CHAPTER SIX

GRAMMATICAL PROCESSES IN COHESION

6.0 Introduction

This chapter is a continuation of the discussion on the findings of the study. It completes the report of our investigation into the lexico-grammatical devices in cohesion in Malay and in English. The focus of this part of the discussion is the grammatical processes that contribute towards the structuring of a text arising from decisions to delete or to substitute, the use of definite or indefinite markers, conjunctions or other structural forms.

6.1 The and A

One kind of intersentential reference which occurs is the referential occurrences of the definite article the where the relationship pattern is the Noun (N). It is generally expected to be able to establish a 'A N wh+' or 'N wh' source for every the N structure in a text. This is difficult to do though there are some cases where such an underlying structure can be established. Take for instance (2), (4), (5), (6) and (8) in Example 71 below.
Example 71  Text #14S

The lungs (1) are sponge-like in texture, and consist of a tree-like system of tubes which ramify from two bronchi. The tubes (2) terminate as sac-like atria from which arise numerous alveoli (Fig 8.4). Although a certain amount of gaseous exchange can take place across the walls (3) of the smaller tubes, (4) it is the alveoli (5) which play the leading role (6) in this respect. The efficiency (7) of the mammalian lung (8) as a respiratory surface depends on the fact (9) that a vast number of alveoli come into very close association with an extensive capillary system.

In scientific texts, however, there can be occurrences of the N where there is no previous occurrence of N and where N is not generic. The N in (7) and (9) in Example 62 above exemplify such a usage. In English the definite article is used with a unique object as in the Great Wall of China, the Marseillaise etc. Since each scientific experiment or phenomenon has a unique outcome or feature (though there may be many instances of it) terms referring to the outcome or feature of an experiment or phenomenon occur with the definite article. This is the source for the definite article in such phrases like: the effect, the result, the fact, the efficiency etc ... In (1) and (3) above the nouns following the definite article are generic.
Basically Malay has no article system, unlike English and many languages, but this is not to say that definiteness-marking is absent in Malay. Malay may not be in the habit of using the indefinite article 'a' as often and in the same manner as in English but 'ini' and 'itu' can be considered the equivalent of the definite article 'the' in English in most contexts. Unlike the English 'the' it has the added edge of being a 'distal' indicator.

In terms of translation from English to Malay, any occurrence of the definite article in a noun phrase such as the $N$ in a source text signalling an anaphoric reference to a referent introduced earlier is always translated with the forms ini or itu. The has the function of a modifier in English, preceding a noun or noun phrase referring to a referent that has already been established in the reader's consciousness or occurring even where there has been no previous occurrence of $N$ and where $N$ is not generic. In the latter case the in English is not translated, only the $N$ is. Note the following sentences taken from our corpus.
Example 72  Text #09S and #09T

If and when a particular antigen gets into the body it stimulates certain cells.

Jika dan bila zero antigen tertentu memasuki zero badan, ianya merangsangkan sel-sel tertentu ...

The observation here is that the Malay correspondent to the definite article the in English is itu/ini which incidentally, as was seen earlier, are also the demonstrative adjectives and pronouns in Malay (cf. 5.3.2).

This being the case, it is logical that the count for Malay demonstratives far exceeds that for English. The breakdown of the count is as shown in Table V on page 183. It is indeed pertinent and interesting to note that while there are zero occurrences of demonstratives in Text #09S there are nine instances of them in Text #9T.

Deixis mainly belongs within the domain of pragmatics because it directly concerns the relationship between the structure of languages and the contexts in which they are used. This and that are, by far, the most universal of all indexicals, as the proximal/distal dichotomy they represent cuts across all deictic categories of person, place, time, discourse and social deixis.
Finally it is to be noted that the systematization of contrasts between *this* and *that* and their Malay equivalents could be of some pedagogical value, as investigations of the data result in a contention to the effect that the proximal/distal distinction represented in English by *this*/*that*, respectively, is to a large extent neutralized in Malay, except for some clearly defined contexts.

Generally in discourse the article 'a' or 'an' signals a non-anaphoric use of an expression, that is, that the referent of the expression has not been previously established in the listener's consciousness. Wherever such an indefinite article is used in a source text to indicate a participating noun or noun phrase not presented earlier, the Malay text is silent about it unless the a or an has the semantic reference of 'one' and not any as in the following two sentences from Text #09S and their corresponding translation in Text #09T,

**Example 73 Text #09S and #09T**

*If and when a particular antigen gets into the body it stimulates certain cells, derived from the lymphocytes, to produce a corresponding protein called an antibody. The antibody combines with and in some way neutralizes the antigen, destroying the micro-organism in the process.*
Jika dan bila zero antigen tertentu memasuki zero badan, ianya merangsangkan sel-sel tertentu, iaitu terbit dari zero limfosit, untuk menghasilkan zero protein yang selaras yang disebut zero antibodi. Antibodi ini bercantum dengan antigen itu dan dengan cara tertentu meneutralalkannya sambil memusnahkan mikroorganisme dalam proses itu.

6.2 Conjunctions

Conjunctions, as clearly indicated in our source and translated texts, are linking words. They may join a series of nominals, verbals, clauses, sentences or paragraphs. Malay, like English is well endowed with many conjunctions, the most common of which are the coordinating dan and atau/ataupun. Subordinate conjunctions also exist but are used to a lesser degree, at least in the texts examined.

In English, the standard use of the coordinating conjunction 'and' occurs in almost all texts and, in general, does not play a critical role in specifying the type of text. On the other hand, the temporal conjunction 'and' does serve to distinguish among types. This distinction allows us to distinguish between the readings of a sentence with 'and'.
6.2.1 Temporal ‘and’

The coordinating conjunction and under certain circumstances may require a temporal interpretation of the sequence of sentences which are coordinated. In such constructions with and there is a fixed order to the conjoined terms. A change in the order of the conjoined terms produces a sentence which differs in meaning from the original sentence. Note the following example:

Example 74 Text #18S and #18T

This combines with DNA and stops it being transcribed into RNA.

Bahan ini bergabung dengan RNA dan menghentikannya dari ditranskripsikan menjadi RNA.

This temporal and occurs primarily with conjoined verbs, though there are some instances in which it occurs with conjoined nouns.

Example 75 Text #05S and #05T

Protein is required for growth and repair and is not normally used for energy production. However, if carbohydrate and fat are in short supply proteins from the diet or tissue can be converted into carbohydrates and used for supplying energy.
Protein diperlukan untuk tumbesaran dan pembaikan dan biasanya tidak digunakan untuk penghasilan tenaga. Walau bagaimanapun, jika bekalan karbohidrat dan lemak berkurangan, protein-protein dari makanan atau tisu-tisu boleh diubah menjadi karbohidrat dan digunakan untuk membekalkan tenaga.

In the instances in which it conjoins nouns there seems to be a strong set of implicit verbs. Example text #05S above may be represented as,

Protein is required for growth and (is required for) repair and is normally used for energy production. However, if carbohydrate and fat are in short supply proteins from the diet or tissue can be converted into carbohydrates and (can be) used for supplying energy.

In the example cited below, the phrasal verb succeeded in is implied where the second verbal noun purifying is concerned. In the Malay version, the expression dengan itu preceded by dan is used to translate all too well the fact, that saying things differently in different languages are but variations of the same theme on an interlingual plane.

Example 76 Text #20S and #20T

In 1940 Howard Florey and Ernst Chain succeeded in isolating and purifying the active substance, thereby enabling it to be used in injections.
Dalam tahun 1940 Howard Florey dan Ernst Chain berjaya mengasingkan dan memurnikan bahan-bahan aktif itu, dengan itu membolehkannya digunakan untuk menyuntik.

6.2.2 Compound subject ‘and’

In the texts too are found sentences in which and joins two noun phrases to form a really compound subject. That is, the two nouns are not simply joined syntactically, but rather, they refer to objects which are really conjoined. Note the example below:

Example 77 Text #02S and #02T

However most plants (and some animals) are hermaphrodite (monoecious), i.e. each individual has both male and female organs.

Namun begitu, kebanyakan tumbuhan (dan setengah-setengah haiwan) adalah hermofrodit (monoesius), iaitu tiap-tiap individu mempunyai organ jantan dan juga organ betina.

6.2.3 Exclusive vs Inclusive ‘Or’

The conjunction or has the possibility of including and/or excluding any of the items conjoined. The major ambiguity of sentences with or is deciding whether the inclusive or exclusive meaning of or is the proper reading. In scientific texts, the distinction between the inclusive and exclusive or is crucial for proper analysis of the semantic content of the text.
Inclusivity or exclusivity depends very much on the structure of the other sentences in the text. If a set of terms is conjoined with or and the inclusive reading is intended then at least one of the underlying sentences must be true. If the exclusive reading is intended then at most one of the underlying sentences must be true. There is no syntactic means of distinguishing between these readings on the basis of the or sentences alone. The texts examined reveal several occurrences of such a usage. Take the example below,

**Example 78 Text #20S and #20T**

This is the administration of chemical substances, natural or (1) synthetic, that kill or (2) prevent the reproduction of microorganisms.

Cara ini merupakan penggunaan bahan-bahan kimia, semula jadi atau (1) buatan, yang membunuh atau (2) menghalangi pembiakan mikroorganisme.

In the example quoted above, or (1) occurs as an inclusive or while or (2) is exclusive. In the sentence below, or is inclusive.

**Example 79 Text #01S and #01T**

A minute quantity may exert a profound effect on the organism's development, structure or behaviour.
Kuantiti hormon yang sangat kecil boleh menimbulkan kesan-kesan yang nyata ke atas perkembangan, struktur atau kelakuan organisme.

Whether the conjunction or in a given context be 'inclusive' or 'exclusive' can be determined by using one of two criteria, namely, the truth-functional criteria or the structural criteria. As such, a translator moving from one language to another in search of the correct meaning to convey, has to tread carefully when analysing for semantic content so that accuracy is not neglected.

The conjunction or like its Malay counterpart atau/ataupun is one of those common lexical items which appear insignificant but are, on the other hand, indispensable to the language as it permits us to conjoin subjects, objects, thoughts, nouns, verbs, propositional statements.

6.3 Substitution and Ellipsis

People who speak and write a language well do not want to bother their audience with information they already have or that they can find out easily for themselves; in addition it is sometimes preferable to leave thoughts in one piece rather than to analyze and break them down to the level of word meanings.
Ellipsis is rule governed. Knowing when it is possible and appropriate to leave parts of a proposition out of an utterance is an important aspect of knowing the language. Parts of speech in morphologically related words differ in their capacity for ellipsis. There is a tendency for nouns and adjectives to allow more ellipsis of their arguments than verbs.

In answers to yes-no question, Malay and English differ in the possibilities for ellipsis. In anaphoric ellipsis, that is, ellipsis where there is linguistic context providing an antecedent, auxiliary verbs in English may be used freely to stand for a whole verb phrase.

*Has he eaten?*  *Yes, he has.*

In Malay, you would generally just say *Ya* (Yes) or *Dah/Sudah* in a situation like this or else give an answer that repeats the main verb. *Dah/Sudah* here performs the same function as the auxiliary in English. What has been generally accepted as auxiliaries in Malay are the following closed class of lexical items.

(a) **Aspects:**

<table>
<thead>
<tr>
<th>Malay</th>
<th>English</th>
<th>Tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>pernah</td>
<td>completed</td>
<td>perfective</td>
</tr>
<tr>
<td>sudah</td>
<td>has</td>
<td></td>
</tr>
<tr>
<td>telah</td>
<td>has</td>
<td></td>
</tr>
<tr>
<td>sedang</td>
<td>in the process of</td>
<td>progressive</td>
</tr>
<tr>
<td>akan</td>
<td>will</td>
<td>future</td>
</tr>
</tbody>
</table>
(b) **Modals:**

<table>
<thead>
<tr>
<th>Malay</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>hendak</td>
<td>want</td>
</tr>
<tr>
<td>mahu</td>
<td>want</td>
</tr>
<tr>
<td>ingin</td>
<td>wish</td>
</tr>
<tr>
<td>harus</td>
<td>must</td>
</tr>
<tr>
<td>mesti</td>
<td>must</td>
</tr>
<tr>
<td>boleh</td>
<td>can/able</td>
</tr>
</tbody>
</table>

Aspects and modals can occur individually or co-occur in a sentence in the order as shown below.

Ahmad telah boleh balik ke rumah setelah berada di rumah sakit selama tiga hari.

To the extent that the native language and the target language have the same grammar of ellipsis, they may still have different stylistic conventions for the use of ellipsis.

Within the framework of our analysis, it is to be noted that ellipsis is very much a part of the grammatical structures which form the framework within which the speakers and writers of Malay and English express their ideas. In the examples below, the ellipted items have been bracketted and highlighted.
Example 80 Text #01S and #01T

Hormones are organic compounds produced in one part of the body, from which they are transported to other parts [of the body] where they produce a response. A minute quantity [of hormones] may exert a profound effect on the organism’s development, structure or behaviour ... principles involved.

Hormones are secreted ... internal secretion. Since they shed their secretion into the bloodstream, they have no ducts and [they] are hence known as ductless glands. Once [they are] in the bloodstream, the hormones are carried round the body, bringing about responses in various places [in the body]. Structures that ... target organs.

Though they ... spatially, endokrin organs ... functional isolation. They influence one another and, through their interactions, [they] are integrated ... endocrine system.

Hormon adalah sebatian organan yang dihasilkan dalam satu bahagian badan dan dihantarkan ke bahagian-bahagian badan lainnya di mana sebatian ini mengakibatkan gerakbalas. Kuantiti hormon yang sangat kecil boleh menimbulkan kesan-kesan yang nyata ke atas perkembangan, struktur atau kelakuan organisme. Di sini ... umum yang terlibat.


Sungguhpun [organ-organ] mungkin terletak ... segi fungsi organ-organ endokrin ... secara bersasingan. Organ-organ ini mempengaruhi satu ... dan menerusi tindakannya yang menyaling [organ-organ ini] diintegrasikan ke dalam ... disebut sistem endokrin.
Example 81 Text #11S and #11T

They are amoeboid, moving about in contact with the endothelium of the blood vessels where they ingest bacteria (Fig 17.4). Once [they] are taken up, the bacteria are ingested by lysosome enzymes as described on pp. . These phagocytes are not confined to the blood vessels for they can squeeze between the endothelial cells and [they can] migrate into the tissue spaces, a process called diapedesis.

Sel-sel ini berbentuk seperti ameba dan bergerak bersentuhan dengan endotelim saluran-saluran darah di mana mereka bergerak memakan bakteria. Sebaik sahaja [bakteria] dimakan, bakteria ini dihazam oleh enzim-enzim lisosom seperti yang dihuraikan dalam m.s. . Fagosit-fagosit ini tidak terhad kepada saluran-saluran darah sahaja kerana ia boleh bergerak melalui satu proses yang disebut diapedesis.

Example 82 Text #07S and #07T

Thus maltase acts on maltose, lipase [acts] on lipid, urease [acts] urea and so on. Pepesin and trypsin, both found in the mammalian guts, attack proteins and [they] are hence known as proteases.


However, in terms of occurrences in both the source texts in English and the translated texts in Malay, ellipsis ranks the lowest on the scale of frequency. The number of occurrences recorded from the
English texts is 33 while that of the Malay texts is 27. The count for substitution is 42 for the English texts and 58 for the Malay texts - a clear indication that substitution is a more common practice than ellipsis in Malay. In fact, for both Malay and English, the tendency is towards the use of substitution.

6.4 Conclusion

It is obvious Malay and English have at their disposal many options which enable each language to manifest relationships between various elements which constitute the text and create global coherence so that the text is seen as a whole unit and not in terms of so many items in isolation.

However, the similarity between them stops short at the availability of options or devices. There may be overlap in certain areas but there is no one to one equivalent between them whatever the feature.

Malay has a looser word order as compared with English. This means that the major constituents of the clause - Subject, Verb, Objects, Adjuncts - are grammatically free to occur in almost any order, to satisfy the demands of communication and cohesion. These units may be only one word in size, but may as well be
whole phrases. Malay word order creates what we call the basic distribution of communicative dynamism. English, more limited than Malay, in its permissible word order permutations, use other means, some not available in Malay, to achieve the same end. One of these is the use of the Substitute-Subject *it* (cf. 5.3.1)

The *it*-predication is just one of many optional transformations operating in English. These provide the language with a repertoire of referentially identical but textually different variants for the writer to select from and ensure that the communicative dynamism is effectively and economically maintained in his text. It is therefore with justification that these optional transformations have often been referred to as 'stylistic' transformations. English having only limited potential for the manipulation of word order, has a whole range of 'stylistic' transformations available for organizing the information flow in text. Take for example, subordination and deletion (ellipsis) which replace the repetition of parallel constructions.

Linguists interested in the area of textual cohesion and translation are, in fact, of the belief that the 'extra-sentential' factors that influence the quality of translation are to a great extent in the
domain of textual cohesion: that the overall semantic accuracy of a translation is directly proportional to the similarity that the target text has with the source text in terms of the distribution of cohesion devices.