should not be viewed merely as an external memory storage tool. In the transition between note-reading and interpreting stages, the information that interpreters need to deal with is not processing the code of each sign. The interpreting output is produced on the basis of the choice and interaction between the semiotic resources used by the interpreter.

In addition, since interpreting is never that perfect and idealised in reality, it is inevitable to find some irregularities or inconsistencies in notes. In fact, some contents in notes can be viewed as an unstructured list, without any sign or related information which indicates the relations between the different entities. Kress and van Leeuwen (2006: 92) viewed this as an “unstructured analytical process”, which shows readers parts of the information, “but not the way the parts fit together to make up a whole”. To investigate how interpreters read these irregularities in notes requires further information, because a successful interpreting output does not rely on good notes. When interpreters deal with incomplete information in notes, they then need to apply other strategies, such as summarising, paraphrasing, or omissions. When reading highly reduced or even fragmentary, incomplete text, along with
non-linear structuring, it will become “an extreme case of intertextuality” (Albl-Mikasa 2008:211). Hence, the irregularities or inconsistencies found in the data set were excluded from the discussion in this research.

On the basis of the above summary in section 6.1, it is possible to formulate some provisional answers to research question two and three:

2. What NARRATIVE STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

3. What VISUAL STRUCTURES do interpreters use in retrieving information in the transition between note-reading and interpreting?

Generally speaking, the realization of NARRATIVE STRUCTURE in professional interpreters’ notes seems to be governed either by the depth of information processing required by the original speech or the complexity of the syntactic structure of the source text. Although the choice of SUB-MODE [vectors] and SUB-MODE [geometrical shapes] appears to be the result of a personal note-taking preference, the present study claims that the tendency to use graphic signs in notes ultimately reflects the participants’ chosen interpreting strategies, i.e. concentrating on analysing the speech vis-à-vis focusing on noting the message in a detailed manner:

- The first of these interpreting strategies is often used by interpreters whose priority is to produce notes that reflect that overall structure of the source text when listening to the speech – presumably by carrying out a mental analysis of the way in which the source text is organized. This mental representation of the source speech is then represented in a more abstract way – which means that, in order to interpret these notes, interpreters will need to resort to the speech context and other cognitive variables. These abstract notes tend to concentrate on the big ideas and the connection between them, rather than on the detail that is provided in relation to each idea. Consequently, abstract notes require more cognitive effort, with interpreters having to rely more on the speech context, their working memory, and background knowledge.

- The second of these interpreting strategies is favoured by interpreters who prioritize writing more detailed notes, in an attempt to produce a more material representation
on paper of the organization of the source text and the specific elements of information delivered in it. This approach often involves a tendency to deploy more linguistic elements of the source speech in the notes. Hence, interpreters who have detailed notes will have, to some extent, less difficulty to retrieve information during the interpreting stage.

The analysis revealed that those participants (C and D) who focused more on analysing the overall speech structure could deal with longer speech fragments before deciding what to note down. These two participants used more vectors and fewer geometrical shapes than other participants. But while participants C and D used more vectors than others, their vectors mainly fall into the category of ‘other’ (see Table 4.1). A possible explanation is that most of the vectors featuring in their notes represent logical connections between ideas, rather than the meaning of any specific word. As their cognitive effort focuses on analysing the speech structure, rather than its constitutive lexical units, they tend to use fewer geometrical shapes – which are often deployed by interpreters to represent individual word or phrases.

On the other hand, there are also some interpreters whose notes tend to reproduce elements of information that are present on the surface of the source speech. These elements are easily transferred into the notes in the form of signs, symbols, and so on. Rather than remaining at that more abstract level and prioritizing the representation of the central ideas, this group of interpreters produces very dense notes, involving the use of multiple resources, including signs and symbols, to represent specific linguistic elements. The analysis of the data set revealed another tendency in the practices of participants who focus on producing dense notes: the higher the number of SUB-MODE [vectors] used by the participants, the more instances of SUB-MODE [geometrical shapes] will be found in their notes. For example, every time participant H heard the words ‘relation’ or ‘relationship’, she opted to use SUB-MODE [geometrical shapes] ‘ ’ (relationship) to represent the meaning of these two words on 38 different occasions. This repetition indicates that she was primarily concentrating on noting down the lexis of the source text in as much detail as possible.

It is worth noting that this tendency does not appear to correlate with the participants’ work experience. As can be seen from their notes, the most experienced interpreters (C, D, and E) in this research project focused on noting the key concepts and the logical progression of the
speech. Consequently, their notes look more abstract and are therefore more difficult to understand by others. By contrast, participant E focused on the syntactic structure and noted the message in a detailed manner, which involved the deployment of many more resources to capture the information delivered by the speech. This also results in each group making different degrees of cognitive effort, depending on how much they rely on working memory. In other words, the interpreters who paid more attention to analysing the source speech may need to rely more on their memory, whereas the interpreters who paid more attention to the sentence structure and took detailed notes rely less on the memory.

The literature has often stressed the importance of using ‘symbols’ as a way of enhancing the visual dimension of interpreters’ notes – and hence of facilitating the interpreters’ processing of their own notes during the production of the target language speech. The findings of this study, however, suggest that the visual dimension of interpreters’ notes is actually not so reliant on the use of ‘symbols’, but rather on the deployment of certain VISUAL STRUCTURE patterns discussed in Chapter Five. There are two reasons for this. First of all, the geometrical shapes found in the data set mainly fall into the category of prescriptive ones – i.e. signs that have a relatively fixed meaning. In other words, the use of geometrical shapes helps the interpreter to save time when noting certain words or conjunctions (e.g. using ‘□’ to represent ‘nation’ or ‘∵’ to represent ‘because’), but they are not necessarily helpful in terms of allowing the interpreter to use a simple sign to represent a complex idea. Secondly, the VISUAL STRUCTURE involves the use of specific conventionalised types of layout to show the hierarchy of the information. It is indeed the way in which interpreters visualize the flow of the source speech.

To sum up, the NARRATIVE STRUCTURE in notes seems to assist interpreters in retrieving information at a micro, lexical level. On the one hand, vectors, which are the most commonly found signs in notes, help the interpreters to connect visually different entities used in their notes. During the interpreting process, the meaning conveyed by this visual sign in the notes needs to be expressed through spoken words, i.e. re-encoded using exclusively verbal resources. In other words, interpreters are forced to find a suitable verb to convey the transactional process between the two elements included in the notes, as expressed visually by the use of a vector. This is in line with Kress and van Leeuwen’s (2006) claim that, when viewers have to produce a verbal paraphrase of a transactional
process that was originally expressed in the form of an image, they are more likely to use a transitive verb, i.e. a verb that takes an object. On the other hand, geometrical shapes assist interpreters in retrieving information from their background knowledge or the context. In other words, SUB-MODE [vector] appears to be the building semiotic block that assists interpreters in the construction of meaning units in the target language; SUB-MODE [geometrical shapes], on the other hand, helps interpreters to find the most accurate terms to express in spoken form the meaning that the notes convey through the interplay between visual and verbal resources.

The VISUAL STRUCTURE seems to assist interpreters in retrieving information at a macro, contextual level in terms of representing the hierarchies of information value (SUB-MODE [composition]), constructing the structure of rendition (SUB-MODE [framing]), and showing the importance of specific signs (SUB-MODE [salience]). As pointed out by Kress and van Leeuwen (2006: 110), “the visual semiotic has a range of structural devices which have no equivalent in language”. As far as the VISUAL STRUCTURE parameter is concerned, only SUB-MODE [salience] can be realized verbally through the use of adverbs (e.g. ‘very’ and ‘especially’) as a way to signal the importance of the information being conveyed. The other two visual meaning-making practices (i.e. SUB-MODE [composition] and SUB-MODE [framing]) can hardly be expressed through verbal semiotics, i.e. interpreted speech. However, this does not mean that SUB-MODE [composition] and SUB-MODE [framing] are less important than other sub-modes. They are indispensable meaning-making resources when it comes to formulating the hierarchies of information value in each unit of meaning, signalling the syntactical connections within phrases and within clauses, and reconstructing the overall structure of the source speech in the target language.

6.3 Limitations

A number of limitations have become apparent while conducting this research. One of them is that this research project has studied only the visual patterns identified in one language combination/direction: discourse interpreted from English into Chinese. First and foremost, being restricted to one language combination, the study does not claim to account for those visual patterns that may occur when interpreting notes in other language combinations, or even with the opposite direction of the same language combination (i.e. from Chinese into
Furthermore, the results indicate that future empirical studies on the interpreters’ meaning-making processes should also take into account the actual eye-path that interpreters use when reading their notes. It is also important to look at whether the eye-path of interpreters wording with languages that are written from right to left behaves in a similar manner. For obvious reasons, the findings of this study do not apply in combinations of languages that involve at least one language which is written from right to left, such as Arabic.

Another set of limitations pertains to the limited number of participants included in the research experiment. However plausible the findings of the present study may seem, it should be stressed that they can only be regarded as preliminary due to the size of the data sample. Another important consideration is the nature of the data sample, which was collected in a non-authentic setting. Although it may be claimed that interpreters performing in non-authentic settings are not exposed to the same level of stress as those performing in real assignments, the researcher has made a significant effort to prepare a working environment that resembles as much as possible a real interpreting setting, and that may cause a sufficient degree of stress during the participant’s performance. Indeed, stress is central to the interpreting activity, regardless of the setting in which it takes place. As Gile (2001) pointed out, finding authentic speeches and enlisting the cooperation of professional interpreters for research purposes are the two greatest challenges faced by researchers in the field of interpreting studies. It remains to be seen whether a larger set of data would confirm the occurrence of the same patterns identified in this thesis.

Finally, it is also necessary to acknowledge some methodological limitations of this research. In order to gain additional information that could not be secured through the analysis of the notes or the interpreters’ output, the initial plan of the research involved the collection of additional data through retrospective interviews with the participants. However, the results of the pilot study showed the ways in which participants explain the meaning of individual signs in their notes, why they use certain signs, and how they read their notes, their explanations are affected by their working experience. The most experienced interpreters, who happen to work also as university lectures, tend to explain their notes in a similar way to the one in which they teach their students. Less experienced interpreters also tend to follow the layout conventions and the recommendations that they learnt in university. The discussion of the rationale for the participants’ decision-making process is thus beyond the
scope of this study at this stage. Trying to gain a detailed insight into the retrospective interviews I had originally planned to analyse in this study will be the main aim of the next stage of my research.

6.4 Contribution to existing knowledge

In this thesis, several questions have been raised on the topic of interpreters’ notes and a number of assumptions that have been widely used in the literature have been scrutinised from an experimental perspective. This thesis does not have a pedagogical goal, i.e. it does now aim to establish how interpreters’ note-taking skills should be taught. Instead, it seeks to gauge the effectiveness of those note-taking techniques recommended in the literature, i.e. the use of graphical elements and the disposition of signs on the note-pad, from the perspective of visual communication. Although there has been earlier research about the interpreters’ note-reading process (e.g. Ma et al. 2012, Yu et al. 2013), none of these studies had yet explored how interpreters read their notes from a visual communication standpoint.

The thesis has also shown that, although the notes taken by different interpreters (based on the same source speech) can hardly look exactly the same, the entities included in each participant’s notes are not arranged randomly. Indeed, the way in which interpreters arrange the contents of their notes reflects the depth of the information processing effort that the note-taking process required. While abstract notes are reflective of the interpreters’ tendency to prioritise the key ideas within the source speech, the notes taken by interpreters who favour dense and detailed representations of the original text are more likely to foreground the linguistic make-up of the source speech. In addition, the interpreting output is the product of the interaction between NARRATIVE STRUCTURE and VISUAL STRUCTURE, with the assistance of interpreters’ working memory. The concept of NARRATIVE STRUCTURE proposed by the present study yields insight into the interpreters’ meaning-making process in terms of how signs are connected through the use of vectors, and the effectiveness of using geometrical shapes as meaning-making resources. As far as the VISUAL STRUCTURE is concerned, it provides an account of how the deployment of signs may affect the interpreting output when interpreters read their notes.

Finally, this thesis has, to a certain extent, made a theoretical contribution by proposing an integrated model that, to the best of the researcher’s knowledge, has not been previously
used within interpreting studies. Although Kress and van Leeuwen’s (1996/2006) account of visual meaning was not originally developed to be applied in interpreting studies, this thesis has shown their relevance to the study of the semiotic processes whereby interpreters make meaning when reading the notes. Furthermore, given the importance of the combination of image and language modes in the data set, the current study has aimed to develop a sound methodological apparatus for the analysis of multimodal texts.

6.5 Suggestions for future research

By way of closure to this thesis, a number of suggestions for future study can be considered.

Firstly, Kress and van Leeuwen’s visual communication framework has proved insightful in addressing the research questions posed by the present study. However, the same data set could be approached from linguistic or cognitive perspectives, for example by drawing on Sperber and Wilson’s (1988) Relevance Theory to investigate other aspects of the interpreters’ meaning-making practices. These may include the following: the way in which interpreters select what they deem relevant information in the note-taking stage; the inferential process and degree of optimal relevance required during the note-reading stage; and how source language stimuli are conveyed into signs in interpreters’ notes.

Secondly, like many other studies, the research theoretical framework adopted in this research has the potential to be used in various interpreting study research strands and across different language combinations. For example, adopting the eye-tracking method from cognitive psychology to investigate note-reading processes would also be desirable, because it would clearly show the interpreters’ reading path, i.e. the direction in which they move the eyes. By using the eye-tracking method, we can further understand how interpreters deal with the information in terms of what/how they read before they provide the target language rendition. The present study attempts to systematise the visual patterns found in the notes taken interpreters working from their second language (English) into their mother tongue (Chinese). Consequently, it would be very interesting to conduct a comparative study of whether different visual patterns could be found in opposite direction, i.e. from Chinese into English, because working from interpreters’ mother language into second language may require different ways of information processing. Alternatively, a different set of data may
reveal different visual patterns. For example, interpreters from cultures which write from right to left, e.g. Arab cultures, might produce notes with a heavier information weight on the left-hand side of the notepad, thus resulting in a different visual pattern.

Finally, future work could adopt the Expert-Novice paradigm (Moser-Mercer 1997)\textsuperscript{46} to investigate the meaning-making processes involved in the note-reading stage by incorporating notes from trainee interpreters. The expansion of the data set would serve to compare the notes and meaning-making resources deployed by both groups (trainee and professional interpreters) and to measure differences in the processes whereby they infer and retrieve relevant information.

\textsuperscript{46} The expert-novice paradigm was reported by Moser-Mercer (1997), whose experiments focused on different level of language processing skills assumed to be part of expert proficiency in interpreting.
References


------ (2004a) ‘Interpreters’ Notes: On the Choice of Form and Language’ in Gyde Hansen, Kirsten Malmkjær and Daniel Gile (eds) *Claims, Changes and Challenges in


219


Appendix One:

Research Ethics Declaration Form  [v.2094] Submitted: 24/02/2012
School of Languages, Linguistics and Cultures
Research Ethics Declaration Form

Please complete by the date specified in your PGR Handbook.

1. Title or brief description of dissertation/research project:
   *Investigating Note-taking in Consecutive Interpreting, Using the Concept of Visual Grammar.*

2. I have read and understood the Guidelines on Ethical Procedures in Research, and discussed them with my supervisor. (Please check to indicate 'yes')

My research involves (please indicate Yes or No for all these statements):

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>3. use of surveys or questionnaires</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>4. use of interviews or focus groups</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>5. audio- or video-taping of participants or events</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>6. persons involved in illegal activities, prisoners or parolees</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>7. access to personal and/or confidential data without the participant’s specific consent</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>8. administration of any stimuli, tasks, investigations or procedures which may be experienced by participants as physically or mentally painful, stressful or unpleasant during or after the research</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>9. observation of participants without their knowledge</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>10. students or staff of this University</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>11. the elderly</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>12. people from non-English-speaking backgrounds</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>13. persons whose capacity to give informed consent may be compromised (e.g. anyone under the age of 18, anyone intellectually or mentally impaired)</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>14. anyone who has a physical disability</td>
<td>0</td>
<td>✓</td>
</tr>
<tr>
<td>15. patients or clients of professionals</td>
<td>0</td>
<td>✓</td>
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</tbody>
</table>
You are being invited to take part in a research study as part of a student project. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

NB Please ensure that this sheet is translated into the appropriate language for any participants in your project who cannot read English.

1. Who will conduct the research?
Li-wen Chang,
School of Languages, Linguistics and Cultures,
The University of Manchester, Oxford Road, Manchester, M13 9PL, UK

2. Title of Research
Investigating Note-taking in Consecutive Interpreting, Using the Concept of Visual Grammar

3. What is the aim of the research?
The aim of the research is to get a better understanding of how interpreters’ notes contribute to their production of interpreted output. The study aims to understand how you use your notes, how your notes help you develop your memory and whether specific note-taking conventions and methods are more useful than others in terms of their contribution to the production of interpreted speech.

4. Why have I been chosen?
You are taking part in this study because you work as a conference interpreter in a professional capacity, whether part-time, full-time, self-employed, etc. and fulfil one of the following criteria:

• You have relevant training (i.e. with a Master degree in conference interpreting);
• You have worked as a consecutive conference interpreter more than 60 hours in the past 12 months.

5. What would I be asked to do if I took part?
In this experiment, you will be required to complete three stages, which are note-taking stage, questionnaire stage, and interview stage.

Firstly, you will be asked to conduct two consecutive interpreting tasks (one from English
into Chinese, and the other one from Chinese into English). Each of these interpretations will involve listening to a speech in the original language, taking notes and providing an interpretation of the original speech into the target language. It is estimated that the duration of each task will be one hour. The speeches to be interpreted in this experimental study will have been previously video-recorded by native speakers of the source languages. The note-taking and interpreting processes will also be video-taped. You will be provided with a notepad which will then be returned to the researcher at the end of the experiment.

Following the note-taking stage, you will be asked to complete a short questionnaire. The questionnaire will address issues regarding your training in note-taking skills, your personal preferences in the use of signs when taking notes, and the influence of the spatial disposition of signs within your notes when formulating the interpretation.

Finally, you will also be interviewed individually to explain how your take and interpret your notes.

The questions in the questionnaire and the interview will not list any sensitive and controversial issues. All the questions will only be on issues of a mechanical and professional nature.

6. What happens to the data collected?

The notes and the interpreting output will be compared to investigate how you take notes, how you interpret your notes and how the notes help you with your interpreting. In addition to notes, the questionnaires and interviews will assist the researcher to justify the analysis. The notes, questionnaires, and related recordings (i.e. interpreting output and the interview) will be kept while the researcher conducts the analysis. The required measures will be taken to ensure that this data remains confidential.

7. How is confidentiality maintained?

Your personal identity will be kept confidential within the study and in any future publications that may arise from this study. If your input is mentioned in the study, a pseudonym will be used. This will also apply to any individuals, organizations or institutions that you mention in the interview. All data relating to the research including the note-taking video files, the interview recordings, the questionnaires and transcriptions will be treated confidentially, and stored securely.

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself.

8. Will I be paid for participating in the research?

You will be compensated £60 in cash for your participation.

225
9. What is the duration of the research?
If you decide to become involved this study, it will take approximately three hours of your time.

The note-taking stage requires completing two consecutive interpreting tasks (one from English into Chinese, and one from Chinese into English). It is estimated that the duration of each task will be one hour.

After a suitable break, you will fill in the questionnaire individually and the estimated duration will be thirty minutes.

Finally, you will be interviewed individually and the interview process will be audio-recorded. The estimated duration will be thirty minutes.

10. Where will the research be conducted?

Language Lab,
Department of Translation and Interpreting Studies,
Chang Jung Christian University
No.396, Sec. 1, Changrong Rd., Gueiren Dist., Tainan City 71101, Taiwan

11. Will the outcomes of the research be published?
The outcome of the research at this stage will only be used for academic purposes. This includes a doctoral thesis, conference papers and academic publications to appear in the future.

12. Criminal Records Check (if applicable)
Not required for this work.

13. Contact for further information

Email: li.chang@postgrad.manchester.ac.uk

14. Please add any translated version of the Participant Information Sheet here:
[No document uploaded]
School of Languages, Linguistics and Cultures

Consent Form for Participants Taking Part in Student Research Projects [v.2494]
Submitted: 27/02/2012

NB Please ensure that this form is translated into the appropriate language for any participants in your project who cannot read English.

Title of Project: Investigating note-taking in consecutive interpreting – using the concept of visual grammar

Name of Researcher (BLOCK LETTERS)
Li-Wen Chang

School: Arts, Languages and Linguistics.

Participant (volunteer)

Please read this and if you are happy to proceed, sign below.

The researcher has given me my own copy of the information sheet which I have read and understood. The information sheet explains the nature of the research and what I would be asked to do as a participant. I understand that the research is for a student project and that the confidentiality of the information I provide will be safeguarded unless subject to any legal requirements. S/he has discussed the contents of the information sheet with me and given me the opportunity to ask questions about it.

I agree to take part as a participant in this research and I understand that I am free to withdraw at any time without giving any reason, and without detriment to myself.

Signed: …………………………………………………………………………….

Date: ……………………………

Family Name (BLOCK LETTERS)
…………………………………………………………………………………………

Other Name(s) (BLOCK LETTERS)
…………………………………………………………………………………………

If the participant is under 18 or a vulnerable adult a parent/guardian or other responsible adult must also sign the form:

Signed: …………………………………………………………………………….

227
Family Name (BLOCK LETTERS)

..............................................................................................................................

Other Name(s) (BLOCK LETTERS)

..............................................................................................................................

Relationship to Participant (BLOCK LETTERS)

..............................................................................................................................

Date: ............................................

Researcher

I, the researcher, confirm that I have discussed with the participant the contents of the information sheet.

Signed: ......................................................................................................................

Date: .............................................
Appendix Two: A brief outline of the speech and terminology list

Outline of the speech:

- Introduction
- Background
  - Global economic re-balancing and structural adjustment
  - Trilateral relationship between Taiwan, US and China
- Close and stable Taiwan-US relations
  - Regional security
  - Economic relations
- Towards a New Strategic Partnership
  - Financial crisis and sovereign debt crisis
  - Principles of free trade
  - Business alliance between Taiwan and US
- Future of Taiwan-US relations
  - Stable cross-strait relationship
  - Free trade policies and objectives
  - Strengthen and promote Taiwan and US exchanges
- Closing

Key words:

AmCham
ECFA
FTA
TPP
Ten Year Policy Platform
TIFA
Appendix Three: Research Participants’ Notes
Notes from Participant A

1.

2.

3.

4.
13. 

W - O3

3rd.

27 - 03

new pro.

15.

wait.

on.

elected.

Post close

Peek

14. 

new pro.

- 4.

- 3.

- 2.

- 1.

new pro.

16. 

wait.

- 2.

- 1.

- 0.

- 3.

- 4.

various.

other issues
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<td><strong>- Job</strong></td>
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<td><strong>- 05-06</strong></td>
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<td><strong>- 02-03</strong></td>
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<td><strong>- 13 K</strong></td>
<td>7A</td>
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<td><strong>- 05-06</strong></td>
<td>US</td>
</tr>
<tr>
<td><strong>- 03 lead</strong></td>
<td>US</td>
</tr>
<tr>
<td><strong>- 02-03</strong></td>
<td>US</td>
</tr>
</tbody>
</table>
Notes from Participant B

1.

2.

3.

4.
DPP 第 9 页

Key: 英文名国际

Turn: 清画

清 DPP 1JS

April

6041

May 1969

June

8月

27日

13日

10月

13日

16日

 Gord

This
Notes from Participant C

1. 

2. 

3. 

4.
243
Notes from Participant D

1.  
   - Welcome  
   - Is property not  
   - Love  
   - ...  
   - BPP  
   - Us  
   - ...  
   - We  
   - ...  

2.  
   - See  
   - ...  
   - Friend  
   - You go  
   - ...  
   - Us  
   - ...  

3.  
   - Jordan  
   - ...  
   - AP  
   - ...  
   - ...  
   - ...  

4.  
   - Jan  
   - Three  
   - ...  
   - Two  
   - ...  
   - ...  
   - ...  
   - ...  
   - ...  

9. NSP. = 2 efforts
   1. Flexibility
   2. Leadership
   3. K

10. election → consensus
    campaign
    proactive
    trust

11. trade R.
    Free Trade
    China
    Z.CFA
    WTO
    WTO
    Korea

12. FTA
    TPP
    NAFTA
    US
    PPP
    R&D
    high-tech
    program
13. TPP

14. Trade issue

15. US trade R.

Thank you!
Notes from Participant E

1. [Handwritten notes with various points and observations]

2. [Handwritten notes with points and observations]

3. [Handwritten notes with points and observations]

4. [Handwritten notes with points and observations]
9.
- for less official 4
  - outside info
    - comm
    - underway 207
  - take action ASAP
    - proof 8%
  - BTPA
    - trend x 5x4
    - trade impact US
      - propose
        - 5x4
        - open closer
        - rep
        - not
  - we "fucked up"

10.
DPR £/ 1/t
15 - 45, direct comm

3p: further deepen mutual asp

Assume ppr 1
Comm hybrid
Comm 30+ us
Contact: I
Drastically

The constant win
1. Prospect us
2. New helps
Notes from Participant F
Notes from Participant G

1. TwC2US
   US
   P2P
   Str.
   TwC

2. eco order x ok
   eco
   eco

3. TwC
   US
   SW
   s1

4. (3 vs US)
   $20
   $20
   (3 vs)

5. bulk
   sell
   $20
   $20
   $20
   $20

6. 2012/2
   MT
   17
   30
   $30

7. 2010: 56.8 b (two)
5. US ecol SW
> styl

6. 2005
BWC

only finance:
now end again

7. US his, ecol

8. only 2005
show:

US ecol US

25 合作

US ecol SW

"hello"
Notes from Participant H

1. Am Cham @TP
   20 yrs
   VNC Premier

2. US - TW
   6 hrs
   US - E
   US - TW

3. 2012
   0.5% + mix
   US@TW
   TW @ US

4. 2008
   US - TW
   TW - CH
   US

5. TW - US
   TW - US
   TW - CH
   TW - US

6. Free/中華
   US@TW
   US@TW
   US@TW
   US@TW

7. 1950
   1950
   1950
   US@TW
   US@TW
Notes from Participant I

1. the wheel
   - X P. yet
   - ? here invited
   - bt came
   - x after x.

2. F. sex 38p
   - x L8 C.
   - Pro Wu.
   - L.D.G
   - he paragon
   - by An-Chen
   - T.W.
   - Tw vs US.

3. VIP face M/An-Ch
   - F. tender
   - DPP (end).

4. US go & co.
   - partner x.
   - T.W. mg.
   - strait.
   - T.W. vs US.
   - go
   - net seen pattern
   - US - TW exp
   - trade

5. US 50s
   - 50%
   - T.W.
   - 50%
   - adj.

6. T.W.
   - 80 orders
   - x 2

7. Asia - P.
   - Asia
   - vitality

8. reg 0 +
   - 0 +
   - US. pledge
   - Vacant pres.
5.
so...

Am Chn
arm sales
US

TW

US

\$ relb

1950s: $5 \to $1

1980s: Third parties
export goods

2000

7.

265

6.

\$0.58/6 b

\$0.5

imp

suggest

Tw/US biz

17 sup

Tw/US 8 + 9

IT. partnership

Fr. crisis

\$75

2015

Weak

Tw


8.

1 solut

new core

D.

1. New strat

R/US.

Trend:

new

Asia

now.

alt ego.

row

T/US.

row

Recov./contrib

trend.

Ex.

new Em

Tw/US.

IT. alliance.

opp

now/on.

new/US.

T/US.

Trend.


9. 

10. 

11. 

12.
13. 

US

$0.45

US

\( \frac{\text{US}}{\text{CNY}} \)

\( \frac{1}{2} \)

US

\( \text{TW/US} \)

FTA

\( \text{TPP} \)

\( \text{int.} \)

\( \text{exch.} \)

\( \text{TIFA int.} \)

\( \text{set me} \)

\( \text{reg vis/} \)

\( \text{issue} \)

\( \text{up} \)

\( \text{yen/US} \)

\( \text{TPP} \)

\( \text{close US} \)

14. 

\( \text{int prof} \)

\( \text{mgn} \)

\( \text{TFM} \)

\( \text{AmCham comm} \)

\( \text{TFM need} \)

\( \text{adv} \)

\( \text{key} \)

\( \text{Ma} \)

\( \text{up} \)

\( \text{6%} \)

\( \text{US} \)

15. 

\( \text{DPP} \)

\( \text{US} \)

\( \text{dir. com} \)

\( \text{8/ Trad iss} \)

\( \text{29.3} \)

\( \text{DPP} \)

\( \text{AmCham compl} \)

\( \text{1973} \)

\( \text{I win/P win.} \)

\( \text{1972} \)

16. 

\( \text{TFM} \)

\( \text{US} \)

\( \text{Adv/ Pan} \)

\( \text{1972} \)

\( \text{wilt.} \)

\( \text{pan} \)